ARIZONA BOARD OF REGENTS

University of Arizona
Health Sciences Innovation Building (HSIB)
Rooms 305/306 and 320/321
1670 E Drachman, Building Number 216
Tucson, Arizona 85721

November 20-21, 2025

Schedule of Events and Meetings

The public will have access to the meeting room 30 minutes prior to the start of the public meeting(s).

Public access to the livestream of the public meeting is also available at https://www.youtube.com/user/abornews

Thursday, November 20, 2025

9:00 a.m. – 9:35 a.m.	Public Session – Rooms 305/306
9:45 a.m. – 12:15 p.m.	Executive Session – Rooms 320/321 (9:45 a.m. – 11:15 a.m. – President Cruz Rivera Review of Assignments) (11:30 a.m. – 11:45 a.m. – Executive Session) (11:45 a.m. – 12:15 p.m. – Executive Director Sampson Review of Assignments)
12:15 p.m. – 1:15 p.m.	Lunch Break – Room 370
1:15 p.m. – 4:40 p.m.	Public Session – Rooms 305/306
5:00 p.m. – 6:30 p.m.	Reception – Andrew Weil Center for Integrative Medicine, 1502 E Mabel St., Tucson, AZ 85719 - Iris Cantor Building Courtyard (*Invitation Only)*
6:15 p.m. – 8:00 p.m.	Regents Dinner at the Presidential Residence *(Invitation Only)*

Friday, November 21, 2025

7:45 a.m. – 8:50 a.m.	COM-T Faculty Showcase Breakfast *(Invitation Only)* – Room 322
9:00 a.m. – 12:15 p.m.	Executive Session – Rooms 320/321 (9:00 a.m. – 10:30 a.m. – President Crow Review of Assignments) (10:45 a.m. – 12:15 p.m. – President Garimella Review of Assignments)

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ARIZONA BOARD OF REGENTS

UNIVERSITY OF ARIZONA
HEALTH SCIENCES INNOVATION BUILDING (HSIB)
1670 E DRACHMAN, BUILDING NUMBER 216
TUCSON, ARIZONA 85721
Rooms 305/306 and 320/321

Thursday, November 20 and Friday, November 21, 2025

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AMENDED 11/14/2025

Thursday, November 20, 2025
Rooms 305/306
9:00 a.m. – 9:35 a.m.

9:00 a.m. **CALL TO ORDER, GREETINGS, AND ANNOUNCEMENTS**

VOTE TO ENTER INTO EXECUTIVE SESSION
The board will vote to enter into executive session, which will convene immediately following the Call to the Audience and will reconvene executive session on Friday, November 21, 2025, at 9:00 a.m. (*ACTION*)

9:05 a.m. **CALL TO THE AUDIENCE**
Registration for Call to the Audience will be accepted until 8:50 a.m. *(Per ABOR Policy 1-114 Call to the Audience written requests shall be submitted no later than 10 minutes prior to the time of the scheduled meeting.)*

9:35 a.m. **RECESS PUBLIC SESSION**

Rooms 320/321
9:45 a.m. – 12:15 p.m.

9:45 a.m. **EXECUTIVE SESSION**

The board will convene in executive session for the following items:

A. Pursuant to A.R.S. §38-431.03(A)(2) for a review of minutes of previous executive sessions.

B. Pursuant to A.R.S. §38-431.03(A)(1), (2), (3) and (4) for a review of assignments with President Cruz Rivera.

C. Pursuant to A.R.S. §38-431.03(A)(1), (3) and (4) for legal advice, discussion, and direction to designated representatives regarding an Addendum Extending the Multiple-Year Employment Contract for Shane Burcar as Head Men's Basketball Coach for Northern Arizona University.

D. Pursuant to A.R.S. §38-431.03(A)(3) and (4) for legal advice and discussion, and direction to designated representatives regarding a Request for Authorization to Initiate Lawsuit Against DBNCH Circle, LLC and Finding of Necessity for Arizona State University.

E. Pursuant to A.R.S. §38-431.03(A)(3) and (4) for legal advice and discussion, and direction to designated representatives regarding a Request for Authorization to Initiate Lawsuit Against Robert Young and Finding of Necessity for Arizona State University.

F. Pursuant to A.R.S. §38-431.03(A)(1), (2) and (3) for a review of assignments with Executive Director Sampson.

G. Pursuant to A.R.S. §38-431.03(A)(3) and (4) for legal advice, discussion, and report on pending or contemplated litigation and related filings and matters.

12:15 p.m. **RECESS EXECUTIVE SESSION**

Rooms 305/306
1:15 p.m. – 4:40 p.m.

1:15 p.m. **RESUME PUBLIC SESSION, GREETINGS, AND ANNOUNCEMENTS**

1:20 p.m. **UNIVERSITY OF ARIZONA PRESIDENT'S WELCOME**

1:25 p.m. **ADOPTION OF CONSENT AGENDA ACTION ITEMS AND ACCEPTANCE OF CONSENT INFORMATION ITEMS (*ACTION*)**
All items on the Consent Agenda are listed under Item 7 Consent Agenda at the end of this agenda, underlined and marked with an asterisk (*). These items will be considered by a single motion with no discussion. All other items will be considered individually.

1:30 p.m. **1. EXECUTIVE DIRECTOR'S REPORT**

1:40 p.m. **2. ADMINISTRATIVE BUSINESS**

2.1 Request to Approve the First Amended Multiple-Year Employment Agreement for Walter "Chip" William Hale III as Baseball Head Coach for the University of Arizona *(ACTION)*

2.2 Request to Approve the Addendum Extending the Multiple-Year Employment Contract for Shane Burcar as Head Men's Basketball Coach for Northern Arizona University *(ACTION)*

2.3 Request to Approve the Appointment of Four Regents Professors Effective December 31, 2025, including waiver of ABOR Policy 6-208 Requiring Committee Review (*ACTION)*

2.4 Request to Approve FY 2026 Regents' Research Grant: Dual-use Technology Acceleration *(ACTION)*

2.5 General Education Civic Knowledge Assessment Update *(INFORMATION/DISCUSSION)*

2.6 Review on First Reading Proposed Revisions to ABOR Policies 1-101 Communications To or From the Board, 1-114 Call to the Audience Procedure, 2-105 Admission Requirements, 3-607 Lease Purchase Acquisition, 5-105 Interagency Law Enforcement Agreements, and 5-204.1 Early Outreach to Other Educational Systems and Underrepresented Communities *(INFORMATION/DISCUSSION)*

2.7 Discussion and Consideration of 2026 Legislative Priorities for the University System *(ACTION)*

2.8 Discussion of FY 2026 Financial Status Report – Fall Update *(DISCUSSION/INFORMATION)*

3:05 p.m. **20 - MINUTE BREAK**

3:25 p.m. **3. THE UNIVERSITY OF ARIZONA STATE OF THE UNIVERSITY**

3.1 The University of Arizona State of the University: "Reporting on our Promise" (*INFORMATION/DISCUSSION)*

4:25 p.m. **4. STUDENT REGENT REPORT**

4:30 p.m. **5. REPORT FROM THE ARIZONA FACULTIES COUNCIL**

4:35 p.m. **6. INQUIRIES, REQUESTS, REPORTS, AND COMMENTS FROM REGENTS AND MEMBERS OF THE ENTERPRISE EXECUTIVE COMMITTEE**

4:40 p.m. **RECESS PUBLIC SESSION**

Friday, November 21, 2025
Rooms 320/321
9:00 a.m. – 12:15 p.m.

9:00 a.m. **RECONVENE EXECUTIVE SESSION**

The board will reconvene in executive session for the following items:

H. Pursuant to A.R.S. §38-431.03(A)(1), (2), (3), and (4) for a review of assignments with President Crow.

I. Pursuant to A.R.S. §38-431.03(A)(1), (2), (3), and (4) for a review of assignments with President Garimella.

The board is expected to adjourn its meeting at approximately 12:15 p.m. at the end of executive session.

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7. **CONSENT AGENDA** *(ACTION)*
The following items were considered by a single motion with no discussion and approved earlier in the meeting.

7.1 *Request to Approve Minutes for:
a) June 12-13, 2025, Executive Session
b) July 2, 2025, Special Executive Session
c) August 5, 2025, Special Executive Session
d) August 28, 2025, Special Board Meeting
e) September 10, 2025, Special Board Meeting
f) September 11, 2025, Special Board Meeting
g) September 25-26, 2025, Regular Meeting
h) October 17, 2025, Special Board Meeting
(ACTION)

7.2 *Request to Approve on Second Reading Proposed Revisions to ABOR Policy 1-125 Oversight of University Relationships with Component Unit Affiliates *(ACTION)*

7.3 *Request to Approve on Second Reading Proposed Revisions to ABOR Policies 7-102 Capital Development Process and 7-207 Leases *(ACTION)*

7.4 *Request to Approve on Second Reading Proposed Revisions to ABOR Policy 6-609 University Police Department Public Safety Personnel Retirement System Pension Funding Policy *(ACTION)*

7.5 *Request to Approve on Second Reading Proposed Revisions of ABOR Policies 2-221 Academic Degree Programs, 2-222 Descriptions and Definitions of Academic Units, 2-224 Academic Credit, 2-225 Academic Program Review, 2-320 Academic Year Calendar, 4-320 Purpose, Responsibility, and Goals (C. Student Financial Aid), 4-321 Financial Aid Regulations, 6-103 Salary Adjustments, 6-804 Sick Leave, 6-806 Bereavement Leave, and 6-901 Salary Increases *(ACTION)*

7.6 *Request to Approve on Second Reading Proposed Revisions of ABOR Policies 4-203 Requirements to be Considered in Determining an Individual's Residency Classification for Tuition Purposes, 2-325 Arizona Teachers Academy, 4-323 Tuition Waiver Scholarships and Institutionally Supported Financial Aid Programs, 4-406 Law Enforcement Officers Spouse and Dependents Tuition Scholarship, and 4-405 Spouses of Military Veterans' Tuition Scholarship *(ACTION)*

7.7 *Request to Approve on Second Reading Proposed Revisions to ABOR Policy 1-206 Strategic Planning *(ACTION)*

7.8 *Request to Approve a No-cost Extension for the FY 2023 Regents' Research Grant: 3D Sound Localization of Bark Beetles with Acoustic Holography *(ACTION)*

7.9 *Request to Approve a No-cost Extension for the FY 2023 Regents' Research Grant: Interventions to Reduce Firefighter Cancer and Cardiovascular Risks *(ACTION)*

7.10 *Request to Approve a No-cost Extension for the FY 2023 Regents' Research Grant: Mobile Tree Health Monitoring System: Detection and Tree Health REcongition Acoustic Tool (DE-THREAT) *(ACTION)*

7.11 *Request to Approve a No-cost Extension for the FY 2023 Regents' Research Grant: Opportunities to Enhance Recharge in Arizona *(ACTION)*

7.12 *Request to Approve Individual Project and Financing for the Center for Advanced Molecular Immunological Therapies, Including Waiver of ABOR Policy 7-102 Requiring Committee Review, for the University of Arizona *(ACTION)*

7.13 *Request to Approve Individual Project and Financing for MTW Partnership Renovations, Including Waiver of ABOR Policy 7-102 Requiring Committee Review, for Arizona State University *(ACTION)*

7.14 *Request to Approve Individual Project and Financing for McCain Center, Including Waiver of ABOR Policy 7-102 Requiring Committee Review, for Arizona State University *(ACTION)*

7.15 *Request to Approve Individual Project and Financing for ASU Health Building, Including Wavier of ABOR Policy 7-102 Requiring Committee Review for Arizona State University *(ACTION)*

7.16 *Request to Approve Individual Project and Financing for PSH Research Laboratory Complex Modernization, Including Waiver of ABOR Policy 7-102 Requiring Committee Review, for Arizona State University *(ACTION)*

7.17 *Request to Approve New Academic Units, Including Waiver of ABOR Policy 2-223 Requiring Committee Review, for Arizona State University *(ACTION)*

7.18 *Request to Approve New Academic Programs, Including Waiver of ABOR Policy 2-223 Requiring Committee Review, for Arizona State University *(ACTION)*

7.19 *Request to Repeal Technology and Research Initiative Fund (TRIF) Guidelines *(ACTION)*

7.20 *Request to Approve the Health and Dependent Care Cafeteria Plan Amendment *(ACTION)*

7.21 *Request for Approve the Cash Balance Pension Plan Amendment *(ACTION)*

7.22 *Request to Approve the 2025 Annual Report on Articulation and Transfer for Arizona Postsecondary Education *(ACTION)*

7.23 *Request for Authorization to Initiate Lawsuit Against DBNCH Circle, LLC and Finding of Necessity, for Arizona State University *(ACTION)*

7.24 *Request for Authorization to Initiate Lawsuit Against Robert Young and Finding of Necessity, for Arizona State University *(ACTION)*

12:15 p.m. ADJOURNMENT

PLEASE NOTE: This agenda may be amended at any time prior to 24 hours before the board meeting. Estimated starting times for the agenda items are indicated; however, discussions may commence, or action may be taken, before or after the suggested times. Any item on the agenda may be considered at any time out of order at the discretion of the board chair. The board may discuss, consider, or take action regarding any item on the agenda. During the meeting, the board may convene in executive session pursuant to A.R.S. §38-431.03(A)(3) for legal advice regarding any item on the agenda.

Instruction re: Confidentiality
Pursuant to A.R.S. §38-431.03(B) & (C) all are reminded that minutes of and discussions that occur in executive sessions are confidential by law and that violations of that confidentiality may subject the individuals involved to such penalties as are prescribed by law, including fines, costs, attorneys' fees, and removal from office.

Meeting Schedule for 2025-2026

February 19-20, 2026	ASU	April 16-17, 2026	NAU
June 11-12, 2026	U of A		

Meeting Schedule for 2026-2027

August 27, 2026	ASU Fulton	October 1-2, 2026	NAU
November 19-20, 2026	U of A	February 18-19, 2027	ASU
April 15-16, 2027	U of A	June 3-4, 2027	NAU

Meeting Schedule for 2027-2028

August 26, 2027	ASU Fulton	September 30-October 1, 2027	NAU
November 18-20, 2027	U of A	February 17-18, 2028	ASU
April 20-21, 2028	U of A	June 15-16, 2028	NAU

ASU Health Building

- The ASU Health headquarters will include the School of Medicine and Advanced Medical Engineering and the School of Technology for Public Health.

- ASU Health is aligned with the ABOR *AZ Healthy Tomorrow* initiative, a plan to grow Arizona's health care workforce.

- ASU Health will be integral to solving workforce shortages and improving the quality of health for Arizona residents.

- The School of Medicine and Advanced Medical Engineering is a new kind of medical school that will produce physicians who blend medicine, engineering, technology and humanities.

- The School of Technology for Public Health aims to create a new and rapidly evolving space for the integration of digital technology, data-driven decision-making and a significant focus on local public health impact.

- HonorHealth is the primary clinical affiliate for the new School of Medicine and Advanced Medical Engineering.





PSH Renovation

The project will renovate 17 wet labs, 15 dry labs and 24 office spaces at Bateman Physical Sciences Center H (PSH).

PSH Renovation will increase research capabilities, extend the building's useful life and create a more efficient and flexible learning and research environment.

The project supports ASU's mission of advancing innovative research and providing high-quality, accessible education by creating state-of-the-art wet and dry laboratories, classrooms and office spaces that meet the evolving needs of faculty, students and research partners.





Center for Advanced Molecular & Immunological Therapies



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CAMI: Strategic Impact & Initial Projects

Strategic Impact

- Will address critical gaps in Arizona's biotech ecosystem
- Will provide turnkey lab space, manufacturing, clinical trial infrastructure, and commercialization support
- Will enable comprehensive product development from conception to clinical deployment accelerating treatments while building a thriving economy.

Initial Projects

- Vaccines for cancers linked to Y-chromosome loss
- CAR-T therapy (takes cells from the body & genetically changes them so they can fight cancer) and applying it to cure Type 1 diabetes and lupus
- Advanced treatments to prevent organ transplant rejections and infection
- Cancer treatment with drugs or agents directly injected into a tumor to address gastrointestinal malignancies

THE UNIVERSITY OF ARIZONA

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Update:
Improving Arizona student access and enrollment

Chad Sampson
Executive Director, Arizona Board of Regents

November 20, 2025

ARIZONA BOARD OF REGENTS
ASU ◆ NAU ◆ UA

Strategies for finding and recruiting talent

STRATEGIES

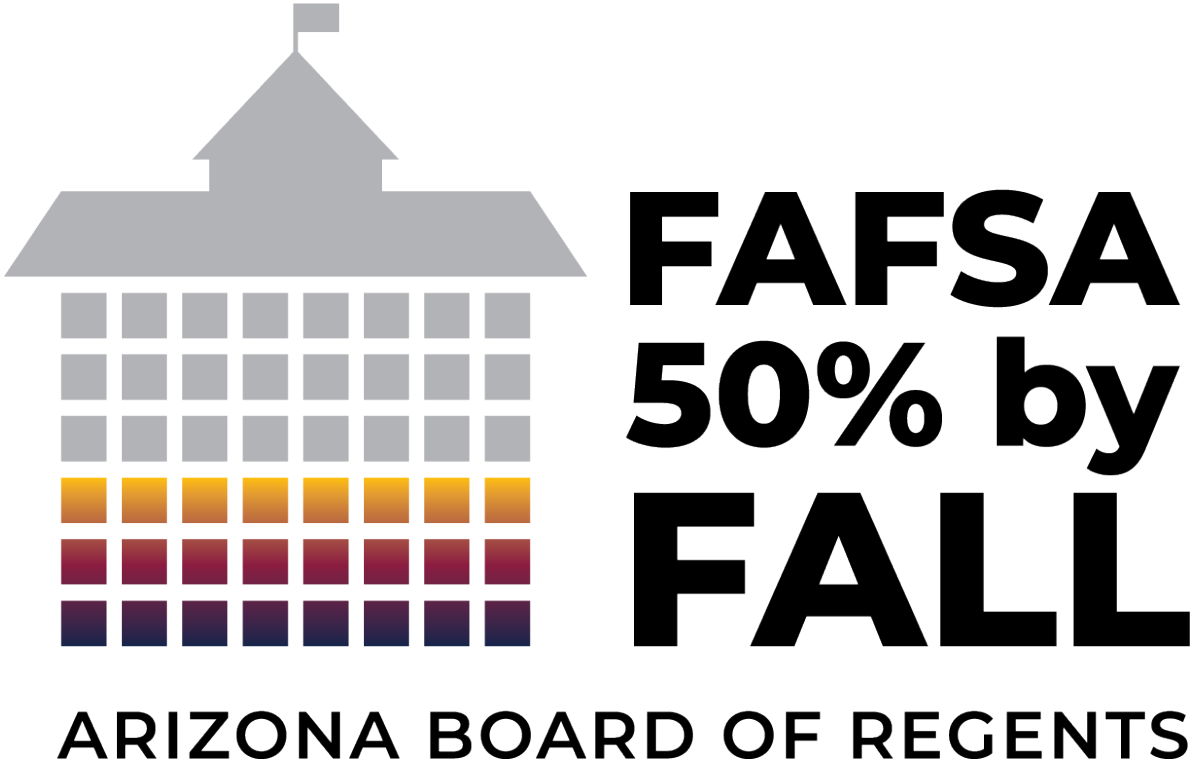
- **Build trust**
- **Smart outreach**
- **Take the solutions to the student, parent and school**

ANNOUNCEMENTS AND UPDATES

- **Update: 50 by Fall FAFSA incentive campaign**
- **Announcement: FAFSA Scholarship announcement**
- **Announcement: Valley Suns collaboration**
- **Update: Justice-impacted grant**
- **Update: AZ Comeback Initiative grant**
- **Update: College Ready AZ 2.0**



50 by Fall campaign



Ticket incentive with the Valley Suns

VALLEY SUNS

Justice-impacted grant

SHEEO

State Higher Education
Executive Officers Association

ARIZONA DEPARTMENT OF CORRECTIONS
ADCRR
REHABILITATION & REENTRY

AZ Comeback initiative









College Ready AZ 2.0



College Ready AZ FAFSA Scholarship



ARIZONA COMMUNITY FOUNDATION

Helios Education Foundation

Valley of the Sun UNITED WAY



The Arizona Board of Regents is proud to launch the College Ready AZ FAFSA Scholarship.

ARIZONA COMMUNITY FOUNDATION

Helios Education Foundation

Valley of the Sun UNITED WAY

Thank You

ARIZONA BOARD OF REGENTS
ASU ◆ NAU ◆ UA

ITEM 2.1: Request to Approve the First Amended Multiple-Year Employment Agreement for Walter "Chip" William Hale III as Baseball Head Coach for the University of Arizona

Requested Action: The University of Arizona ("U of A") asks the board to approve the first amended multiple-year employment agreement for Walter "Chip" William Hale III as Baseball Head Coach, as described in this executive summary.

Committee Review and Recommendation

The University Governance and Operations committee reviewed this item at its September 11, 2025, meeting and recommended forwarding the item to the board for approval with no changes.

Background

- U of A seeks approval of a First Amended Multiple-year Employment Agreement ("First Amended Agreement") for Baseball Head Coach Walter "Chip" William Hale III ("Hale") through the period ending June 30, 2030. This First Amended Agreement would result in a new five-year contract, while also amending certain other terms agreed to between Hale and U of A.

- In February 2022, following board approval, U of A entered into a Multiple-year Employment Agreement ("Original Agreement") with Hale with a base annual salary of $435,000 for the first year, with annual increases through the end of the term on June 30, 2026. The Original Agreement did not provide for Additional Duties compensation or any other base annual compensation.

- Hale has experienced tremendous success in his first four seasons as Head Coach, including leading the Baseball Program (the "Program") to four consecutive NCAA Tournament appearances (Hale is only the second head coach in Program history to do this) and over 150 total wins.

- In 2024, U of A won the Pac-12 regular season and Pac-12 Conference Tournament championship, was selected as top 16-seed in the NCAA Tournament and hosted a Regional. Hale was also selected as the Pac-12 Conference Coach of the Year.

- In 2025, U of A reached new heights under Hale. The Program finished fourth in its first season in the Big 12 Conference and then won the Big 12 Conference Tournament. U of A then advanced through the Eugene Regional and Chapel Hill Super Regional to earn a berth in the College World Series (CWS). This was Arizona's first CWS appearance since 2021.

- Under Hale's leadership, six U of A players have been named All-Americans and 15 players have been named as all-conference selections. In Hale's four years leading the

Contact Information:
Desireé Reed-Francois, U of A uofaad@arizona.edu 520- 621-4920

Program, 20 U of A players have been selected in the Major League Baseball ("MLB") Draft. This year, nine players were taken in the MLB Draft, including first round pick, Brendan Summerhill. The Program's nine draft picks in 2025 were the Program's most since 2008, was tied for third most in the nation, and tied for fifth most in Program history.

- Based on due diligence, U of A is not aware of any issues negatively affecting Hale's continued employability, including but not limited to NCAA violations, claims or litigation related to his prior employment as an assistant coach, allegations of wrongdoing, or significant press controversies.

Discussion

Agreement Duties, Length, and Compensation/Salary Adjustments

- Term. The proposed First Amended Agreement term will be five years, from July 1, 2025, through June 30, 2030 (the "Term"). Each Contract Year will be from July 1 through June 30 of the following year.

- Program Duties. Hale's program duties will continue to be duties customarily associated with the head coach of a Division I baseball program. This includes, among other items, overseeing all aspects of the Program, supervising the coaches and other employees, and coaching the student-athletes, athletically and academically, all in accordance with applicable University, ABOR, Big 12, NCAA, and College Sports Commission ("CSC") policies, rules, and regulations.

- Annual Compensation. Hale's annual compensation under the First Amended Agreement is comprised of base salary and additional duties compensation. Hale's base salary and additional duties compensation will be paid entirely from revenue generated by the Athletics Department. No part of his salary will be paid from appropriated funds or donor contributions.

    - Additional Duties Compensation. The additional duties compensation will be $170,00 for Contract Years 1 and 2, $180,000 for Contract Years 3 and 4, and $190,000 for Contract Year 5. Additional Duties compensation is a new category of compensation that was not part of the Original Agreement. The payment of Additional Duties compensation reflects Hale's expanding role as a public ambassador for the Program, Arizona Athletics, and the broader University community. The First Amended Agreement will include specific public and internal engagement obligations for Hale, including:
        - Participation in coach's shows as necessary/requested;
        - Public appearances, including Wildcat Caravans, donor events, University and department events, and key donor/alumni events;
        - Community and campus appearances, including in classrooms and at civic events;

- Participation in marketing and brand campaigns across digital and social platforms and other non-gameday media opportunities.

- Base Salary. Hale's base salary will be $350,000 for each year of the First Amended Agreement.

- Total Annual Compensation. Hale's combined annual compensation for each year of the Term is as follows:
  - Contract Year 1 - $520,000 ($350,000 base salary + $170,000 addl. duties).
  - Contract Year 2 - $520,000 ($350,000 base salary + $170,000 addl. duties).
  - Contract Year 3 - $530,000 ($350,000 base salary + $180,000 addl. duties).
  - Contract Year 4 - $530,000 ($350,000 base salary + $180,000 addl. duties).
  - Contract Year 5 - $540,000 ($350,000 base salary + $190,000 addl. duties).

- Annual Performance Incentives. Hale may earn annual performance incentives as set forth below if the baseball team meets designated academic and athletic performance thresholds.

  - The Agreement will require that Hale return sums earned as performance incentives for any accomplishments that are subsequently lost, vacated, or diminished due to NCAA infractions or violations of other binding rules or other penalties, whether self-imposed by U of A or imposed by the conference or the NCAA.

  - Academic Performance Incentives. The Academic Performance incentives are unchanged from the Original Agreement.

  - Athletic Performance Incentives. Hale may receive additional one-time compensation on an annual basis (per athletic year) for the following athletic performance team achievements. The total athletics performance incentives that can be earned is capped at $250,000 per athletic year.

• Conference Regular Season Champion	$25,000
• Conference Tournament Champion	$15,000
• Post-Season Performance (cumulative)	
NCAA National Champion	$200,000
College World Series	$100,000
NCAA Super Regionals	$25,000
NCAA Regionals	$15,000
• Conference Coach of the Year	$15,000
• National Coach of the Year* (as voted by National Collegiate Baseball Writers Association)	$15,000

Other Provisions

- Termination by U of A with Cause. The First Amended Agreement may be terminated by U of A for cause, in which case U of A will be liable only for Hale's salary, additional duties compensation, and incentive payments earned and owing as of the date of termination.

    - Bases for termination for cause will include, but are not limited to: neglect of program duties (including supervision of staff); personal conduct that impairs ability to perform program duties; unethical or immoral conduct; fraud or dishonesty; being arrested, charged, convicted of, or pleading to a criminal act that adversely reflects on coach's fitness to serve as head coach of the Program; violations of NCAA, Conference, ABOR, and/or University policies, rules, and/or regulations, or any other compliance obligation; failure to cooperate with NCAA, Conference, University, or other collegiate governing/enforcement bodies and/or investigations; failure to maintain high levels of integrity, honesty, moral character, professionalism, and dedication to the U of A and its student athletes.

    - Additionally, if Hale is terminated for cause by U of A for violating NCAA, CSC, or Conference regulations, Hale will be responsible for a liquidated damages payment to U of A of $100,000 and would be required to return sums earned as performance incentives for any victories, championships, or other accomplishments forfeited, vacated, or diminished due to such violations.

- Termination by U of A without Cause. If U of A terminates the Agreement without cause, U of A will pay Hale a severance benefit calculated as follows: sixty-five percent (65%) of the value of the base salary owed for the remainder of the term of the Agreement. The severance benefit amount will be offset by any and all amounts Hale receives if he is employed or compensated for work at any other university or professional team as a head coach, assistant coach, scout, analyst, athletic director or similar title, or working in a media capacity as an announcer, analyst or similar position in television, broadcasting, or streaming provider, at any time during the Agreement term. Hale will have a reasonable duty to mitigate by seeking employment or other compensation following such a termination.

- Termination by Hale. The Agreement may be terminated by Hale without cause. In that event, Hale will pay to U of A sixty-five percent (65%) of the value of the base salary owed for the remainder of the term of the Agreement.

- All other terms of the Original Agreement will remain the same in the First Amended Agreement.

Statutory/Policy Requirements
ABOR Policy 6-910 requires board approval of multiple-year employment contracts for head baseball coaches.

ABOR Policy 6-1001 provides the requirements for multiple-year appointments of head coaches.

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ITEM 2.2: Request to Approve the Addendum Extending the Multiple-Year Employment Contract for Shane Burcar as Head Men's Basketball Coach for Northern Arizona University

Requested Action: Northern Arizona University ("NAU") asks the board to approve an addendum extending the multiple-year employment contract for Shane Burcar as Head Men's Basketball Coach at Northern Arizona University, as described in this executive summary.

Background

Shane Burcar ("Coach Burcar") currently serves as Head Coach of NAU's Men's Basketball Team under a multiple-year employment contract, which is set to expire on March 31, 2026. NAU desires to extend the term of Coach Burcar's contract for one additional year. If approved, this will be the second addendum to Coach Burcar's contract.

Coach Burcar is entering his seventh season as Head Coach, following a successful 2024–25 campaign in which he led NAU Men's Basketball to the most program wins (18) and first post-season appearance (College Basketball Invitational) in a decade. Individual student-athletes also excelled under Coach Burcar last season, with the nation's leading rebounder (who set Big Sky Conference and NAU records for single-season rebounds and earned All-Big Sky Conference honors) and the nation's second-leading scorer (who earned All-Big Sky Conference First-Team honors for the second-consecutive season) both competing for NAU.

Coach Burcar's accomplishments off of the court are equally impressive. The NAU Men's Basketball Team's cumulative grade point average was 3.279 in the last academic year. The program has earned the National Association of Basketball Coaches ("NABC") Team Academic Excellence Award in five of Coach Burcar's first six seasons, and 13 different student-athletes have combined for 18 NABC Honors Court awards during Coach Burcar's tenure.

Discussion

All terms in Coach Burcar's contract previously approved by the board (in the original contract and first addendum) will remain unchanged, except as follows:

- NAU proposes to extend the term of Coach Burcar's contract for one additional year. By addendum, the contract's expiration date will change from March 31, 2026 to March 31, 2027.

- Coach Burcar's annual salary of $198,000 and incentive-payments structure will remain unchanged, except that NAU will pay Coach Burcar a one-time retention bonus of $10,000 by June 30, 2026. Coach Burcar's salary will continue to be paid from public university funds, specifically from revenue generated by NAU Athletics.

Contact Information:
Michelle G. Parker, NAU Michelle.Parker@nau.edu 928-523-6517

Statutory/Policy Requirements
ABOR Policy 6-910 requires board approval of multiple-year employment contracts for head basketball coaches.

ABOR Policy 6-1001 provides the requirements for multiple-year appointments of head coaches.

ITEM 2.3: Request to Approve the Appointment of Four Regents' Professors Effective December 31, 2025, Including Waiver of ABOR Policy 6-208 Requiring Committee Review

Requested Action: Arizona State University (ASU) asks the board to approve the appointment of four Regents' Professors effective December 31, 2025), including waiver of ABOR policy 6-208 requiring committee review:

- Danielle McNamara, Professor, Psychology, The College of Liberal Arts and Sciences
- Robert Boyd, Professor, School of Human Evolution and Social Change, The College of Liberal Arts and Sciences
- Stephanie Forrest, Computer Science, School of Computing and Augmented Intelligence, Fulton Schools of Engineering
- Donald Siegel, Foundation Professor, School of Public Affairs, Watts College

Background

Arizona State University requires all nominations for Regents' Professor to come from groups of tenured faculty members. An Advisory Committee (ASU Regents Committee) evaluates all nominations following an established review process by the Office for the Vice Provost for Academic Personnel. The President then considers the recommendations provided from the committee, with input from the provost and decides which names should go forward for the board's consideration.

On this occasion, four names are recommended by President Crow.

Discussion

The following details the accomplishments and basis for recommendation for the four Regents Professor candidates:

Danielle McNamara, Professor
Psychology
The College of Liberal Arts and Sciences

Professor Danielle McNamara is the Founding Executive Director of ASU's Learning Engineering Institute and Professor of Psychology in the College of Liberal Arts and Sciences. She is a nationally and internationally recognized scholar whose interdisciplinary research bridges cognitive psychology, reading comprehension, educational technology, and augmented intelligence. Dr. McNamara has had a profound impact on basic research in cognitive psychology through her work developing educational technologies and conducting research to understand better the cognitive processes involved in reading comprehension and knowledge and skill acquisition. She has been a leader in designing innovative and widely used computer-based tutoring and learning technologies (e.g., iSTART and Writing Pal) to support students' development of reading comprehension and writing skills. She is a member of the National Academy of Education, has been recognized as a Fellow by four prestigious academic societies, and has secured more than $50 million

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in external funding to support her research. Her research has been cited more than 49,000 times (h-index of 102), suggesting that her research is relevant to and influential for a wide and transdisciplinary audience of scholars. As one external reviewer noted, "In her area of expertise at the intersection of cognitive science, literacy research, and learning technologies, I would consider her one of the top three scholars in the world."

Robert Boyd, Professor
School of Human Evolution and Social Change
The College of Liberal Arts and Sciences
The recent election of Professor Boyd to the National Academy of Sciences, highlights his extraordinary achievements in evolutionary anthropology, a frontier field of science that has been revolutionized in its foundations by his work. Professor Boyd's research on gene-culture coevolution introduced the ground-breaking idea that the process of cultural evolution has played a leading role in the evolution of genes. His work contributed decisively to transform the way social and natural scientists think about human culture and how it is shaped by a convergence of cultural development and natural evolution. These ideas have also been very influential in the field of molecular genetics, because cultural practices create selective pressures on genes, and in many cases it has been shown that many genetic and epigenetical changes have been induced as a result of new environments created by cultural innovations. As a leading evolutionary anthropologist, Boyd's work is part of the formal academic field of cultural evolution. His approach is highly scientific and mathematical and it has been enormously influential in terms of publications, citations and the formation of new generations of scholars.

Stephanie Forrest, Professor
Computer Science
School of Computing and Augmented Intelligence
Ira A Fulton Schools of Engineering
Professor Stephanie Forrest's interdisciplinary expertise and visionary leadership have consistently positioned her at the forefront of innovation. Her work has shaped the fields of automated software repair, biologically inspired algorithms, and computer immunology, and her scholarship is a model of use-inspired research. She has received major awards including the IEEE Test of Time Award, the ACM/SIGSOFT Most Influential Paper Award, and two ACM/SIGEVO Impact Awards, affirming the lasting relevance of her contribution over decades. In addition, Professor Forrest was elected as an IEEE Fellow in 2015. To date, Professor Forrest has ~220 peer-reviewed publications, ~45,000 citations, and an h-index of 83. As the Founding Director of the Biodesign Center for Biocomputation, Security and Society, she has advanced use-inspired research that addresses complex problems in software security, automated program repair, and digital privacy. Her contributions, spanning from biologically inspired algorithms to the creation of new paradigms in cybersecurity, have earned her lasting influence in both academic and policy circles.

Donald Siegel, Foundation Professor
School of Public Affairs
Watts College of Public Service and Community Solutions

Professor Donald Siegel is a world-renowned scholar whose unparalleled record of scholarly excellence, visionary leadership, and global impact spans business, economics, and public policy. Ranked among the most influential management scholars worldwide (#31 in the United States and #50 globally), he has redefined the fields of technology transfer, innovation, and corporate social responsibility, profoundly shaping both academic thought and policy practice. A prolific and rigorous researcher, Professor Siegel has published 149 articles in top-tier journals, including the *American Economic Review*, *Strategic Management Journal*, and *Brookings Papers on Economic Activity*, and 14 landmark books, five with Oxford University Press, garnering over 88,000 citations and an h-index of 114, with peers describing him as *"a unicorn."* As one university leader indicates, "[Professor Siegel's] *success is nothing less than extraordinary when compared with his peers at ASU, nationally, and globally."* An elected Fellow of both the American Association for the Advancement of Science (AAAS) and the Academy of Management, he is among the rare scholars whose work seamlessly bridges scientific excellence and real-world policy impact. At ASU, his visionary leadership, exemplified by the co-founding of the Global Center for Technology Transfer, has elevated the university as a global hub of innovation and applied research, while nationally he has chaired two National Academies committees, edited numerous leading journals, and secured over $10.6 million in competitive research funding. Professor Siegel epitomizes the highest ideals of Arizona State University's New American University, including excellence, innovation, inclusion, and transformative impact, demonstrating how world-class scholarship can shape institutions, economies, and societies worldwide.

Statutory/Policy Requirements

ABOR Policy 6-208 "Honored Faculty Positions" authorizes the president of the university to appoint Professors Danielle McNamara, Robert Boyd, Stephanie Forrest and Donald Siegel to the rank of Regents' Professor, effective December 31, 2025, and to award the $10,000 salary increase that customarily accompanies these appointments.

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Request to Approve the Appointment of Four Regents Professors

Arizona State University

Arizona Board of Regents

Wednesday, November 19, 2025

2026 Regents Professor

Danielle McNamara

Executive Director, Learning Engineering Institute
Department of Psychology
The College of Liberal Arts and Sciences

- Nationally and internationally recognized scholar whose interdisciplinary research bridges cognitive psychology, reading comprehension, educational technology and augmented intelligence.
- Leader in designing innovative and widely used computer-based tutoring and learning technologies (e.g., iSTART and Writing Pal) to support students' development of reading comprehension and writing skills.

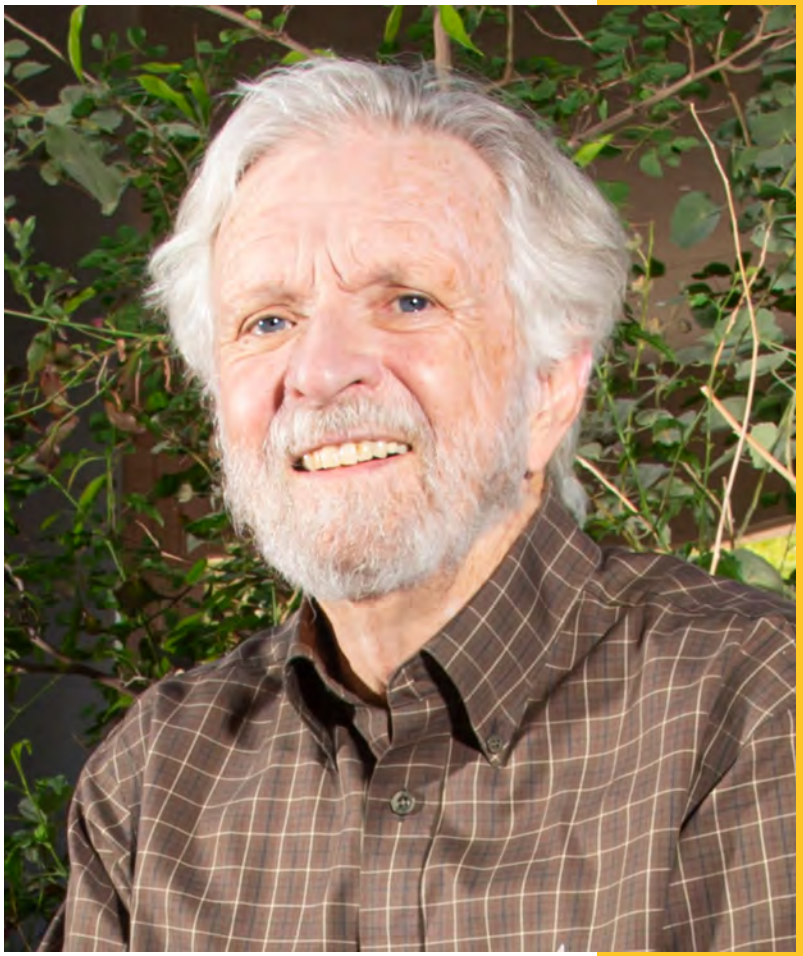


2026 Regents Professor

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School of Human Evolution and Social Change
The College of Liberal Arts and Sciences

- His research on gene-culture coevolution introduced the ground-breaking idea that the process of cultural evolution has played a leading role in the evolution of genes.
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2026 Regents Professor

Stephanie Forrest

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- Her work has shaped the fields of automated software repair, biologically inspired algorithms, and computer immunology, and her scholarship is a model of use-inspired research.
- Her contributions, spanning from biologically inspired algorithms to the creation of new paradigms in cybersecurity, have earned her lasting influence in both academic and policy circles.



2026 Regents Professor

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School of Public Affairs
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- A world-renowned scholar whose unparalleled record of scholarly excellence, visionary leadership, and global impact spans business, economics, and public policy.
- He has redefined the fields of technology transfer, innovation, and corporate social responsibility, profoundly shaping both academic thought and policy practice.



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ITEM 2.4: Request to Approve FY 2026 Regents' Research Grant: Dual-use Technology Acceleration

Requested Action: The board office asks the board to approve a FY 2026 TRIF Regents' Research Grant Recommendation: Dual-use Technology Acceleration, as described in the executive summary and supporting document/s.

Background/History of Previous Board Action
Arizona law established TRIF from Proposition 301 state sales tax revenue and gives ABOR the authority to administer the fund on behalf of Arizona State University (ASU), Northern Arizona University (NAU), and the University of Arizona (U of A). The board manages and administers the TRIF revenues through awarding and allocating revenues.

Discussion
Purpose
The purpose of Regents' Research Grants is to address and deliver solutions to critical issues facing the State of Arizona and its citizens. The Regents may award TRIF funding to Arizona public universities in the form of Regents' Grants to support:

- Academic research in areas of greatest need and interest to the State of Arizona and/or its citizens.
- Programs and initiatives aimed at having a large economic impact directly tied to the State of Arizona.

The Regents' Research Grants are designed to address and deliver solutions through academic research to critical issues facing the State of Arizona and its citizens by:

- Accelerating and delivering solutions to critical unmet needs for the State of Arizona;
- Bringing together and leverage synergistic skill sets resident at multiple Arizona public universities; and
- Establishing centers of excellence that will generate sustainable future research funding.

Proposal evaluations were based on:

- Potential Near-term Benefit to Arizona. The proposal's potential to impact Arizona citizens' most pressing unmet needs. Arizona agency feedback and scoring of the proposals are a prime factor in evaluating the potential to impact Arizona.
- Strength of Research Team and Creativity of Proposal.
- Sustainable Funding. Potential to attract future sustainable external funding.
- Budget. Is the budget requested appropriate for the work to be performed?
- Timeline. Is the research timeline appropriate for the tasks proposed?

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Discussion
The proposal being submitted has support from the Arizona Commerce Authority.

The following table contains the proposal title with proposal link, suggested funding, term, and university team.

Proposal Title and Link	Funding and Term	University Teams (8)
Dual-use Technology Acceleration • Resilient Zero-trust Key Exchange (NAU) • Distributed Hybrid Fiber Sensing with Remote Power Delivery and Communications (U of A) • Distributed RF Based Positioning (ASU) • Morphable Multicopter Uncrewed Aerial Systems (U of A) • Modular UAS Autonomy for Complex and GPS-Denied Environments (NAU) • High-efficiency Low-cost Multi-drone Charging System (ASU) • Reconfigurable Surfaces for In-space Wireless Power Transfer (ASU) • AI System that Delivers Explanations (ASU)	$720,000.00 over 6-months	ASU (4), U of A (2), and NAU (2)

Supporting Document/s
AAI System that Delivers Explanation-ASU
Distributed Hybrid Fiber Sensing-U of A
Distributed RF Based Positioning-ASU
High-Efficiency Low-Cost Multi-Drone Charging System-ASU
Modular Autonomy for Complex and GPS Denied Environments-NAU
Morphable Multicopter Uncrewed Aerial Systems-U of A
Reconfigurable Surfaces for In-Space Wireless Power Transfer-ASU
Resilient Zero Trust Key Exchange-NAU

Statutory/Policy Requirements
A.R.S. §15-1626 General Administrative Powers and Duties of Board
ABOR Policy 3-412 Administration of Technology and Research Initiative Fund

Teuvonet Technologies – ABOR/ACA Accelerator Proposal

1. TECHNOLOGY DESCRIPTION

1.1 A New Approach to Explainable AI (XAI): "Explanation First, Model Later"

Explainability is critical for deploying AI in both defense and commercial systems, especially when deep learning models are used for mission-critical image recognition. We introduce a novel methodology where the form of explanation is defined before model development. This "Explanation First" process reverses the conventional paradigm of "Model First, Explanation Later," making it easier to create AI systems that deliver explanations aligned with user expectations.

Our method draws from the original DARPA XAI vision [1], which emphasized verifying an object's parts before confirming its presence. As shown in Figure 1 ("Tomorrow" side), to identify a cat, for example, the model must detect key features like fur, whiskers, and claws. Building on this idea, we require users to specify the relevant parts of an object in advance - a critical shift *that grounds the model's explanations in concepts meaningful to human operators*.

This part-based model design enables systems to not only justify their predictions but to do so in a way that reflects operational needs, similar to how an architect consults with clients before drafting a design. Figure 2 illustrates how object parts are annotated to guide training.

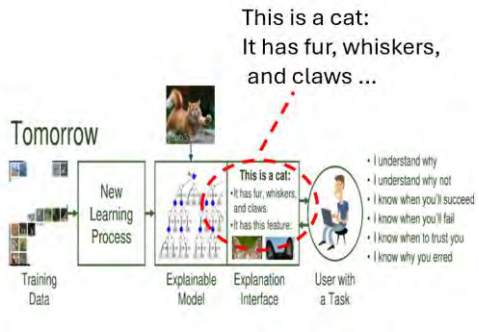


Fig. 1 - DARPA's vision of Parts-Based Explainable AI (XAI)



Fig. 2 – Annotating parts of objects that need verification. The whole and the parts denoted by bounding boxes with colors denoting specific parts

1.2 A Part-Based Prediction Model Provides Protection Against Adversarial Attacks

Can this approach mitigate adversarial attacks that are common in warfare and in standard image processing applications like CCTV monitoring? Yes—and here is why. Humans can often recognize objects even when only some parts are visible: we recognize a cat peeking from behind a door or a plane with just the tail visible outside a hangar. Similarly, part-based AI models can detect objects under partial occlusion, which is a common tactic in physical adversarial attacks like camouflage or decoys in warfare. For example, in the Ukraine conflict, adversaries disguised or obscured military equipment to fool visual systems. Our part-based XAI models are inherently more resilient to such tactics, as they rely on detecting multiple object components. This approach improves robustness without requiring complex adversarial training pipelines.

1.3 Detailed Part-Level Detection: Finer Features for Stronger Decisions

One of the core strengths of our part-verification-based object detection approach is its attention to finer object details—not just for transparency, but as foundational elements of decision-making. These fine-grained features serve as verification checkpoints during inference, allowing the system to reason about partial visibility, subtle differences between real and decoy objects, and adversarial disruptions. A logic layer is integrated atop the base object detection model to verify the presence of expected parts before confirming the presence of a full object—enhancing both robustness and reliability.

2. DUAL USE TECHNOLOGY

2.1 The EU AI Act – Model Explanation Will Be Mandatory

The EU AI Act entered into force on August 1, 2024, which means AI is now regulated in the EU [2], [3]. One of the primary provisions in the Act is about explainability. Article 13(1) of the Act [2] states: *'High-risk AI systems shall be designed and developed in such a way to ensure that their operation is sufficiently transparent to enable users to interpret the system's output and use it appropriately*.' Many computer vision and object detection systems that use deep learning—such as those in autonomous vehicles, surveillance, and robotics—are expected to fall under this high-risk category [4]. Because explanation will be mandatory, the EU AI Act opens the door to a large commercial market for XAI systems.

2.2 Application to Satellite Imagery Processing

Our initial experiments applied this part-based XAI approach to satellite imagery, specifically for detecting ships and aircraft. While onboard image processing is increasingly common, most systems today rely on monolithic object classification. Few, if any, parse and verify subcomponents of objects before making predictions. Our method addresses this gap and enables more granular and explainable detection adaptable to UAVs as well.

2.3 Defense Applications – The Emerging Drone Market

The battlefield is evolving rapidly, and adversaries now use simple yet effective deception techniques—like camouflage, decoys, and occlusion—to evade drone-based AI surveillance systems. Our technology addresses three key gaps:

1. Vulnerability to adversarial attacks using decoys and partial concealment.
2. Difficulty tracking drone swarms in cluttered environments.
3. Lack of onboard confidence and explainability in autonomous systems.

Our solution provides robust detection under deception and enables operators to trust autonomous system outputs.

2.4 NATO General's Reaction to Our Technology: 'Want it Tomorrow'

On April 7, 2025, Prof. Roy presented this new computer vision technology to LT General Rick Angle, Commander of Allied Special Operations Forces (Airborne), NATO. He noted that Ukrainian drones often fail to detect hidden military assets due to simple camouflage tactics. After reviewing our part-based detection results, his response was: 'Want it tomorrow.'

In the scenario below, an aircraft carrier is subject to patch attacks, reflecting how Russians would paint parts of their ships to make them look different to a standard object detection model. The left image in Fig. 3 shows how a standard object detection model fails to identify the aircraft carrier when painted like that. The right image shows that our XAI model can easily identify that same aircraft carrier from its parts – the launchpad, runway and control tower. These are the results that impressed the NATO General.

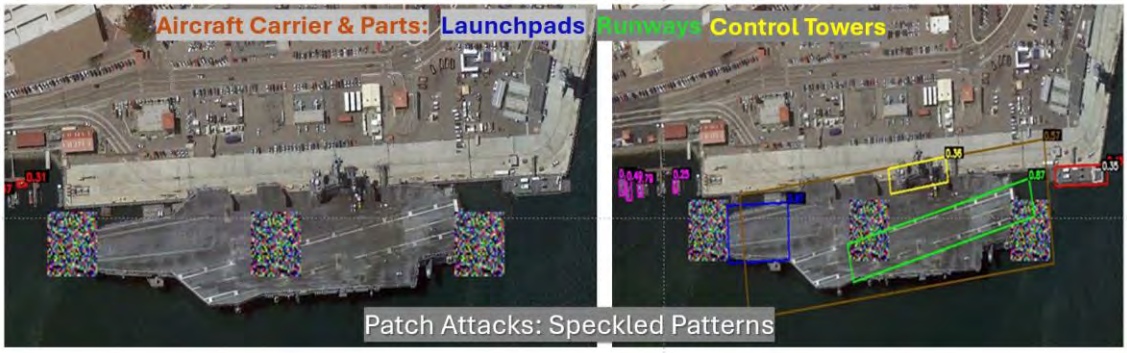


Fig 3. Non-XAI vs. Parts-Based XAI Models: Non-XAI Model fails to detect Carrier with added Patches.

3. Technology Readiness Level (TRL) and Preliminary Validation Efforts

Teuvonet Technologies, in collaboration with Arizona State University, completed a Phase I U.S. Air Force STTR project (Contract No. FA864924P0275) from December 2023 to March 2024. The project demonstrated feasibility of a lightweight XAI system capable of real-time satellite image processing and adversarially robust object detection, achieving TRL 4.

4. ABOR PCT Applications on This Technology

Two patent applications related to this technology have been filed by the Arizona Board of Regents:

1. PCT/US22/41365 – Filed August 24, 2022. Skysong Ref. No.: M22-044P-WO1-b$.
2. Provisional 63/801,003 – Filed May 6, 2025. Skysong Ref. No.: M25-312P-PR1-b.

5. Air Force STTR Phase I Proposals Pending

1. Drone Detection in Cluttered Environments (Special Topic) – Submitted June 25, 2025 (AF25D-T008)
2. DARPA-Style Explainable AI Models (Open Topic) – Submitted August 5, 2025 (AFX25.5-DPCSO1)

6. Alignment with One or More AOIs

This work aligns with ASU Areas of Interest in Artificial Intelligence and Machine Learning, including:

- Edge AI
- Decision support systems
- Sensor fusion
- Target recognition
- Adaptive threat detection

7. Companies Interested in This Technology

- **Raytheon Technologies**: Longstanding collaboration with support for multiple STTR proposals. They are interested in serving as a transition partner.
- **Planet Labs**: Interested in testing our ship detection models on their latest Pelican-2 satellites. Need funding to perform this proof-of-concept project.
- **Clear Align**: Supplier of EO/IR systems. Interested in integrating Teuvonet's XAI technology for counter-UAS operations. Provided Phase I support and is open to Phase II transition collaboration.

8. Publications About Explainable AI (XAI) in US Military Journals

Phalanx is the official publication of the Military Operations Research Society (MORS), focusing on current research, news, and professional development in military operations research. We have a pending publication in the summer issue highlighting our work on Explainable AI models.

1. Roy, A. "*Space-Based Moving Target Indicators: Some Design Considerations*," *MORS Phalanx*, Winter 2023.

2. Roy, A. "*A New Era for Explainable AI (XAI) where Definition of Explanation Comes First Rather than Model Creation*," *MORS Phalanx*, To appear, Summer 2025.

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2. THE ACT TEXTS | EU ARTIFICIAL INTELLIGENCE ACT
3. AI ACT ENTERS INTO FORCE - EUROPEAN COMMISSION (EUROPA.EU)
4. ANNEX III: HIGH-RISK AI SYSTEMS REFERRED TO IN ARTICLE 6(2) | EU ARTIFICIAL INTELLIGENCE ACT

PI and Team Qualifications

Dave King, Ph.D.

Advisor, Teuvonet Technologies

- Advisor to Teuvonet Technologies since its founding, contributing to product design, market analysis, business planning, and product strategy.
- Principal Investigator (PI) for Teuvonet's Air Force STTR Phase I project:
  T**opic No. AFX23E-TPCSO1** – *Automated Real-Time Processing of Satellite Images Without Human Intervention Using Explainable AI Models* (Contract No. FA864924P0275).
- Over 30 years of executive leadership in software design, development, and delivery for major independent software vendors (ISVs), including Execucom, Comshare, and JDA Software (now Blue Yonder). These platforms supported thousands of enterprise customers, including over 70 of the Global 100 in retail, manufacturing, transportation, and distribution.
- Served as **Executive Vice President (EVP) of Product Development and Management at JDA Software (2004–2014)**. During this time:
  - Played a key leadership role in the acquisition and integration of three major supply chain software companies.
  - Helped scale JDA from $200M to $1B in annual revenues and from ~500 to ~4,000 employees.
  - Helped found and led JDA's Center of Excellence in India (Hyderabad and Bengaluru), growing the operation from ~150 developers to over 2,400 staff with annual turnover rates under 10%.
- Early career as **Assistant Professor of Applied Statistics and Mathematical Modeling**.

Asim Roy, Ph.D.

Asim Roy, Ph.D. is a Professor of Information Systems at Arizona State University. He received his B.E. in Mechanical Engineering from Calcutta University, India, his M.S. in Operations Research from Case Western Reserve University, Cleveland, Ohio, and his Ph.D. in Operations Research from the University of Texas at Austin. He has been a Visiting Scholar at Stanford University, visiting Professor David Rumelhart in the Psychology Department, and a Visiting Scientist at the Oak Ridge National Laboratory, Tennessee. He was an ASU-Mayo Clinic Alliance Fellow in 2017 and developed personalized models for heart failure prediction.

He was on the Governing Board of the *International Neural Network Society* (INNS) from 2012 to 2021. He is the founder of three INNS Sections: (1) Autonomous Machine Learning (*AML Section*), (2) Explainable AI (XAI Section (inns.org)) and (3) AI, Law, and Regulation (AI, Law, and Regulation Section). He also started the Virtual Technical Event series of INNS (Virtual Technical Events (inns.org)).

A New Method for Explainable AI (XAI) for Computer Vision/Object Recognition

Asim has developed a new approach to Explainable AI (XAI) for computer vision and object recognition. In current approaches, we generally build models first and then try to explain its predictions by various means such as saliency maps and gradcams. In this new approach, the form of explanation is specified first and then a model is created according to those specifications. The process is very similar to where an architect meets with his/her clients to determine the needs first before designing and building a house.

Asim designed and developed IFPS/OPTIMUM

Asim designed and developed the software system IFPS/OPTIMUM that pioneered the idea of incorporating optimization tools in financial and planning languages for managerial use. It has been used by hundreds of corporations worldwide for financial, corporate, and production planning. The system had saved many companies hundreds of millions of dollars. Following in its footsteps, such optimization systems are now widely available with spreadsheet systems such as Excel Solver within Excel.

Asim's brain theories

Asim has published four theories of the brain. The first theory postulates that localist representation, as opposed to distributed representation, is used widely in the brain: A theory of the brain: localist representation is used

widely in the brain. That implies that firings of neurons in the brain have "meaning and interpretation" on a stand-alone basis. The second theory postulates that grandmother cells are used widely in the brain: An extension of the localist representation theory: grandmother cells are also widely used in the brain. Grandmother cells are a special type of localist cells and represent complex concepts that are multimodal invariant. A third theory postulates that a purely abstract cognitive system exists in the brain at different levels of processing: The Theory of Localist Representation and of a Purely Abstract Cognitive System: The Evidence from Cortical Columns, Category Cells, and Multisensory Neurons. In 2008, Asim published a theory of the brain that postulates that there are parts of the brain that control other parts and thus control theoretic principles can be used to design and construct systems like the brain: *Connectionism, controllers and a brain theory*. These four theories invalidate many ideas of the current dominant theory of the brain called "Connectionism."

Asim's Patents – Pending and issued

The patents filings #1 and #2 will be used for the proposed work. The patents belong to Arizona Board of Regents (ABOR) and are exclusively licensed to Teuvonet Technologies. ABOR has filed a PCT application (international patent application) for #2 and will do the same with #1.

1. **APPLICATION PENDING (2025) – *Explainable AI (XAI) for Object Detection and Application to Satellite Imagery***
   Provisional Patent Application Filed, Application No.: 63/801,003, Filed: May 6, 2025, Skysong Ref. No.: M25-312P-PR1-b.
2. **APPLICATION PENDING (2022) – *Image Recognition Utilizing Deep Learning Non-Transparent Black Box Model***
   PCT Patent Application Filed, Application No.: PCT/US22/41365, Filed: August 24, 2022, Skysong Ref. No.: M22-044P-WO1-b$.
3. **ISSUED PATENT (2025) - *Method and Apparatus for event prediction for a physical system based on data solely collected from the physical system*** (*Skysong Innovation (SI) reference No.* - **M19-067L**)
   US20210382472A1 - Method and Apparatus for Event Prediction for a Physical System Based on Data Solely Collected from the Physical System - Google Patents
   This invention arose from Asim's work with Mayo Clinic, Jacksonville in summer 2017 as part of the ASU-Mayo Clinic Alliance Fellows Program. ASU and Mayo Clinic filed a joint utility patent application in October 2019.
4. **ISSUED PATENT (2023) - Method and Apparatus for Large Scale Machine Learning**. U.S. Patent No. 11544570 B2, GRANTED ON Jan 3, 2023. EXPIRES on Dec 11, 2039.
   https://patents.google.com/patent/US11544570B2/en?q=(Method+and+Apparatus+for+Large+Scale+Machine+Learning)&inventor=Asim+Roy&oq=Method+and+Apparatus+for+Large+Scale+Machine+Learning+Asim+Roy
5. **ISSUED PATENT (2014) - Systems and related methods of user-guided searching**. U.S. Patent No. 8713001 B2, GRANTED ON April 29, 2014. EXPIRES ON Jan 12, 2032
   https://patents.google.com/patent/US8713001B2/en?q=(Systems+and+related+methods+of+user-guided+searching)&inventor=Asim+Roy&oq=Systems+and+related+methods+of+user-guided+searching+Asim+Roy

Publications in Refereed Journals:

1. **Roy, A.**, Minai, A. A., Thivierge, J. P., Achler, T., & Weng, J. (2024). What AI and Neuroscience Can Learn from Each Other—Open Problems in Models and Theories. *Cognitive Computation*, *16*(5), 2331-2333.
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5. **Roy A.** 2020. *Commentary: The Value of Failure in Science: The Story of Grandmother Cells in Neuroscience,* **Frontiers in Neuroscience**, *14*, 59. https://doi.org/10.3389/fnins.2020.00059.

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Funding Agency: Arizona Commerce Authority, Arizona Board of Regents
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Program POC: ken.polasko@azregents.edu , WileyL@azcommerce.com
Technical PI, co-PI: Dr. Mehmetcan Akbulut (Wyant College of Optical Sciences), Dr. Angela Marusiak (Lunar & Planetary Laboratory)
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DISTRIBUTED HYBRID FIBER SENSING WITH REMOTE POWER DELIVERY AND COMMUNICATIONS

ABSTRACT

We propose a novel Distributed Hybrid Fiber Sensing architecture that includes Distributed Acoustic, Temperature, Strain and Seismic Sensing, Remote Power Delivery and Two-way Optical Communications over the same fiber optic cable. The main applications are distributed sensing, communication, and power delivery for not easily accessible locations and terrain such as the surface of the Moon, Mars, or remote locations on Earth such as Volcanos, Deserts, Mountainous, Deep Ocean and Polar Regions. During this program we will build and demonstrate a laboratory prototype and use the resulting data and findings to secure more funding for the research and commercialization activities.

INTRODUCTION

Distributed Acoustic, Temperature and Strain Fiber Sensing (DAS/DTS/DSS) has been a growing field in the past decade, specifically within the energy and defense sectors. The premise is that coherent low-noise laser light is sent down an optical fiber, and the localized backscatter inside the fiber is used to detect and quantify the perturbations such as vibrations and temperature changes along the fiber. This technology has been adapted for use in sensing and mapping the disturbances oil and gas pipelines and boreholes, and regional/border perimeter security.

Seismologists have also begun looking into DAS specifically to monitor hazards such as earthquakes, volcanic eruptions, and glacial-related flooding. DAS can offer several advantages over typical seismic arrays. The complexity of such seismometer arrays increases significantly with larger arrays, also increasing power and communication requirements.

Remote seismic stations require servicing and data retrieval occur on a monthly scale which can be difficult for non-accessible locations. Local power sources are usually rechargeable

batteries with solar battery charging, which is not always available or ideal especially in polar or heavily forested areas. Lack of power and data storage can cause the seismometers to stop recording at crucial times, leading to large data gaps. In some cases, wireless data communications from seismometers are cellular service limited and can require large amounts of power. Wired connections are limited in distance due to losses, environmental perturbations such as Electromagnetic Interference (EMI), and cost. Our hybrid distributed sensing system would decrease servicing requirements, and reduce the power and communications needs, while providing more geographic coverage with greater data resolution.

In terms of remote power delivery over large distances, regular electrical cables suffer from significant voltage drop, localized heating, EMI, and large size and weight. In contrast, remote power delivery over fiber can alleviate many of these issues. This is a relatively new field that mainly is growing out of photovoltaics. There have been some academic demonstrations of power delivery over fiber using photovoltaic converters, however commercialization has not been robust. Thermo-Electric Power Generation (TEG) is also an emerging field, however all of the existing work in this area has been focused on converting waste-heat in machinery or the human body into electricity. Neither technology have been adapted for a practical remote application to date.

Our proposed solution overcomes all of these problems related to accessibility, coverage, resolution, and power. It combines and improves upon multiple technologies and presents a practical solution to Distributed Sensing with Remote Power Delivery and Communications. We will describe the details of our architecture in the next section.

TECHNICAL APPROACH

Elements of our novel architecture are shown in Figure 1. The “Central Hub” houses all the custom-built lasers, detectors, and electronics for the system. It generates and distributes the laser light that will be used for sensing, power delivery, and communications. The return laser signals from sensing and communications tasks will also be detected and processed by the same central hub. The central hub will contain standard wall-plug 110V power supplies and/or batteries with solar recharging. The latter will especially be the case for any Moon or Mars deployments where the Central Hub can be positioned in an area for maximum sun exposure while the sensors can even be placed in the Dark Side of The Moon.

DTS/DAS/DSS will be accomplished by the custom optical sensing instruments built by the University of Arizona and placed in the central hub. This instrument package will consist of a customized low-noise laser system, high dynamic range balance photodetectors, and electronics to process the information. In order to detect and characterize the distributed seismic events correctly, elements of Artificial Intelligence (AI) and Machine Learning tools will be implemented. Traditional seismometers will be placed at the ends of the fiber optic lines for a secondary measurement technique that will be used to calibrate and compare with the distributed sensing section using active source testing. The fiber optic cables are envisioned to be Single-Mode fibers that can either be a standard format for cost savings (e.g. Corning SMF28 or equivalent), or an enhanced custom fiber for improved acoustic sensing purposes which we have access to.

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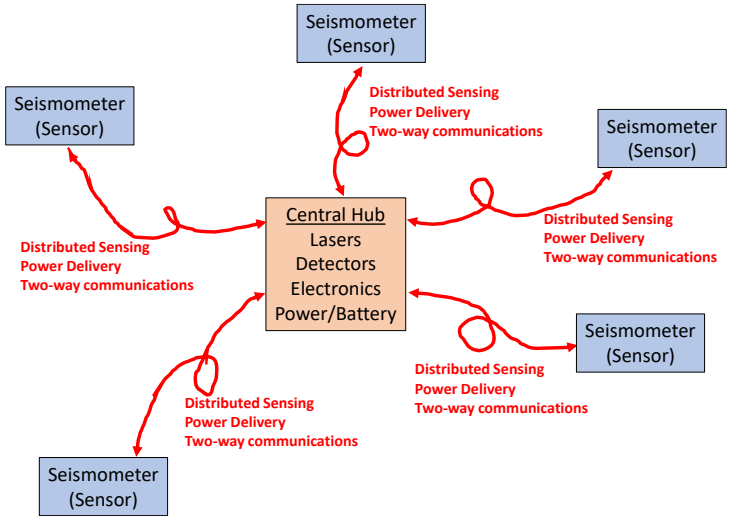


Figure 1. Distributed Hybrid Sensing Architecture

Power delivery over the fiber will be accomplished by customized high-power laser sources built into the central hub and delivered through the single mode fibers to the various sensors. This will be a separate channel compared to the sensing and communications channels. In this case, a Wavelength Division Multiplexing (WDM) scheme will be used to separate the laser wavelengths for the sensing channel, power channel, and communication channels from each other. On the sensor side, we will implement multiple technologies to convert light into usable electricity including photovoltaics and TEG. Since the single mode optical fiber can handle tens to hundreds of watts of optical power with very little loss (as low as ~4% per km for standard Corning SMF28), power can efficiently be delivered to the sensor nodes over very large distances with minimal loss, without localized heating, and without EMI. In comparison, for a much heavier, larger and expensive 10 AWG copper electrical cable can experience ~40% power loss over 1km that heats the cable. Our efficient power delivery enables the sensor nodes to operate and generate continuous data without concerns about solar charging availability and duration, battery lifetime, and operational on/off cycles. On the sensor side, we will implement multiple technologies to convert light into usable electricity including Photovoltaics and TEG.

For the two-way communications, we will implement mature optical fiber telecommunications techniques and components. Tens to hundreds of Gigabits per second of data can be transferred in both directions with low errors. This can be data that is read back from the sensor in one direction, or commands or firmware updates going in the other direction. The communications laser wavelengths will be different from the sensing and power delivery channels to eliminate any crosstalk effects.

ALIGNMENT WITH ONE OR MORE AOI'S

We have identified the following technical domains that are aligned with our proposal. We will provide alternative navigation and PNT by enabling remote power delivery and monitoring in hard

to access environments. Our prototype can deliver power with low loss and no heat loss and no EMI effects. The fiber will also deliver secure communications. To detect and characterize (e.g. earthquake, blast, animal or human movement) will implement machine learning and AI techniques. Finally, our thermal power can be harvested for electrical generation and cooling.

DELIVERABLES

Technology & Mission Alignment Roadmap:

Potential Dual Use Applications:

The main applications are for distributed sensing and power delivery remote locations and hard to access terrain such as the surface of the Moon, Mars, or remote locations on Earth such as Volcanos, Deserts, Mountainous, Deep Ocean and Polar Regions. Other applications include border/perimeter security, covert sensing, and heat/EMI free remote power delivery for Aerospace.

Relevance to specific DoD missions or capability gaps:

The proposed technologies can be used in DoD applications such as Battlefield and Border/Perimeter Monitoring and Security, Remote Power on Demand for Covert Sensing or for Denied environments.

Analysis of potential end user segments:

1. NASA: For Planetary or Earth Science missions for distributed sensing networks in space or hard to reach remote areas.
2. DoD and Primes: For Border/Perimeter Monitoring and Security with Covert Sensing.
3. Commercial: Factory or Farm Perimeter Security and Sensing with power delivery to cameras.
4. Aerospace: Remote power delivery can be used for airplanes and space vehicles for the zero heat and zero EMI benefits.

Technology Validation Plan & TRL Advancement:

Our current proposed architecture is TRL 2, however some of the individual subsystems and components of the overall scheme are at TRL 4 or higher. During this program, we plan to build a prototype of this system in our labs with the custom lasers in the central hub, a single fiber link to connect seismic sensors up to 1km distance, and laboratory electronics/computers for processing. We will validate the Distributed Fiber Sensing and compare to the seismometer measurements. We will also demonstrate the remote power delivery and two-way communications for the 1km connection to the seismometer. At the end of the program, we will prepare and deliver a technology validation brief showing the path to reaching TRL 4+ level for the whole architecture through further research and development programs and commercialization efforts.

Ip Strategy & Commercialization Plan:

Dr. Akbulut has already submitted 2 invention disclosures to the University of Arizona Technology Launch related to Distributed Sensing and Remote Power Delivery that will be investigated in this work. We anticipate more submissions in the following months as the work is carried out. The IP

will be protected by provisional patent filings by the UA Tech Launch. Based on the R&D progress, we plan to engage with startup company funding sources such as government funding through SBIR/STTR and Venture Capital firm representatives with the help of UA Tech Launch. Because of the multiple uses of our technology, we believe we will be successful in launching a company and a product in the following years.

KEY PERSONNEL

Dr. Mehmetcan Akbulut (PI) is an Associate Research Professor at the University of Arizona in the Wyant College of Optical Sciences. He received his Ph.D. in Electrical and Computer Engineering from Purdue University in 2005. For the past 20 years, he has been a team leader for applied R&D and product development in multiple industrial and academic organizations. His research focuses on high energy and high-power pulsed laser and amplifier systems, RF photonics and signal processing, optical computing, nonlinear optics, ultrafast photonics, and optical fiber telecommunications. Dr. Akbulut has authored and co-authored 54 publications and 1 patent.

Dr. Akbulut is one of the world experts in Lasers and Photonics systems, especially related to Remote Sensing/LIDAR and Optical Fiber Communications applications. Dr. Akbulut also has vast experience in taking an idea and turning it into a field-installed commercial product. He has delivered countless products, some of which are deployed in the field and are in continuous daily use.

Dr. Angela Marusiak (Co-PI) is an Assistant Research Professor at the University of Arizona in the Lunar and Planetary Laboratory. Dr. Marusiak received a Ph.D. from University of Maryland in 2020. She studies how seismology and seismic instrumentation can be used to explore remote regions on Earth and bodies in our solar system. She is currently funded to develop the next generation of planetary seismometers and is a Co-I for the recently selected LEMS seismometer to the Moon. She has significant experience in developing and delivering space-qualified seismometers that were funded through NASA programs.

FACILITIES & EQUIPMENT

University of Arizona has numerous facilities to undertake the goals of this research project. Dr. Akbulut has established multiple state-of-the-art Photonics, Lasers, Communications, and Remote Sensing laboratories with a wide variety of equipment and capabilities. Dr. Marusiak's lab has seismic instrumentation including geophones, nodal stations, and broadband seismometers. University of Arizona also has space qualification test facilities including large thermo-vacuum chambers, vibration and shock table setups, and more.

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Distributed RF Based Positioning, Navigation, Timing and Unattributable Ranging

Description of the technology: We have developed a distributed RF-based positioning, navigation, and timing (PNT) system composed of low-SWaP-C (Size, Weight, Power, and Cost) radio nodes. These radios are spatially separated and wirelessly synchronized in time and frequency and can operate coherently and cooperatively to provide precise relative localization. The system delivers centimeter-level localization accuracy and picosecond-level timing precision (<30 psec), exceeding the performance of GPS by two orders of magnitude. Unlike traditional PNT systems, our radios can function reliably in GPS-denied or contested environments, including indoor areas, underground infrastructure, tunnels, and under adverse weather conditions such as rain, fog, or dust.

Fig. 1 shows the operational concept of our technology. We have developed several innovations for wireless synchronization that significantly improve accuracy of time and frequency synchronization while reducing latency, resulting in multiple invention disclosures and pending patents.

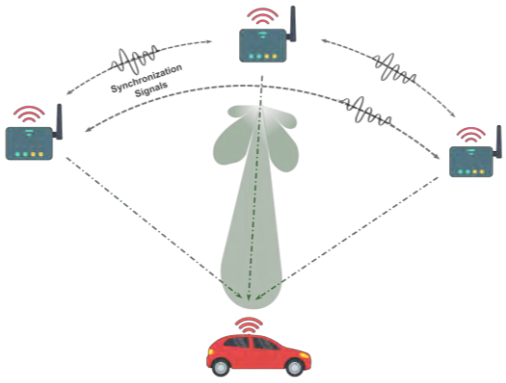


Fig. 1. Distributed synchronized radio system for precise radio-based localization.

We designed and implemented low SWaP-C chip-scale radios as proof of concept at 5G frequencies. These radio nodes can wirelessly communicate, locate each other, synchronize and operate cooperatively and coherently. This unique feature allows high precision unattributable radar operation which attracted the interest of Honeywell Aerospace. These radios can be deployed flexibly on buildings, vehicles, infrastructure, traffic lights, or mounted on drones and other mobile platforms. The low-SWaP architecture enables deployment in swarms of small autonomous drones, facilitating dynamic operations, autonomy, and coordinated control. The system is designed for long-term operation using battery or solar power, requiring no tethered connections, and is ready for field-scale deployment and TRL advancement.

The developed radios can communicate wirelessly and are compatible with 5G systems. Compared to GPS, UWB, and 5G-based positioning systems, our platform offers 10–100× greater precision, operates without external infrastructure, and supports covert, swarm-based deployment in contested environments.

Dual-Use Application:

This technology enables a wide range of dual-use applications across both defense and commercial domains (see Fig. 2):

- **Military**: GPS-denied navigation, distributed and unattributable radar, electronic warfare resilience, and high-power microwave transmission
- **Commercial**: Precision tracking in warehouses and factories, emergency responder localization, subway and tunnel PNT, autonomous vehicle coordination, package delivery by drones, and smart infrastructure monitoring

The system's centimeter-level RF-based positioning offers robust PNT capabilities in environments where GPS is unreliable or unavailable, particularly important for military operations requiring sub-meter accuracy in contested areas.

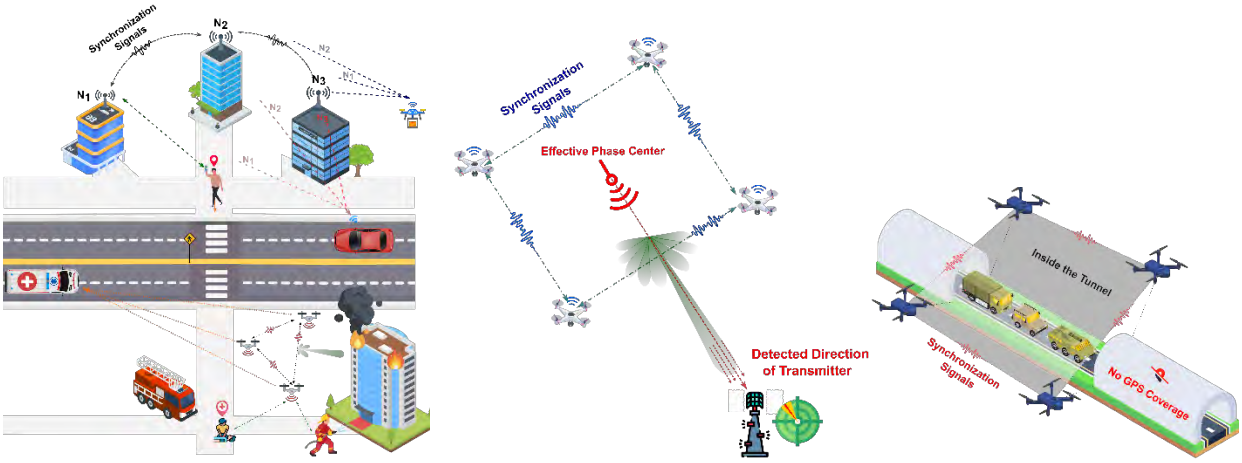


Fig. 2.Applications of distributed synchronized radio system. urban and emergency positioning, navigation and timing (left), dual use and military unattributable radar(middle), underground positioning (right).

A unique feature of the system is its ability to operate as an unattributable radar. By leveraging precise time and frequency synchronization across a swarm of low-SWaP radio nodes, the system achieves coherent beamforming with an extremely narrow beamwidth. This forms a large virtual antenna aperture, enabling high-precision sensing. The resulting directional signal cannot be traced back to any individual transmitter, effectively masking the origin of the emission and enhancing survivability in denied or covert environments.

The unattributable radar capability has drawn industry interest, including with Honeywell Aerospace, and represents a key differentiator for both military and advanced commercial sensing applications.

TRL stage and preliminary validation efforts:

We have designed, fabricated, and packaged custom radio front-end chips with antennas on PCB, and conducted measurements that validate our analytical models, placing the technology at **TRL 3** (See Fig. 3). The hardware operates at 5G mmW frequency. In our lab at ASU, we have successfully demonstrated wireless communication, frequency synchronization, and coherent beamforming across multiple spatially distributed radio nodes. We also conducted separate localization experiments. Building on this foundation,

we plan to integrate synchronization, localization, and communication into a unified prototype to achieve centimeter-level time synchronization and advance the system to TRL 4 and 4+. We will also demonstrate the system's unattributable ranging capability, a unique feature that has attracted industry interest, including Honeywell Aerospace. In parallel, we will explore commercialization pathways and strategic partnerships with Honeywell, NXP, and venture capital firms.

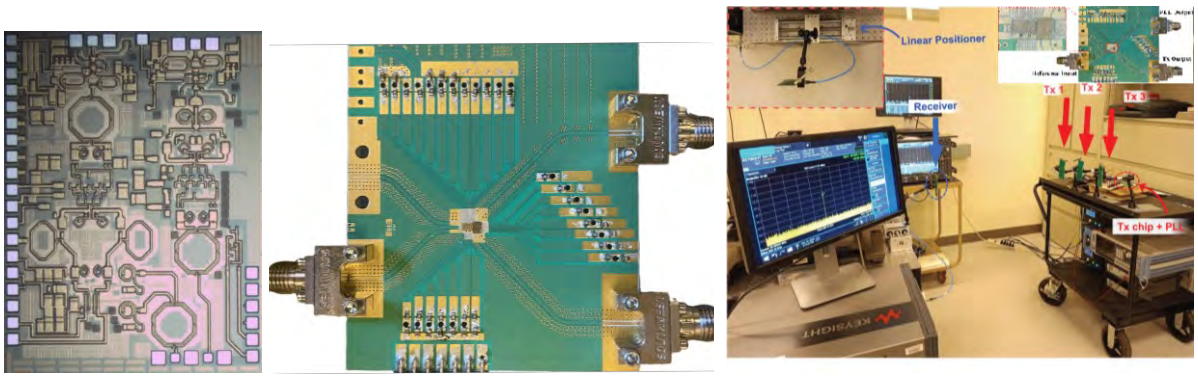


Fig. 3. Experimental validation: die micrograph of the radio chip with wireless synchronization at 5G mmW frequencies (left), die packaged on PCB (middle), wireless link demonstration (right).

Alignment with one or more AOIs:

The developed technology aligns with multiple areas of interest of ACA.

1- Alternative Navigation & PNT
- Centimeter-level RF-based localization with <30 psec timing precision, 100× more accurate than GPS
- Robust operation in GPS-denied environments (indoor, underground, tunnels, contested zones)
- All-weather performance and low-SWaP design for flexible deployment

2- Autonomy & Intelligent Control
- Enables precise navigation and coordination for UAVs and autonomous systems
- Supports synchronized swarm operation and coherent beamforming
- Unattributable ranging using distributed radios, of interest to Honeywell Aerospace

3- Secure Connectivity & Communications
- Distributed beamforming enables Low probability of interception and detection, LPI/LPD communication backed by multiple invention disclosures
- Lab-demonstrated jammer suppression of up to 26 dB
- Operates at 5G mmW frequencies

PI and team qualifications:

Dr. Saeed Zeinolabedinzadeh is an Assistant Professor in the School of Electrical, Computer, and Energy Engineering at Arizona State University (ASU). He has over 15 years of experience in the design and prototyping of high-speed and high-frequency integrated circuits and systems for wireless applications.

Since 2019, his group has been actively developing disruptive technologies for distributed radio systems, focusing on precise timing and positioning, synchronization, relative localization, and distributed beamforming for which form the foundation of the current technology.

Dr. Zeinolabedinzadeh earned his Ph.D. from the Georgia Institute of Technology in 2017, where he focused on millimeter-wave (30-300 GHz) and terahertz (THz) integrated circuit design for extreme environments. He subsequently conducted postdoctoral research on electronic-photonic integrated circuits before joining ASU in 2018. Since then, his research has centered on developing advanced RF, millimeter-wave, and THz integrated circuits spanning DC to 300+ GHz, with applications in communication, localization, sensing, ranging, and imaging.

His team has designed and demonstrated several chip-scale beamforming transceivers and components operating at mmW and THz frequencies, including 24–52 GHz, 28 GHz, 94 GHz, 120 GHz, 230 GHz, and others exceeding 300 GHz and 400 GHz. These circuits support a wide range of emerging wireless systems.

Dr. Zeinolabedinzadeh has led multiple projects sponsored by national defense and research agencies, including DARPA, ONR, NSWC, NIWC, NWRC, Breakthrough Initiatives, NASA, NGA, and MECommons. He is also a co-lead on one of the four awarded projects within ASU's SWaP microelectronics hub and has played a key role in establishing the initiative.

In recognition of his contributions, Dr. Zeinolabedinzadeh has received prestigious honors including the DARPA Young Faculty Award and the Office of Naval Research (ONR) Young Investigator Award. He currently serves as Chair of the IEEE Solid-State Circuits Society (SSCS) Phoenix Chapter and held leadership roles as TPC Chair and General Chair for the SiRF 2021 and SiRF 2022 conferences during IEEE Radio & Wireless Week.

Team Capabilities:

The PI currently leads a research team of six Ph.D. students, all working on high-frequency chip design for wireless applications. The team has comprehensive expertise across the entire RF system development chain:

- Design of high-frequency integrated circuits

- PCB Design and In-house packaging of custom chips
- Characterization of high-frequency systems using both on-wafer and packaged test setups
- Wireless link establishment and evaluation with developed radio systems

The lab maintains full-cycle capability from circuit and system design to implementation, packaging, and over-the-air wireless link validation, enabling rapid prototyping and testing of next-generation RF technologies.

Measurement Capabilities: PI Zeinolabedinzadeh founded the Millimeter-wave, THz, and Photonic Integrated Circuits (MTP) Lab at ASU in 2018. The lab actively designs and prototypes microelectronic chips for RF and millimeter-wave transceivers and is fully equipped for comprehensive characterization of high-frequency circuits, including chip packaging and wireless link demonstration.

The MTP lab houses a diverse set of small-signal and large-signal tools for high-frequency circuit and system characterization. Multiple probe stations support on-wafer measurements of custom chips developed by the PI's research team at mmW and THz frequencies. The lab includes high dynamic range tools for frequency-domain and time-domain measurements from DC to 50 GHz, enabling precise timing analysis, S-parameter extraction, spectrum analysis, noise characterization, linearity testing, and power measurements.

Several 4-port VNAs, signal sources, spectrum analyzers, and signal generation and detection tools support a broad range of RF, mmW and sub-mmW frequencies. Additionally, the lab features frequency extender modules that expand VNA measurement capabilities to the 220–500 GHz range.

A unique capability of the MTP lab is a 4-port, 50 GHz, 250 GS/s oscilloscope that enables picosecond-level time-domain measurements, a critical asset for the proposed project.

The lab also has access to advanced CAD tools commonly used in industry for the design and prototyping of high-frequency circuits and systems. Combined with the PI's team expertise in chip design, in-house packaging, and high-frequency system integration, the MTP lab supports the full development cycle from design and fabrication to characterization and wireless link evaluation.

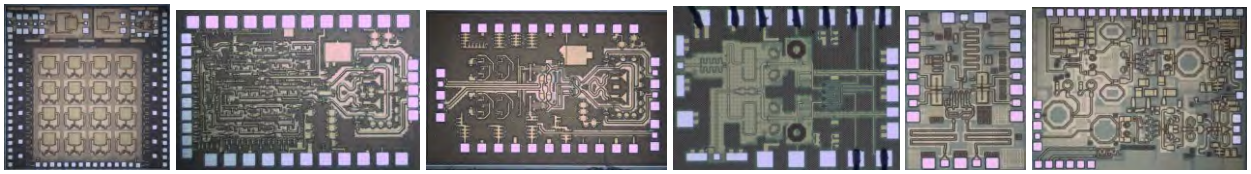


Fig. 1. Die micrographs of fabricated chip examples from my research lab at ASU (images taken under a microscope).

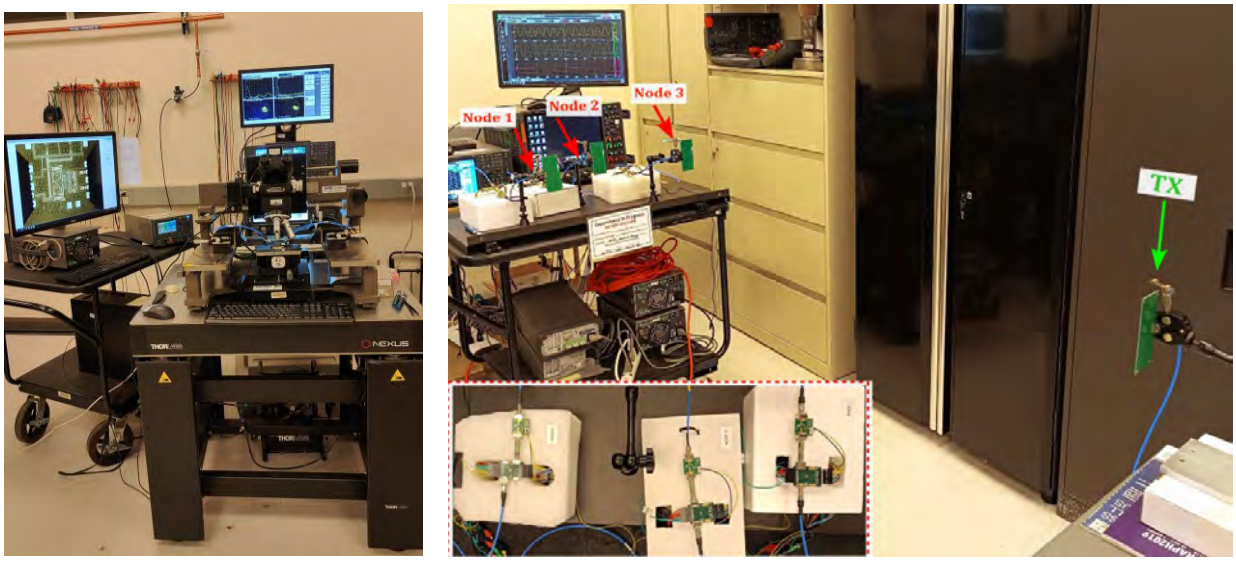


Fig. 2. On-wafer measurement of the chips (left), wireless link and time synchronization demonstration using the developed chips, packaging and antennas.

Invention Disclosures:

[1] S. Zeinolabedinzadeh, M. Kinsinger+, W. Ahmad, "Fast tracking PLL with analog mixer for phase detection," US patent App.18/714,338.

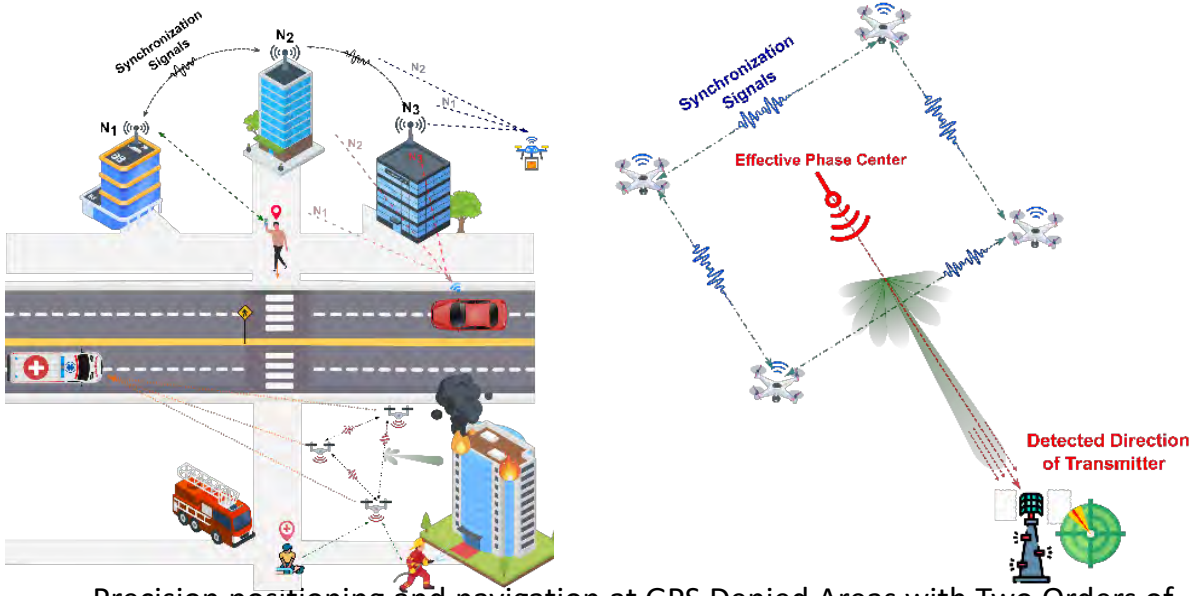
[2] S. Zeinolabedinzadeh, W. Ahmad, “Phase Noise Cancelling Phase Locked Loop (PLL),” US patent App. 63/551,898.

[3] S. Zakir, W. Ahmad, S. Zeinolabedinzadeh, "Self-Identifying Active Relay," US patent App. 18/956,906.

[4] S. Zeinolabedinzadeh, E. Alseragi, “Compact, Low-Power, High Image Rejection Sideband Separation Receiver,” US patent App. 18/059,932.

Distributed RF Based Positioning, Navigation, Timing and Unattributable Ranging

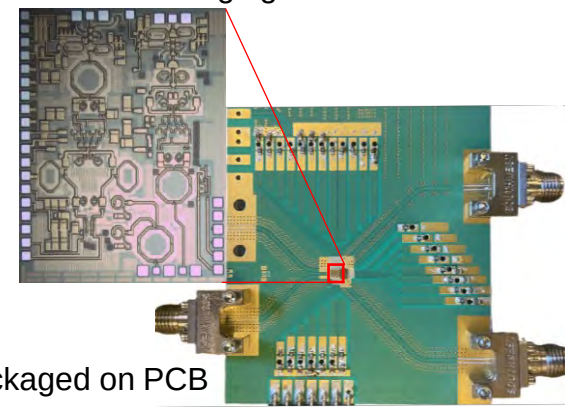
Category: Integrated Sensing and Cyber, Microelectronics, FutureG



Precision positioning and navigation at GPS Denied Areas with Two Orders of Magnitude Higher Precision than GPS

Technology/Product Description **TRL:3**

- Localization with Synchronized Distributed Radio Nodes
- Wireless Synchronization
- Low SWaP-C that Can be Assembled on Swarm of Drones
- High Precision Positioning, Navigation, and Timing
- Operates in GPS Denied Areas: Dense Urban, Indoor, Under Ground, Tunnels
- Cm-Level precision compared to 5-10 Meters of GPS
- Provides Unique Unattributable Radar for High Precision Ranging
- Low (Size, Weight, Power and Cost) SWaP-C
  - Install on Swarm of Drones
  - Battery or Solar Powered
- Implemented on Chip Technology
- Packaged on PCB
- TRL3 Verification and Proof of Concept
- Robust Wireless Synchronization
- Compatible to 5G and operate at 5G mmW



Custom Designed RF Chip (GlobalFoundries), Packaged on PCB

Objectives

- Validate Technology and Advance to TRL 4:
  - Integrating Verified Time and Frequency Synchronization Components
  - Demonstrate cm-Level Localization
- Validate Dual Use Application:
  - Demonstrating Unattributable Radar Functionality
- Identify Commercialization Paths
  - Partner with Honeywell
  - Potential Interest from NXP
  - Partner with VC Firms

Points of Contact

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Name: Saeed Zeinolabedinzadeh
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Mobile Tel #: 404-824-3091

This document is to contain unclassified, publicly available information only.

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Project Title: "High-Efficiency Low-Cost Multi-Drone Charging System for Extended Mission Endurance"

Description of the Technology: As drones become more advanced, there is a growing need for efficient, contactless charging methods that allow drones to operate autonomously without human intervention and support increased flight time. Through a high-level end-user discovery process, we identified the following key pain points related to drone charging for both military and commercial uses:
(a) Drone batteries typically operate within a voltage range of 12 V to 48 V and require charging power between 100 W and 1 kW, yet existing charging base circuit designs are heavily influenced by each unique battery's voltage, capacity, and specific charging rate (C-rate)
(b) Existing wireless chargers serve only one drone at a time, causing delays during peak demand due to charging station congestion
(c) Multiple single-service charging stations require discrete, costly circuitry, that is volumetrically inefficient, with system costs scaling linearly.

In response, **we propose to develop and implement a >95% efficient multi-drone wireless charging system (MD-WCS) based on the inductive power transfer (IPT) principle**. This allows drones to charge mid-mission without requiring precise alignment with a charging pad. This system is capable of simultaneously charging a drone fleet with varying battery specifications using a single charging station (see **Fig. 1**) by use of multi-phase charging circuits driving a multi-transmitter coil network. Our solution reduces the charger cost by 60% from $2.5/W to $1/W by novel circuit topology-based structural integration of charging networks and hence drastically reducing the component count. The PI will leverage his startup, MAXSIM, to commercialize this technology for both military and commercial use-case applications.

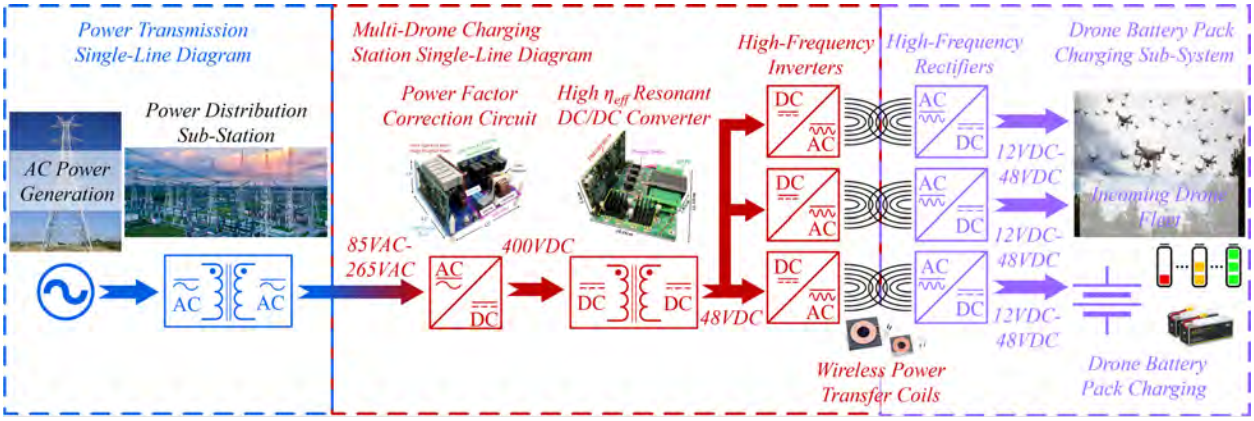


Fig. 1. "All-in-one" multi-drone wireless charging solution concept

Our proposed "all-in-one" wireless charging network features a modular, scalable power electronic converter system adaptable to any number of drones and reconfigurable for future extensions. The circuit (Fig. 2) integrates an AC-DC power factor correction (PFC) converter, a step-down DC-DC converter, and a multi-phase inverter with "N" compensation circuits—one per drone. Phase I focuses on charging two drones with different battery specifications simultaneously, while customer discovery and pain point analysis will guide future demonstrations in terms of fleet size and charging power (C-rate).

The AC-DC PFC stage converts single- or three-phase AC to a regulated 400V DC link, stepped down to a fixed 48V bus via an isolated DC-DC converter. This bus powers a high-frequency poly-phase inverter network that generates frequency-modulated AC voltages for the transmitter coils, supporting the 12–48V range of commercial and military drone batteries. Receiver coils connect to high-frequency full-bridge rectifiers within the drones' electric power subsystems (EPS), supplying DC average power for charging.
Both station and drone sides employ a series–series (S-S) compensation topology, where leakage inductance and resonant capacitance are in series, minimizing sensitivity to misalignment. The system is scalable: new drones require only an added transmitter coil, one inverter half-bridge, and minor control updates. In Fig. 2, Phase-A half-bridge serves as reference; other half-bridges are dynamically phase-shifted

under closed-loop control to maintain constant-current (CC) or constant-voltage (CV) profiles at each output. Operating at 85 kHz per SAE J2954, the system's AC tank quality factor mitigates misalignment effects, enabling control via phase-shift modulation alone. Drone battery voltage is communicated via Bluetooth to station-side microcontrollers, which govern inverter operation. Onboard synchronous rectification reduces converter conduction losses and hence improves efficiency by 3–5% over traditional diode bridge solutions and reduce the thermal management system size by 30-50. Other key value propositions include up to 65% reduction in energy loss for a 4-drone charging system, over 60% cost savings via a polyphase charging network, and enhanced charging capacity to meet operational demand, all informed by ongoing stakeholder-informed analysis.

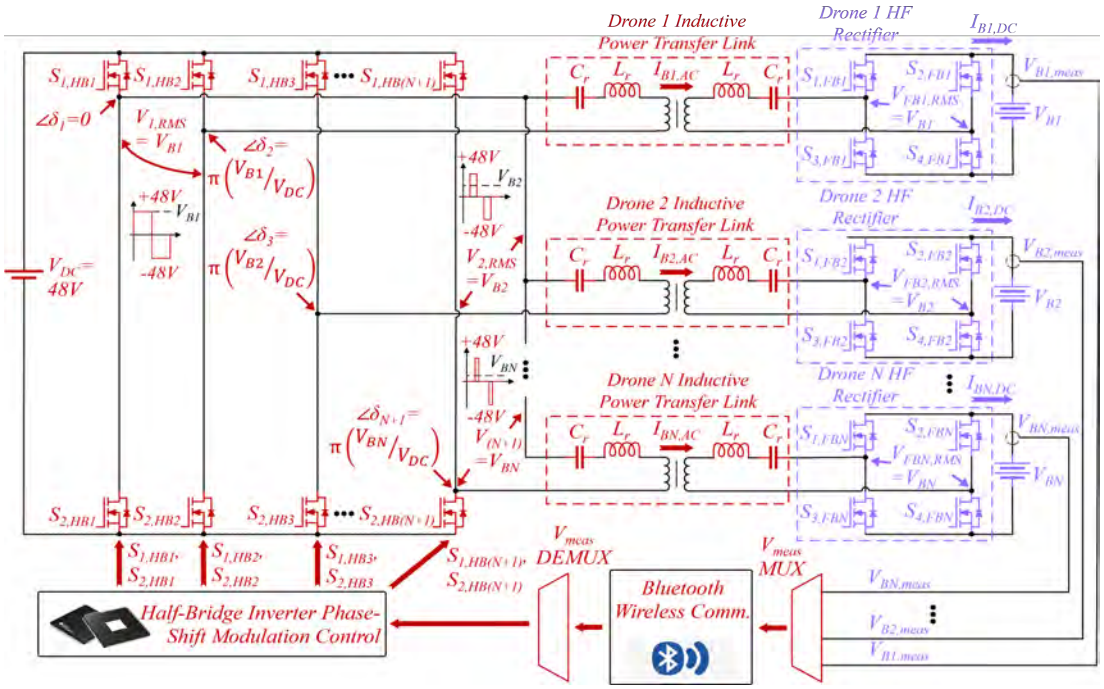


Fig. 2. Power converter and control system schematic for the proposed IPT-based MD-WCS

Its potential Dual-use Applications: The technology is well-suited for logistics and surveillance industries where drones must stay operational for extended periods, eliminating manual docking and cable connections. Key dual-use applications include:

(a) Defense and National Security: (i) Tactical ISR: Sustain drone fleets for intelligence, surveillance, and reconnaissance without manual recharging; (ii) Base Security: Automatically recharge perimeter-patrolling drones at forward bases or critical infrastructure.

(b) Civilian and Commercial: (i) Public Safety & Emergency Response: Maintain drones for wildfire monitoring, disaster mapping, and search-and-rescue; (ii) Agriculture: Support continuous drone use for crop health analysis and precision farming; (iii) Urban Air Mobility (UAM): Provide scalable charging for future air taxis, delivery drones, and infrastructure inspection.

TRL Stage and Preliminary Validation Effort: The technology currently stands at TRL 2, as the multi-drone wireless charging concept has been functionally validated through simulations. By month six of this project, the goal is to advance it to TRL 4 through breadboard hardware validation conducted in the PI's laboratory at ASU. The development and validation process will encompass the following tasks:
(a) *Full-scale electrical and thermal co-simulations of MD-WCS*: The charging network will be electrothermally simulated for different battery voltage levels (12V, 24V, 48V) and discrete charging power levels (100W, 500W, 1kW) to compute the voltage and current stresses and component-wise heat loads.
(b) *Transmitter and Receiver Coil Design Optimization*: This task will use ANSYS finite element analysis (FEA) Maxwell simulations to evaluate various coil winding geometries. The goal is to identify a design

that achieves a Pareto-optimal trade-off between coil AC resistance and coupling factor, assessed under three degrees of transmitter–receiver pad misalignment.

(c) *Hardware prototyping and experimental validation*: This task involves developing the PCB schematic and layout, designing thermal management, and physically realizing the transmitter and receiver coils, including 3D-printed coil formers, for a 2-drone WCS lab prototype. The system will be experimentally validated with 12 V and 24 V battery packs at 100 W and 200 W, corresponding to two commercial drones at separate output ports, across coil-to-coil distances ranging from 10 cm to 20 cm. Notably, Dr. Mallik's team from Univ. of Maryland has prior experience in developing a 3.3kW lab-scale IPT system (see **Fig. 3**) for EV charging application, which exhibited a 94% efficiency at a 15 cm coil-to-coil distance.

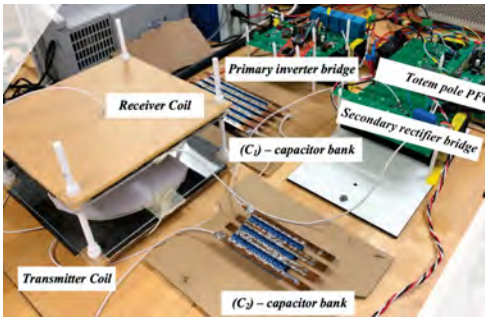


Fig. 3. 3.3kW lab-scale IPT system for EV charging

The Phase-I deliverable is a TRL-4 proof-of-concept hardware benchtop demonstration of a 95% efficient, 300W-rated IPT DC-DC stage, charging two drone batteries with nominal voltages of 12V and 24V.

Commercialization Efforts: PI Dr. Mallik and Connor Reece (PhD student and GRA) co-founded Maxsim LLC—an ASU spinoff registered in AZ which will drive commercialization of this technology in Phase II and beyond. Intellectual property arising from the IPT MD-WCS system will be submitted as invention disclosures to ASU's Skysong Innovations, advancing to provisional and then non-provisional patent filings. A cooperative license agreement with Maxsim will then be set up to enable commercialization. There is not any multi-drone wireless charger in the market. There are only three US-based companies i.e., WiBotic, Magnetika, and Powermat that offer wireless charging products for drones, which however are limited only up to 300W and 85% efficiency. By contrast, the proposed MD-WCS supports multi-drone charging up to 1 kW at 95% efficiency, providing a step-change improvement. Market research indicates the global drone battery charging station sector, valued at USD 0.5 billion in 2024, is projected to grow at a 6.5% CAGR through 2030. The initial beachhead market will be single-service wireless charger product sales to OEMs like WiBotic and Powermat, with MD-WCS offering 3× higher energy savings and >60% cost reduction versus current solutions. Maxsim will also license IP to leading U.S. drone charger OEMs within 12 months of project start. Capturing just 5% of this market with a 10% royalty could yield ~$400k in annual revenue in year one. For the B2C segment, Maxsim will engage defense contractors (e.g., RTX, Boeing, Northrop Grumman) and commercial drone manufacturers (e.g., Amazon Prime Air, Wing, Zipline). The B2B segment targets technology integration with wired charger OEMs such as Colorado Drone Chargers, Xpece, DJI, Tenergy, and Skydio, supporting dual-use applications and addressing DoD capability gaps. In Phase-I, the team will develop a market analysis, business plan, and manufacturing plan; this includes estimating the cost to design an early-stage development (i.e., a beta product) assuming that at the conclusion of this Phase-I, the prototype will be at the alpha stage. A beta design must meet manufacturability goals, cost targets, and reliability metrics – all identified through customer discovery. Customer discovery will unveil beachhead market segments and define charging system specifications for Phase II demos. A manufacturing strategy will also be developed and if the product is to be manufactured in house, tooling, space, and headcount estimates will be finalized. The revenue generation strategy combines IP licensing with B2B and B2C sales of the drone IPT battery charger hardware, or its components or subsystems supported by scalable production and reconfigurability.

Alignment with one or more AOIs: This >98% efficient multi-drone WPT charging system supports UAV electrification by extending endurance, removing bulky plug-in interfaces, and improving propulsion efficiency. It aligns with advanced propulsion and electrification domains, driving innovation in power electronics, magnetics, and control. Coordinated charging enables automated fleet operations, while future integration with power grids offers load management and resilient, scalable energy infrastructures, accelerating electrified aerial mobility.

PI and Team Qualifications

The team is comprised of three members – Ayan Mallik as an entrepreneurial lead, Connor Reece as a technical lead, and David Gross as an industry mentor.

PI Dr. Ayan Mallik is an Associate Professor at Arizona State University. He holds a PhD in Electrical Engineering from the University of Maryland – College Park. Dr. Mallik is currently leading a power electronics research lab with 11 graduate students, projects of >$8M funding, and about $1M annual research expenditure. Prior to joining ASU, Dr. Mallik was a Senior Power Electronics Design engineer at AmpX Technologies at College Park, MD that focuses on development of next-generation charging and power conversion technology for EV, home, and infrastructure. At AmpX, Dr. Mallik served as the PI of a National Science Foundation (NSF) Small Business Innovation Research (SBIR) Phase-I grant titled "SBIR Phase I: Integrated Onboard Charger and Auxiliary Power Module for Electric Vehicles". After joining ASU, Dr. Mallik collaborated with several small-businesses across the country over 10 SBIR/STTR Phase-I/II projects related to power electronics totaling over $3M funding supported by NASA, DOE-SETO, DOE Office of Science, and DOD-Army SBIR programs. Further, Dr. Mallik has served as a technical advisor to several EV and semiconductor-related small businesses in and outside of Arizona.

Dr. Mallik formed a startup named MAXSIM which is an ASU spinoff with both software and hardware-based extensive capabilities in development of high-performance power electronics for applications related to defense, space, aerospace and electrifications. Maxsim will lead commercialization in Phase II and beyond, with IPT MD-WCS intellectual property filed through ASU's Skysong Innovations, progressing from provisional to non-provisional patents, and licensed back to Maxsim for market deployment. Maxsim's first product was a power electronics design automation tool that is customizable to various power converter systems, which has been patented as an international (PCT) application and is currently under license negotiation phase with Skysong Innovations – the technology commercialization office of ASU. Maxsim participated in the Inventors PLUS faculty cohort, facilitated by seasoned venture mentors to receive specialized training on business strategy, finance, and customer acquisition. Maxsim participated in NSF regional I-Corps 2024 and interviewed over 20 customers to explore the business potential of the power electronics design automation software, in which Dr. Mallik served as the team's technical lead.

On the academic's side, Dr. Mallik's research interests include modeling and control of complex multi-order power converters, switching modulator optimization, multi-objective design optimization of power electronics systems, EMI modeling and active filtering solutions, highly efficient and high-density wide bandgap power conversion solutions in the applications of various clean energy systems, including transportation electrification, extreme environment space, grid-integration of renewables and storage, among many others. Dr. Mallik is an author/co-author/co-inventor of over 120 peer-reviewed publications and 6 pending/issued US Patents. He is a recipient of various awards and recognitions, including the National Science Foundation (NSF) CAREER Award in 2023, ASU Fulton School top 5% teaching recognition award (2023, 2024, 2025), featured author in IEEE Xplore (July 2024), IEEE Transactions on Power Electronics Prize Paper Award in 2023, first place winner in the "Help Others ProgrammE (HOPE)" competition organized by the IEEE Industrial Electronics Society (IES), the first place in Dean's Doctoral Dissertation Award Competition at UMD in 2019, UMD ECE department's distinguished dissertation award (2019), the University of Maryland's Invention of the Year Award in 2018, Jimmy H.C. Lin invention award (2018), the third place in Allegheny Region Cleantech University Prize Collegiate Competition in 2017 sponsored by the U.S. Department of Energy, and numerous best paper awards in IEEE conferences, among many others.

In this project, Dr. Mallik will actively work on the IP generation and patenting, customer discovery, pain points identification, understanding the market potential of this technology, refining its value proposition, and identifying both commercial and defense stakeholders for commercialization with a tentative lab-to-market plan briefly outlined in **Fig. 4**. He will be further responsible for providing technical inputs on tasks related to converter- and system-level modeling, control, and optimization of the wireless

charging system, its hardware development, and experimentation related research activities and will oversee the project progress to ensure timely deliverables.

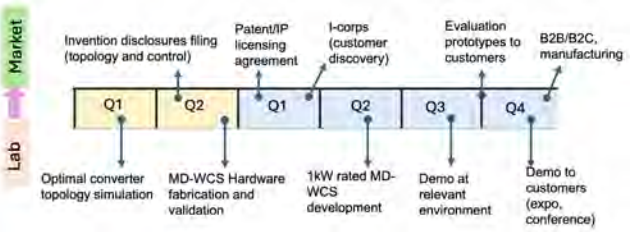


Fig. 4. Lab-to-Market transition pathway in Phase-I and beyond (yellow boxes – phase-I and blue boxes indicate phase-II)

The graduate researcher who will be working on this project is Connor Reece. Connor received the B.S.E. degree in electrical engineering from Arizona State University (ASU), Tempe, AZ, USA, in 2017. He is currently working toward the Ph.D. degree in systems engineering with ASU, Polytechnic Campus, Mesa, AZ, USA. From 2016 to 2021, he worked on electronic control units for auxiliary power units, actuation control units, and brake control units with United Technology Aerospace Systems, Phoenix, AZ, USA. Since 2021, he has been working on electronic control unit development, lithium-ion battery engineering, and analog/digital/power supply avionics for satellites with Northrop Grumman Corporation, Gilbert, AZ, USA. His research interests include developing electromagnetic interference modeling and computation for power converters utilizing wide bandgap semiconductors, and power converter design and control for PFC and isolated DAB/CLLC converters in electric vehicle applications.

Connor is a co-founder of Maxsim and served as the entrepreneurial lead of NSF I-Corps team, interviewing over 30 customers during the I-Corps cohort. Further, Connor has experience in early-stage start-up company development, having successfully won funding for a now dissolved company LED UVision for which he was a co-founder. While working on the development of LED UVision he participated in the creation of pitch decks, conducted market research, conducted customer interviews and focused on developing customer relations, and further worked on the development of an indoor air quality monitoring system hardware prototype in accordance with ASHRAE standard guidelines. He and the founding team participated in both ASU's Venture Devils program, and in the Spring 2022 ASU NSF I-Corps Site Spring 2022 Five-Week Training Program. The team successfully won funding from participating in the ASU Venture Devils program and learned many valuable insights regarding available resources for start-up development, learning how an industry ecosystem works, the customer discovery process, customer hypothesis testing, and how to create flexible business model plans.

Connor as the technical lead of this project will be responsible for converter- and system-level simulations, transmitter and receiver coil design optimization followed by its physical realization, converter hardware prototype development, and experimental validation at different battery voltage charging cases.

David Gross, with BS and MS in Electrical Engineering from Rensselaer Polytechnic Institute and Brooklyn Polytechnic Institute, respectively, is the Chairman of the CoolCAD Electronics Board of Directors and leads a private investment group called DEG Ventures. His experience includes: senior management; strategic and technical direction; business development; fund raising; and mergers and acquisitions. His entrepreneurial experience includes the founding of DRS Technologies, Cryptek, RaySat, WeldObot and currently co-founder of Algometrex, a Medical Device Company. David was selected by the Navy to chair a major Government/Industry study to develop "New Directions in ASW Signal Processing and Display". As DRS' revenues and profits increased, Gross led the Company to an IPO in the early 80's and DRS ultimately achieved annual revenues of USD $3 billion. David has served as NSF I-Corps mentor for Maxsim, and will be working towards customer networking, business model formulation, commercialization of the beachhead products, and further funding acquisition for this technology as an industry mentor.

The simulation and experimental activities including proof-of-concept hardware development as part of the proposal research tasks will be conducted in Dr. Mallik's power electronics lab at ASU.

Dr. Mallik's Facility at ASU:

Dr. Mallik (PI) leads the Power Electronics and Control Engineering (PEACE) Laboratory, which spans approximately 1,800 square feet across the Technology Center building and the Interdisciplinary Science

& Technology-12 (ISTB-12) building at The Polytechnic School campus of Arizona State University. The lab houses eight computers (2 Intel i9 Core and 6 Intel Core i7-10700 systems with 8 cores, 16M cache, base speed of 2.9 GHz, and up to 4.8 GHz, each with 16GB DDR4-2933 RAM and a 512GB solid-state drive) dedicated to supporting the PI's PhD students.

Major Instrumentation Resources: The laboratory (see **Fig. 5**) is fully equipped with state-of-the-art power electronics tools and resources essential for conducting the proposed research, and powered by 120V/20A 1-ph, 208Vac/50A 3-ph, 480Vac/60A 3-ph receptacles.

- *Software Packages*: Full version of software packages available for MATLAB/Simulink, PSIM, LTSpice, CoolSPICE, PLECS, Altium Designer, CCS V6 (DSP Programming), Solidworks, ANSYS Icepak (thermal simulations), ANSYS Maxwell and Q3D for simulating magnetics and EMI parasitics.
- *DC/AC Power Supplies/Loads*: Programmable DC power supply and solar PV simulator of various



Fig. 5. Dr. Mallik's power electronics test facility (>2,000 sq. ft, 30kW) at ASU

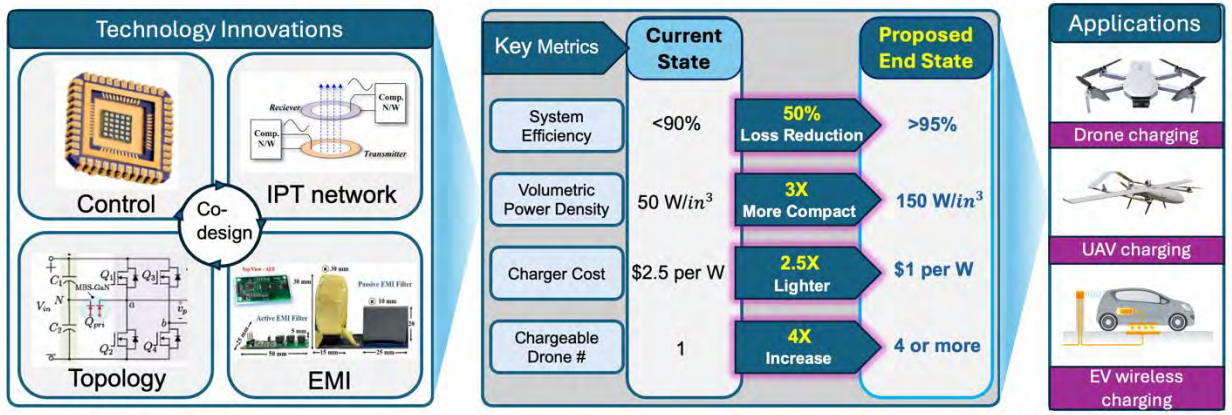
capabilities including Magna-Power TS Series (15kW, 1000V,15A) with solar array emulator; ADG-L-1000-45-15 Preen DC Power Supply (15kW), ITECH 15kVA regenerative grid simulator, AC programmable sources including Chroma 61605, 4kVA,0-300V, 15-1000Hz (Single phase), APT instruments 300xAC power supply, 2 kVA, 0-300V, 40-1000Hz (Single Phase), Pacific Power Source 390AMXT 3-phase AC, 9kVA; ITECH DC electronic load, Programmable DC electronic load Chroma 63212-1200-480 (along with Battery emulation mode) to achieve 12kW max 0-1200V, 0-480A.

- *Benchtop Supplies/Measurements*: Benchtop power supplies from BK Precision (model-1761) and Owon Technology, Power analyzers (Yokogawa WT1800, Hioki PW3337-03), Gwinstek LCR meters (for impedance measurement), real time spectrum analyzer (Tektronix RSA503A, Rohde & Schwarz FPC1500), FLIR E6 thermal camera, thermal oven (from Across International).
- *Oscilloscopes*: High-sampling oscilloscopes and high-frequency low-voltage and high-voltage and current probes, including Tektronix MDO34 3-BW-1000-MDO (1GHz), Tektronix MSO46B 4-BW-500 (500MHz, 6 channel), Keysight DSOX3024T (5GS/s), Tektronix TEK-MSO44-4 Series Mixed Signal Oscilloscope (350MHz, 6.25GS/s), Tektronix MDO 3014 (100MHz), RIGOL DS7034.

“High-Efficiency Low-Cost Multi-Drone Charging System for Extended Mission Endurance”, submitted by ASU PI: Prof. Ayan Mallik

Project Category and Innovations

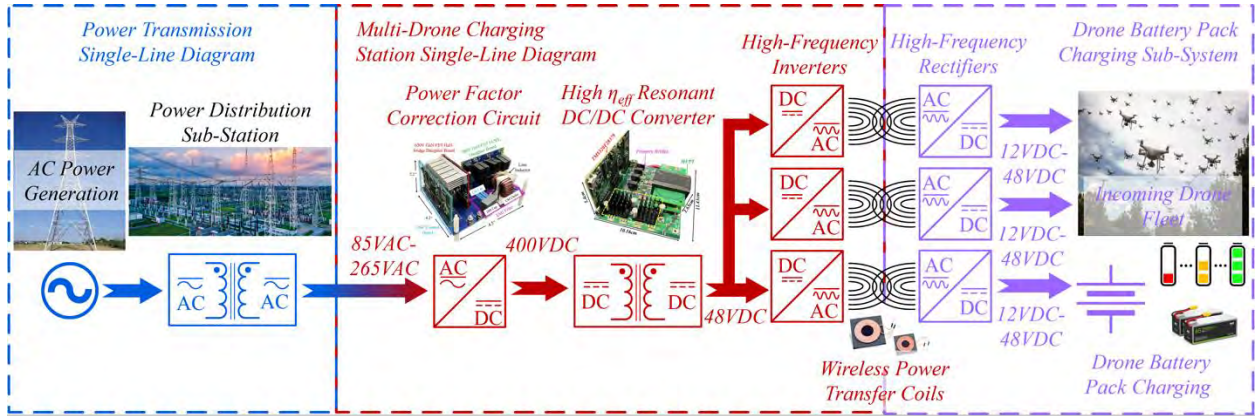
Category: Advanced Propulsion Systems; Electrification & Power Systems



Technology and Product Description

Current TRL: 2 | **End of Phase-I TRL: 4**

Multi-Drone Wireless Charging System for Fast, Efficient Fleet Battery Management



Objectives and Technical Risks

End state goal: Ultra-compact 1kW-rated drone fleet wireless charging system for simultaneous charging of 4 or more drones with battery voltages up to 48V; 60% lower power losses

Phase-I objectives: The Phase-I deliverable is a TRL-4 proof-of-concept hardware benchtop demonstration of a 95% efficient, 300W-rated IPT DC-DC stage, charging two drone batteries with nominal voltages of 12V and 24V.

Major Technical Risks	Mitigation Strategies
Foreign object intrusion in coil area	Output current/voltage sensing information-based anomaly detection followed by PWM blanking for blocking power transfer.
High current stress on the reference phase leg devices	Paralleling of multiple FETs to realize each switch in the reference phase leg to reduce conduction loss and improve thermal performance.

Project Team

Points of Contact

Primary:

Name: Ayan Mallik
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[Entrepreneurial Lead]; Co-Founder of Maxsim LLC
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Secondary:

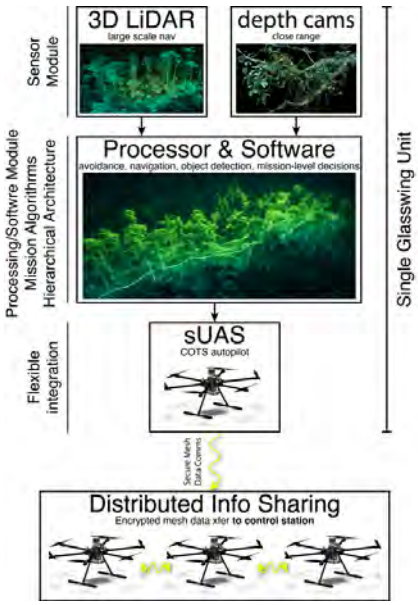
Name: Connor Reece
Position/Title: PhD Student at ASU and Electrical Engineer at Northrop Grumman
[Technical Lead]; Co-Founder of Maxsim LLC
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Glasswing: Modular UAS Autonomy for Complex and GPS-Denied Environments

Technology Innovation and Problem Statement

The Glasswing project started from a need to map dense forest understories in 3D at scale. Terrestrial LiDAR is the gold standard for quantifying forest structure for carbon monitoring, verification and reporting in the carbon market, but it is slow, expensive, and fails to capture upper canopy structure. The carbon market, forest managers - and the world - need a better way to measure forest carbon, fire fuels, and biodiversity. Glasswing - a modular system that attaches to Unoccupied Aircraft Systems (UAS) to enable safe and intelligent autonomous navigation of dense forest understories - directly addresses this need by enabling autonomous 3D mapping of top-to-bottom forest spaces at scale.



The scale of the environmental challenge is large. Over 50 million acres of western U.S. forests require management to reduce wildfire risk, but current monitoring tools are grossly inadequate. We discovered, at a recent meeting with the Salt River Project, that they fly 50,000 acres with LiDAR-equipped helicopters to monitor forest health, and still cannot adequately map the understory.

Glasswing, it turns out, also addresses a critical gap in defense: the inability of current UAS to operate safely in dense, complex, GPS-denied environments such as forest understories. Think: downed personnel in tropical USINDOPACOM forests that need to be located; or ingress/egress routes in these ecosystems need to be planned in advance. Current options to gather environmental intelligence include satellite or reconnaissance flights that cannot map under the canopy, or sending in troops blind.

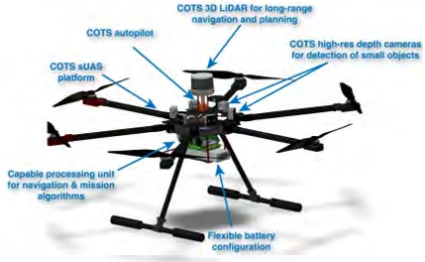
Glasswing is a **modular autonomy (software) and sensing (hardware) stack** that enables small UAS to fly safely and autonomously under canopy using multi-scale perception fusion and formal safety guarantees. LiDAR and depth sensing provide mapping and obstacle detection, while a Control-Barrier-Function (CBF) safety layer enforces collision avoidance even under degraded perception. Operators issue high-level mission commands; the platform manages local navigation. Compatibility with PX4/MAVLink ensures rapid deployment on commercial airframes.

The core innovation of Glasswing lies in pairing learned, reactive control from high-resolution closeup sensors with a formal safety layer and a larger scale planning layer based on traditional LiDAR, all tuned for cluttered natural environments. Unlike vision-only systems that fail with thin branches or variable lighting, Glasswing modulates speed and maintains safe stand-off. A hybrid navigation system shifts between global SLAM (Simultaneous Location and Mapping) and reactive avoidance as conditions demand. This directly aligns with ACA Areas of Interest in Alternative Navigation & PNT, Autonomy & Intelligent Control, AI/ML, and Digital Twin/Modeling.

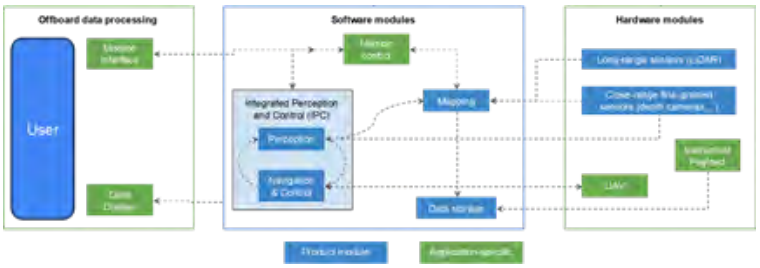
Technical Approach and Implementation Strategy

Glasswing is currently at **TRL-3**, with components validated in bench and simulation environments. Research at Northern Arizona University (NAU) has defined perception and navigation requirements unique to understory flight. The current on-board computer is a COTS Intel i5 NUC, sufficient for real-time LiDAR/depth fusion, SLAM, and CBF control at the slow, safe speeds needed in dense clutter. Jetson-class alternatives may be evaluated later but are not in scope here.

Glasswing's architecture arises from three core challenges:



Glasswing prototype option 1



Hierarchical autonomy system architecture

- **Perception across clutter and lighting:** LiDAR maps global geometry; stereo/IR depth sensors detect fine obstacles across deep shade and bright sun found in deep understories.
- **Navigation without GPS:** A hierarchical SLAM system extracts stable features (e.g., trunks) for long-term mapping while maintaining a local occupancy grid. SLAM also, conveniently, builds the 3D maps we need as it navigates.
- **Safety under uncertainty:** The CBF layer adjusts speed and enforces conservative margins when perception confidence is low.

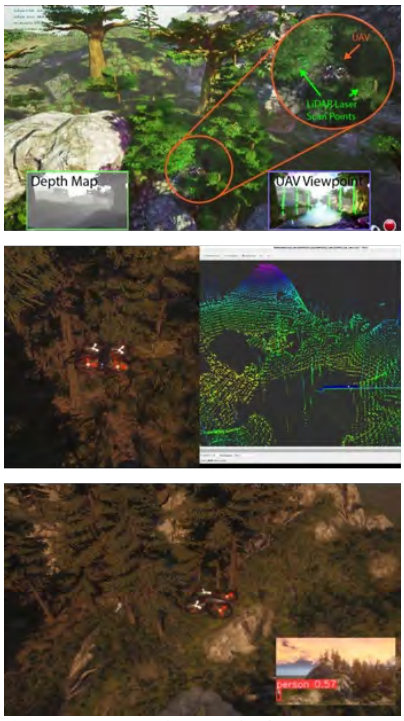
The six-month ACA project will advance TRL-3 to TRL-4 through three phases:

Integration (Months 1–2). Hardware/software integration of LiDAR, depth, IMU, and NUC stack; ROS2 + PX4 interfaces; calibration and failsafes. *Exit criteria:* <50 ms control loop latency; safe degradation when sensors fail.

Simulation/Benchtop Validation (Months 2–3). Validate performance targets: <1% SLAM drift over 200 m; >90% detection of ≥3 cm obstacles at 2 m; <1% false negatives at 0.3–0.5 m/s.

Controlled Flight Testing (Months 3–5). Indoor netted cage tests at NAU followed by outdoor trials at Chimney Springs forest site. Increasing obstacle density, lighting variation, and waypoint complexity. Metrics include hover stability, obstacle avoidance, drift accumulation, and power consumption.

Final Month. Synthesis into a **Technology Validation Brief** documenting TRL advancement with metrics, logs, and demonstrations. Submit an **invention disclosure** to NAU's Technology Transfer Office on novel safety and sensor-fusion methods.



***(a)** AirSim simulation platform with simulated sensor suite and software module; depth maps are from depth cameras.*
***(b)** Simulated drone successfully creates terrain map from LiDAR SLAM algorithm.*
***(c)** Person is detected via object recognition in the understory.*

Validation Plan and Field Testing

Validation will follow progressive risk reduction: controlled indoor cage → outdoor forest lanes with ground-truth LiDAR. NAU's ECOSAIL Lab owns a Riegl VZ-600i terrestrial laser scanner to serve as the "truth" against which Glasswing-produced maps will be gauged. Indoor trials confirm basic hover, waypoint hold, and avoidance. Outdoor trials test waypoint navigation through clutter, response to dynamic obstacles, and drift over longer paths. All telemetry (confidence scores, control authority, safety-radius compliance) and 3D maps will be logged for analysis.

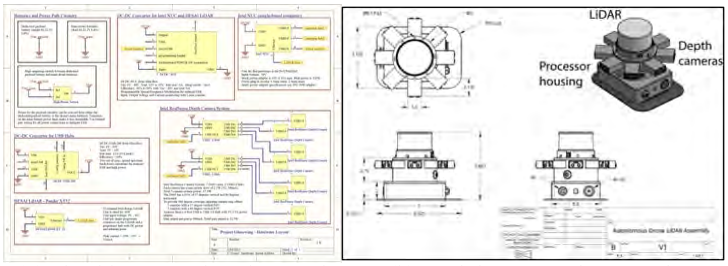
Benchmarking against open-source autopilots and modified commercial platforms will quantify improvement. Expected differentiators: stable flight in GNSS-denied areas where others fail, navigation through passages narrower than twice the vehicle width, avoidance of small objects that other systems would collide with, and robust performance under deep shade to full sun.

The **Technology Validation Brief** will present statistical summaries of success rates, detection ROC, drift distributions, and energy/compute budgets, along with identified failure modes and mitigations. Together, these outputs will provide transparent evidence for TRL-4 advancement.

Dual-Use Market Opportunity

Glasswing addresses three validated markets:

Defense. ISR/SAR in dense terrain, SERE training, and route reconnaissance. Payload modularity supports EO/IR and thermal sensors while on-edge processing minimizes signatures and reliance on comms.



(a) Flexible power distribution design, (b) Modular sensor housing design

Wildfire Management. Federal/state agencies need affordable, frequent understory fuel assessments. Manual plots cost >$1,000 each yet cover <0.01% of areas. Glasswing can map ~100 ha/day, providing inputs to fire models like FARSITE and FlamMap.

Carbon and Conservation. Voluntary carbon markets (>$2B today; projected $50B by 2030) demand repeatable, verifiable tree-level MRV data. Glasswing provides structural measurements for carbon projects and habitat mapping for conservation.

Competitive Landscape

No existing platform reliably delivers understory autonomy. **Skydio** is effective in structured environments, but weak in irregular forest geometry. **Emesent Hovermap**s has strong SLAM for mining/infrastructure, but is not vegetation-adapted. **Treeswift** uses LiDAR to focus on forestry applications, emphasizing tree trunks for inventory and biomass allometries. While effective for commercial forestry, they overlook fine-scale structure, understory fuels, and contested conditions where formal safety guarantees and dual-use mission autonomy are essential. Glasswing is designed specifically to address those gaps. **Darkhive** & **Draper** pursue defense autonomy without specific adaptation to cluttered natural settings.

Glasswing differentiates through formal safety (CBF), understory-tuned hierarchical perception, and ecology-grade data.

Arizona Leadership and Program Synergies

Glasswing is led by NAU's **Ecosystem Science and Innovation Lab (ECOSAIL)** within the School of Informatics, Computing, and Cyber Systems. Assets include:

- **Indoor netted space** (SICCS first floor) for early, low-risk testing
- Chimney Springs field site
- Riegl VZ-600i Terrestrial Laser Scanner
- **Monsoon HPC cluster** for point-cloud and autonomy workloads

NAU partnerships with the Ecological Restoration Institute and the Southwest Fire Science Consortium provide direct end-user pathways. A pending DoD FOA (W911NF25S0005) proposal for instrumentation ("Advanced Drone Simulation Facility for Autonomous Navigation and Planning"), if awarded, will enhance simulation/testing capacity and complement ACA's field validation focus.

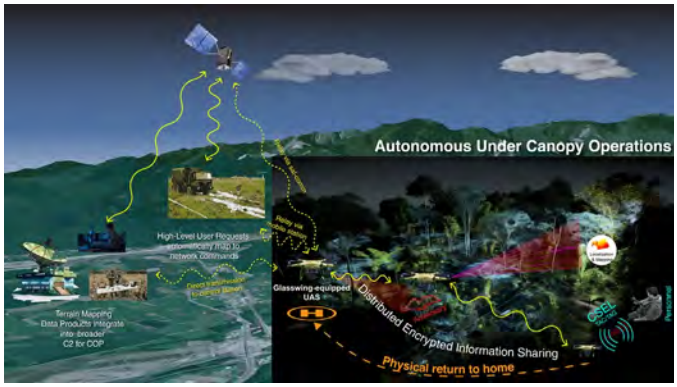
Deliverables and Budget

ACA deliverables: *Technology & Mission Alignment Roadmap* (defense + commercial segments), *Technology Validation Plan and execution* (bench, sim, and flight tests), *Technology Validation Brief* with TRL-4 evidence, and *IP & Commercialization Plan* with invention disclosure to NAU TTO.

Budget allocation ($75k direct costs, 6 months): Personnel: ~$35k for GRAs, faculty, and engineering support; ~$25k for sensors, airframe parts, compute, nets/cage; Testing & Travel: ~$10k for field campaigns and stakeholder demos; TTO/IP: ~$5k for disclosure preparation and commercialization planning.

Expected Impact

By the end of the ACA performance period, Glasswing will: Advance from TRL-3 to TRL-4 with validated metrics and demonstrations; Deliver a complete Technology Validation Brief for defense and commercial stakeholders; File an invention disclosure with NAU's Technology Transfer Office; Position NAU and Arizona as leaders in dual-use autonomy for challenging natural environments; and Submit a DoD STTR Phase I and seek investment funding.

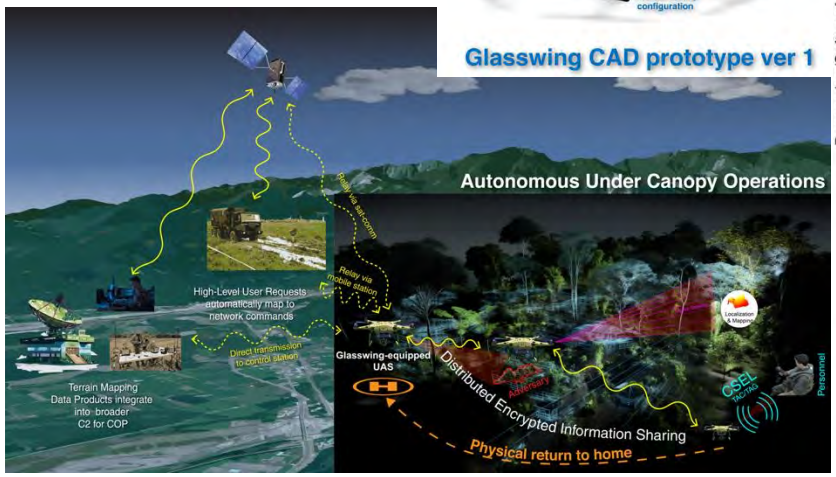


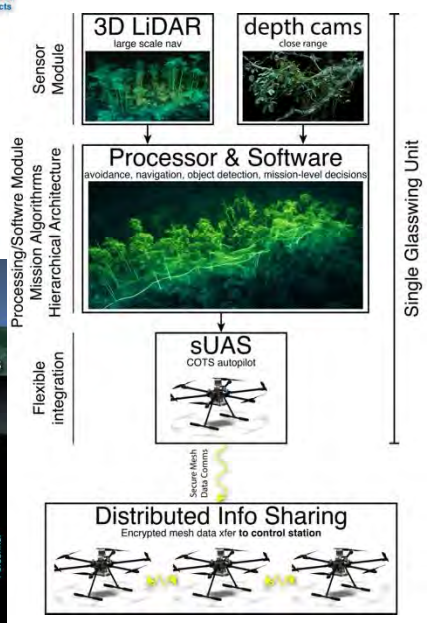
OV-1 diagram for Glasswing's role in DoD ISR/SAR

Category: Robotics, Autonomy & Intelligent Control, Alternative Navigation & PNT, Digital Twin/Modeling



Glasswing CAD prototype ver 1





Glasswing Description

TRL: 3

Glasswing: Modular autonomy + sensing stack for **safe under-canopy UAS** flight, navigation, planning, and mapping.

Hierarchical control: LiDAR-based SLAM for global geometry + **stereo/active-IR depth** for **map-less local trajectory planning** and fine-clutter detection/avoidance (twigs/branches).

Formal safety: Control-Barrier-Function (CBF) layer enforces stand-off and speed caps based on perception confidence; safety-envelope **logging for V&V**.

On-edge compute: COTS Intel i5 NUC, control loop **<50ms**; **PX4/MAVLink** compatible; payload-agnostic (**EO/IR/thermal**); **quick-swap sensor tray** for mission re-role.

Comms-lean by design: Operates in **GNSS-/comms-degraded** environments with **minimal datalink dependency**; supports supervisor-in-the-loop C2 when available.

Why we win: Built for **small-dimensional clutter** + **HDR lighting** + **GNSS denial**; produces **ecology-grade structure/fuels outputs** and **ISR/SAR-ready maps**, streaming into **digital-twin** workflows.

Objectives

O1 (Wk1–4): Full stack on airframe; **<50 ms** loop; BOM/calibration done.

O2 (Wk3–8): Indoor netted **6–8** sorties; **0 collisions**; **CBF** triggers/near-miss logs; injected faults → graceful response.

O3 (Wk7–18): Forest lane **6–8** sorties; **drift ≤1% / 150 m**; **≥85% detect ≥3 cm @ ≥1.5 m**; **≤2% FN**; **≥99%** safety-radius compliance.

O4 (Wk19–24): Validation Brief (TRL-4) + datasets/plots/videos; ICD/code tag; **invention disclosure**.

Stretch: drift ≤1% / 200 m, **≥90% detect @ ≥2 m**, **≤1% FN**.

Points of Contact

Primary

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Secondary

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Mobile Tel #: 928-699-4428

This document is to contain unclassified, publicly available information only.

Team Qualifications: NAU Glasswing Research Team

Principal Investigator: Dr. Alexander (Allie) Shenkin

Assistant Research Professor, School of Informatics, Computing, and Cyber Systems (SICCS), Northern Arizona University; Director, Ecosystem Science & Innovation Lab (ECOSAIL).

Training

- PhD, Interdisciplinary Ecology, University of Florida
- MEsc, Environmental Science, Yale University
- MEng, Electrical Engineering, University of Colorado
- BS, Engineering Physics, University of California, San Diego

Experience & Achievements

- R&D Engineer, Lockheed Martin Western Development Labs
- Senior Design Engineer, Precision Microwave Components
- Postdoctoral Research Scientist, University of Oxford (2013–2021)
- PI and Co-PI on multiple federal and state research awards, including USDA NIFA award "Clearwing" supporting under-canopy autonomy research at NAU
- Published 60+ peer-reviewed papers across ecology, engineering, and remote sensing, including a 2024 Nature article on methane uptake by tree bark
- Associate Editor, *Frontiers in Forests & Global Change*

Selected Publications (relevant)

- Gauci, V., Pangala, S. R., Shenkin, A. F., et al. (2024). *Global atmospheric methane uptake by upland tree woody surfaces*. Nature.
- Shenkin, A. F., Calders, K., Disney, M. I., Origo, N., Burt, A., Raumonen, P., et al. (2020). *Quantifying tropical forest structure through terrestrial and UAV laser scanning fusion in Australian rainforests*. Remote Sensing of Environment.

Entrepreneurship & Innovation Training

- NSF I-Corps (regional) and Moonshot Academy alum
- ARC Accelerator (Oxford) alum; 1st place, Oxford Innovation Challenge (2021)

ACA Role

Technical lead for Glasswing: autonomy integration, LiDAR/depth fusion, SLAM/CBF safety development, validation, and IP disclosure. Responsible for Technology Validation Brief and invention disclosure deliverables.

Co-Investigator: Dr. Michael Shafer (Mechanical Engineer)

Associate Professor of Mechanical Engineering; Director, Dynamic and Active Systems Lab (DASL); Associate Dean, Sanghi College of Engineering, Northern Arizona University.

Expertise & Achievements

- Robotics, biomechanics, and mechatronics with >$5M in federally funded research (NSF, DoD, NIH)
- SBIR Phase I awardee; experience transitioning lab prototypes to funded commercial applications
- Directs DASL, a federally validated robotics lab with CNC machining, 3D printing, motion capture, and rapid prototyping facilities

Selected Publications (relevant)

- Shafer, M. W., Vega, G. S., Rothfus, K. M., et al. (2019). *UAV wildlife radio telemetry: System and methods of localization*. Methods in Ecology and Evolution.
- Shafer, M. W., Higueras-Ruiz, D. F., Feigenbaum, H. P., et al. (2021). *Cavatappi artificial muscles from drawing, twisting, and coiling polymer tubes*. Science Robotics.

ACA Role
Provides mechanical engineering leadership: airframe and payload design, ruggedization for forest deployment, vibration isolation for LiDAR/IMU, and development of tether/net test fixtures. Mentors students on mechanical systems integration.

Program Director: Amy Wolkowinsky, R.G.

Associate Director, ECOSAIL, SICCS, NAU.

Expertise

- Registered Professional Geologist with 15+ years' experience in hydrogeology, consulting, and climate-tech ventures
- Faculty lead for NAU's Graduate Certificate in Greenhouse Gas Accounting

Entrepreneurship & Innovation Training

- NSF I-Corps (regional) alum
- Moonshot Academy alum

ACA Role
Commercialization lead: customer discovery, stakeholder engagement, pilot site coordination, and integration of ecological and carbon-market requirements. Provides transition strategy linking research outcomes to Arizona's wildfire, forestry, and carbon stakeholders.

Student Researchers

Graduate and undergraduate students in SICCS and Mechanical Engineering contribute to Glasswing development.

- **Perception/SLAM:** ROS2/PX4 integration; LiDAR + depth fusion; drift/detection metrics
- **Autonomy & Testing:** Waypoint planning, safety-case logging, indoor netted and outdoor forest flights

- **Mechanical Systems:** Airframe design, sensor mounts, and field-ready payload housings under Shafer's mentorship
- **Data & Reporting:** Point-cloud processing on Monsoon HPC; preparation of the Technology Validation Brief

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Institutional Support

- **Facilities:** ECOSAIL lab; SICCS first-floor netted indoor space; Chimney Springs forest site with TLS ground truth; Monsoon HPC cluster
- **Commitment:** NAU provides lab space, student support, and compliance infrastructure to enable ACA deliverables
- **Alignment:** ACA work complements the USDA NIFA award and a pending DoD instrumentation proposal without overlap

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Management & Roles

- **PI (Shenkin):** Technical leadership, autonomy integration, TRL advancement, IP lead
- **Co-I (Shafer):** Mechanical systems integration, ruggedization, and prototyping lab resources
- **Program Director (Wolkowinsky):** Project management, commercialization, stakeholder liaison
- **Students:** Implementation, testing, reporting, and data curation

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Training & Workforce Development

ECOSAIL leverages NAU programs such as Interns-to-Scholars, LSAMP, and GEM to recruit and mentor diverse student researchers. This project will train the next generation of Arizona engineers and scientists in autonomy, robotics, and ecological sensing.

Commitment

The team commits to delivering:

- A Technology & Mission Alignment Roadmap
- A Technology Validation Plan with TRL advancement
- A Technology Validation Brief
- An IP & Commercialization Plan including an invention disclosure

Following ACA, the team will pursue an **STTR Phase I submission** and **seek investment funding** to accelerate commercialization and support broader pilot deployments. These efforts extend ACA's impact and establish a clear path from research to sustained federal, commercial, and private-sector support.

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Morphable Multicopter Uncrewed Aerial Systems (MMU)
PI: Hossein Rastgoftar, University of Arizona

1- Overview. The invention is a Morphable Multicopter Uncrewed Aerial Systems (UAS) or "MMU" with the ability of vertical and short take-off and landing (V/STOL). By being aggressively deformable and offering the capability of carrying multiple payloads, the MMU design will overcome the fundamental limitations of conventional fixed-geometry multicopters in maneuverability, endurance, and mission adaptability, enabling resilient operation in cluttered, contested, and resource-constrained environments. The **potential impact** of the new MMU technology includes close air support, air and fleet defense, logistics, anti-submarine & anti-mine warfare, and search & rescue.

The project will model and test the MMU for aggressive deformation in tight spaces, enabling distributed aerial payload transport and surveillance. The MMU combines **powered cells** (with rotors) and **unpowered cells (carrying payloads)**, connected via a morphable link–joint structure that allows safe continuum deformation and dynamic inter-rotor spacing (Figure 1).

2- Merit-based Significance. The proposed MMU concept offers the following advantages compared to the available copter-powered UAS:

Advantage 1: Precise Cell Location Control: Despite its dense connectivity, the MMU enables precise inter-agent distance measurements, supporting low-cost, accurate localization and reliable execution of affine transformations.

Advantage 2: Planar Structural Robustness: The proposed MMU provides significantly enhanced robustness to exogenous disturbances compared to conventional multicopter UAS, owing to its redundant power generation and structural rigidity across all planes orthogonal to the deformation plane.

Advantage 3: Scalable Payload Transport Capability: The MMU can stably carry multiple distributed payloads, while each payload is safely guarded by an enclosing cell. Also, the distribution of the payloads will not result in mass imbalance, which can be a problem for the existing multicopter UAS when carrying payloads.

Advantage 4: Deformation Capability: The MMU can safely deform to navigate narrow spaces. Its deformation follows the principles of continuum mechanics, modeled as affine transformations with distinct strain, rotation, and translation components, while principal strain is bounded for safety.

3- MMU Structure. The MMU consists of N cells defined by $V = \{1, \dots, N\}$. The cells can be divided

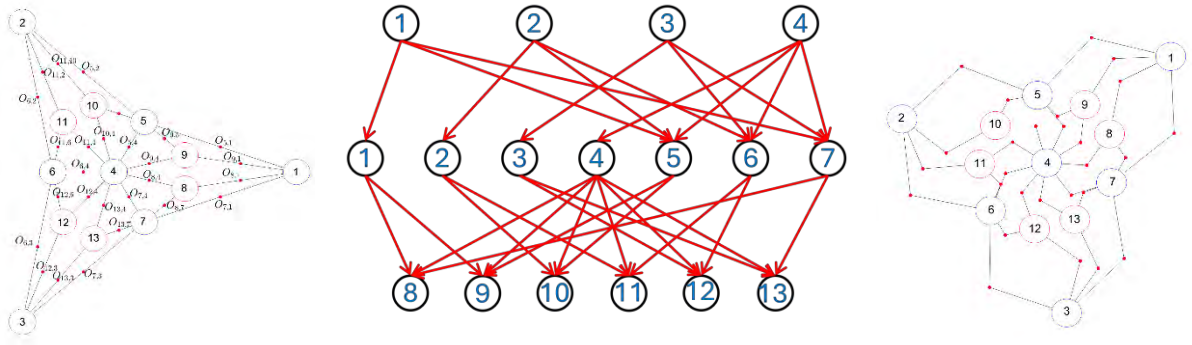


Figure 1: (**Left**) Reference configuration of a 13-cell MMU, where powered and unpowered cells are shown in blue and red, respectively. All elbow angles are set to $\theta_{i,j} = 0$ for every $i \in V$ and in-neighbor cell j. (**Middle**) Neural network-based interconnection topology comprising three layers: layers 0 and 1 correspond to powered cells, while layer 2 represents unpowered cells. (**Right**) Deformed configuration of the MMU under the learned interconnection and actuation.

into M groups, therefore, V can be expressed as $V = V_0 \cup V_1 \cup \cdots \cup V_M$, where:

- $V_0 = \{1,2,3\}$ defines boundary cells forming a triangle.
- V_0 to V_{M-1} are **powered cells**, each with an intelligent rotor.
- V_M defines **unpowered cells** that carry payloads.

For clarity, Figure 1(a) illustrates a 13-cell MMU with $V = \{1, \dots, 13\}$, grouped as $V = V_0 \cup V_1 \cup V_2$, where $V_0 = \{1,2,3,4\}$ and $V_1 = \{5,6,7\}$ are powered cells, and $V_2 = \{8, \dots, 13\}$ are unpowered. The resulting interconnections are defined by the neural network in Figure 1(b).

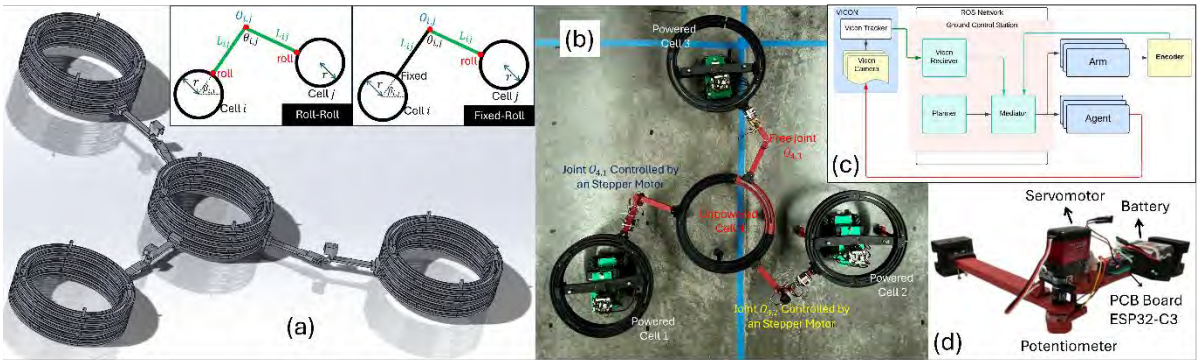


Figure 2: (a) MMU cell interconnection design enabling modular and reconfigurable assembly. (b) Example of an ATUGV with powered cells $V_0 = \{1, 2, 3\}$ and unpowered cell $V_1 = \{4\}$; cell 4 has in-neighbors $N(4) = \{1, 2, 3\}$, partitioned into regulated $N'(4) = \{1, 2\}$ and free $N''(4) = \{3\}$ joints. Elbow joints $O_{4,j}$ for $j \in N'(4)$ are motorized; joint for $j \in N''(4)$ is free. (c) Software stack for MMU sensing, control, and coordination. (d) Bar mechanism linking $i \in V \setminus V_0$ *to* $j \in N(i)$, equipped with servomotor, potentiometer, and PCB.

The MMU architecture employs a deep neural network (DNN) with specialized features (Figure 1(b)), to systematically structure the interconnections among its cells, where cell i in layer l is connected to three cells defined by $N(i)$ from layer $l-1$. This approach provides two key capabilities:

Capability 1 – Scalable Kinematic Control with Minimal Generalized Coordinates: The DNN-enabled structuring allows the MMU to scale seamlessly to an arbitrary number of N cells. The deformable motion of the entire system can be deterministically described using just $2N + 3$ generalized coordinates including:

1. *2N* positional components defining the location of each cell in the deformation plane.
2. One positional component capturing the MMU's altitude.
3. Two angular components representing the MMU's orientation in 3D space.

Capability 2 – Precise Cell Localization and Control: The MMU achieves precise control by defining its morphable motion through an affine transformation, derived from the trajectories of boundary agents. Cooperative localization with fixed communication weights, based on the reference configuration, is used to accurately localize cells.

4- MMU Architecture. All MMU's cells have the same radius r. Every cell i is connected to in-neighbor cell $j \in N(i)$ through the mechanisms shown in Figure *2*(a) with an elbow angle $\theta_{i,j}$. The elbow angle is set to be zero in the reference configuration, meaning the connecting bars are fully extended in the reference configuration. Given this, each of the two bars connecting cell i to cell $j \in N(i)$ has a length:

$$L_{i,j} = 0.5 \left(\left\| \mathbf{a}_i - \mathbf{a}_j \right\| - 2r \right), \quad i \in V \setminus V_0, \qquad j \in N(i)$$

that is computed from the reference configuration of the MMU where cell i is positioned at $\mathbf{a}_i$.

We impose constraints on cell interconnections to ensure (i) kinematic determinacy, (ii) collision avoidance, and (iii) MMU controllability for accurately tracking a desired affine transformation.

Kinematic Indeterminacy Requirement: To enable free planar motion regardless of total cell, count N (see Capability 1), each cell $i \in V$ is connected to at least three others without causing kinematic indeterminacy. Specifically, one bar on the outer surface of each cell is fixed, while the others are free to roll. This preserves local degrees of freedom essential for coherent global deformation.

Structural Collision Avoidance: We define multiple outer rails to improve the deformability of the MMU as shown in Figure *2*(a). This design ensures that the connection mechanisms do not operate in the same plane, and as a result collision between the connection mechanisms are avoided when the MMU deforms.

MMU Controllability Requirements: To ensure that the MMU can stably and accurately track a desired affine transformation, the following hardware and control design strategies are implemented:

- *Strategy 1: Elbow Angle Sensing for Localization:* Each elbow joint between connected bars is equipped with a potentiometer to measure the elbow angle, enabling precise cooperative localization. At time t, the angle $\theta_{ij}(t)$ is sensed for every cell $i \in V \setminus V_0$ and each neighbor $j \in N(i)$. This real-time sensing provides local geometric data essential for computing global transformations.
- *Strategy 2: Selective Actuation for Deterministic Control:* To avoid redundancy and simplify control, only two of the three connections between each MMU cell $i \in V \setminus V_0$ and its neighbors $N(i)$ are actively regulated via stepper motors at the elbow joints; the third remains passively rotatable. Thus, the neighbor set is partitioned as $N(i) = N'(i) \cup N''(i)$, where $N'(i)$ denotes the two regulated neighbors. This ensures actuation determinacy while enabling flexible global motion (see Figure *2*(b)).

5. High-Fidelity Modeling and Validation of the MMU. MMU is modeled as a nonlinear second-order system:

$$M(q)\,\ddot{q} + C(q,\dot{q})\dot{q} + G(q) = F$$

where q denotes generalized coordinates, F aggregates thrusts and joint torques, and M, C, and G represent inertial, Coriolis, and gravitational effects. This formulation enables rigorous evaluation of autonomy, safety, and resilience through both simulation and hardware validation by performing the following tasks:

Task 1 – Simulation of Dynamics and Resilience: A high-fidelity simulator will be developed to assess trajectory tracking, deformation control, and robustness to actuator/sensor failures, communication delays, structural degradation, and environmental disturbances. This will enable systematic validation of decentralized control under uncertainty.

Task 2 – Experimental Validation: A small-scale MMU prototype will be tested in flight to demonstrate hover, takeoff, forward flight, and landing using onboard sensing and control. Resilience will be evaluated under fault conditions and disturbances, supported by hardware-in-the-loop experiments. Formal safety will be enforced via Control Barrier Functions, with a hybrid supervisor adaptively reconfiguring modes to recover from unsafe states.

Task 3 – Cell Architecture Optimization: Using continuum mechanics and constrained optimization, we will determine the optimal distribution of powered and unpowered cells to minimize stress and instability under aggressive morphing, providing scalable design guidelines.

6. Technology Readiness Levels. The PI has recently published a US patent entitled Configurable unmanned aerial vehicle system, which provides the intellectual foundation for this novel MMU concept. Building on this foundation, the PI was awarded an NSF I-Corps grant (No. 2342354, I-Corps: Continuum-Deformable Multi-Copter-Based Uncrewed Aerial System), supporting the transition of continuum-deformable UAS technology from laboratory discovery toward practical deployment for low-altitude payload transport. As a preliminary proof-of-concept, the research team has successfully developed an Affine Transformable UGV (ATUGV) that demonstrates the feasibility of safe deformation while transporting distributed payloads ((Figure *2*(b-d)). The ATUGV integrates powered cells (driven by ground robots) and unpowered payload cells through a morphable mechanism governed by a deep neural network (DNN). Its performance has been validated through ROS-based simulations and hardware-in-the-loop experiments, establishing a clear progression toward flight-ready platforms. A demo video showcasing these results is available on the PI's YouTube channel (here).

7. Alignment with one or more AOIs. The proposed MMU advances **Autonomy & Intelligent Control** by enabling fault-tolerant, self-coordinated operation of a morphable aerial system that reconfigures its geometry in real time to navigate constrained or contested environments. Its **neural network–based interconnection topology** integrates **Artificial Intelligence & Machine Learning**, allowing adaptive deformation strategies, cooperative localization, and resilient coordination among powered and unpowered cells. It also contributes to **Advanced Propulsion Systems** through a distributed, cell-based architecture where reconfigurable rotor spacing improves efficiency, maneuverability, and resilience to propulsion failures. Together, these capabilities position the MMU as a transformative aerial platform combining adaptive intelligence, structural autonomy, and next-generation propulsion for defense applications.

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Microwave Reconfigurable Intelligent Surfaces for In-Space Wireless Power Transfer - Creating Power as a Service for Space

Georgios Trichopoulos and Tyler Smith, Arizona State University

1. Technology Innovation

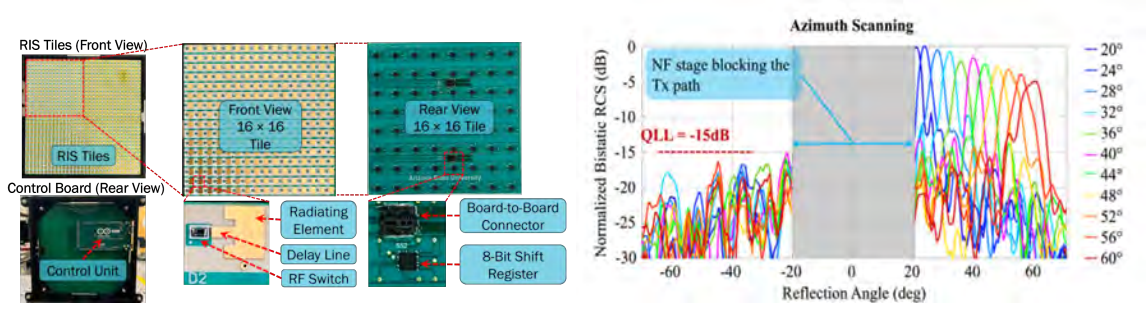
Reconfigurable Intelligent Surfaces (RIS) are an active area of research for wireless communications and are emerging as a potential candidate for the next generation of wireless power transfer (WPT). RIS have demonstrated the ability to enable accurate control of the beam direction, greater signal quality, and energy efficiency when compared to traditional transmitter designs. The advancement of this technology has the potential to enable satellite-to-satellite WPT, allowing for new satellite mission architectures for both military and civilian satellites - creating a “Starlink” like constellation, but for power instead of communication. Furthermore, the advancement of this technology has dual-use applications, including smart infrastructure, autonomous vehicles, and IoT devices.

Historically, proposed approaches to space-based power transmissions have involved large, fixed tethers or large RF transmission systems; however, these designs face challenges in cost and transmission efficiency [1]. Reconfigurable Intelligent Surfaces also known as Reconfigurable Metasurfaces are emerging as a potential candidate for the next generation of wireless communication networks [2]. While the focus of RIS research has primarily been for wireless communications, the key characteristics of RIS which include: electronic control of the beam direction (no mechanical parts) and increased gain, make them an ideal solution for in-space WPT. By controlling the properties of the beam, greater signal strength and energy efficiency can be achieved when compared to traditional phased antenna array designs. One of the advantages of RISs is design simplicity, low power consumption, and scalability to large apertures. The latter is critical to achieve high antenna gain and WPT efficiency. Furthermore, research in RIS as a candidate for wireless power transmission designs has been evaluated for power small sensors for earth-based applications [3] but the research and development for RIS for in-space WPT has yet to be explored.

This study introduces a novel approach to in-space wireless power transfer through the use of Reconfigurable Intelligent Surfaces (RIS). These surfaces hold the promise of acting as relay points, effectively mitigating power loss during transmission. Moreover, they offer precise and dynamic beam steering capabilities, enabling rapid and adaptive redirection of incoming power, which can enable new mission profiles for the future of space operations. This creates significant potential for servicing-satellites to be used to provide power to other satellites with degraded batteries, for satellites operating with long eclipse duration, or for large GEO satellites to power smaller support satellites. Furthermore, this technology could allow for a new paradigm for satellite power management by allowing for small satellites to be launched with smaller on-board batteries (saving weight and increasing payload capacity) and allowing for larger recharging satellites to provide “power as a service” - creating the “Starlink” for power.

2. Technical Objectives and Challenges

PI Trichopoulos' group (Terahertz Research Lab) has extensive experience in the design, fabrication, and characterization of RISs in microwave, millimeter wave (mmWave), and terahertz (THz) bands. The current TRL (3) of this technology is demonstrated in a recent prototype shown in Figure 1 where a 1,024 element RIS is shown [1]. Variations of this topology will be used for the analysis and implementation of the WPT for in-space WPT. Based on the prior work done by PI Trichopoulos, the WPT system using RIS is currently at TRL 3.



(a) (b)

Figure 1 RIS prototype implemented at ASU. (a) the scalable architecture allows for the implementation of large but low-profile apertures. (b) Electronic beamforming testing of the RIS [1].

Co-I Smith leads the ASU Luminosity Lab and for the past year, the Luminosity team has developed the flight hardware for the flight demonstration in partnership with the Interplanetary Lab. This includes the design of the flight vehicle (CubeSat), the deployment mechanism, and the support systems. The team is currently on track to complete the flight vehicle and hardware for environmental testing by the end of 2025.

This proposal aims to prove technical feasibility in the space environment via a CubeSat flight demonstration. Three primary parameters govern feasibility and will be quantified against mission-driven thresholds:

- Beam optimization and control: selection of the operating frequency band and verification of amplitude/phase control and polarization of the RIS-generated RF beam.
- End-to-end efficiency vs. range: DC-to-DC power-transfer efficiency as a function of transmission distance.
- SWaP scalability: size, weight, and power (SWaP) of the transmitter/receiver subsystems as a function of deliverable power.

The team will mature a flight-representative RIS architecture, validate precision beam control and link efficiency through terrestrial and flight testing, and establish a clear path from TRL-3 to TRL-7. Success will de-risk the link budget, confirm scalable SWaP for small-sat platforms, and position RIS-enabled WPT for transition to operational power-as-a-service concepts across commercial and defense missions.

3. The Market Opportunity

The customer profile for this technology consists of Geostationary Earth Orbit (GEO) operators, Low Earth Orbit (LEO) constellations, and Electro-optical/Synthetic aperture radar (EO/SAR) operators for both military and commercial operations. Operators like Intelsat/SES/Eutelsat face seasonal eclipse constraints and battery aging. A RIS-based in-space WPT link can (i) offload peak loads during eclipse seasons, (ii) defer battery-driven end-of-life, and (iii) reduce station-keeping propellant usage by enabling more aggressive power budgeting. The addressable installed base is ~580 GEO spacecraft (active and inactive listed at GEO; mix of active serviceable assets) and ~11–12k active satellites overall across all regimes. Power-hungry payloads (e.g., SAR) have spiky demand and frequent eclipses. A "top-off" service or power relay reduces required onboard battery mass for new spacecraft and extends duty cycles for on-orbit assets. Smallsats dominate growth: ~2,800 smallsats launched in 2024 alone (97% of all spacecraft that year). A RIS WPT relay provides "energy maneuverability" to distribute power among assets, increasing resilience.

Installed base / potential users: ~11–12k active satellites as of mid-2025; growth concentrated in LEO constellations (Starlink alone surpassed ~8,000 operational sats by Aug 1, 2025)[4]. Independent analysts project multi-billion-dollar service markets this decade: Euroconsult forecasts ~$4.4B in annual revenue by 2031 for space logistics and on-orbit services; NSR (Analysys Mason) projects a broader in-orbit services/OSAM market with cumulative revenues reaching $14.3B by 2031 (life-extension ~$4.7B) [5].

On-orbit servicing incumbents/partners: Northrop Grumman's SpaceLogistics (MEV-1/2) proved commercial life-extension at GEO; Astroscale and Orbit Fab are maturing refueling and life-extension (LEXI, RAFTI) [6,7]. These are complementary: fuel/logistics address ΔV; we address energy logistics, and can integrate with (or ride with) servicing craft. Government programs. AFRL's SSPIDR/Arachne is maturing sandwich-tile solar-to-RF for SBSP; ESA's SOLARIS studies SBSP economics/architecture. We target the *in-space* power-sharing use case (LEO↔LEO, GEO↔GEO), not ground beaming, to keep link budgets modest and TRL progression rapid.

Beachhead: USSF/AFRL (LEO demo for energy resilience). The first paying customer segment is a DoD flight experiment that demonstrates satellite-to-satellite RIS WPT to (i) power a client during eclipse and (ii) offload/charge batteries to extend mission life. This aligns to USSF's stated SML strategy and AFRL's SBSP/SSPIDR line, while avoiding the political complexity of ground beaming. Follow-on commercial beachheads: (1) GEO operators seeking eclipse-season augmentation and battery life-extension, and (2) LEO SAR/E0 operators seeking higher duty cycles without bigger batteries [8].

4. The Team

The project is led by Prof. Georgios Trichopoulos (PI), an expert in microwave and millimeter-wave systems whose group (Terahertz Research Lab) has designed, fabricated, and characterized large-element Reconfigurable Intelligent Surfaces (RIS) across microwave–THz bands [9-13]. His research program at Arizona State University has produced scalable, low-profile apertures and demonstrated electronically steerable beamforming in over-the-air measurements—directly informing the architecture, control strategies, and verification plans required for space-grade RIS. As technical lead, Prof. Trichopoulos will direct the electromagnetic design of the metasurface unit cell, array layout, and control electronics; oversee beamforming algorithms and calibration; and manage the progression from chamber tests to far-field outdoor trials and flight readiness.

Tyler Smith (Co-I and Entrepreneurial Lead) is Senior Director of the ASU Luminosity Lab and brings a track record of advancing complex systems from early concept to operational deployment (TRL-1 through TRL-9), spanning autonomy stacks for aerospace platforms and space missions. Over the past 7 years, The Luminosity Lab under the guidance of Dr. Smith has brought in over $24M in funding, incubated 8 startups, and conducted research for over 50 large corporations. Dr. Smith will lead mission design, bus and payload integration, and TRL advancement via a pathfinder CubeSat demonstration. He will also own the customer-discovery and transition pathway, engaging U.S. Space Force/AFRL stakeholders for defense use cases and commercial operators in GEO and LEO for life-extension, eclipse support, and duty-cycle augmentation. Dr. Smith’s experience building multi-disciplinary teams, managing flight hardware development, and navigating regulatory/spectrum considerations positions the program for rapid iteration and credible transition.

The core engineering team is a joint Luminosity Lab × Terahertz Lab cohort of graduate and undergraduate researchers organized into tightly coordinated subgroups. An RF/EM subgroup will optimize the RIS unit cell for the selected microwave band, integrate phase/amplitude control ICs, and address thermal and radiation concerns relevant to LEO/GEO environments. An embedded systems and controls subgroup will implement array control firmware, fast beam steering, and adaptive returning to manage Doppler and thermal drift, while building end-to-end calibration and safety interlocks for power beaming. A space systems subgroup will handle electrical power conditioning (rectenna to DC bus), ADCS interfaces for pointing and ephemeris coupling, SWaP optimization for small-sat form factors, and on-orbit experiment design. A verification and validation subgroup will develop hardware-in-the-loop benches, chamber and outdoor test plans, and quantitative link-budget validation from DC-to-DC efficiency through delivered-energy metrics.

The team is supported by an advisory network that spans government, commercial operators, and on-orbit servicing ecosystems. On the government side, the team will coordinate with

stakeholders aligned to Space Mobility & Logistics and space-based power initiatives to shape mission objectives, safety frameworks, and transition criteria. On the commercial side, the team will consult with GEO operators regarding eclipse augmentation and battery life-extension and with LEO SAR/EO operators on peak-power bursts and duty-cycle lift. In parallel, the team will engage on-orbit servicing and refueling providers to align power-relay demonstrations with hosted payloads or servicing craft, establishing interoperability between energy logistics and propellant/servicing roadmaps. Mentors with flight heritage, export-control/spectrum experience, and venture creation backgrounds will review milestones, de-risk supply chain choices, and refine the intellectual property and standards strategy.

ASU's facilities provide the infrastructure necessary for rapid development and qualification. The Terahertz Research Lab and campus RF facilities enable antenna/RIS prototyping, network analysis, anechoic-chamber measurements, and OTA beam characterization. The Luminosity Lab contributes program integration, systems engineering, and environmental test access (vibration, TVAC through campus and regional partners), as well as mission operations tooling suitable for a CubeSat-class flight demonstration. This combined environment allows the team to iterate quickly from benchtop prototypes to flight-ready hardware with embedded test hooks that streamline verification at each stage.

Finally, the team brings an explicitly entrepreneurial posture. Dr. Smith will run a structured customer-discovery effort (20–30 stakeholder interviews across defense program offices, constellation operators, and bus primes) to validate pricing, integration constraints, and operational concepts for a "power-as-a-service" model. Insights from discovery will be folded back into technical priorities—e.g., pointing accuracy targets, frequency selection, and interface standards—to ensure product-market fit while the technology matures. Together, Dr. Trichopoulos' technical leadership and Dr. Smith's TRL and venture execution experience create a balanced team capable of delivering a credible in-space power-beaming demonstration and building the partnerships necessary to transition RIS-based wireless power transfer from flight demo to operational capability.

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NAU NORTHERN ARIZONA UNIVERSITY

HIGH ENTROPY SECURITY

The Arizona Board of Regents
The Arizona Commerce Authority

Arizona Defense and Dual-Use Innovations Technology Acceleration Program

Title: Cyber Resilience Against Signal Jamming for Terminal Devices in Zero-Trust, Contested Areas
University: Northern Arizona University
Principal Investigator: Bertrand Cambou, PhD
Exclusive Licensee: High Entropy Security
Area of Interest: Secure Connectivity & Communications
TRL: 3
IP Status: Issued and pending patent applications

Project Summary

Problem Statement

Zero-trust areas with jamming conditions or poor network coverage make it challenging to get operating instructions through to unmanned aircraft systems (UAS). As part of their cybersecurity architecture, UAS use cryptographic key management and encryption to protect their instructions in their memory, and the instructions need to be decrypted to control them in operation.



For terminal devices like UAS, the keys are vulnerable when they are stored in memory or are transmitted through unsecured networks in data packets, especially in contested areas. Sending the keys through unsecured networks means they can be intercepted by opponents. Storing the keys on the UAS gives opponents the opportunity to extract them (and any sensitive encrypted data) if the device is captured.

Adding to the key vulnerabilities are communication problems when UAS need to operate in jamming conditions. When subject to signal jamming, most UAS data packets are only able to handle about 20-25% bad bits before they become unusable for the tactical operators and mission analysts. The critical problem is ensuring usable data packets get through to the UAS even with bad bits in the transmission. More usable packets mean lower latencies and smoother operation. The critical issue to be solved is how to ensure that UAS can receive the necessary key information to decrypt operation instructions without sacrificing cybersecurity or burdening the UAS's limited resources in contested areas.

Technology Innovation

Supported by multi-year funding from the Army Research Lab and Air Force Research Lab, we have developed dynamic methods using our Challenge-Response Pair (CRP) mechanism to generate error-free cryptographic keys in public networks from various templates (Physical Unclonable Functions (PUFs), biometrics, sensors, images, digital files, etc.). They incorporate ternary computing, true random number generation, and lightweight error-correcting schemes to future-proof today's cyber products with our highly differentiated approach protected by an extensive patent portfolio of 80 issued/pending patents. Our software solutions seamlessly integrate with existing encryption standards, such as AES, CRYSTALS-Dilithium, and CRYSTALS-Kyber, to secure data transfer across various applications.

Here, we apply our foundational technologies for communications in zero-trust areas with poor network coverage and jamming conditions to get usable data packets through to terminal devices like UAS. The protocols enabling ground-to-terminal device communication in jammed/noisy networks are based on our CRP mechanism and our novel filtering technique that is robust to bad bit injections (flips from a 0 to a 1 or vice versa). In normal operations, the challenges are stored in the terminal devices while the filtered responses are transmitted by the command server, which embeds data streams useful to the device. High-performance computing (HPC) solutions at the server level enhance the protocol and keep the heavy lifting off the UAS.

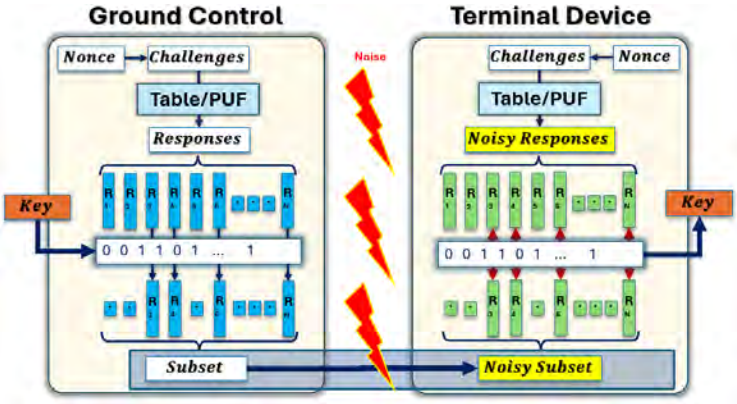
Using our zero-trust methodology, no cryptographic keys are stored on the UAS (no keys to steal if UAS is captured), the protocol latencies are very low, and the protocols are implemented for light computing elements (no AI, ECC, data helpers, or fuzzy extractors). We can have over 40% noise in the transmission and still only get 1 bit error per million bits in the keys. This software can easily be integrated into

existing UAS systems and legacy software at scale for the DoD now, and the protocols are built to use post-quantum computing algorithms for future quantum resistance.

Technical Objectives

We have patented lightweight cybersecurity schemes using our CRP technology that allow us to decrypt the necessary UAS instructions using ephemeral keys (i.e., cryptographic keys that are erased after encryption and recreated on demand, in real time) without ever storing them on the device. The information that is needed for decryption is transmitted through the jamming environment and results in error-free cryptographic keys, even with injected noise creating up to 45% erratic bits in the transmission.

Our objectives are to design efficient communication methods for distributing cryptographic keys in noisy/jammed environments. These methods perform error correction on a secure server, rather than correcting errors on the (often) low-powered devices that are computationally constrained. The results are lightweight, efficient approaches that are robust to noise that can be deployed in a wide range of scenarios.



Additionally, in scenarios without noise or jamming, we can inject obfuscating noise into our CRP protocols with our true random number generator techniques. This acts as a source of high entropy to enhance cybersecurity against side-channel attacks while still recovering error-free keys.

Our next steps are focused on:

- Developing new mechanisms leveraging the injection of obfuscating noise to mitigate several vectors of attacks and to disturb opponents trying to perform side channel analysis of the terminal devices.
- Developing complementary methods allowing the transmission of new cryptographic keys from the ground despite the noisy environment.
- Complementing the key generating methods with zero-knowledge multi-factor authentication schemes (MFA) to further enhance the protection of exposed terminals in noisy environments.
- Enhancing the retrieval of noisy signals using infrastructure on the ground with additional computing methods implementing a more sensitive response-based cryptography (RBC) scheme.
- Further enhancing the protocols by implementing tamper-resistant, standardized Post-Quantum Cryptographic schemes.

By ensuring that cryptographic keys can be exchanged securely even under deliberate or accidental interference, these methods promise to advance both national security capabilities and resilient commercial communications.

Defense and Dual-Use Market Opportunity
Protocols that allow terminal devices to manage 45% of bad bits that resulted from signal jamming or other noise, while still recovering their cryptographic keys for operation, have direct applications in the defense and civilian sectors. These techniques strengthen the resilience of secure communications for military operations, especially in contested electromagnetic environments where adversaries deliberately employ jamming. Applications include battlefield command-and-control networks, secure satellite links, and unmanned systems (UAS, autonomous vehicles, robotics) that require robust and continuous key distribution even under electronic attack. Enhanced survivability of cryptographic key exchange directly supports mission assurance and information superiority.

Beyond defense, these methods are highly relevant to critical infrastructure and commercial sectors where reliable, secure communications are vital. Specifically, poor network coverage areas or disaster-struck areas have limited capabilities to send transmissions through, such as emergency response networks and financial transactions that depend on uninterrupted key management for encryption. The ability to maintain secure connectivity in contested or hostile spectrum environments also supports civil aviation, maritime operations, and industrial IoT networks in remote or poor network settings.

There are several big players in this space working on anti-jamming technologies, but few that focus on the cryptographic key distribution. For instance, Lockheed Martin, Raytheon, BAR Systems, and Northrup Grumman are working on anti-jamming solutions incorporating specialized receivers and AI-based intelligent signal analysis software. Similarly, other players such as Silvius Technologies, L3Harris, and TrellisWare Technologies use real-time spectrum analysis and interference monitoring and resilient waveform technologies. These solutions target the jamming interference itself.

As a market opportunity in the defense industry, our protocols can integrate into existing player's methods to add strategic value and capabilities.

The Team



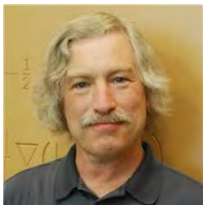
Dr. Bertrand Cambou, PhD, Chief Executive Officer and Co-Founder
Northern University, Professor Emeritus and Technical Lead
Bertrand Cambou has been developing the foundational cybersecurity technologies at Northern Arizona University for the past 10 years after spending his previous career in industry at Gemplus (now Thales), Ingenico, Crocus, Silicon Storage Technology, Advanced Micro Devices (AMD), and Motorola Semiconductor (now NXP-Freescale). His research laboratory has been primarily funded by the Air Force Research Laboratory, the Army Research Laboratory, and industry partners, including Intel. He received his doctorate in Electronics from Paris-Saclay University, his engineering degree from Supelec Paris, and a master's in physics from Toulouse University. Bertrand is also lead PI of the Program FREEDOM funded by DEVCOM/Army Research Laboratory, the program CDCS funded by Air Force Research Laboratory (AFRL), the program VICEROY funded by the Griffiss Institute of AFRL, as well as research programs funded by industry (Intel, Castle Shield, CipherLoc), and the Arizona Board of Regents. LinkedIn



Cristy Salanga, MBA, MS, MLS, Chief Operating Officer and Co-Founder
Northern Arizona University, Patent Manager and Entrepreneurial Lead
Cristy brings expertise from business, law, and science as a registered patent agent, a Program Director for the National Science Foundation's I-Corps Program, and a technology transfer manager at the Woods Hole Oceanographic Institution and Northern Arizona University supporting IP protection, patent strategy/prosecution, and technology commercialization and licensing. She has worked closely with Dr. Cambou for the past eight years to protect the IP underlying the current project and identify commercial potential. With experience in marketing, she has worked across disciplines to translate technical concepts for potential licensees, investors, and industry partners. LinkedIn



Jeffrey Garon, MBA, Chief Financial Officer/Chief Strategy Officer
Clear Vision Advisors, Finance and Business Development Advisor
Jeffrey is a highly accomplished financial executive and advisor with over 40 years of leadership across a wide spectrum of industries, including fintech, blockchain, digital assets, stablecoins, manufacturing, semiconductors, healthcare, consumer products, PaaS, and SaaS. Jeff has held senior leadership roles—including Founder, CEO, CFO, COO, and Chief Strategy Officer—at organizations such as Coin Cloud, Silicon Storage Technology (NASD: SSTI), Tripath Technology (NASD: TRPH), Etelos (OTC: ETLO), The Garon Financial Group (VC Fund), CVA Partners (Debt Fund), and Clear Vision Advisors. His experience includes raising hundreds of millions in capital, both equity and debt, across public and private markets, including IPOs, secondaries, PIPEs, reverse mergers, venture capital, and debt financing. He has advised more than 70 companies on business development, modeling, performance, compliance, operations, funding and exit strategy. LinkedIn



Jeffrey Hoffstein, PhD, Chief Innovation Officer
Brown University, Professor
Jeffrey Hoffstein is a Professor of Mathematics at Brown University, a co-inventor of the NTRU public key cryptographic system, and a co-inventor of two of the seven finalists in the NIST post-quantum cryptography competition. He received his PhD in mathematics from MIT in 1978. After holding postdoctoral positions at the Institute for Advanced Study, Cambridge University, and Brown University, Hoffstein was an Assistant and Associate Professor at the University of Rochester. He came to Brown as a Full Professor in 1989. His research interests are number theory, automorphic forms, and cryptography. Hoffstein has written over seventy papers in these fields, co-authored an undergraduate textbook in cryptography, and jointly holds twelve patents for his cryptographic inventions. He was a co-founder of NTRU Cryptosystems, Inc., which was merged with Security Innovation in 2009, then spun off by Hoffstein from Security Innovation in 2018 and named OnBoard Security. OnBoard Security was acquired by Qualcomm in 2019. LinkedIn

Traction
Our previous track record comes from academia through funding to Dr. Cambou's cybersecurity lab at Northern Arizona University with funding support from the Air Force Research Lab, Army Research Lab, SOFWERX, Intel, Alion Science and Technology, among others, at a level of $20M. Currently in the pipeline, there is a grant award from the Army Research Lab for $290k. Our highly differentiated approach has led to an extensive patent portfolio of 80 issued/pending patents under an exclusive license to our startup from the university.

Last month, we were selected and participated in the SigmaBlox Defense Incubator with the opportunity to pitch our technology to a range of DoD Subject Matter Experts and stakeholders. While receiving

direct feedback on the warfighters' challenges was difficult in an open forum, we garnered significant positive feedback that we are focused in the right direction.

This month, we were accepted into the DIU Dual-Use Accelerator to meet with DoD Subject Matter Experts with whom we are hoping to synergize with funding from this opportunity.

Select Intellectual Property

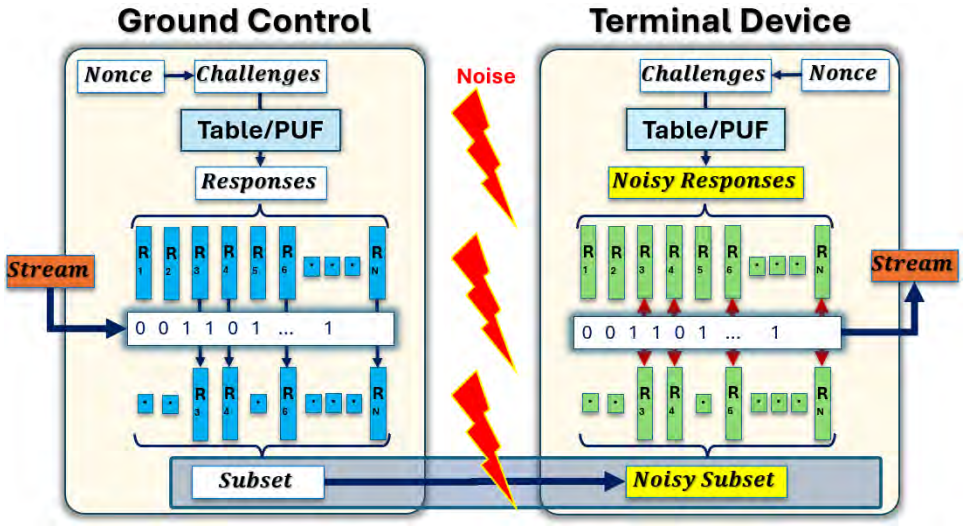
Our patent portfolio includes 68 issued patents and 27 pending patent applications covering our foundational cybersecurity protocols, including:

- U.S. Patent 9,985,791 "Physically Unclonable Function Generating Systems and Related Methods"
- U.S. Patent 10,432,410 "Encoding Ternary Data for PUF Environments"
- U.S. Patent Application 11,265,151 "Key Exchange Schemes with Addressable Elements"
- U.S. Patent 11,283,633 "PUF-Based Key Generation for Cryptographic Schemes with Multiple Hashing of Private Keys"
- U.S. Patent 11,799,674 "Keyless Encapsulation and Error Correcting Schemes"
- U.S. Patent 12,107,973 "PUF-Based Key Generation for Lattice and Code Cryptography"
- U.S. Patent Application 18/442,951 "One-Way Functions with Polynomial Computation"
- U.S. Patent Application 18/638,593 "Protocols with Noisy Response-Based Cryptographic Subkeys"
- U.S. Patent Application 19/064,331 "Protocols for Protecting Digital Files"
- U.S. Patent Application 19/228,601 "Template-less Object Recognition with Challenge-Response Pair Mechanisms"
- U.S. Patent Application 63/675,235 "Key Generation for Post Quantum Cryptography Controlled by Trusted Users in a Distributed Network"
- U.S. Patent Application 63/728,458 "Inserting Blockchains to Protect Digital Files in Protocols Having Multiple Points of Control for a Distributed or Closed-Loop Network"
- U.S. Patent Application 63/759,651 "Combination of Challenge-Response-Pair Mechanisms for Multi-Factor Authentication Schemes Protecting Private Keys"
- U.S. Patent Application 63/794,595 "Protocols with Multiple Control Points to Protect Files in a Distributed Network"

Cyber Resilience Against Signal Jamming for Terminal Devices in Zero-Trust, Contested Areas

Area of Interest: Secure Connectivity & Communications

August 2025



Architecture for transmitting cryptographic keys in noisy networks using our Challenge-Response Pair protocols

TRL: 3

Proposed Technical Approach

Communicating in jamming conditions and poor network coverage makes it challenging to get operational instructions through to UASs, which use cryptographic keys for encryption and decryption of onboard mission instructions. But the problem is distributing or storing the cryptographic keys that are protecting this sensitive data on the UAV, especially in jamming conditions.

Based on unique Challenge-Response Pairs (CRPs) between the ground control and the terminal device (UAS), the protocol converts the subset of responses into regenerated keys on demand and in real-time in a modified way that allows high bit error rates (BERs) without impacting the validity of the cryptographic keys.

Operational and Performance Capacities

Capacities:

- Securely communicate cryptographic keys to terminal devices in noisy environments without an opponent's interception of sensitive data
- Regenerate cryptographic keys on terminal devices without ever storing the keys
- Keys are error-free despite data transmission in jamming conditions
- Uses NIST-standardized post-quantum computing (PQC) algorithms to protect communications against quantum threats

Performance:

- Accepts up to 45% bit error rates
- No need for error correction codes, fuzzy extractors, AI, or machine learning
- Ultra-fast – Below 10ms latency
- Low computing power required (e.g., Raspberry Pi)

Contact Information

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ITEM 2.5: General Education Civic Knowledge Assessment Update

Requested Action: The board will engage in a discussion with the universities and the board office regarding the outcomes from the most recent general education civic knowledge assessment.

Background

In June 2019, the board adopted a new General Education Policy 2-210, clarified by amendment in February 2021, that articulated requirements for the three Arizona public universities' general education programs. The policy mandates each university to assess its general education program's academic outcomes.

A Tri-University General Education Assessment group developed a coordinated approach to assessing the four board-identified areas – written communication, quantitative reasoning, critical thinking, and civic knowledge.

The universities reported assessments on written communication in November 2022, on quantitative reasoning in November 2023, and on critical thinking in November 2024. This past academic year the universities assessed civic knowledge, which includes American institutions as noted in policy.

The board's Tri-University Assessment process has positioned Arizona as a national leader in General Education assessment.

The four assessments are aimed at measuring student learning (accountability) as well as identifying areas for teaching and learning support (improvement). The group has developed new assessment instruments annually, refining the process each year.

Writing assessments are widely practiced and there were several national resources to draw upon to develop that instrument. For quantitative reasoning and critical thinking there were less resources and fewer examples of practice, making development of those assessments more challenging. The civic knowledge assessment has been yet more demanding to develop because available resources are scarce. However, the resulting assessment is among the first of its kind nationally.

Discussion

The board is expected to discuss the civic knowledge assessment outcomes, which will guide adjustments or clarifications to board policy, the university's general education frameworks or the courses themselves.

Contact Information:
Andrew Comrie, ABOR andrew.comrie@azregents.edu 602-229-2500

General Education Civic Knowledge Assessment

The three universities assessed undergraduate civic knowledge during 2024-2025 as part of the new General Education implementation. They developed their own rubric guided by a respected national model, adapting and extending it for this civic knowledge assessment.

The universities each sampled assignments from hundreds of students across a set of courses that satisfy civic knowledge and American institution requirements specific to each university and used the samples to evaluate students' civic knowledge proficiency. Assignments were sampled at each university from primarily lower division classes and from a mix of in-person and online modalities, with the details of each university sample differing by the availability of suitable classes and student work (artifacts).

At ASU, the percentage of artifacts that met or exceeded expectations ranged from 90 to 95 percent across the four civic knowledge dimensions. ASU's artifacts were drawn from lower division courses across the humanities and social sciences, all of which held the American Institutions designation from ASU's General Studies (Gold) program. The results confirm the effectiveness of American Institutions courses in preparing students to achieve identified learning outcomes. Feedback from faculty assessors included suggestions for rubric dimension descriptions to be simplified or clarified to ensure consistent application.

ASU	**Meets or Exceeds Expectations** (Lower Division Courses)
Principles of U.S. Constitutional Democracy	95%
Historical Analysis and Contemporary Application	94%
Foundational U.S. Documents and Laws	90%
Civic Communication and Action	95%

At NAU, the percentage of artifacts that met or exceeded expectations ranged from 86 to 96 percent across the four civic knowledge dimensions. The majority of NAU's artifacts were drawn from 100-200 level courses along with courses at the 300 level. Note that these courses were a "best match" from NAU's legacy Liberal Studies program because the university launched its new general education program in fall 2025. This preliminary assessment indicates that piloted course content, assignments, and assessments for courses that will carry the American Institutions designation are in alignment with the rubric criteria and support student competency development in this area.

NAU	**Meets or Exceeds Expectations** (100, 200 and 300 Level Courses)
Principles of U.S. Constitutional Democracy	94%
Historical Analysis and Contemporary Application	96%
Foundational U.S. Documents and Laws	86%
Civic Communication and Action	87%

At the U of A, the percentage of artifacts that met or exceeded expectations ranged from 90 to 93 percent across the four civic knowledge dimensions. The majority of U of A's artifacts were drawn from lower division General Education courses along with two courses at the upper division level, including courses offered at main campus and UAGC. The assessment shows that a large majority of students are meeting or exceeding expectations in all areas of civic knowledge. Feedback and results from the assessment will be used to further improve and align general education curriculum to ABOR policy on civic knowledge and American institutions.

U of A	**Meets or Exceeds Expectations** (Largely Lower Division Courses)
Principles of U.S. Constitutional Democracy	93%
Historical Analysis and Contemporary Application	91%
Foundational U.S. Documents and Laws	90%
Civic Communication and Action	93%

It is essential to note that the three sets of ***assessment results are not directly comparable among institutions***. The civic knowledge rubric maps to all areas specified in policy while also being tailored to the details of each institution's distinct general education framework. There are important differences in the details of each implementation, including the students and work sampled, evaluator norming, and that the NAU assessment was for their legacy general education program while the ASU and U of A assessments were of their implemented programs.

The full Tri-University civic knowledge report is available at the link below. It contains assessment summaries prepared by each university that include sampling methods and the scoring process. In addition to developing the rubrics, training evaluators, sampling and scoring, the universities included faculty experts in the relevant subject areas for data analysis, interpreting results, and drawing implications from the findings.

Supporting Document/s
Tri University Civic Knowledge Report

Statutory/Policy Requirements
ABOR Policy 2-210 General Education

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Tri University Civic Knowledge Report: Overview

Prepared by the Tri-University General Education Assessment Committee for the Arizona Board of Regents
Fall 2025

Tri-University General Education Assessment Goals

- Programmatic outcomes: measure student learning within our general education programs in the four areas identified by the Arizona Board of Regents (Written Communication, Quantitative Reasoning, Critical Thinking, and Civic Knowledge).
- Growth and Improvement: use evidence of student learning to inform curricular enhancements on individual campuses that will support and improve teaching and learning in the four areas.

Guiding Questions

- How well are undergraduates at each institution meeting the general education student learning outcomes for Civic Knowledge?
- Based on institutional interpretations of the data results, what opportunities do we see for supporting and enhancing the teaching and learning of Civic Knowledge on our campuses?

Development Process

Representatives from the three universities were first convened by the Arizona Board of Regents (ABOR) staff in March 2020 to begin developing the ABOR-required assessments. Since then, Written Communication, Quantitative Reasoning, and Critical Thinking have been assessed and reported to ABOR. The Tri-University group has worked over the past year to conduct the Civic Knowledge assessment, which includes American Institutions as outlined in policy.

The group began its work in November 2024, meeting bi-weekly throughout the following 10 months to design and conduct this assessment. Each institution began by convening an internal planning team of interdisciplinary experts. Subsequently, the Tri University General Education Assessment Committee conducted retreats, comprised of each institution's planning teams, to develop an assessment tool. Consistent with previous Tri University assessments, the group consulted the American Association of Colleges & Universities VALUE rubrics on this topic for guidance on developing our own rubric that would be both interdisciplinary and applicable across all three institutions. Through the iterative process of applying lessons learned to each new assessment cycle, and employing an inclusive

approach to consensus building, these sessions resulted in a Tri University Civic Knowledge Rubric as well as a map of learning outcomes related to civic knowledge in ABOR's General Education Policy 2-210 to the rubric criteria.

Tri University Civic Knowledge Rubric

	Exceeds Expectations	Meets Expectations	Developing toward Expectations
Principles of U.S. Constitutional Democracy	Effectively analyzes principles of U.S. constitutional democracy and relevant competing perspectives on those principles in historical or contemporary context.	Identifies basic principles of U.S. constitutional democracy and relevant competing perspectives on those principles in historical or contemporary context.	Minimally identifies basic principles of U.S. constitutional democracy but does not adequately recognize competing perspectives.
Historical Analysis and Contemporary Application	Identifies a U.S. institution and describes its historical, economic, and/or ideological origins, with sophisticated discussion of the institution's effect on groups and individuals, historically and in contemporary society.	Identifies a U.S. institution and describes its historical, economic, and/or ideological origins, with basic attention given to the institution's effect on groups and individuals, historically and/or in contemporary society.	Identifies a U.S. institution and provides limited description of its historical, economic, and/or ideological origins with limited attention to its effect on groups or individuals.
Foundational U.S. Documents and Laws: Constitution and Supreme Court Cases	Defines sophisticated connections between one or more elements of the U.S. Constitution and a historical or contemporary debate, including one or more Supreme Court cases when relevant.	Connects one or more elements of the U.S. Constitution effectively to a historical or contemporary debate, including one or more Supreme Court cases when relevant.	Provides limited or no description of elements of the U.S. Constitution and does not connect those elements to historical or contemporary debates or landmark Supreme Court cases.
Civic Communication and Action	Effectively constructs an argument or discussion regarding civic action that incorporates multiple perspectives and/or other evidence.	Adequately constructs an argument or discussion regarding civic action that at least minimally references multiple perspectives or other evidence.	Constructs an argument or discussion regarding civic action that is ineffective, neither offering reference to multiple perspectives or other evidence.

Detailed methodologies for collecting and rating student artifacts and data analysis are described below within each individual institution's report. Variances in artifact collection and sample sizes for each institution reflect institutional stages of implementation. Therefore, while assessments are aligned, they are not directly comparable due to inherent differences in sampling.

We are grateful for this opportunity to collaborate and support one another as we launch newly revised general education programs to support our students in engaging in complex and innovative futures.

Map of Learning Outcomes Related to Civic Knowledge in ABOR's General Education Policy 2-210 to Rubric Criteria.

Civic Knowledge Outcomes Drawn from ABOR Policy 2-210	**Tri University American Institutions/Civics Rubric Criteria**
The study of American Institutions will include at minimum:	
(I) how the history of the United States continues to shape the present	**Criterion 1:** Historical Analysis and Contemporary Application
(II) the basic principles of American constitutional democracy and how they are applied under a republican form of government	**Criterion 2:** Principles of U.S. Constitutional Democracy
(III) the United States Constitution and major American constitutional debates and developments	**Criterion 3:** Foundational U.S. Documents and Laws: Constitution and Supreme Court Cases
(IV) the essential founding documents and how they have shaped the nature and functions of American Institutions of self-governance	**Criterion 2:** Principles of U.S. Constitutional Democracy **Criterion 3:** Foundational U.S. Documents and Laws: Constitution and Supreme Court Cases
(V) landmark Supreme Court cases that have shaped law and society	**Criterion 3:** Foundational U.S. Documents and Laws: Constitution and Supreme Court Cases
(VI) the civic actions necessary for effective citizenship and civic participation in a self-governing society – for example civil dialog and civil disagreement	**Criterion 2:** Principles of U.S. Constitutional Democracy **Criterion 4:** Civic Communication and Action
(VII) basic economic knowledge to critically assess public policy options and to inform professional and personal decisions	**Criterion 1:** Historical Analysis and Contemporary Application

Institutional Reports

In our Overview of the American Institutions/Civics Assessment, as well as in our biweekly meetings, we focus on the commonalities between the assessment approaches at the

three universities. In the following sections, we include individual reports from each institution. We report these results individually because the General Education programs and curricula at the three universities are distinct in their design and implementation and how they align with the distinctiveness in our curricula and differences of our student populations.

Guided by feedback from our individual Institutional Review Boards for Human Subjects Research, we underscore that this report is intended for program assessment only for each of the three institutions and may not be used as a published report to contribute to generalizable knowledge.

Arizona State University ABOR Civics Assessment Report

Introduction

Arizona State University (ASU) participated in a collaborative project with Northern Arizona University (NAU) and the University of Arizona (UA), directed by the Arizona Board of Regents for the Tri-University examination of civics in our undergraduate general education curriculum. The primary objective of the general education assessments is to evaluate artifacts from undergraduate students across the general education curriculum.

Methods

Sample Student artifacts were collected from Fall 2024 and Spring 2025 ASU lower-division undergraduate courses across various disciplines in the humanities and social sciences. The courses represent in-person and online modalities, aligning with the different instructional methods employed across ASU. The selected courses held the *American Institutions* designation from ASU's General Studies (Gold) program, and all courses included the elements required in ABOR Policy 2-210, A.2. The artifacts selected for the project addressed at least three dimensions of the Civics rubric: Principles of U.S. Constitutional Democracy, Historical Analysis and Contemporary Application, Foundational U.S. Documents and Laws: Constitution and Supreme Court Cases, and Civic Communication and Action.

The initial sample included 597 artifacts. Artifacts were removed if there were discrepancies of $\geq$ 2 points on more than one dimension (n = 3), if an assessor flagged the artifact as likely AI-generated (n = 11), or if the artifact was incomplete (n = 1). The final dataset included 582 artifacts. 76.64% of artifacts were collected from campus immersion students and 23.36% from ASU online students. The sample may not be representative of students from all colleges, disciplines, or demographic groups.

Instrument The rubric was created as a collaborative project with faculty representatives from Arizona State University, the University of Arizona, and Northern Arizona University.

The Civics rubric has the following dimensions

1. *Principles of U.S. Constitutional Democracy*
2. *Historical Analysis and Contemporary Application*
3. *Foundational U.S. Documents and Laws: Constitution and Supreme Court Cases*
4. *Civic Communication and Action*

Faculty members who had experience teaching American Institutions or related courses served as assessors. To prevent conflict of interest, faculty assessors were excluded from scoring artifacts from their own courses.

Assessors completed a two-hour training session on applying the rubric. If an artifact did not address one of the dimensions of the rubric, the faculty assessors were instructed to indicate "N/A" on that dimension. The Outcome Data table specifies the number of artifacts included in each dimension assessment.

Outcome Data

	Exceeds Expectations	Meets Expectations	Developing
Principles of U.S. Constitutional Democracy (N=582)	**95.2%**		
	19.9%	*75.3%*	**4.8%**
Historical Analysis and Contemporary Application (N=582)	**93.5%**		
	22%	*71.5%*	**6.5%**
Foundational U.S. Documents and Laws (N=582)	**89.5%**		
	18%	*71.5%*	**10.5%**
Civic Communication and Action (N=521)	**94.6%**		
	16.3%	*78.3%*	**5.4%**

Interpretation and Conclusions

Additional analysis of the assessment data compared scores between students in ASU's campus immersion programs and those in ASU Online. The analyses revealed similar proportions of students meeting or exceeding expectations on the four dimensions: Principles of U.S. Democracy (Campus Immersion: 96%; ASU Online: 94%;), Historical Analysis and Contemporary Application (Campus Immersion: 94%; ASU Online: 93%; Foundational U.S. Documents and Laws (Campus Immersion: 89%; ASU Online: 91%), Civic Action (Campus Immersion: 96%; ASU Online: 89%).

Following completion of artifact scoring, faculty assessors were surveyed to collect feedback on the utility of the rubric. Assessors reported that while the rubric accurately covered the subject matter, its application proved difficult. ASU faculty who participated in a focus group generally agreed that the results aligned with their expectations. They recommended that the rubric dimension descriptions be simplified or clarified before the next Civics assessment cycle to ensure consistent application by assessors.

Guiding General Education Curriculum In fall 2024, ASU implemented its General Studies (Gold) program, which includes an American Institutions requirement. Courses with American Institutions designations cover the ABOR-specified elements and employ learning outcomes consistent with the rubric dimensions. This project's data confirms the effectiveness of American Institutions courses in preparing students to achieve identified learning outcomes.

Northern Arizona University (NAU) Institutional Report

What follows is NAU's institutional report for the American Institutions/Civics Assessment that will review the methodology, results, interpretations, recommendations and future actions.

I. Method of Assessment

Population and Sample

Artifact collection occurred during the 2024-25 academic year, when NAU was still under the legacy Liberal Studies program. As such, official American Institutions designated courses were not yet offered. Therefore, artifacts were collected from courses piloting content for the new General Studies Program (GSP) designation of American Institutions. Samples of student work were collected from courses at the 100-, 200-, and 300-levels.

Artifacts

Individual, authentic student artifacts were collected from 7 courses across the Social Sciences, and the Humanities that were taught during the Fall 24 and Spring 25 terms. Considering that artifacts were collected from courses piloting material for the American Institutions designation, the number of courses that researchers had to select from was limited. Thus, a considerable smaller sample size than previous assessments, two hundred and seventy-six (276) artifacts, deemed viable, were collected and further analyzed.

Raters and Ratings

Raters were selected to assess the student artifacts based on their teaching experience or expertise within the topic of American Institutions. Inter-rater reliability was achieved through a series of trainings that included a calibration of the interpretation of rubric criteria and the establishment of inter-rater consistency in scoring. Raters were given an N/A option if they determined certain rubric criterion was not evident in the assigned work.

Data Collection and Analyses

Each artifact was rated twice, and the two scores were averaged for individual students then grouped by rubric criterion. Ratings given an N/A were counted as missing data for each criterion and were not included in the final analysis for this project. Data for each rubric criterion is presented as the proportion of students in each scale point.

Third Review of Artifacts

Any artifact that received a score difference of two or more for two or more rubric criteria required a third read. Sixty (60) of the two hundred and seventy-six (276) total artifacts received a third read and the average of the three scores was calculated.

II. Results

Results show that over 85% of students in the sample met or exceeded expectations for all rubric criteria. Conversely, data show that 13% of students in the sample are still developing their skills in Foundational U.S Documents and Laws and Civic Communication and Action. Table I displays the overall results for the 2024-2025 American Institutions/Civics assessment by rubric criterion.

Table I. AY24-25 Overall American Institutions/Civics Results

American Institutions/Civics Rubric Criterion	**Exceeds Expectations**	**Meets Expectations**	**Developing**
Principles of U.S Constitutional Democracy	**94%**		**6%**
	31%	**63%**	
Historical Analysis and Contemporary Application	**96%**		**4%**
	29%	**67%**	
Foundational U.S Documents and Laws	**86%**		**13%**
	24%	**63%**	
Civic Communication and Action	**87%**		**13%**
	32%	**55%**	

Outcomes are correlated with course level as would be expected. In Principles of U.S. Constitutional Democracy, most students at both course levels met or exceeded expectations, with 96% of students in 300 level courses slightly outperforming students in 100-200 level courses (94%). All students (100%) in 300-level courses met or exceeded expectations in Historical Analysis and Contemporary Application compared to 94% at the 100-200 level. In Civic Communication and Action, 94% of students from 300 level courses met or exceeded expectations, compared to 83% of students from 100-200 level courses. Table 2 displays course level results divided into 100-200 level and 300 level.

Table II. Results by course level (100-200 and 300)

Rubric Criterion	Course Level	Exceeds Expectations	Meets Expectations	Developing
Principles of U.S Constitutional Democracy	**Overall**	**94%**		**6%**
	100-200 Level	**94%**		**6%**
		26%	**68%**	
	300 Level	**96%**		**4%**
		40%	**56%**	
Historical Analysis and Contemporary Application	**Overall**	**96%**		**4%**
	100-200 Level	**94%**		**6%**
		18%	**76%**	
	300 Level	**100%**		**0%**
		49%	**51%**	
Foundational U.S. Documents and Laws	**Overall**	**86%**		**13%**
	100-200 Level	**88%**		**12%**
		17%	**71%**	
	300 Level	**84%**		**16%**
		36%	**48%**	
Civic Communication and Action	**Overall**	**87%**		**13%**
	100-200 Level	**83%**		**17%**
		35%	**48%**	
	300 Level	**94%**		**6%**
		28%	**66%**	

III. Interpretations/Recommendations

The American Institutions/Civics assessment was unique for NAU considering artifacts were collected during the 2024-25 academic year prior to official launch of the new General Studies Program when the new program component of American Institutions designated courses would be implemented. Therefore, the approach for this assessment was to collect authentic student work from courses that would carry the American Institutions designation once the General Studies Program was launched in Fall 2025, *and* assignments and assessments in alignment with this new designation were being piloted. These criteria resulted in a limited number of viable courses from which to collect artifacts and a significantly smaller sample size, two hundred and seventy-six (276) artifacts, than previous assessments. According to the Voluntary System of Accountability, a representative sample size for estimating learning outcomes for institutions with

graduating classes greater than 2,500 students would be 350 (https://cpfiles.s3.amazonaws.com/32/AAC_U_VALUE_Rubrics_Administration_Guidelines_20121210.pdf).

The majority (62%) of samples collected came from lower division courses. 171 samples were drawn from 100-200 level courses with 105 samples drawn from 300 level courses. Thus, the assessment slightly favors understandings of lower division course content and metrics.

Given the distinct context of this assessment cycle, data was not utilized as a representative sample for generalizable interpretations across demographic populations in terms of the effectiveness of teaching and learning of American Institutions competencies. Therefore, results of this preliminary assessment indicate that piloted course content, assignments and assessments for courses that *will* carry the American Institutions designation are in alignment with the Tri University American Institutions/Civics rubric criteria and support student competency development in the area of American Institutions.

Analysis of the data from this preliminary study suggests that the new General Studies Program will effectively support student development of the American Institutions Knowledge Area. The percentage of students in the Developing category for the rubric criterion of Foundational U.S. Documents and Laws and Civic Communication and Action may indicate an opportunity for further analysis and enhancement of curricular content. These results may also signal the need for alternative assessment tools that capture student learning in these areas.

A focus group session, comprised of unit leaders and faculty with teaching experience or expertise within the topic of American Institutions, was convened. Utilizing the data results of piloted course material, the session focused on an analysis of essential course content for American Institutions designated courses, based on the Tri University American Institutions/Civics Rubric, and effective approaches for capturing evidence of student learning. The objective was to interpret this preliminary assessment of piloted course material to inform curricular design and assessment for future courses with this new designation.

Based on the focus group sessions, the following represents best practices in capturing student learning of American Institutions competencies:

- Best ways to capture student learning in this area include student writing that focuses on Supreme Court cases. This form of assessment will permit students to clearly identify and explain the context for a given case and elaborate on its implications for policy and society. Focus group members believed an emphasis on Supreme Court cases would facilitate the application of the first three rubric

criteria: Historical Analysis and Contemporary Application, Principles of Constitutional Democracy, and Foundational U.S. Documents and Laws.

- For the criterion of Civic Communication and Action, assignments that focus on specific policies or laws provide students with the opportunity to demonstrate their thinking on how they are developed and their impact on society. Another effective assignment would incorporate analysis of primary sources. Students would be required to demonstrate their understanding of the historical context, motivation and argument for said document.
- Overall, focus group members found this preliminary assessment of piloted content informative for Syllabi of Record for American Institutions Knowledge Area courses as it informs content criteria that must be included in the course regardless of who is instructing.

IV. Future Actions

This assessment of piloted course content for the American Institutions designation offers foundational data to be used in comparison when American Institutions in the new General Studies Program is assessed in AY 28-29. As NAU is currently launching the new General Studies Program, which incorporates the new Knowledge Area of American Institutions, this assessment will be utilized to stimulate ongoing reflection and adjustment to current course content and metrics. The results of the American Institutions/Civics Assessment will be shared in faculty discussion sessions as well as with Faculty Senate, Associate Deans and Chairs and Directors.

Assessment of Civic Knowledge / American Institutions at the University of Arizona

Fall 2025

Overview

The assessment of Civic Knowledge at the University of Arizona (UA) is the fourth of ABOR-requested assessments of our general education program. The objective of this rubric-based assessment was twofold: 1. to measure student achievement of civic knowledge, and 2. to identify areas for improvement in student learning to strengthen our general education program in the area of civic knowledge

Civic Knowledge / American Institutions, according to ABOR, includes the following aspects:

I. *how the history of the United States continues to shape the present;*
II. *the basic principles of American constitutional democracy and how they are applied under a republican form of government;*
III. *the United States Constitution and major American constitutional debates and developments;*
IV. *the essential founding documents and how they have shaped the nature and functions of American Institutions of self-governance;*
V. *landmark Supreme Court cases that have shaped law and society;*
VI. *the civic actions necessary for effective citizenship and civic participation in a self-governing society – for example civil dialog and civil disagreement; and*
VII. *basic economic knowledge to critically assess public policy options and to inform professional and personal decisions*.

Achievement of this outcome is best measured through institutional coursework that incorporates Civic Knowledge / American Institutions into the curriculum. The UA sampled 878 student artifacts, including 382 artifacts from seven general education courses at the Main Campus and 496 artifacts from one general education course at the University of Arizona Global Campus (UAGC). A random sample of 379 UAGC's artifacts were used to compare to Main Campus.

Who Participated in Scoring Student Work?

- Over 40 faculty, staff, and doctoral students participated at different stages of the assessment.
- Among them, 27 trained and scored student artifacts as evaluators. They represented many of the colleges and disciplinary areas across the two campuses.

What Student Samples Were Assessed?

- At the Main Campus, student work was collected from seven general education courses ranging from Politics to History.
- At UAGC, all student artifacts came from one history general education course.

How Was the Rubric Created?

Faculty representatives of the three Arizona universities governed by ABOR worked to create a common rubric for assessing civic knowledge, which was used in this assessment.

How was Student Work Assessed?

- To ensure reliability, all reviewers were calibrated on the rubric prior to the scoring process. Each artifact was evaluated twice, with a third reading taking place if the first two scores showed a difference greater than 1.
- When reviewing the artifacts, if evidence of a particular criterion was not present, the scorer could mark N/A. In these cases, the artifact was not included in the average score for that criterion, thus the *n* for each criterion may be different.

What Did We Learn?

Table 1 shows the percentage frequencies of student scores for each of the rubric criteria at UA which includes student work from Main Campus and UAGC combined. Most students are meeting or exceeding expectations in all areas of civic knowledge.

Table 1: Percentage Frequencies of Student Scores for Civic Knowledge at UA

	Exceeds Expectations	Meets Expectations	Developing
Principles of U.S. Constitutional Democracy (*n* = 738)	**93%**		
	41%	52%	**7%**
Historical Analysis and Contemporary Application (*n* = 784)	**91%**		
	48%	43%	**9%**
Foundational U.S. Documents and Laws (*n* = 775)	**90%**		
	38%	52%	**10%**
Civic Communication and Action (*n* = 742)	**93%**		
	34%	59%	**7%**

When we disaggregated the data by campuses, student artifacts from UAGC scored a little higher in all areas than those from the Main Campus. It seems that UAGC artifacts better aligned with the rubric and ABOR policy for American Institutions. For the Main Campus, the assessment results provide important insights on how to implement general education courses that are designated as satisfying the ABOR policy on Civic Knowledge and American Institutions.

First-generation students at the Main Campus scored slightly lower than non-first-generation students in Historical Analysis and Contemporary Application, as did first-generation students at UAGC in Principles of U.S. Constitutional Democracy. Male students performed better than female students in Historical Analysis and Contemporary Application and in Principles of U.S. Constitutional Democracy at UAGC, but not at the Main Campus. Interestingly, military-connected students scored higher than non-military-connected students in Foundational U.S. Documents and Laws at the Main Campus, as did their counterparts at UAGC in Historical Analysis and Contemporary Application.

Some initiatives that we will consider moving forward include:

- Using the assessment data to help design, implement, and align general education curriculum to ABOR policy on American Institutions.
- Developing faculty learning communities based on best practices in teaching civic learning.
- Offering workshops or forums that can help faculty with the teaching of civic knowledge in a variety of areas.

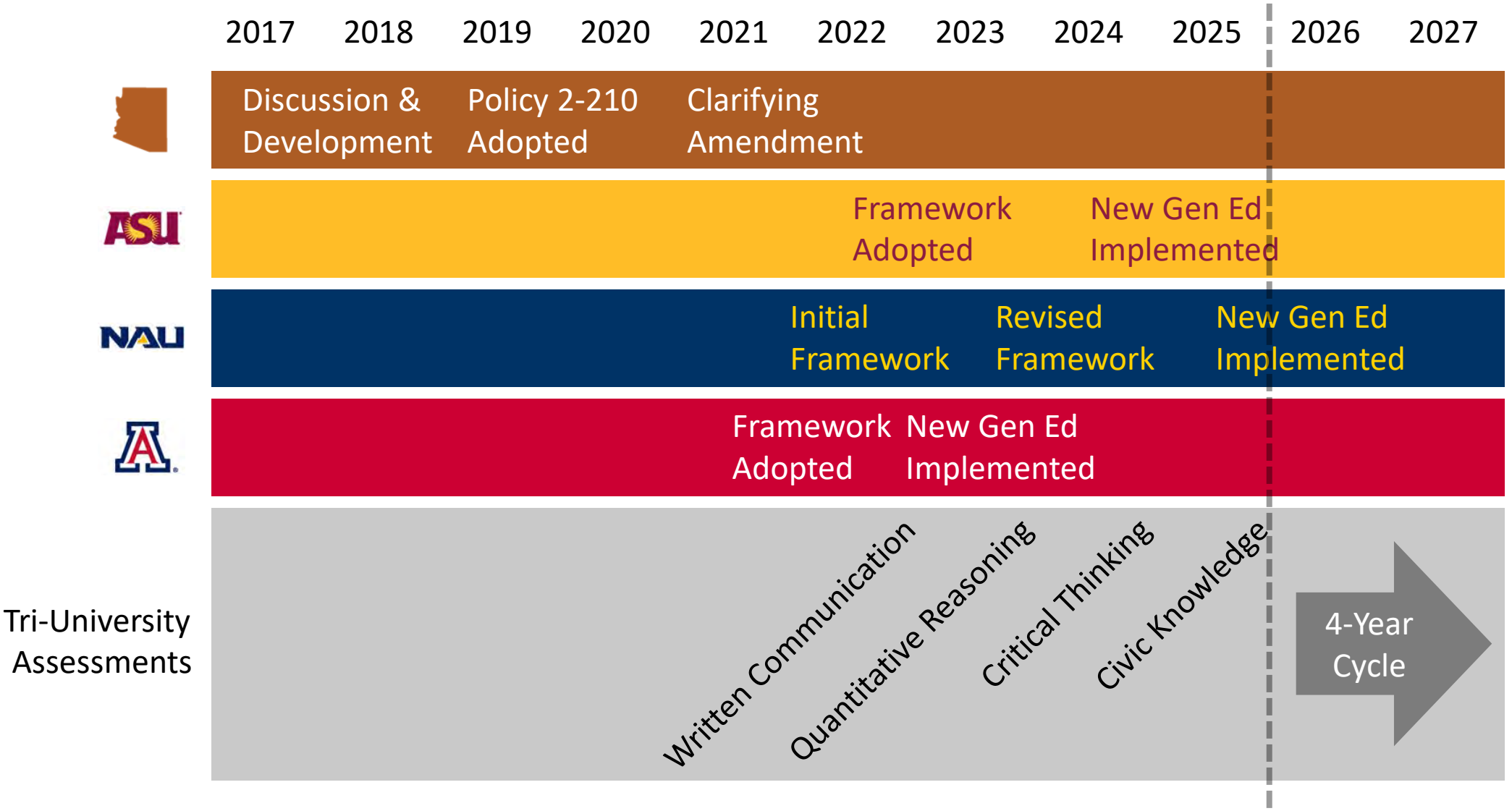
General Education
Civic Knowledge Assessment

ABOR Meeting

November 20, 2025

Tri-University General Education Assessment Group

General Education Timeline



Civic Knowledge Assessment Methodology

- **Assessment Tool**
  - Developed a ***rubric*** – most challenging yet because of few national resources
  - Interdisciplinary and applicable across all 3 institutions

- ***3-level rating scale***
  - Developing / meets expectations / exceeds expectations

- ***Sampled hundreds of student artifacts***
  - Across courses that satisfy civic knowledge and American institution requirements

- ***Faculty raters***
  - Trained to establish inter-rater reliability and consistency

- ***Student rating shares***
  - Reported across 4 rubric criteria

General Education Civic Knowledge Assessment

Tri-University Rubric Criteria

1. **Principles of U.S. Constitutional Democracy**: Effectively analyzes principles of U.S. constitutional democracy and relevant competing perspectives on those principles in historical or contemporary context.

2. **Historical Analysis and Contemporary Application**: Identifies a U.S. institution and describes its historical, economic, and/or ideological origins, with sophisticated discussion of the institution's effect on groups and individuals, historically and in contemporary society.

3. **Foundational U.S. Documents and Laws – Constitution and Supreme Court Cases**: Defines sophisticated connections between one or more elements of the U.S. Constitution and a historical or contemporary debate, including one or more Supreme Court cases when relevant.

4. **Civic Communication and Action**: Effectively constructs an argument or discussion regarding civic action that incorporates multiple perspectives and/or other evidence.

Civic Knowledge Assessment

ASU	**Meets or Exceeds Expectations** (Lower Division Courses)
Principles of U.S. Constitutional Democracy	95%
Historical Analysis and Contemporary Application	94%
Foundational U.S. Documents and Laws	90%
Civic Communication and Action	95%

Civic Knowledge Assessment

NAU	Meets or Exceeds Expectations (100, 200 & 300 Level Courses)
Principles of U.S. Constitutional Democracy	94%
Historical Analysis and Contemporary Application	96%
Foundational U.S. Documents and Laws	86%
Civic Communication and Action	87%

Civic Knowledge Assessment

U of A	**Meets or Exceeds Expectations** (Largely Lower Division Courses)
Principles of U.S. Constitutional Democracy	93%
Historical Analysis and Contemporary Application	91%
Foundational U.S. Documents and Laws	90%
Civic Communication and Action	93%

Civic Knowledge Assessment

IMPORTANT NOTE: <u>Assessment results are NOT directly comparable among institutions</u>

The assessment is not designed to compare universities, but for each university to evaluate its Gen Ed program in context.

Why?

The civic knowledge rubric maps to all areas specified in policy but each assessment is tailored to the details of each institution's distinct general education framework

Therefore, there are important differences in the details of each implementation, including:

- Students sampled
- Courses sampled
- Work sampled
- Evaluator norming
- Timing: ASU and U of A assessed their new general education programs while NAU assessed "best fit" courses from its legacy program.

Civic Knowledge Assessment

Overall Two-Part Goal of Tri-University General Education Assessments

1. **Programmatic Outcomes**

   Measure student learning within our general education programs in the four areas identified by ABOR (written communication, quantitative reasoning, critical thinking, civic knowledge)

2. **Growth and Improvement**

   Use evidence of student learning to inform curricular enhancements on individual campuses that will support and improve teaching and learning in the four areas

Each university is using the detailed results to identify and address specific opportunities for improvement and to enhance the assessment process.

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ITEM 2.6: Review on First Reading Proposed Revisions to ABOR Policies 1-101 Communications To or From the Board, 1-114 Call to the Audience Procedure, 2-105 Admission Requirements, 3-607 Lease Purchase Acquisition, 5-105 Interagency Law Enforcement Agreements, and 5-204.1 Early Outreach to Other Educational Systems and Underrepresented Communities

Requested Action: The board office asks the board to review on first reading proposed revisions to ABOR Policies 1-101 Communications To or From the Board, 1-114 Call to the Audience Procedure, 2-105 Admission Requirements, 3-607 Lease Purchase Acquisition, 5-105 Interagency Law Enforcement Agreements, and 5-204.1 Early Outreach to Other Educational Systems and Underrepresented Communities as described in this executive summary.

Background

The board office reviews board policy to ensure that individual policies are current and up to date. Recently, the universities were requested by the board to submit suggestions for policy updates and streamlining. Board staff are carrying out a systematic review of these potential policy revisions.

At its September 2025 meeting the board reviewed on first reading an initial set of proposed policy revisions from the policy review process and approved through the consent agenda during this meeting (November 2025). This item contains a further set of proposed revisions to policy.

Discussion

The policies described below are recommended to the board for review on first reading and will come before the board for second reading at the February 2026 meeting.

The proposed edits to the individual policies are summarized in the following table, including a brief rationale for each. The full policy documents with proposed revisions to each are appended as supporting documents.

Contact Information:
Brad Kendrex, ABOR bradley.kendrex@azregents.edu 602-229-2525
Andrew Comrie, ABOR andrew.comrie@azregents.edu 602-229-2500

Policy	Proposed Change	Rationale
1-101 Communications To or From the Board	A. Communications to the Board from members of each university shall be directed through the president of the university OR THEIR DESIGNEE. Members of the Board, when communicating with members of a university, shall keep the president of that university OR THEIR DESIGNEE advised concerning such communications.	Clarifies that presidents may designate roles or individuals for formal communications between universities and the Board (e.g., SAPs, senior vice presidents, etc.).
1-114 Call to the Audience Procedure	A.1. Any person wishing to make a presentation shall submit a written request to the Secretary to the Board on the form provided which must be received no later than ~~ten~~ SIXTY minutes prior to the time of the scheduled meeting. [...]	Timing adjustment to help meeting logistics.
2-105 Admission Requirements	A.4.e. Each university may offer conditional admission and/or earned admission to applicants who are reasonably expected to ~~meet the criteria outlined in section (a)(2)~~ DEMONSTRATE SUCCESS IN COLLEGE COURSEWORK. --- A.4.j. In accordance with A.R.S.15-1821(b)(1), an applicant under age 18 shall not be denied admission because of age, lack of a high school diploma or high school certificate of equivalency, grade in school, lack of permission of school officials or lack of concurrent enrollment in a public or private school, ~~or~~ if the applicant has achieved at least a specified score on a college entrance examination OR EQUIVALENT ADMISSION REQUIREMENTS ESTABLISHED BY EACH UNIVERSITY~~. Each university will establish admission requirements that allow the admission of applicants under age 18 and applicants seeking admission through the general educational development (GED) test or other relevant equivalency exams~~.	Current language is confusing; revised for clarity. --- Streamlined and clarified language to better align with statute and policy.
3-607 Lease-Purchase Acquisition	Acquisitions of personal property in the amount of ~~$1~~ FIVE million DOLLARS and greater by means of a lease-purchase shall be submitted through the University Governance and Operations Committee for approval by the Board. [...]	Update the financial threshold from $1M, which was set in 1989, to $5M.
5-105 Interagency Law Enforcement Agreements	The Board may authorize the president of an institution on behalf of the Board, to execute and deliver interagency law enforcement agreements. The agreements shall include an order of priority for requests for assistance as may in each case be agreed upon by the respective institutions with the other affected law enforcement agencies. In all cases, the agreements shall be subject to the final approval of the ~~Attorney~~ General COUNSEL FOR THE INSTITUTION.	Clarification of approval.

5-204~~.1~~ Early Outreach to Other Educational Systems and Underrepresented Communities	A. The Board of Regents is committed to encouraging and supporting university initiatives to develop linkages with underrepresented communities for the purpose of increasing the awareness of children in Grades K-12 and their ~~parents~~ FAMILIES about the importance of higher education, about opportunities for higher education in Arizona, and about the importance of academic preparation for higher education.	Updated wording. Also slightly renumbering the policy to 5-204 by dropping the ".1" that is no longer necessary.

Supporting Document/s
ABOR Policies 1-101, 1-114, 2-105, 3-607, 5-105, and 5-204.1

Statutory/Policy Requirements
A.R.S. §15-1626(A) General Administrative powers and duties of board.

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ARIZONA BOARD OF REGENTS
POLICY MANUAL

1-101 Communications To or From the Board

Revision Dates

3/12/1983 (adopted; effective 5/1/1983)

CHAPTER I – GENERAL PROVISIONS

A. GENERAL PROVISIONS

A. Communications to the Board from members of each university shall be directed through the president of the university OR THEIR DESIGNEE. Members of the Board, when communicating with members of a university, shall keep the president of that university OR THEIR DESIGNEE advised concerning such communications.

B. Communications from the Board to members of the legislature, the press and the public should, whenever possible, be transmitted by and through the chair of the Board. Inquiries in regard to matters upon which the Board has taken, or probably will take a position, should be referred to the chair.

C. There will be cases when an individual member of the Board will feel obligated to answer inquiries. In these cases, the member of the Board expressing an opinion as to matters upon which the Board has taken a position should support the position taken by the Board or make it perfectly clear that he or she is expressing an opinion which has not been approved by the Board.

Policy History

3/12/1983 The Policy Manual was adopted by the Board to be effective 5/1/1983.

Related Information

See 3/12/1983 meeting minutes.

ARIZONA BOARD OF REGENTS
POLICY MANUAL

1-114 Call to the Audience Procedure

Revision Dates
9/28/2012, 5/1/1992, 2/20/1987 (adopted)

A. As part of the agenda for each regular meeting of the Board, thirty minutes shall be set aside to enable persons to address comments or make presentations to the Board at a Call to the Audience. The primary purpose of the Call to the Audience is to allow the Board to receive information related to matters of Board governance and oversight. The Chair of the Board or a majority of the Board may extend the time for the Call to the Audience.

1. Any person wishing to make a presentation shall submit a written request to the Secretary to the Board on the form provided which must be received no later than ~~ten~~ SIXTY minutes prior to the time of the scheduled meeting. The request shall: (a) identify the persons requesting to make the presentation and the organization, if any, the person is representing; (b) specify the topic to be addressed; and (c) identify whether the person or organization requesting to make the presentation has made a presentation to the Board at a Call to the Audience within the previous six months.

2. Subject to the discretion of the Chair, requests to appear before the Board shall be scheduled in the following order of priority until the available time is exhausted:

a. Individuals or organizational representatives who wish to address comments pertaining to a matter scheduled for Board action or discussion at that meeting;

b. Individuals or organizational representatives who wish to address comments pertaining to a matter which is not scheduled for Board action or discussion at that meeting, and who have not made a presentation on any topic at a Call to the Audience within the previous six months;

c. Individuals or organizational representatives who wish to address comments pertaining to a matter which is not scheduled for Board action or discussion at that meeting, and who have made a

presentation on any topic at a Call to the Audience within the previous six months.

3. Presentations shall generally be limited to not more than three minutes per speaker, as necessary to maintain order and to complete the Board's agenda

4. The Chair of the Board may impose other reasonable limitations on presentations, including changing the order of priority, restricting or enlarging the amount of time allocated to individual speakers, and limiting the number of speakers provided an opportunity to address the Board on any one topic. The Chair also may limit the issues presented during the Call to the Audience to those matters directly related to the Board's governance and oversight of the university enterprise.

5. The Chair may invoke such rules and take those actions deemed reasonably necessary to enable members of the public to address the Board in an orderly, non-disruptive environment.

B. The Board will not recognize any person wishing to comment on or make a presentation concerning a proposed policy or rule for which a designated time to receive oral public comment, other than at the Call to the Audience, has been established.

C. Generally, the Board will not respond to comments or presentations made at the Call to the Audience, but may refer matters to its staff or to university personnel for study or recommendations.

D. Persons wishing to submit written comments, whether in lieu of or in connection with an appearance at the Call to the Audience, are requested to do so by filing their material with the Secretary to the Board. The Secretary to the Board will acknowledge the receipt of written comments and distribute copies to all Board members.

E. A copy of this policy shall be posted in advance of the meeting at the location where the Call to the Audience is to be conducted.

Policy History

2/20/1987 Approved by the Board on second reading.

5/1/1992 Policy revision approved by the Board on second reading.

9/28/2012 Policy revision approved by the Board on second reading.

Related Information

ARIZONA BOARD OF REGENTS
POLICY MANUAL

2-105 Admission Requirements

Revision Dates
4/10/2025 (adopted)

2-105 Admission Requirements

Admission standards are established to ensure applicants are prepared to succeed in college. This policy sets out minimum admission requirements, core competencies, and further admission considerations for Arizona's public universities, under which each institution may adopt additional requirements for general admission and/or for other academic units within the university.

In accordance with A.R.S.15-1821(b)(3), an applicant admitted to a university is not guaranteed admission to a specific degree program or to all courses offered by the university. Additionally, an applicant admitted to a specific degree program or college is not guaranteed admission to other programs or courses offered by the university.

Meeting admission requirements does not create the expectation of a scholarship, grant or other form of financial aid; policies for financial aid are specified under chapter 4 of this policy manual.

A. Undergraduate Admission

1. Applicants will be considered for admission according to the minimum requirements set out below. An applicant is an individual who is applying to or has applied to a university for admission.

2. Categories of Admission and Criteria

To provide broad access for applicants, several categories of entry and associated admission criteria are established. The requirements set out below recognize that applicants bring a range of academic preparation to their studies and that students follow multiple pathways to attain their higher education goals.

a. First-Year Entry

1) Definition: an applicant who will receive, or has received, a state-recognized high school diploma with fewer than 12 transferable college or university credits completed post-high

school.

2) Criterion: earn an unweighted grade point average (GPA) of 2.5 or above on a 4.00 = a scale in the high school core competencies, as defined below.

b. Transfer Entry

1) Definition: a student who has attended one or more colleges/universities and has completed 12 or more transferable college or university credits post-high school. A student is an individual who is or was matriculated (enrolled) at a college or university. Transferable credits are those from courses taken at another college or university that meet requirements to be counted towards a program of study at a university to which a student wishes to transfer.

2) Criteria

Have fewer than 24 transferable college or university credit hours (12 – 23 credit hours) and have a core unweighted high school grade point average of 2.00 or above on a 4.00 = a scale, or

Have 24 or more transferable college or university credit hours with a cumulative (college or university) grade point average of at least 2.00 on a 4.00 = a scale, or

Have completed the Arizona general education curriculum (AGEC) with cumulative grade point average of at least a 2.00 on a 4.00 = a scale.

c. Additional or alternative admission criteria may apply to certain types of applicants, as detailed in section 4 below.

3. Core Competencies

a. An applicant must demonstrate academic competency across the high school credit subject areas in the table below. A high school credit is defined as 1 year of study. Applicants must complete a minimum of 14 credits from the 16 listed; the 2 unselected credits cannot be in the same core subject area or a combination of math and laboratory science. Applicants must attain a grade point average of at least 2.00 on a 4.00 = a scale in each subject area.

b. A university may require that, in order to complete an application for

admission, applicants must submit scores from college admission standardized tests.

c. To maximize their potential for success, applicants are encouraged to complete more than the minimum core credits and to complete courses appropriate to their intended pathway of study.

MINIMUM HIGH SCHOOL CORE COMPETENCIES COMPLETE A MINIMUM OF 14 CREDITS FROM THE 16 LISTED; THE 2 UNSELECTED CREDITS CANNOT BE IN THE SAME SUBJECT AREA OR A COMBINATION OF MATH AND LABORATORY SCIENCE. ATTAIN A GRADE POINT AVERAGE OF AT LEAST 2.00 ON A 4.00 = A SCALE IN EACH SUBJECT AREA.				
SUBJECT AREA	**ABOR DESCRIPTION**	**OR ACT SCORE**	**OR SAT SCORE**	**OR COLLEGE**
English 4 credits/years of Composition/ Literature	English must include literature and have a substantial emphasis on grammar and composition. Courses such as, for example, journalism, business communication, and speech may improve a student's ability in English, but they are not devoted exclusively to the study of English and may not be substituted for a regular English course.	English sub score of 21 or above.	Evidence based reading and writing score of 580 or above.	One 3-credit transferable English course.
Mathematics 4 credits/years	Applicants must complete 4 high school credits in college preparatory mathematics including algebra I and II, geometry, and culminating in 1 credit in quantitative methods (e.g., advanced math, calculus, statistics, data science, modeling, artificial intelligence) for which algebra II or a comparable course in quantitative methods is a prerequisite, or the equivalent in integrated mathematics credits. Students are strongly recommended to take quantitative methods during their senior year of high school.	Math sub score of 24 or above.	Math score of 580 or above.	One transferable 3-credit course at the college algebra level or higher.
Lab Science 3 credits/years	A Laboratory Science course has at least 1 class period each week for students to manipulate equipment, materials, or specimens, to develop skills in observation and analysis, and to discover, demonstrate, illustrate, or test scientific principles or concepts. Applicants must complete at least 1 credit in each of 3 different laboratory sciences selected from the following: Chemistry, Physics, Earth Science, or Biology. A laboratory-based integrated science course may be allowed to substitute for 1 of the 3 required courses. It is strongly recommended that students take 3 years of different laboratory science subjects before taking an advanced/honors university course in the same subject.	Natural science sub score of 20 or above. (Test scores may be used to show competency in one (1) science only).	SAT Subject Test: Chemistry—600 or above; Biology—590 or above; Physics—620 or above.	Three transferable courses each equivalent to 4-credit lab science courses (only two may be in the same field).
Social Science 2 credits/years	Applicants must demonstrate competency in Social Science by completing at least 1 year of study in American History and at least 1 additional year of study in 1 other social science field such as European or World History, Economics, Sociology, Geography, Government, Psychology, or Anthropology.	N/A	SAT subject test scores: American History/Social Studies: 560 or above; European/World Culture: 580 or above.	One 3-credit American History course and one 3-credit social science course.
Second Language 2 credits/years	Applicants must demonstrate competency in a Second Language by completing 2 high school credits in the same Second Language.	Attain a minimum score on a national standardized language test such as AP or CLEP Examination scores; or earn certified placement into third college-level semester of higher based on an exam given by an accredited institution of higher education.		One year of study in the same language; includes American Sign Language.
Fine Arts 1 credit /year	Fine Arts courses provide knowledge and experience in the visual and performing arts, covering production and performance; analysis, interpretation, and evaluation; and historical and cultural aspects. Courses must combine theory and practice and include critical thinking skills.	N/A	N/A	One 3-credit fine arts class.
------ OR ------ CTE 1 credit/year	Competency may be demonstrated by completing 1 high school credit in a Career & Technical Education (CTE) course or 2 semesters of high school CTE.	N/A	N/A	One 3-credit CTE course in to a CTE program approved by ADE.

4. Further admission considerations

   a. State-recognized high school diplomas include conventional and high school equivalency diplomas recognized by a U.S. state, including those earned via the general educational development (GED) or another equivalency test. First-year applicants who will receive or have received a high school diploma not recognized by a state in the U.S. shall be evaluated for admission using the requirements outlined in section 2 of this policy or appropriate equivalents as applicable.

   b. Each university will admit home-schooled students who meet criteria developed and established by each university. As possible, the universities will follow the admission criteria outlined in section 2.

   c. Each university may, with approval of the board, set additional requirements for general university admission, including an appeal process. Additional requirements may include, for example, core academic coursework, grade point average, residency, standardized admission tests, language tests, and placement tests. Requests for board approval of additional general university admission criteria shall be completed no later than one year prior to the term for which the new standards shall apply.

   d. In accordance with A.R.S.15-1626(a)(10), for students who are classified for tuition purposes as Arizona residents in accordance with ABOR policy 4-203 (requirements for resident status), each university will, with approval of the board, establish qualifications that guarantee admission to the university. Such requirements may be the same as the minima set forth in section 2, they may be the same as the additional requirements immediately above, or they may be separately defined.

   e. Each university may offer conditional admission and/or earned admission to applicants who are reasonably expected to ~~meet the criteria outlined in section (a)(2)~~ DEMONSTRATE SUCCESS IN COLLEGE COURSEWORK.

   f. Each university will establish requirements, as applicable, of applicants to be international students, domestic U.S. students who have attended an institution outside of the U.S., returning students who stopped attending and now wish to be readmitted, non-degree seeking students, military and veteran students, and other categories as may be necessary. Such requirements shall be consistent with section (a)(2) of this policy and with any applicable details specified in this section.

g. Each university may, with approval of the board, adopt alternative admission criteria for applicants who do not fully meet the minimum admission requirements.

1) Such alternative criteria shall be specified for first year and transfer applicants.

2) A university may specify alternative criteria for applicants who:

i. Are age 22 or older.

ii. Do not meet grade point average requirements but have an upward trend in academic course grades.

iii. Have positive written recommendations from professional individuals who are personally familiar with their academic potential as demonstrated by work experience, leadership ability, or extracurricular activities.

iv. Meet other applicable requirements, as necessary.

3) Each university shall report the number of applicants admitted for each semester as follows: those meeting the minimum criteria for each category in section (a)(2) above, those meeting university-specific additional criteria in this section, and those meeting each of the alternative admission criteria in this section.

4) Admitted applicants who have not fully met admission requirements may be required to satisfy one or more deficiencies or may be required to participate in special programs designed to strengthen academic preparedness for university-level courses.

h. Each university may adopt additional requirements for admission to colleges or other academic units within the university.

i. Each university shall clearly post its admission requirements.

j. In accordance with A.R.S.15-1821(b)(1), an applicant under age 18 shall not be denied admission because of age, lack of a high school diploma or high school certificate of equivalency, grade in school, lack of permission of school officials or lack of concurrent enrollment in a public or private school, ~~or~~ if the applicant has achieved at least a specified score on a college entrance examination OR EQUIVALENT ADMISSION

REQUIREMENTS ESTABLISHED BY EACH university~~. Each university will establish admission requirements that allow the admission of applicants under age 18 and applicants seeking admission through the general educational development (GED) test or other relevant equivalency exams.~~

k. Each university may establish a maximum number of semester credit hours in which an applicant admitted under this section may enroll. The maximum will not be fewer than 6 credit hours per regular semester or equivalent.

l. Honorably discharged veterans who have served in the armed forces of the United States for a minimum of 2 years and who were previously enrolled at a university or community college in Arizona may be admitted by the criteria in this policy, except that no failing grades received by such veterans at any Arizona university or community college prior to their military service may be considered. Students readmitted under this section are subject to progression, retention, graduation, and other academic regulations and standards of the university.

m. No institution under the jurisdiction of the board will refuse, on the basis of policy, to recognize the degrees or accept the transfer of credits from a regionally accredited institution of higher education or a higher education institution that is a candidate for regional accreditation. Each university may recognize degrees or accept the transfer of credits from institutions of higher education that are not regionally accredited.

5. High School Course Equivalency

a. Requests may be submitted to the universities in accordance with the process delineated in this section to have a course reviewed to determine its equivalency to competency requirements for university undergraduate admission. Standard courses do not require approval.

b. The universities shall establish a process to review high school courses to determine whether the proposed course content will satisfy competency requirements for university admission.

c. The universities shall coordinate their review of proposed courses to ensure that the universities are evaluating the requests in a consistent manner and that the entity submitting the request receive clear and consistent information regarding course approval or denial.

d. Once a course title is approved, the course title listed will be

accepted for the specified competency requirement at all three universities.

e. As part of the process, the universities shall establish and make publicly available the following:

1) A list of standard courses that do not require approval.

2) A description of the review and approval process and instructions regarding eligibility and submission requirements.

3) Guidelines for course approval that specify the rigor and content required to meet the competency requirements in this policy.

4) A record of courses approved and denied and the reason for denial for a minimum of three years.

5) Timeframes for approving or denying a course for the requested competency requirement.

6) A process for notification of the outcome of the decision.

7) A process to request review by the provosts or their designees for proposed course equivalencies that are denied.

B. Graduate Admission

1. Each university will establish and clearly post requirements for applicants to be considered for admission to its graduate programs.

2. Graduate programs include those requiring completion of coursework or a degree at the baccalaureate (undergraduate) level for admission.

Policy History

4/10/2025 The Board repealed 2-120 and 2-121 and approved on second reading 2-105 in their place.

ARIZONA BOARD OF REGENTS
POLICY MANUAL

3-607 Lease-Purchase Acquisition

Revision Dates

6/15/2023 (effective 7/1/2023), 4/6/2018 (effective 7/1/2018), 9/28/2012, 5/19/1989 (adopted)

Acquisitions of personal property in the amount of ~~$1~~ FIVE million DOLLARS and greater by means of a lease-purchase shall be submitted through the University Governance and Operations Committee for approval by the Board. Minimum information required is:

A. Description and purpose of the acquisition.

B. The total cost of the acquisition.

C. Names of the other parties.

D. Proposed funds source.

E. Interest rate.

F. Period of lease.

Policy History

5/19/1989	Approved by the Board on second reading.
9/28/2012	Policy revision approved by the Board on second reading.
4/6/2018	Policy revision approved by the Board on second reading to be effective 7/1/2018.
6/15/2023	Policy revision approved by the Board on second reading to be effective 7/1/2023.

Related Information

ARIZONA BOARD OF REGENTS
POLICY MANUAL

5-105 Interagency Law Enforcement Agreements

Revision Dates

3/12/1983 (adopted; effective 5/1/1983)

The Board may authorize the president of an institution on behalf of the Board, to execute and deliver interagency law enforcement agreements. The agreements shall include an order of priority for requests for assistance as may in each case be agreed upon by the respective institutions with the other affected law enforcement agencies. In all cases, the agreements shall be subject to the final approval of the ~~Attorney~~ General COUNSEL FOR THE INSTITUTION.

Policy History

3/12/1983 The Policy Manual was adopted by the Board to be effective 5/1/1983.

Related Information

See 3/12/1983 meeting minutes.

ARIZONA BOARD OF REGENTS POLICY MANUAL	
5-204	Early Outreach to Other Educational Systems and Underrepresented Communities
Revision Dates 6/12/2025, 7/20/1990 (adopted)	

A. The Board of Regents is committed to encouraging and supporting university initiatives to develop linkages with underrepresented communities for the purpose of increasing the awareness of children in Grades K-12 and their ~~parents~~ FAMILIES about the importance of higher education, about opportunities for higher education in Arizona, and about the importance of academic preparation for higher education.

B. Each university should maintain a presence within underrepresented communities, as feasible, to build trust and credibility between the communities and universities to enhance understanding of the challenges that confront underrepresented community members who seek a higher education. The presence should include linkages with community-based organizations including voluntary organizations, religiously affiliated organizations, and tribal governments.

C. Early outreach initiatives should build upon the strengths inherent in the underrepresented communities.

D. Early outreach programs should include opportunities for university student participation from various disciplines, especially students from teacher education, sciences, mathematics, and social sciences.

E. Each university should assign high priority to the formation and refinement of linkages with K-12 schools and community colleges designed to enhance academic performance of underrepresented students and to raise awareness about accessibility of higher education.

F. Underrepresented students and communities are any group of students who need to improve their college attainment rates.

Policy History

7/20/1990 Approved by the Board on second reading.

6/12/2025 Policy revision approved by the Board on second reading.

Related Information

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ITEM 2.7: Discussion and Consideration of 2026 Legislative Priorities for the University System

Requested Action: The board office asks the board to discuss and consider approving 2026 legislative policy positions.

Background/Discussion

As a creation of the Arizona Constitution, the Arizona board of Regents has the statutory responsibility to govern the state's public universities. Together, Arizona's public universities — Arizona State University, Northern Arizona University and the University of Arizona — educate over 250,000 students and employ nearly 31,000 people. Upon graduation, these students join the workforce with the skills, knowledge and innovative mindset that fuel Arizona's robust economy.

The university presidents and ABOR's executive director — together constituting the Enterprise Executive Committee (EEC) — are responsible for the management of the institutions under the jurisdiction of the board, as set forth in board policy and subject to applicable law.

The board and EEC work collaboratively with a myriad of policymakers and staff members to obtain and preserve the statutory authority and financial support for Arizona's public universities.

The board's current legislative policy positions provide guidance to the authorized board staff and the EEC when engaging with state legislation. The current policy positions cover board objectives and policy positions for the 2025 legislative session including securing sustainable revenue and protecting board interests.

The board previously approved 2025 Legislative Policy Positions at its November 22, 2024 meeting.

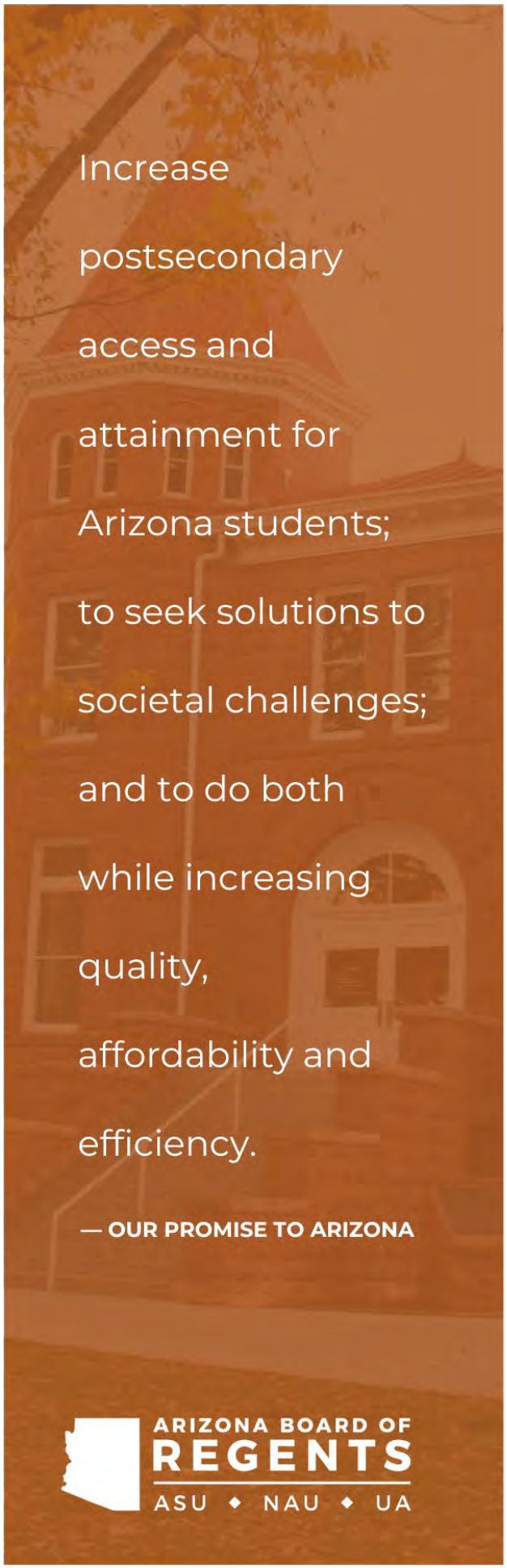
The attachment to this executive summary details the board's objectives and policy positions for the 2026 legislative session. Approval of the 2026 Legislative Policy Positions serve as general guidance that authorizes the designated board and university staff to advocate for and take positions on legislation that secures sustainable revenue and protects board interests.

Supporting Document/s

Legislative Policy Positions 2026

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ARIZONA BOARD OF REGENTS

2026 LEGISLATIVE POLICY POSITIONS

ABOUT US

The Arizona Board of Regents is the governing body for the state's public universities – Arizona State University, Northern Arizona University, and the University of Arizona – providing academic, operational and fiscal oversight.

OUR MISSION

The board is committed to ensuring access to public universities for Arizona students, promoting new discoveries through research, extending the benefits of university activities to all Arizonans, and maximizing the benefits of the state's investment in public higher education.

VISION

The Arizona Board of Regents seeks to provide leadership and a unifying voice on key higher education issues and to influence public policy through advocacy and initiatives founded upon evidence based research. Synergies from a unified higher education system will provide access and the highest quality education to Arizona's citizens.

The Arizona public universities provide bachelor's level and higher public education, advance human knowledge through scholarly research and creative expression, and serve key roles as major partners in statewide economic development and community advancement.

HISTORY

In 1864, the first Territorial Legislature authorized the establishment of the University of Arizona and provided for the management, direction, governance and control by a Board of Regents. The state colleges, one in Tempe and one in Flagstaff, were governed by a three-member State Board of Education that included the superintendent of public instruction and two members appointed by the governor.

In March of 1945, the governor signed House Bill 136 uniting the governing boards of the university and state colleges of Arizona. The authority of the Board of Regents expanded to include the Arizona State Teachers College at Tempe (since 1958 Arizona State University), and Arizona State Teachers College at Flagstaff (since 1966 Northern Arizona University).

> The board seeks to provide leadership and a unifying voice on key higher education issues and to influence public policy through advocacy and initiatives founded upon evidence-based research.

-ABOR Vision Statement

BACKGROUND

As a creation of the Arizona Constitution, the Arizona board of Regents has the statutory responsibility to govern the state's public universities. Together, Arizona's public universities — Arizona State University, Northern Arizona University and the University of Arizona — educate over 250,000 students and employ nearly 31,000 people. Upon graduation, these students join the workforce with the skills, knowledge and innovative mindset that fuel Arizona's robust economy.

The university presidents and ABOR's executive director — together constituting the Enterprise Executive Committee (EEC) — are responsible for the management of the institutions under the jurisdiction of the board, as set forth in board policy and subject to applicable law.

The board and EEC work collaboratively with a myriad of policymakers and staff members to obtain and preserve the statutory authority and financial support for Arizona's public universities.

LEGISLATIVE POLICY POSITIONS

In support of ABOR's mission, vision, and promise to Arizona, this document details the board's objectives and policy positions for the 2026 legislative session. These adopted legislative policy positions serve as general guidance that authorizes the designated board and university staff to advocate for and take positions on legislation that secures sustainable revenue and protects board interests.

SECURING SUSTAINABLE REVENUE

The board is committed to providing an accessible and affordable high-quality education through its public universities. Universities are funded through a mix of revenue sources including tuition and fees; federal and state funding; grants, gifts and contracts; and entrepreneurial revenue. State General Fund revenues make up 12% of university budgets.

ABOR SUPPORTS

- Enactment of its fiscal year 2027 budget request, including investments in health care education growth, obtaining dedicated and sustainable long-term investments from the state, and enhancing federal support across all areas.
- Fully funding statutorily required programs including the Arizona Promise Program, Arizona Teacher's Academy and existing unfunded tuition waivers.

ABOR OPPOSES

- Reductions in funding allocation from the State General Fund, Arizona State Lottery funds, Arizona State Land Trust funds, or TRIF.
- New tuition and fee waivers unless fully funded by the state.

DRAFT

- Extending general fund support for scholarships or tuition waiver programs to other institutions and entities unless the existing university scholarship programs, if applicable, and the proposed expansions are fully funded.
- Legislation that would directly or indirectly substantially increase the cost of operating the universities.
- Legislation that would put at risk federal funding for university students, faculty or institutions.
- Limiting or removing ABOR's authority to allocate and expend tuition and fee revenue.
- Limiting the universities' ability to maximize the value of land and other capital assets within their portfolios.
- Limiting the types of financial transactions available to develop university lands.

ABOR MAY SUPPORT OR BE NEUTRAL

- Creation of new tuition waivers that are fully funded by the state through new or repurposed funding.

PROTECTING BOARD INTEREST

The board has a constitutional and statutory obligation to oversee Arizona's public university system. To accomplish this mission, the board relies on its legal authority as a state entity established in the constitution. This authorizes the board to maximize the accessibility and affordability of its universities and ensure the institutions are providing a high-quality education to meet workforce needs in a safe environment. Examples of this authority include board policy and rulemaking, tuition and fee setting, employment of presidents and staff, establishing academic requirements, and providing for the preservation of freedom of expression.

The board also plays a critical role for postsecondary attainment and improving overall college readiness for Arizona students. Success in these endeavors is supported by maintaining and enhancing the requisite authority.

ABOR SUPPORTS

- Initiatives that strengthen the coordination with other institutions to improve student mobility.

ABOR OPPOSES

- Eliminating or substantially altering the board's exemptions from state rulemaking, procurement, and personnel laws and rules.
- Limiting the board's authority to provide for the maintenance of public order on university campuses.
- Limiting the board's authority to establish academic requirements.
- Limiting the board's authority to provide for the preservation of freedom of expression and free and open inquiry.
- Limiting or removing the board's authority to govern university real assets.
- Limiting the board's employment authority.
- Legislation that would place at risk Arizona's public universities' ability to compete in intercollegiate sports.
- Restricting authority to offer or administer the Optional Retirement Program.

DRAFT

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ITEM 2.8: Discussion of FY 2026 Financial Status Report – Fall Update

Requested Action: The board office asks the board to review the fall update of the FY 2026 operating budgets for Arizona State University, Northern Arizona University, and the University of Arizona, as described in this executive summary and supporting document/s.

Background

Each university presents a quarterly budget update to reflect actual expenses to date. The reports include explanations for any significant variances between the initial FY 2026 Operating Budgets approved by the board in June 2025 and current projections, revised tuition and fee revenues based on Fall 2025 student enrollment census, and revised revenues and expenditures forecasts based on actual trends through September 30.

The universities also include a Monthly Days Cash on Hand projection in accordance with the Board's Liquidity Measure Guidelines, established to manage acceptable levels of working capital, or "reserves".

Discussion

The report includes budget data for FY 2024, FY 2025 (budget and actual), and FY 2026 (budget and projection for year-end), a history of tuition and fee revenue, and a dashboard of relevant data for each university, including additional detail around cash liquidity.

Supporting Documents/s

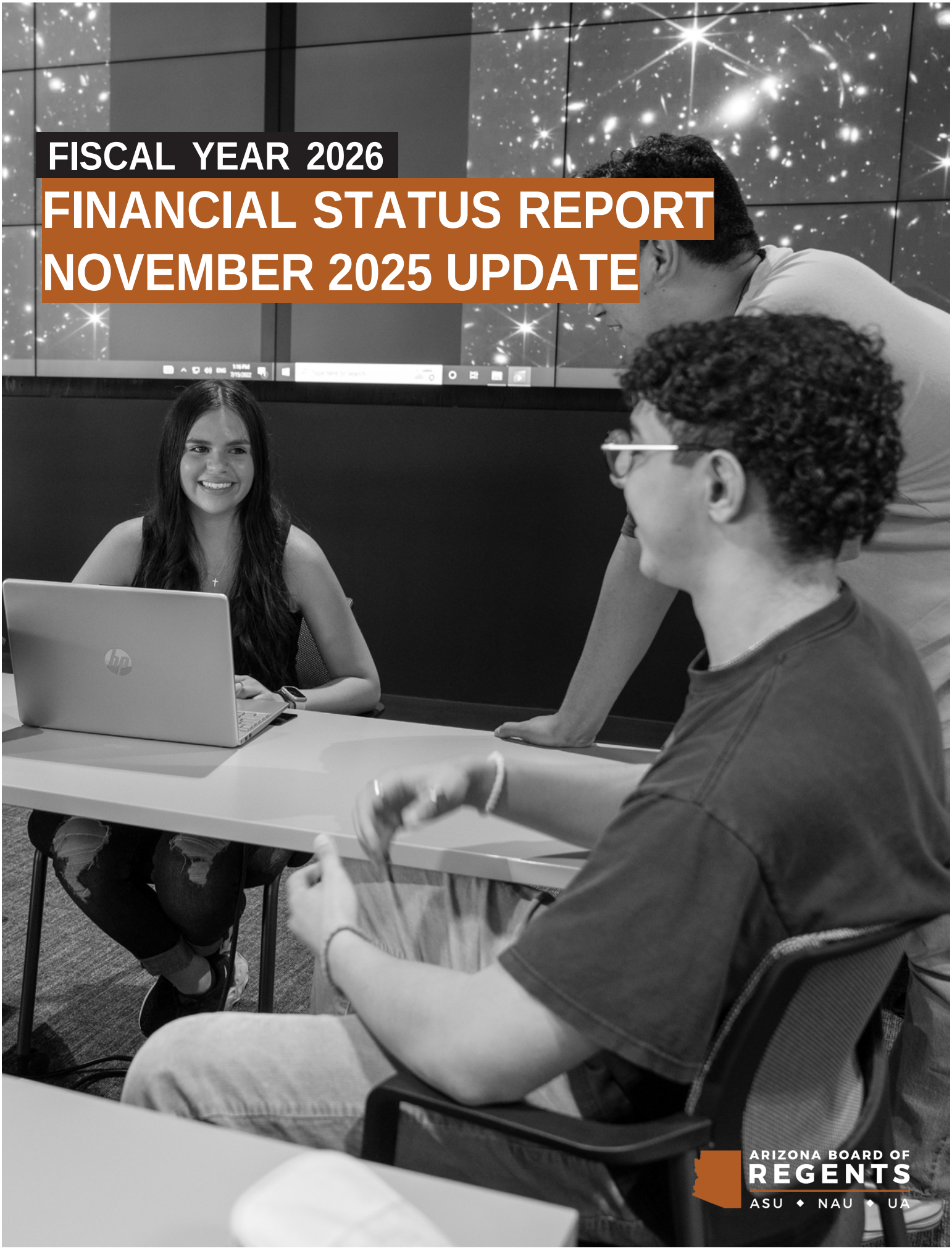
The report will be provided separately from these materials.

Statutory/Policy Requirements

ABOR Policy 3-407 – Budget Updates

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FISCAL YEAR 2026

FINANCIAL STATUS REPORT
NOVEMBER 2025 UPDATE

ARIZONA BOARD OF REGENTS

ASU ◆ NAU ◆ UA

ABOUT THIS REPORT

ABOR Policy 3-407 requires each university to provide the board with a financial status update. The updates must be submitted at least quarterly and include the following monitoring items:

- The prior year budget to prior year actual revenues and expenses;
- Updated revenue and expense projections for the current fiscal year and explanation of any changes;
- A comparison of current year revenue and expense projections to the university's annual budget (adjusted for year-end accruals);
- A current projection for change in net position at year-end.
- An update to operating cash balances that shows the range of cash balances for each quarter (high and low) with a comparison against historical data for that period;
- A revised projection of ending cash balance for the current and next fiscal year; and
- A discussion of trends and explanations for any significant fluctuations in current or projected operating cash balances.

ABOUT THE ARIZONA BOARD OF REGENTS

The Arizona Board of Regents is committed to ensuring access for qualified residents of Arizona to undergraduate and graduate institutions; promoting the discovery, application, and dissemination of new knowledge; extending the benefits of university activities to Arizona's citizens outside the university; and maximizing the benefits derived from the state's investment in education.

MEMBERS

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Jessica Pacheco, Chair Elect
Gregg Brewster, Secretary
Cecilia Mata, Treasurer
Fred DuVal
Larry Penley
James McCain
Lee Stein
Jaydn Fisher, Student Regent
Felipe Garcia, Student Regent
Governor Katie Hobbs, Ex-Officio
Superintendent Tom Horne, Ex-Officio

ABOR EXECUTIVE DIRECTOR

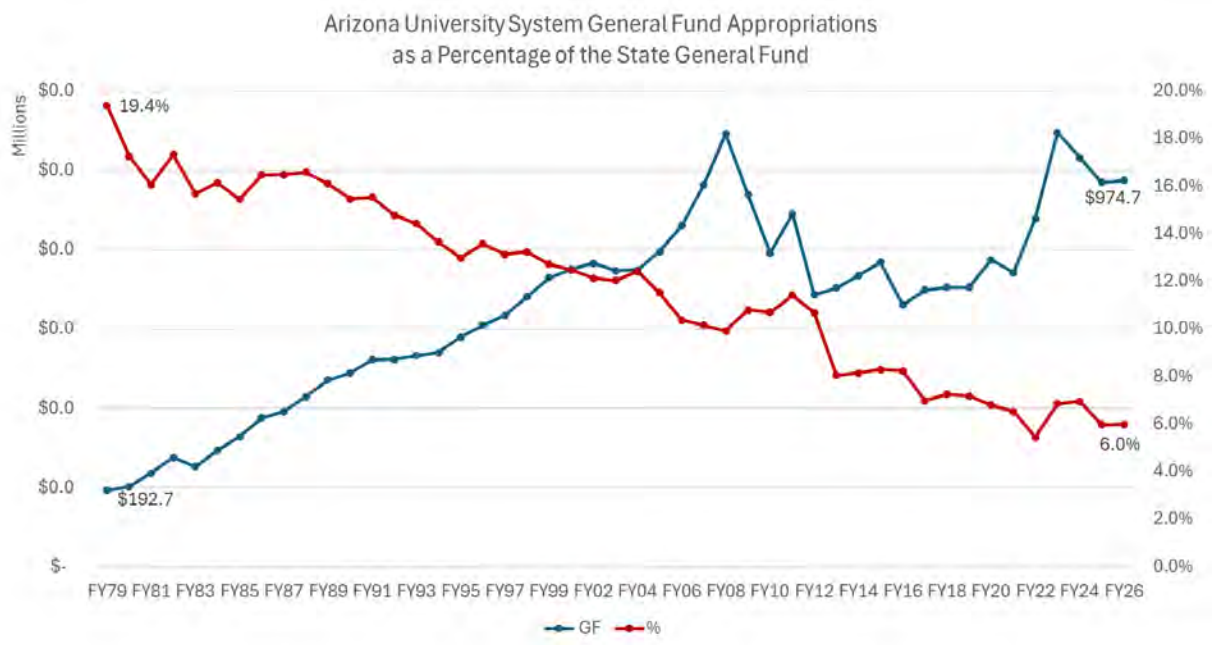
Chad Sampson

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FY 2026 STATE GENERAL FUND APPROPRIATIONS TO THE UNIVERSITY SYSTEM

In June 2025 when the board approved the initial FY 2026 budgets, state general fund appropriations were not yet finalized by the legislature. This update includes the final general fund appropriations, which resulted in a system-wide increase of $4.7 million from FY 2025 funding levels. The increase brings general fund appropriations for the system to $974.7 million.



The FY 2026 general fund budget included a $39.8 million reduction in non-recurring appropriations, including $47.0 million in reductions to prior year one-time appropriations that were partially offset by $6.2 million in new one-time appropriations and an increase of $29.1 million in technical budget adjustments primarily related to the Health Insurance Trust Fund (HITF), ADOA risk management, and the Arizona State Retirement System.

Beyond the net reductions to university budgets, state appropriations to the Arizona Promise Program were increased by $16.3 million (from $20.0 million to $36.3 million) and the Arizona Teachers Academy was reduced by $1.0 million (from $16.0 million to $15.0 million).

FY 2026 GENERAL FUND APPROPRIATIONS

	ABOR	ASU	NAU	U of A	Total
FY26 Appropriations Changes (from FY25)					
Ongoing Funding	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
One-Time Funding	**$ 15,450,000**	**$ (20,700,000)**	**$ (10,100,000)**	**$ (9,126,200)**	**$ (24,476,200)**
New Economy Initiative / AZ Healthy Tomorrow		(21,200,000)	(10,100,000)	(14,700,000)	(46,000,000)
AZ Promise Program	16,300,000				16,300,000
Arizona Teachers Academy	(1,000,000)				(1,000,000)
Washington DC Internships	150,000				150,000
Decision Theater - Pinal Co Transporation Plan		500,000			500,000
Yuma Center of Excellence in Desert Agriculture				1,350,000	1,350,000
Agriculture				257,600	257,600
Arizona Geological Survey				500,000	500,000
College of Veterinary Medicine				66,200	66,200
Extractive Modular Metallurgy Facility				850,000	850,000
On-Farm Irrigation Efficiency Fund Deposit				2,000,000	2,000,000
AZ Reach				500,000	500,000
Medical Mission Scholarships				50,000	50,000
Technical Adjustments	**$ 206,600**	**$ 24,733,000**	**$ 513,300**	**$ 3,696,200**	**$ 29,149,100**
2003 Research Infrastructure Refinancing		(5,400)	(1,000)	1,100	(5,300)
2017 University Capital Infrastructure Financing		266,000	100,800	235,300	602,100
Statewide Adjustments	206,600	24,472,400	413,500	3,459,800	28,552,300
FY 2026 Incremental Funding	**$ 15,656,600**	**$ 4,033,000**	**$ (9,586,700)**	**$ (5,430,000)**	**$ 4,672,900**
FY25 Appropriations	55,726,000	408,638,200	134,294,400	371,342,100	970,000,700
FY26 Appropriations	**$ 71,382,600**	**$ 412,671,200**	**$ 124,707,700**	**$ 365,912,100**	**$ 974,673,600**

ARIZONA STATE UNIVERSITY

Net Position

ASU is forecasting a $123.6 million increase in ending net position for the FY 2026 ($167.3 million) versus the university's initial projection ($43.4 million). This improvement is largely driven by reductions in planned expenses, a one-time increase in their allocation from the Arizona Promise Program, a one-time reimbursement for student aid, and the accrual of TRIF funds allocated by ABOR in FY 2025.

Revenue

State Appropriations

ASU experienced a $8.0 million net increase in general fund appropriations. This was due to a $18.2 million one-time increase in the AZ Promise allocation, which offset a $7.0 million decrease in statewide adjustments and $3.2 million decrease in Arizona Teacher's Academy allocations.

Enrollment Revenue

FTE enrollment at the Fall 2025 census decreased by 1,241 (-1.0%) compared to the university's budget assumptions, due to decreases in undergraduate (-1.1%) and graduate (-5.2%) campus immersion enrollment and increases in online immersion undergraduate (4.0%) and graduate (1.5%) enrollment.

ASU is maintaining the current tuition/fee revenue projection as enrollment revenues are tracking with budget projections. ASU is monitoring upside for future projections, watching enrollment mix related to non-resident, international, online enrollments, and summer enrollments that could shift the overall amount of gross tuition revenues later in the year.

ASU projects no changes in scholarship allowance from the initial budget. At $720.4 million, the scholarship allowance represents 23% of gross tuition and fee revenues, which is in line with ASU's average over the past five years.

ARIZONA STATE UNIVERSITY - TUITION AND FEES REVENUE

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026 Budget	FY 2026 Estimate
Gross Tuition & Fees	2,134,308	2,276,313	2,492,825	2,649,984	2,862,445	3,078,819	3,078,819
Scholarship Allowance	536,128	586,481	603,404	641,100	689,387	720,400	720,400
Net Tuition & Fees	1,598,180	1,689,832	1,889,421	2,008,884	2,173,059	2,358,419	2,358,419
Scholarship Allowance as % of Gross T&F	25%	26%	24%	24%	24%	23%	23%

ARIZONA STATE UNIVERSITY - ENROLLMENT

Fall Enrollment - 21 Day FTE	FY 2026 Fall 2025 Actual	FY 2026 Fall 2025 Est.	FY 2025 Fall 2024	FY 2024 Fall 2023	FY 2023 Fall 2022	FY 2022 Fall 2021
Resident Undergraduate (UG)	48,293	48,433	47,275	46,275	46,278	46,965
Resident Undergraduate - Online	7,295	7,471	6,744	6,273	6,077	5,677
Nonresident Undergraduate	23,463	24,582	24,824	24,662	24,469	22,630
Nonresident Undergraduate - Online	35,062	34,624	31,231	28,215	26,307	23,977
Total Undergraduate	**114,113**	**115,110**	**110,074**	**105,425**	**103,131**	**99,249**
Online as % of UG	37%	37%	34%	33%	31%	30%
Resident Graduate (Grad)	5,175	4,651	4,657	4,361	4,351	4,918
Resident Graduate - Online	3,608	3,483	3,053	2,580	2,215	2,041
Nonresident Graduate	8,580	9,546	9,336	9,326	9,600	8,000
Nonresident Graduate - Online	10,972	10,900	9,529	8,361	7,894	7,555
Total Graduate	**28,336**	**28,580**	**26,575**	**24,628**	**24,060**	**22,514**
Online as % of Grad	51%	50%	47%	44%	42%	43%
Online as % of Total	40%	39%	37%	35%	33%	32%
Total FTE	**142,449**	**143,690**	**136,649**	**130,053**	**127,191**	**121,763**

Research Revenue
Sponsored project revenue projections remain consistent with the FY 2026 forecast at $710.0 million.

Auxiliary Business Revenue
Auxiliary revenue is projected to remain consistent compared to budget estimates, at $294.5 million for FY 2026.

Expenses

ASU estimates expenses to decrease by $69.2 million from the initial FY 2026 budget.

ASU projects an overall decrease of $45.4 million in salaries, wages, and benefits from the FY 2026 initial budget as a result of position control measures. While inflationary pressures are increasing the costs of materials, services, software, and the costs to provide housing and dining services, the university's cost reduction efforts are expected to generate $23.8 million in savings against budget.

ASU has implemented cost containment measures within the Knowledge Enterprise to respond to changes in the structure and number of federal research grants.

Liquidity

The university's ending days cash on hand is projected to be 177, which is an improvement from the original FY 2026 budget (161) and one day greater than the FY 2025 ending balance (176). These values are within the board's target range - between 132 days and 220 days – based on Moody's public college and university data.

Moody's Monthly Liquidity reflects the University's available liquid resources and includes only those investments that can be liquidated, settled, and accessed within one month. Continued accessibility to liquidity is important for the Universities to make payments on short-term debts, payroll, and other obligations.

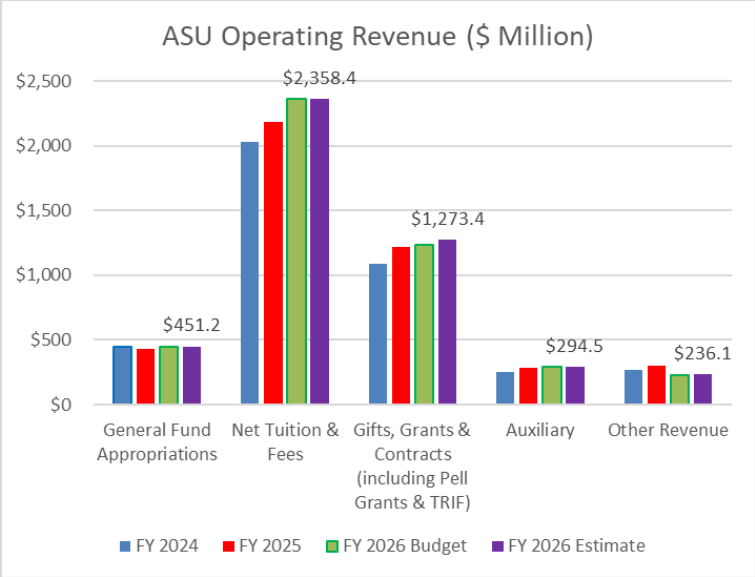
ASU's Moody's Monthly Liquidity projection for FY 2026 is $1.82 billion which is $115.6 million greater than FY 2025 and $120.0 million more than FY 2026 budget. The University's operating fund daily balances continue to show increases over previous years and are a significant component of the Moody's Monthly Liquidity measure. The increase in the liquidity between FY 2025 budget and FY 2026 projection reflects a stronger market performance on June 30, 2025, and a continued strong market performance through October 2025.

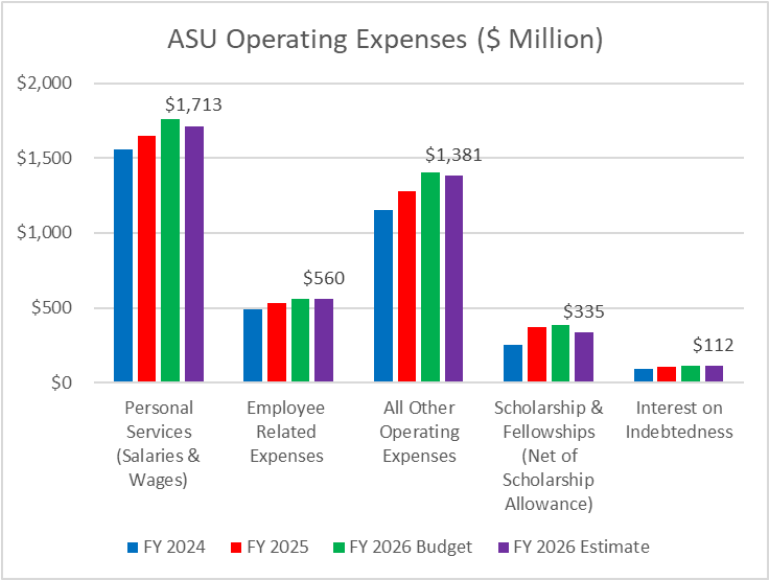
ASU's initial forecast of days cash on hand at the end of FY 2027 is consistent with current levels. ASU forecasts $1.87 billion to $2 billion in monthly liquidity, which would yield similar days cash on hand figures, holding expenses constant. These levels would reasonably be expected to be within the board's target range.

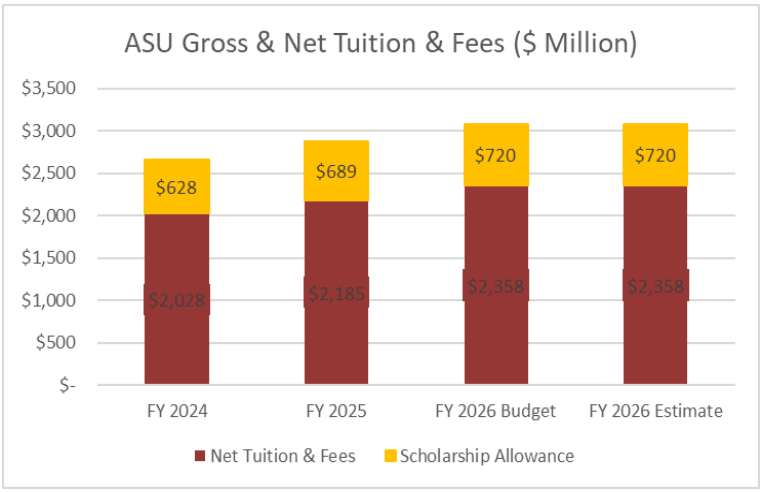
Arizona State University $ in Millions	ACTUAL FY 2024	BUDGET FY 2025	ACTUAL FY 2025	BUDGET FY 2026	QUARTER 1 ACTUAL 9/30/2025	QUARTER 1 PROJECTED FY 2026	VARIANCE FY 2026 BUDGET vs FY 2026 PROJECTED	
General Fund (GF) Appropriations	$ 378.7	$ 378.5	$ 375.9	$ 386.7	$ 94.8	$ 379.7	(7.0)	-1.8%
Appropriated GF - Research Infrastructure	13.5	13.5	13.5	13.5	3.4	13.5	-	0.0%
Appropriated GF - Capital Infrastructure	13.0	13.0	13.3	13.6	3.4	13.6	-	0.0%
Appropriated GF - Arizona Financial Aid Trust (AFAT)	6.0	6.0	6.0	6.0	1.5	6.0	-	0.0%
State Appropriation Transfer - Arizona Teachers Academy	15.9	16.5	12.2	11.0	-	7.8	(3.2)	-29.1%
State Appropriation Transfer - AZ Promise	23.2	21.6	12.4	12.4	-	30.6	18.2	146.8%
State Appropriation Transfer - Other	-	-	-	-	-	-	-	
SUBTOTAL - State Appropriations	$ 450.3	$ 449.1	$ 433.3	$ 443.2	$ 103.1	$ 451.2	$ 8.0	1.8%
Tuition and Fees	$ 2,655.8	$ 2,818.0	$ 2,873.9	$ 3,078.8	$ 1,468.4	$ 3,078.8	$ -	0.0%
Scholarship Allowance	(627.5)	(680.0)	(689.4)	(720.4)	(324.0)	(720.4)	-	0.0%
SUBTOTAL - Net T&F	$ 2,028.3	$ 2,138.0	$ 2,184.5	$ 2,358.4	$ 1,144.4	$ 2,358.4	$ -	0.0%
Grants & Contracts - Research	624.4	690.0	715.1	710.0	177.0	710.0	-	0.0%
COVID-19 Relief Funding	65.8	20.0	17.4	55.0	3.2	84.6	29.6	53.8%
Financial Aid Grants (Primarily Federal Pell Grants)	244.6	240.0	314.7	310.0	134.5	310.0	-	0.0%
Technology & Research Initiative (TRIF)	42.2	33.9	54.3	33.9	21.3	46.7	12.8	37.8%
Private Gifts	115.2	106.6	115.3	122.1	25.6	122.1	-	0.0%
Auxiliary Revenues, Net	250.4	273.6	284.4	294.5	124.2	294.5	-	0.0%
Other Revenue	266.0	218.5	299.2	232.1	73.0	236.1	4.0	1.7%
SUBTOTAL - Other Revenues	$ 1,608.6	$ 1,582.6	$ 1,800.4	$ 1,757.6	$ 558.8	$ 1,804.0	$ 46.4	2.6%
TOTAL - Revenues	**$ 4,087.2**	**$ 4,169.7**	**$ 4,418.2**	**$ 4,559.2**	**$ 1,806.3**	**$ 4,613.6**	**$ 54.4**	**0.0%**
Personal Services (Salaries & Wages)	$ 1,560.2	$ 1,697.1	$ 1,648.0	$ 1,758.7	$ 382.2	$ 1,713.3	$ (45.4)	-2.6%
Employee Related Expenses	493.0	529.6	532.2	559.9	123.8	559.9	-	0.0%
All Other Operating Expenses	1,151.7	1,211.6	1,277.7	1,404.5	382.2	1,380.7	(23.8)	-1.7%
HEERF/CRF Student Emergency Grants	72.1	-	4.4	-	-	49.6	49.6	
Scholarship & Fellowships (Net of Scholarship Allowance)	256.2	290.0	370.3	384.4	164.5	334.8	(49.6)	
Interest on Indebtedness	90.5	92.2	104.2	112.0	28.0	112.0	-	0.0%
TOTAL - Expenses	**$ 3,623.7**	**$ 3,820.5**	**$ 3,936.8**	**$ 4,219.5**	**$ 1,080.7**	**$ 4,150.3**	**$ (69.2)**	**-1.6%**
Depreciation	$ 231.7	$ 243.6	$ 247.3	$ 256.0	$ 64.0	$ 256.0	$ -	0.0%
Pension Liability (GASB 68 & GASB 45)	15.3	40.0	(11.8)	40.0	10.0	40.0	-	0.0%
Compensated Absences Accrued & Used But Not Paid (GASB 101)	22.4	-	3.1	-		-	-	
Moody's Monthly Liquidity	1,488.4	1,571.1	1,705.9	1,701.5		1,821.5	120.0	7.1%
Daily Liquidity Measure (calculated - Moody's Monthly Liquidity / Monthly Day Cash on Hand)	9.1	9.6	9.7	10.6		10.3	(0.3)	-2.6%
Monthly Days Cash on Hand	**164**	**163**	**176**	**161**		**177**	**16.0**	**9.9%**
Increase/(Decrease) in Net Position	**$ 194.1**	**$ 65.6**	**$ 242.8**	**$ 43.7**		**$ 167.3**	**$ 123.6**	**282.8%**

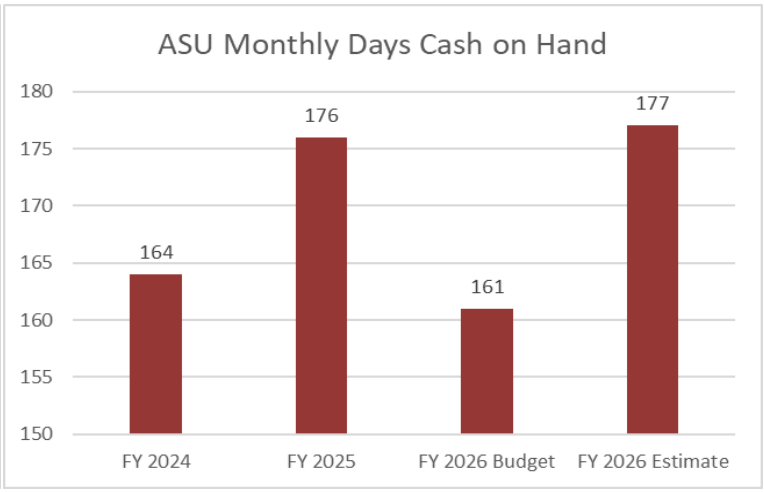
ARIZONA STATE UNIVERSITY – TUITION AND FEE REVENUE ($000)

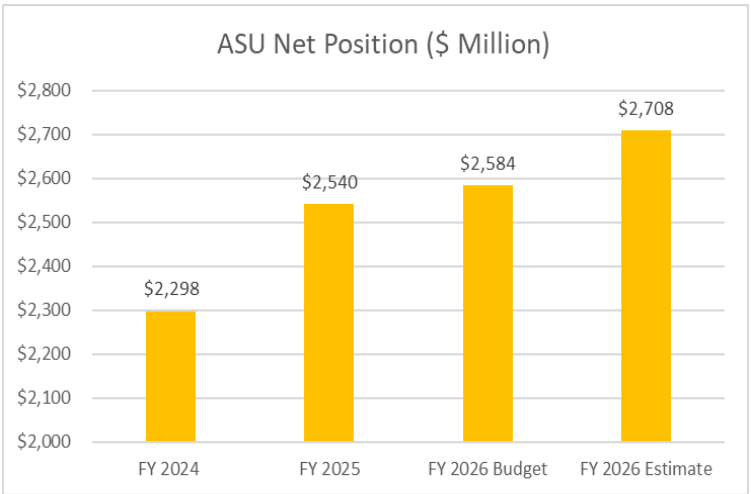
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026 Budget	FY 2026 Estimate
TUITION	**1,108,378**	**1,190,788**	**1,303,691**	**1,392,207**	**1,400,736**	**1,440,782**	**1,440,782**
Nonresident Undergraduate	482,162	526,202	598,046	645,641	646,377	655,311	655,311
Resident Undergraduate	440,456	437,393	439,523	450,004	476,695	501,334	501,334
Nonresident Graduate	133,547	177,863	220,578	250,284	226,206	224,682	224,682
Resident Graduate	52,213	49,330	45,544	46,277	51,457	59,454	59,454
Online	**493,897**	**527,014**	**581,155**	**619,902**	**730,013**	**823,879**	**823,879**
Nonresident Undergraduate	336,219	353,851	397,915	409,918	496,943	536,442	536,442
Resident Undergraduate	59,868	65,690	70,403	67,806	82,610	92,927	92,927
Nonresident Graduate	76,751	85,019	88,565	107,869	115,279	147,486	147,486
Resident Graduate	21,059	22,454	24,272	34,310	35,181	47,024	47,024
Program Fees/Diff	**94,967**	**102,271**	**103,478**	**123,170**	**144,877**	**178,724**	**178,724**
Undergraduate	17,057	87,045	15,341	14,406	16,175	16,839	16,839
Graduate	77,910	15,226	88,138	108,764	128,703	161,885	161,885
College Fee	**134,158**	**146,238**	**159,339**	**161,191**	**187,416**	**204,947**	**204,947**
Undergraduate	121,542	132,880	145,836	149,985	175,671	193,665	193,665
Graduate	12,616	13,358	13,503	11,206	11,745	11,282	11,282
Course Fees	**1,035**	**853**	**162**	**346**	**382**	**590**	**590**
Undergraduate	232	290	153	346	382	590	590
Graduate	803	563	9	-	-	-	-
Extended Ed	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Non-Degree	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Summer & Winter Sessions	**205,007**	**206,254**	**219,746**	**232,959**	**268,879**	**287,426**	**287,426**
Mandatory Fees	**44,518**	**46,753**	**50,082**	**51,153**	**63,480**	**68,067**	**68,067**
Undergraduate	34,047	34,746	35,068	36,337	44,167	46,239	46,239
Graduate	10,471	12,007	15,014	14,816	19,313	21,828	21,828
Other Misc.	**52,348**	**56,142**	**75,171**	**69,056**	78,094	74,405	74,405
Total Tuition & Fees	**2,134,308**	**2,276,313**	**2,492,825**	**2,649,984**	**2,862,445**	**3,078,819**	**3,078,819**
Scholarship Allowance	**536,128**	**586,481**	**603,404**	**641,100**	**689,387**	**720,400**	**720,400**
Net Tuition and Fees	**1,598,180**	**1,689,832**	**1,889,421**	**2,008,885**	**2,173,059**	**2,358,419**	**2,358,419**

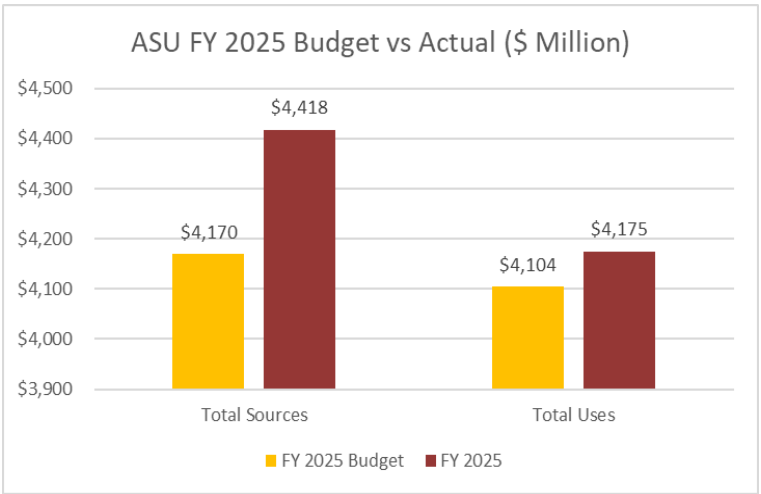

ASU Operating Revenue ($ Million)
$2,500
$2,000
$1,500
$1,000
$500
$0
$451.2
$2,358.4
$1,273.4
$294.5
$236.1
General Fund Appropriations
Net Tuition & Fees
Gifts, Grants & Contracts (including Pell Grants & TRIF)
Auxiliary
Other Revenue
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate


ASU Operating Expenses ($ Million)
$2,000
$1,500
$1,000
$500
$0
$1,713
$560
$1,381
$335
$112
Personal Services (Salaries & Wages)
Employee Related Expenses
All Other Operating Expenses
Scholarship & Fellowships (Net of Scholarship Allowance)
Interest on Indebtedness
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate


ASU Gross & Net Tuition & Fees ($ Million)
$3,500
$3,000
$2,500
$2,000
$1,500
$1,000
$500
$-
$628
$689
$720
$720
$2,028
$2,185
$2,358
$2,358
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate
Net Tuition & Fees
Scholarship Allowance


ASU Monthly Days Cash on Hand
180
175
170
165
160
155
150
164
176
161
177
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate


ASU Net Position ($ Million)
$2,800
$2,700
$2,600
$2,500
$2,400
$2,300
$2,200
$2,100
$2,000
$2,298
$2,540
$2,584
$2,708
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate


ASU FY 2025 Budget vs Actual ($ Million)
$4,500
$4,400
$4,300
$4,200
$4,100
$4,000
$3,900
$4,170
$4,418
$4,104
$4,175
Total Sources
Total Uses
FY 2025 Budget
FY 2025

NORTHERN ARIZONA UNIVERSITY

Net Position

Northern Arizona University (NAU) estimates a $1.5 million ending net position, slightly increased from the break-even budget for FY 2026. This increase is driven by a one-time increase in grant reimbursements for student aid, which offsets increased expense and decreased revenue projections.

Revenue

State Appropriations

NAU is forecasting a net $3.2 million increase in state appropriations, which included a $4.0 million decrease in general fund appropriations, but was offset by one-time increases in Arizona Promise Program and Arizona Teachers Academy allocations of $7.2 million for the year.

Enrollment Revenue

Compared to the initial FY 2026 budget, net tuition and fees are now forecast to be lower than FY 2025 and the initial FY 2026 budget by a net $4.6 million. Revenue is projected to decrease by $10.6 million from budget, offset by $6 million in anticipated financial aid not awarded. Greater than expected declines in international student enrollment were cited as a primary driver.

NAU's incoming class had higher financial need compared to the prior cohorts, driving up pressure on financial aid costs. In parallel, as enrollments declined, there will be corresponding decreases in federal aid and scholarship allowances.

NORTHERN ARIZONA UNIVERSITY - TUITION AND FEES REVENUE

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026 Budget	FY 2026 Estimate
Gross Tuition & Fees	379,351	367,759	374,836	398,194	406,323	410,881	400,269
Scholarship Allowance	160,899	166,826	179,386	196,568	209,291	213,278	207,300
Net Tuition & Fees	218,452	200,933	195,450	201,626	197,033	197,603	192,969
Scholarship Allowance as % of Gross T&F	42%	45%	48%	49%	52%	52%	52%

NORTHERN ARIZONA UNIVERSITY - ENROLLMENT

Fall Enrollment – 21 Day FTE	FY 2026 Fall 2025 Actual	FY 2026 Fall 2025 Est.	FY 2025 Fall 2024	FY 2024 Fall 2023	FY 2023 Fall 2022	FY 2022 Fall 2021
Resident Undergraduate (UG)	16,362	15,380	15,400	15,108	14,216	14,086
Resident Undergraduate - Online	1,217	1,011	1,106	1,128	1,212	1,335
Nonresident Undergraduate	4,128	5,084	5,667	5,875	6,551	6,919
Nonresident Undergraduate - Online	411	522	568	601	667	853
Total Undergraduate	**22,118**	**21,997**	**22,741**	**22,712**	**22,646**	**23,193**
Online as % of UG	7%	7%	7%	8%	8%	9%
Resident Graduate (Grad)	1,923	1,818	1,792	1,720	1,686	1,701
Resident Graduate - Online	731	727	760	728	705	740
Nonresident Graduate	1,161	1,280	1,466	1,389	1,217	1,023
Nonresident Graduate - Online	1,252	1,539	1,509	866	664	466
Total Graduate	**5,067**	**5,364**	**5,527**	**4,703**	**4,272**	**3,930**
Online as % of Grad	39%	42%	41%	34%	32%	31%
Online as % of Total	13%	14%	14%	12%	12%	13%
Total FTE	**27,185**	**27,361**	**28,268**	**27,415**	**26,918**	**27,123**

Research Revenue

The sponsored project revenue is currently projected to remain strong for the year, with an increase of $12 million to the FY 2026 projection, for a total of $112 million. This forecast is less than the $120 million in grant revenue in FY 2025 but is stronger than the university's original estimate given recent grant funding pressures.

Philanthropic Revenue

Strong fund-raising activity combined with the public launch of NAU's comprehensive campaign is projected to lead to growth versus the prior year's private gift revenues. Though down $5 million from the initial FY 2026 budget, the FY 2026 projection of $40 million is an increase of $6.2 million from the FY 2025 actual of $33.8 million.

Auxiliary Business Revenue

Auxiliary revenue is projected at $91 million, a 4% increase above FY 2025, however comes short of the original projection for this year by $2.5 million. This trend tracks with overall declines in enrollment.

Housing demand has remained strong, which is the primary driver of auxiliary revenue growth with overall occupancy flat to last fall (-0.4%). Dining and parking revenues are projected to see year-over-year growth. Revenue from camps and conferences has helped to offset lower interest earnings.

Expenses

NAU estimates expenses to increase by $11.2 million, driven by first quarter actual expenses outpacing original forecasts due to utility, construction, and IT software costs.

The initial FY 2026 budget projected a decrease in personnel expenses of $9.3 million, from $340.7 million to $329.1 million. However, current projections increase this by $3.9 million. Overall, personnel expenses are expected to remain lower year over year, with annual compensation awards targeted in the second half of this year for market movement.

With the new Blue Cross Blue Sheild medical insurance plan year staring January 2026, university costs are expected to increase by 10% pending the final selection of the plans from this fall's open enrollment.

Liquidity

Days cash on hand is projected to reach 165, which is 2 days lower than the original budget forecast and 1.6 days lower than the FY 2025 actual. These values are within the board's target range - between 132 days and 220 days – based on Moody's public college and university data.

Moody's Monthly Liquidity reflects the University's available liquid resources and is defined as cash and investments valued and includes only those investments that can be liquidated, settled, and accessed within one month. Continued accessibility to liquidity is important for the Universities to make payments on short-term debts, payroll, and other obligations.

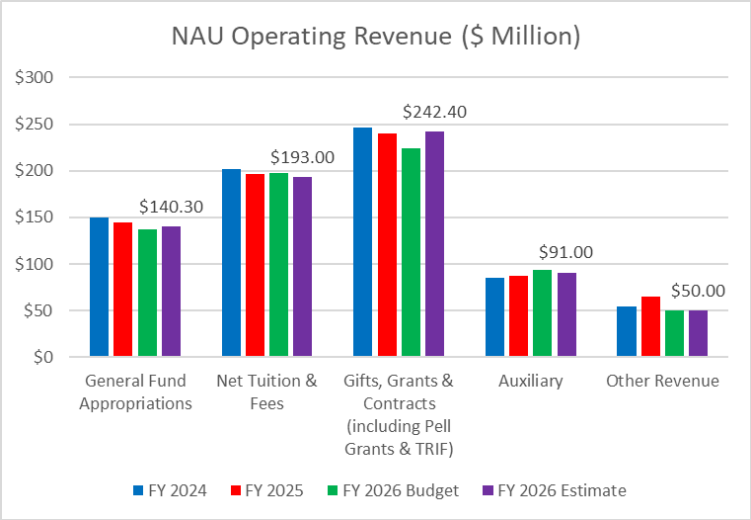
NAU's Monthly Liquidity projection for FY 2026 is $281.0 million, which aligns with the FY 2026 budget.

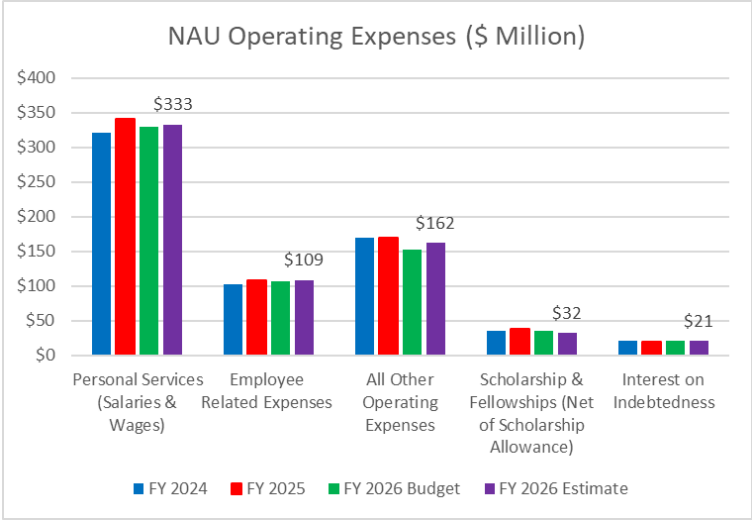
NAU's initial forecast of days cash on hand at the end of FY 2027 is 165 days, which is even to the expected forecast for the current fiscal year and remains within the board's target range.

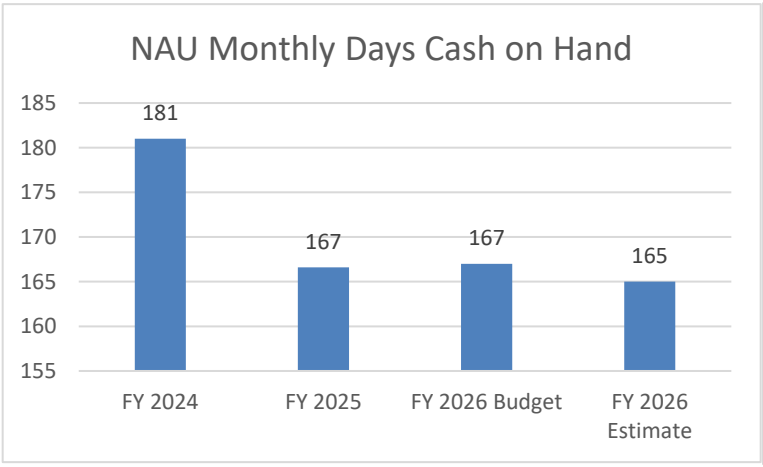
Northern Arizona University $ in Millions	ACTUAL FY 2024	BUDGET FY 2025	ACTUAL FY 2025	BUDGET FY 2026	QUARTER 1 ACTUAL 9/30/2025	QUARTER 1 PROJECTED FY 2026	VARIANCE FY 2026 BUDGET vs FY 2026 PROJECTED	
General Fund (GF) Appropriations	$ 123.9	$ 123.7	$ 121.7	$ 114.0	$ 27.3	$ 110.0	$ (4.0)	-3.5%
Appropriated GF - Research Infrastructure	5.3	5.0	5.0	4.9	1.2	4.9	-	0.0%
Appropriated GF - Capital Infrastructure	4.9	5.0	5.1	5.1	1.2	5.1	-	0.0%
Appropriated GF - Arizona Financial Aid Trust (AFAT)	1.3	1.3	1.3	1.3	0.3	1.3	-	0.0%
State Appropriation Transfer - Arizona Teachers Academy	8.0	6.5	8.0	8.0	2.4	8.3	0.3	3.8%
State Appropriation Transfer - AZ Promise	6.4	8.6	3.7	3.8	-	10.7	6.9	181.6%
State Appropriation Transfer - Other	-	-	-	-	-	-	-	
SUBTOTAL - State Appropriations	$ 149.9	$ 150.1	$ 144.8	$ 137.1	$ 32.4	$ 140.3	$ 3.2	2.3%
Tuition and Fees	$ 398.2	$ 422.6	$ 406.9	$ 410.9	$ 201.6	$ 400.3	$ (10.6)	-2.6%
Scholarship Allowance	(196.6)	(210.6)	(209.9)	(213.3)	(104.4)	(207.3)	6.0	-2.8%
SUBTOTAL - Net T&F	$ 201.6	$ 212.0	$ 197.0	$ 197.6	$ 97.2	$ 193.0	$ (4.6)	-2.3%
Grants & Contracts - Research	$ 106.4	$ 110.0	$ 120.2	$ 100.0	$ 30.0	$ 112.0	$ 12.0	12.0%
COVID-19 Relief Funding	12.9	-	1.0	-	-	12.4	12.4	
Financial Aid Grants (Primarily Federal Pell Grants)	44.5	48.0	52.9	51.0	23.9	50.0	(1.0)	-2.0%
Technology & Research Initiative (TRIF)	46.7	19.5	32.3	28.0	2.9	28.0	-	0.0%
Private Gifts	35.8	35.0	33.8	45.0	4.3	40.0	(5.0)	-11.1%
Auxiliary Revenues, Net	85.7	91.0	87.3	93.5	35.9	91.0	(2.5)	-2.7%
Other Revenues	54.3	48.0	64.7	50.0	20.5	50.0	-	0.0%
SUBTOTAL - Other Revenues	$ 386.3	$ 351.5	$ 392.2	$ 367.5	$ 117.5	$ 383.4	$ 15.9	4.3%
TOTAL - Revenues	**$ 737.7**	**$ 713.6**	**$ 734.0**	**$ 702.2**	**$ 247.1**	**$ 716.7**	**$ 14.5**	**2.1%**
Personal Services (Salaries & Wages)	$ 321.8	$ 330.0	$ 340.7	$ 329.1	$ 72.0	$ 333.0	$ 3.9	1.2%
Employee Related Expenses	102.0	102.0	108.0	107.5	27.4	109.0	1.5	1.4%
All Other Operating Expenses	170.0	164.5	169.2	153.0	54.5	162.0	9.0	5.9%
HEERF/CRF Student Emergency Grants	-	-	-	-	-	-	-	
Scholarship & Fellowships (Net of Scholarship Allowance)	35.0	34.0	38.6	35.0	14.6	32.0	(3.0)	-8.6%
Interest on Indebtedness	21.6	21.5	19.8	21.1	5.3	20.9	(0.2)	-0.9%
SUBTOTAL - Expenses	**$ 650.4**	**$ 652.0**	**$ 676.3**	**$ 645.7**	**$ 173.8**	**$ 656.9**	**$ 11.2**	**1.7%**
Depreciation	$ 56.8	$ 54.1	$ 58.3	$ 56.5	$ 14.1	$ 58.3	$ 1.8	3.2%
Pension Liability (GASB 68 & GASB 45)	(7.4)	-	(6.6)	-	-	-	-	-
Compensated Absences Accrued & Used But Not Paid (GASB 101)	-	-	(0.6)	-	-	-	-	-
(Gain)/Loss on Disposal of Fixed Asset	-	-	0.8	-	-	-	-	-
Moody's Monthly Liquidity	301.3	305.0	305.0	281.0	285.0	281.0	-	0.0%
Daily Liquidity Measure (calculated - Moody's Monthly Liquidity / Monthly Day Cash on Hand)	1.7	1.8	1.8	1.7	1.7	1.7	-	0.0%
Monthly Days Cash on Hand	**181.0**	**170.0**	**166.6**	**167.0**	**168.5**	**165.0**	**(2.0)**	**-1.2%**
Increase/(Decrease) in Net Position	**$ 38.0**	**$ 7.5**	**$ 5.8**	**$ -**	**$ 59.2**	**$ 1.5**	**$ 1.5**	

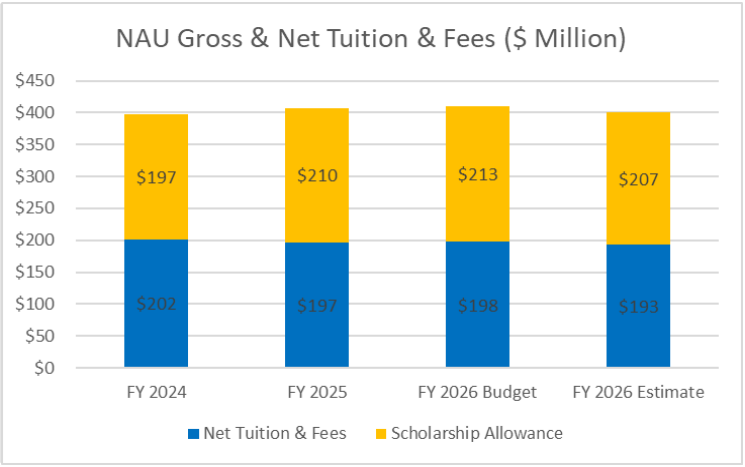
NORTHERN ARIZONA UNIVERSITY - TUITION AND FEES REVENUE ($000)

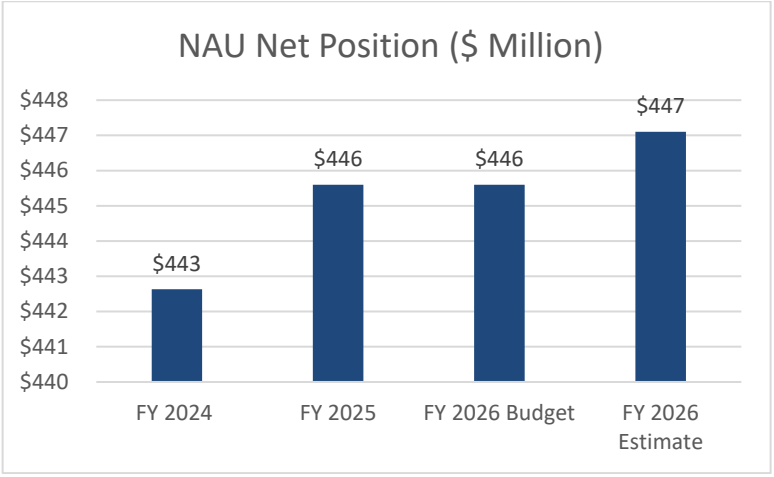
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026 Budget	FY 2026 Estimate
Base Tuition	**267,446**	**263,250**	**268,953**	**281,771**	**283,226**	**286,151**	**277,547**
Nonresident Undergraduate	102,739	98,024	92,571	84,882	77,658	72,995	66,727
Resident Undergraduate	139,270	136,236	140,058	155,983	164,467	173,476	172,470
Nonresident Graduate	7,729	11,429	17,534	20,523	19,627	16,734	15,697
Resident Graduate	17,709	17,561	18,790	20,383	21,474	22,947	22,653
Online	**38,448**	**35,601**	**33,739**	**34,829**	**36,816**	**37,116**	**36,582**
Nonresident Undergraduate	11,095	8,834	6,811	6,130	5,451	5,190	5,116
Resident Undergraduate	14,643	13,722	12,997	12,750	13,194	12,891	13,793
Nonresident Graduate	3,834	4,519	5,253	6,312	7,915	8,399	7,623
Resident Graduate	8,876	8,526	8,677	9,636	10,255	10,637	10,049
Program Fees	**11,479**	**11,809**	**8,885**	**9,842**	**11,433**	**12,181**	**11,895**
Undergraduate	4,793	4,477	922	843	944	1,040	1,054
Graduate	6,685	7,332	7,963	8,998	10,489	11,141	10,841
College Fee	**-**	**-**	**11,973**	**12,547**	**14,620**	**14,810**	**14,820**
Undergraduate	-	-	11,973	12,547	14,620	14,810	14,820
Graduate	-	-					
Course Fees	**3,251**	**3,216**	**17**	**-**	**-**	**-**	**-**
Undergraduate	3,198	3,153	0	-	-	-	-
Graduate	53	63	17	-	-	-	-
Ext Ed Fees	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Non-Degree	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Summer & Winter Sessions	**26,203**	**22,960**	**20,400**	**25,716**	**25,970**	**27,450**	**25,970**
Mandatory Fees	**28,502**	**27,353**	**27,512**	**29,747**	**30,642**	**29,673**	**29,956**
Undergraduate	25,706	24,530	24,334	26,119	26,524	2,590	26,608
Graduate	2,796	2,823	3,178	3,628	4,118	27,083	3,348
Other Misc	**4,022**	**3,570**	**3,357**	**3,743**	**3,618**	**3,500**	**3,500**
Total Tuition & Fees	**379,351**	**367,759**	**374,836**	**398,194**	**406,323**	**410,881**	**400,269**
Scholarship Allowance	**160,899**	**166,826**	**179,386**	**196,568**	**209,291**	**213,278**	**207,681**
Net Tuition and Fees	**218,452**	**200,933**	**195,450**	**201,626**	**197,033**	**197,603**	**192,588**

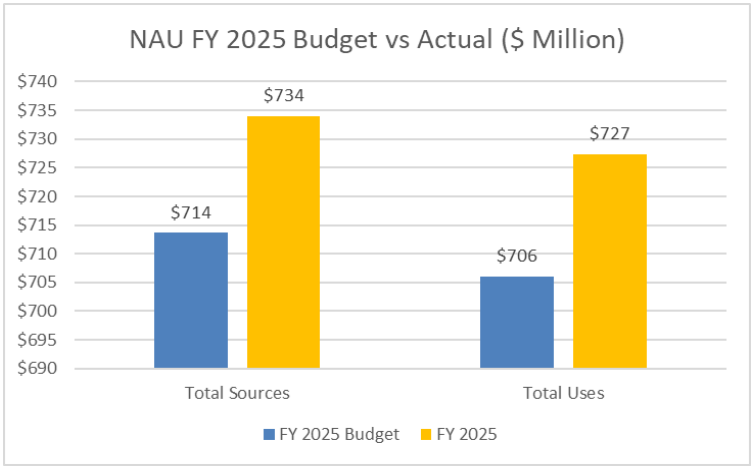

NAU Operating Revenue ($ Million)
$300
$250
$200
$150
$100
$50
$0
$140.30
$193.00
$242.40
$91.00
$50.00
General Fund Appropriations
Net Tuition & Fees
Gifts, Grants & Contracts (including Pell Grants & TRIF)
Auxiliary
Other Revenue
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate


NAU Operating Expenses ($ Million)
$400
$350
$300
$250
$200
$150
$100
$50
$0
$333
$109
$162
$32
$21
Personal Services (Salaries & Wages)
Employee Related Expenses
All Other Operating Expenses
Scholarship & Fellowships (Net of Scholarship Allowance)
Interest on Indebtedness
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate


NAU Monthly Days Cash on Hand
185
180
175
170
165
160
155
181
167
167
165
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate


NAU Gross & Net Tuition & Fees ($ Million)
$450
$400
$350
$300
$250
$200
$150
$100
$50
$0
$197
$210
$213
$207
$202
$197
$198
$193
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate
Net Tuition & Fees
Scholarship Allowance


NAU Net Position ($ Million)
$448
$447
$446
$445
$444
$443
$442
$441
$440
$443
$446
$446
$447
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate


NAU FY 2025 Budget vs Actual ($ Million)
$740
$735
$730
$725
$720
$715
$710
$705
$700
$695
$690
$714
$734
$706
$727
Total Sources
Total Uses
FY 2025 Budget
FY 2025

UNIVERSITY OF ARIZONA

Net Position

The University of Arizona reduced their change in net position forecast by $29.5 million for FY 2026, down to $25.9 million for FY 2026 from the original $55.4 million estimate. The change is due to a salary advancement plan to retain high performing talent, an increase in employee benefit costs, and softening of revenues due to declining enrollment.

Revenue

State Appropriations

U of A experienced a net decrease of $12.7 million in state appropriations, which included a $21.7 million decrease in general fund appropriations. The decrease was offset by a one-time increase in Arizona Promise allocations of $9 million.

Enrollment Revenue

Compared to the initial FY 2026 budget, U of A now projects a decrease of $50.4 million (-4.9%) in net tuition and fee revenues, from the initial budget from $1,020.2 million to $969.8 million for FY 2026. The decrease is driven by:

- A decrease of $35 million in gross tuition revenue due to lower non-resident enrollment.
- A $3.3 million decrease due to the reclassification of graduate students on stipend to resident rather than non-resident.
- UAGC enrollment is trending notably lower than the original estimated.

Pell Grant revenue is expected to be slightly lower than FY 2026 due to lower enrollment.

UNIVERSITY OF ARIZONA - TUITION AND FEES REVENUE

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026 Budget	FY 2026 Estimate
Gross Tuition & Fees	921,637	1,007,277	1,086,200	1,516,044	1,558,578	1,549,631	1,514,606
Scholarship Allowance	287,545	329,727	368,272	399,080	437,609	378,200	394,800
UAGC Scholarship Allowance	-	-	-	190,479	142,804	151,200	150,000
Net Tuition & Fees	634,092	677,550	717,928	926,486	978,165	1,020,231	969,806
Scholarship Allowance as % of Gross T&F	31%	33%	34%	39%	37%	34%	36%

UNIVERSITY OF ARIZONA – ENROLLMENT (excluding UAGC)

Fall Enrollment - 21 Day FTE	FY 2026 Fall 2025 Actual	FY 2026 Fall 2025 Est.	FY 2025 Fall 2024	FY 2024 Fall 2023	FY 2023 Fall 2022	FY 2022 Fall 2021
Resident Undergraduate (UG)	22,218	22,388	21,994	21,333	20,821	21,483
Resident Undergraduate - Online	1,066	817	817	650	783	867
Nonresident Undergraduate	15,234	15,999	16,950	15,402	13,682	12,601
Nonresident Undergraduate - Online	3,798	3,819	3,831	3,634	2,865	2,035
Total Undergraduate	**42,316**	**43,022**	**43,592**	**41,018**	**38,151**	**36,986**
Online as % of UG	11%	11%	11%	10%	10%	8%
Resident Graduate (Grad)	7,702	5,723	5,739	5,427	4,300	4,264
Resident Graduate - Online	748	589	589	475	469	538
Nonresident Graduate	2,103	4,452	4,432	4,245	3,771	3,722
Nonresident Graduate - Online	1,214	1,277	1,299	1,248	1,235	1,319
Total Graduate	**11,767**	**12,040**	**12,058**	**11,395**	**9,775**	**9,843**
Online as % of Grad	17%	15%	16%	15%	17%	19%
Online as % of Total	13%	12%	12%	11%	11%	10%
Total FTE	**54,083**	**55,062**	**55,649**	**52,414**	**47,926**	**46,829**

UNIVERSITY OF ARIZONA GLOBAL CAMPUS (UAGC) - ENROLLMENT

Fall Enrollment - 21 Day Headcount (HC)	FY 2026 Actual Fall 2025 HC	FY 2026 Est Fall 2025 HC	FY 2025 Fall 2024 HC	F 2024 Fall 2023 HC
Undergraduate	**15,353**	**21,718**	**21,113**	**24,949**
Resident	1,269	1,579	1,535	1,578
Non-Resident	14,084	20,139	19,578	23,371
Graduate	**4,502**	**6,729**	**6,891**	**7,655**
Resident	390	576	590	631
Non-Resident	4,112	6,153	6,301	7,024
Total FTE	**19,855**	**28,447**	**28,004**	**32,604**

**Restated to align with official counts. UAGC Official counts don't close until January.*

Research Revenue
Sponsored project revenue shows an increase of $63.8 million in the FY 2026 projection due to improved expectations around federal research grants. However, revenue is still projected to trail FY 2025 levels ($977.3 million) by $26.5 million in FY 2026 ($950.8 million).

Auxiliary Business Revenue
Auxiliary revenue is projected to decrease $8.1 million from the initial budget, due to a decline in non-resident freshman enrollment.

Expenses

U of A estimates expenses to increase by $22.9 million from the initial FY 2026 budget based on actual expenses recorded in the first quarter related to:

- **Enrollment** declined by 935 FTE decrease in undergraduate on-campus/immersion enrollment primarily due to lower non-resident freshman incoming class as a result of a change in the non-resident financial aid strategy.
- **Wages and benefits** increased as a result of the university's salary increase program and benefits cost increases, and greater-than-forecast research activities.
- **Inflationary pressures** have eased a bit, but the construction costs and utilities continue to stress the infrastructure budget.

Liquidity

Days cash on hand is projected to be 78 days at year-end, an 11-day improvement from the 67 days projected in the FY 2026 budget. This is still significantly below the board's target range - between 132 days and 220 days – based on Moody's public college and university data.

Moody's Monthly Liquidity reflects the University's available liquid resources and is defined as cash and investments and includes only those investments that can be liquidated, settled, and accessed within one month. Continued accessibility to liquidity is important for the Universities to make payments on short-term debts, payroll, and other obligations.

The projection for Moody's Monthly Liquidity for FY 2026 increased to $592.5 million. This represents an increase of $92.5 million from the FY 2026 budget and $14.1 million higher than FY 2025 year-end.

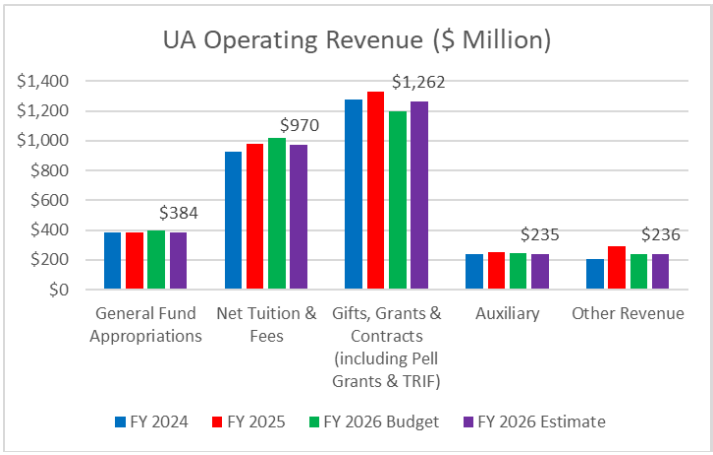
U of A's initial forecast of days cash on hand at the end of FY 2027 is between 79-85, as they have noted a break-even budget for FY 2027. This metric would be stable – yet remains below the target range.

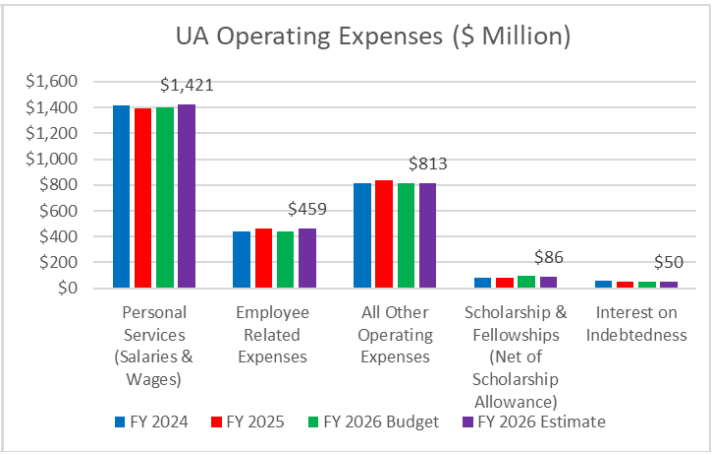
University of Arizona $ in Millions	ACTUAL FY 2024	BUDGET FY 2025	ACTUAL FY 2025	BUDGET FY 2026	QUARTER 1 ACTUAL 9/30/2025	QUARTER 1 PROJECTED FY 2026	VARIANCE FY 2026 BUDGET vs FY 2026 PROJECTED	
General Fund (GF) Appropriations	$ 354.8	$ 340.0	$ 342.6	$ 358.3	$ 89.6	$ 336.9	$ (21.4)	-6.0%
Appropriated GF - Research Infrastructure	14.3	14.2	14.2	14.2	3.6	14.2	-	0.0%
Appropriated GF - Capital Infrastructure	11.5	11.8	11.8	12.0	3.0	12.0	-	0.0%
Appropriated GF - Arizona Financial Aid Trust (AFAT)	2.7	2.7	2.7	2.7	0.7	2.7	-	0.0%
State Appropriation Transfer - Arizona Teachers Academy	1.6	2.9	5.7	4.2	1.0	3.8	(0.4)	-9.5%
State Appropriation Transfer - AZ Promise	8.1	9.7	5.2	5.2	1.3	14.3	9.1	175.0%
State Appropriation Transfer - Other	(9.7)	-	-	-	-		-	0.0%
SUBTOTAL - State Appropriations	$ 383.3	$ 381.3	$ 382.2	$ 396.6	$ 99.2	$ 383.9	$ (12.7)	-3.2%
Tuition and Fees	$ 1,516.1	$ 1,560.1	$ 1,558.6	$ 1,549.6	$ 384.9	$ 1,514.6	$ (35.0)	-2.3%
Scholarship Allowance	(589.6)	(504.8)	(580.4)	(529.4)	(123.6)	(544.8)	(15.4)	2.9%
SUBTOTAL - Net T&F	$ 926.5	$ 1,055.3	$ 978.2	$ 1,020.2	$ 261.3	$ 969.8	$ (50.4)	-4.9%
Grants & Contracts - Research	$ 942.9	$ 878.7	$ 977.3	$ 887.0	$ 237.2	$ 950.8	$ 63.8	7.2%
COVID-19 Relief Funding	11.5	-	1.4	-	-		-	
Financial Aid Grants (Primarily Federal Pell Grants)	121.9	73.0	148.4	150.6	56.3	147.3	(3.3)	-2.2%
Technology & Research Initiative (TRIF)	63.6	38.6	58.7	35.3	8.8	35.3	-	0.0%
Private Gifts	135.0	142.1	142.2	124.7	18.8	128.9	4.2	3.4%
Auxiliary Revenues, Net	236.9	232.8	248.7	243.5	85.3	235.4	(8.1)	-3.3%
Other Revenues	204.5	184.7	289.4	240.2	63.6	235.8	(4.4)	-1.8%
SUBTOTAL - Other Revenues	$ 1,716.3	$ 1,549.9	$ 1,866.1	$ 1,681.3	$ 470.0	$ 1,733.5	$ 52.2	3.1%
TOTAL - Revenues	**$ 3,026.1**	**$ 2,986.5**	**$ 3,226.5**	**$ 3,098.1**	**$ 830.5**	**$ 3,087.2**	**$ (10.9)**	**-0.4%**
Personal Services (Salaries & Wages)	$ 1,418.4	$ 1,407.1	$ 1,391.8	$ 1,398.1	$ 335.0	$ 1,421.0	$ 22.9	1.6%
Employee Related Expenses	440.2	443.6	464.5	443.8	110.3	459.1	15.3	3.4%
All Other Operating Expenses	810.5	779.6	835.9	816.8	210.2	812.5	(4.3)	-0.5%
HEERF/CRF Student Emergency Grants	-	-	-	-	-		-	
Scholarship & Fellowships (Net of Scholarship Allowance)	81.9	84.3	81.7	96.3	24.7	85.5	(10.8)	-11.2%
Interest on Indebtedness	56.6	50.5	48.3	49.7	12.4	49.5	(0.2)	-0.4%
TOTAL - Expenses	**$ 2,807.6**	**$ 2,765.1**	**$ 2,822.2**	**$ 2,804.7**	**$ 692.6**	**$ 2,827.6**	**$ 22.9**	**0.8%**
Depreciation	$ 223.2	$ 214.5	$ 225.5	$ 238.0	$ 59.9	$ 233.7	$ (4.3)	-1.8%
Pension Liability (GASB 68 & GASB 45)	-	-	-	-	-		-	
Compensated Absences Accrued & Used But Not Paid (GASB 101)	-	-	-	-	-		-	
Moody's Monthly Liquidity	641.3	500.0	578.4	500.0		592.5	92.5	18.5%
Daily Liquidity Measure (calculated - Moody's Monthly Liquidity / Monthly Day Cash on Hand)	7.5	7.5	7.5	7.5		7.6	0.1	1.8%
Monthly Days Cash on Hand	**86.0**	**67.0**	**77.0**	**67.0**		**78.0**	**11.0**	**16.4%**
Increase/(Decrease) in Net Position	**$ (4.7)**	**$ 6.9**	**$ 178.8**	**$ 55.4**	**$ 78.0**	**$ 25.9**	**$ (29.5)**	**-53.2%**

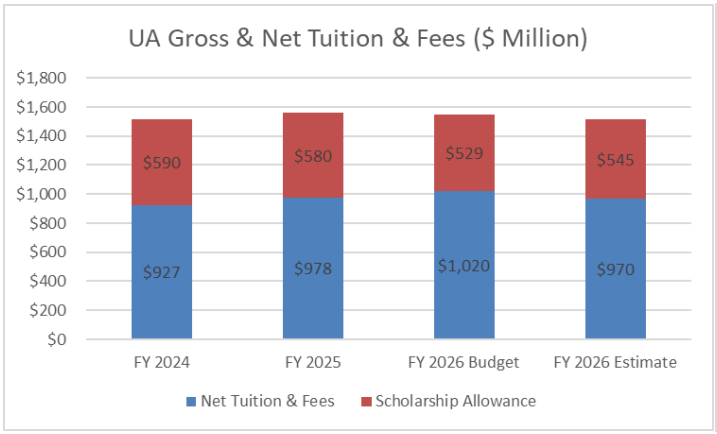
University of Arizona Global Campus (UAGC) $ in Millions	ACTUAL FY 2024	BUDGET FY 2025	ACTUAL FY 2025	BUDGET FY 2026	QUARTER 1 ACTUAL 9/30/2025	QUARTER 1 PROJECTED FY 2026	VARIANCE FY 2026 BUDGET vs FY 2026 PROJECTED	
General Fund (GF) Appropriations	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Appropriated GF - Research Infrastructure	-	-	-	-	-	-	-	
Appropriated GF - Capital Infrastructure	-	-	-	-	-	-	-	
Appropriated GF - Arizona Financial Aid Trust (AFAT)	-	-	-	-	-	-	-	
State Appropriation Transfer - Arizona Teachers Academy	-	-	-	-	-	-	-	
State Appropriation Transfer - AZ Promise	-	-	-	-	-	-	-	
State Appropriation Transfer - Other	-	-	-	-	-	-	-	
SUBTOTAL - State Appropriations	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Tuition and Fees	$ 351.9	$ 349.3	$ 304.9	$ 309.7	$ 74.9	$ 309.1	$ (0.6)	-0.2%
Scholarship Allowance	(190.5)	(110.1)	(142.8)	(151.2)	(36.0)	(150.0)	1.2	-0.8%
SUBTOTAL - Net T&F	$ 161.4	$ 239.2	$ 162.1	$ 158.5	$ 38.9	$ 159.1	$ 0.6	0.4%
Grants & Contracts - Research	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
COVID-19 Relief Funding	-	-	-	-	-	-	-	
Financial Aid Grants (Primarily Federal Pell Grants)	53.0	-	62.0	65.6	16.4	66.0	0.4	0.6%
Technology & Research Initiative (TRIF)	-	-	-	-	-	-	-	
Private Gifts	-	-	-	-	-	-	-	
Auxiliary Revenues, Net	-	-	-	-	-	-	-	
Other Revenues	22.2	(0.3)	15.9	16.2	4.5	16.8	0.6	3.7%
TOTAL - Other Revenues	$ 75.2	$ (0.3)	$ 77.9	$ 81.8	$ 20.9	$ 82.8	$ 1.0	1.2%
TOTAL Revenues	**$ 236.6**	**$ 238.9**	**$ 240.0**	**$ 240.3**	**$ 59.8**	**$ 241.9**	**$ 1.6**	**0.7%**
Personal Services (Salaries & Wages)	$ 109.3	$ 116.2	$ 106.2	$ 111.8	$ 25.5	$ 109.5	$ (2.3)	-2.1%
Employee Related Expenses	33.1	34.2	31.7	33.0	7.5	32.3	(0.7)	-2.1%
All Other Operating Expenses	72.0	83.0	69.6	68.6	27.7	77.0	8.4	12.2%
HEERF Student Emergency Grants	-	-	-	-	-	-	-	
Scholarship & Fellowships (Net of Scholarship Allowance)	8.6	-	13.3	11.9	3.6	12.6	0.7	5.9%
Interest on Indebtedness	0.6	-	0.6	0.4	0.1	0.2	(0.2)	-50.0%
SUBTOTAL - Expenses	**$ 223.6**	**$ 233.4**	**$ 221.4**	**$ 225.7**	**$ 64.4**	**$ 231.6**	**$ 5.9**	**-36.1%**
Depreciation	$ 21.1	$ 12.7	$ 20.0	$ 16.3	$ 4.5	$ 12.0	$ (4.3)	-26.4%
Pension Liability (GASB 68 & GASB 45)	-	-	-	-	-	-	-	
Compensated Absences Accrued and Used but not paid (GASB 101)	-	-	-	-	-	-	-	
Moody's Monthly Liquidity Daily Liquidity Measure (calculated - Moody's Monthly Liquidity / Monthly Day Cash on Hand)								
Monthly Days Cash on Hand								
Increase/(Decrease) in Net Position	**$ (8.1)**	**$ (7.2)**	**$ (1.4)**	**$ (1.7)**	**$ (9.1)**	**$ (1.7)**	**$ 0.0**	**0.0%**

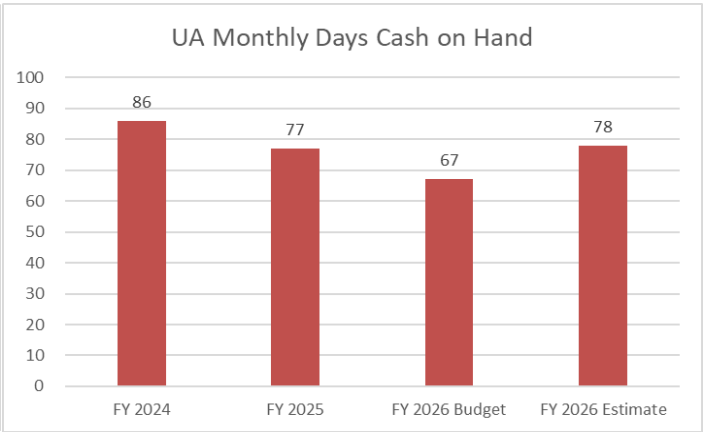
UNIVERSITY OF ARIZONA - TUITION AND FEES REVENUE ($000)

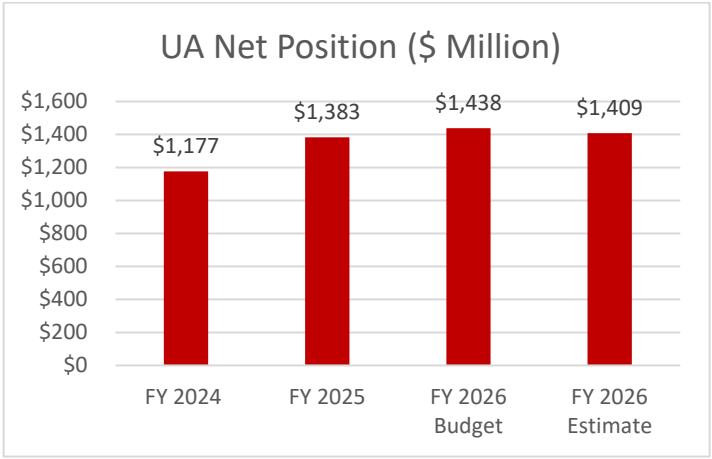
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026 Budget	FY 2026 Estimate
Base Tuition	**668,894**	**728,341**	**781,298**	**825,431**	**885,413**	**862,686**	**836,104**
Nonresident Undergraduate	329,548	383,184	433,067	463,883	499,032	465,628	448,175
Resident Undergraduate	218,009	212,200	209,622	216,133	221,197	231,411	225,616
Nonresident Graduate	62,918	69,552	72,684	74,671	83,843	82,624	49,225
Resident Graduate	58,418	63,404	65,925	70,744	81,341	83,023	113,089
Online	**82,339**	**92,149**	**98,918**	**113,969**	**121,364**	**121,516**	**121,517**
Nonresident Undergraduate	21,316	34,807	46,214	59,900	58,404	61,924	59,188
Resident Undergraduate	18,951	13,679	11,883	10,051	14,854	12,317	15,053
Nonresident Graduate	21,290	31,402	30,062	32,239	30,542	32,659	30,014
Resident Graduate	20,782	12,262	10,760	11,779	17,565	14,616	17,262
Program Fees/Diff	**32,730**	**34,863**	**37,803**	**41,579**	**23,748**	**26,944**	**25,497**
Undergraduate	16,705	18,784	20,374	23,461	5,211	4,997	4,916
Graduate	16,024	16,079	17,430	18,117	18,536	21,947	20,581
College Fee	**-**	**-**	**-**	**-**	**41,227**	**42,355**	**39,347**
Undergraduate	-	-	-	-	41,227	42,355	39,347
Graduate	-	-	-	-	-	-	-
Course Fees	**6,979**	**7,348**	**7,796**	**8,069**	**-**	**-**	**-**
Undergraduate	6,421	6,760	7,173	7,424	-	-	-
Graduate	558	588	623	645	-	-	-
Ext Ed Fees	**17,302**	**30,712**	**42,110**	**47,463**	**59,714**	**60,226**	**56,293**
Non-Degree	**5,742**	**5,682**	**5,449**	**5,543**	**6,054**	**5,625**	**5,659**
Summer Session	**38,090**	**32,853**	**30,067**	**31,731**	**34,304**	**37,785**	**42,916**
UAGC (Net of bad debt)				**351,896**	**304,863**	**309,700**	**309,100**
Mandatory Fees	**50,683**	**52,559**	**59,813**	**65,121**	**57,905**	**57,584**	**55,264**
Undergraduate	41,560	43,099	49,047	53,399	56,978	56,597	54,284
Graduate	9,123	9,460	10,766	11,721	927	988	979
Other Misc (Net of bad debt)	**18,879**	**22,770**	**22,946**	**25,243**	**23,986**	**25,211**	**22,911**
Total Tuition & Fees	**921,637**	**1,007,277**	**1,086,200**	**1,516,044**	**1,558,578**	**1,549,631**	**1,514,606**
Scholarship Allowance	287,545	329,727	368,272	399,080	437,609	378,200	394,800
UAGC Scholarship Allowance				190,479	142,804	151,200	150,000
Net Tuition and Fees	**634,092**	**677,550**	**717,928**	**926,486**	**978,165**	**1,020,231**	**969,806**

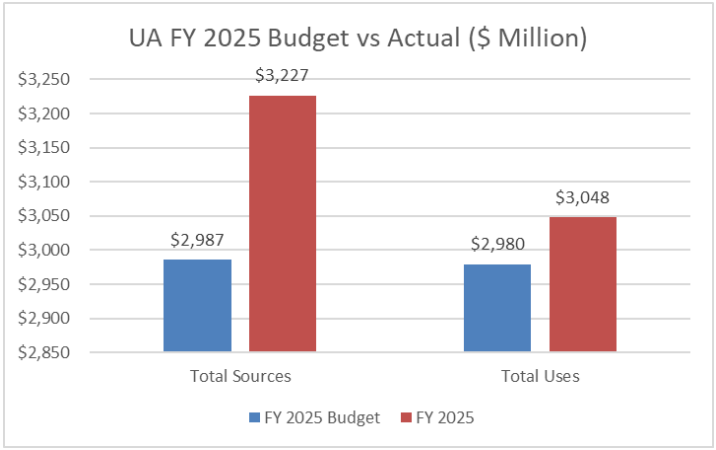

UA Operating Revenue ($ Million)
$1,400
$1,200
$1,000
$800
$600
$400
$200
$0
$384
$970
$1,262
$235
$236
General Fund Appropriations
Net Tuition & Fees
Gifts, Grants & Contracts (including Pell Grants & TRIF)
Auxiliary
Other Revenue
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate


UA Operating Expenses ($ Million)
$1,600
$1,400
$1,200
$1,000
$800
$600
$400
$200
$0
$1,421
$459
$813
$86
$50
Personal Services (Salaries & Wages)
Employee Related Expenses
All Other Operating Expenses
Scholarship & Fellowships (Net of Scholarship Allowance)
Interest on Indebtedness
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate


UA Gross & Net Tuition & Fees ($ Million)
$1,800
$1,600
$1,400
$1,200
$1,000
$800
$600
$400
$200
$0
$590
$580
$529
$545
$927
$978
$1,020
$970
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate
Net Tuition & Fees
Scholarship Allowance


UA Monthly Days Cash on Hand
100
90
80
70
60
50
40
30
20
10
0
86
77
67
78
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate


UA Net Position ($ Million)
$1,600
$1,400
$1,200
$1,000
$800
$600
$400
$200
$0
$1,177
$1,383
$1,438
$1,409
FY 2024
FY 2025
FY 2026 Budget
FY 2026 Estimate


UA FY 2025 Budget vs Actual ($ Million)
$3,250
$3,200
$3,150
$3,100
$3,050
$3,000
$2,950
$2,900
$2,850
$3,227
$2,987
$3,048
$2,980
Total Sources
Total Uses
FY 2025 Budget
FY 2025

Fall Financial Update

Bradley Kendrex
Vice President – Finance, Strategy and Governance

November 20, 2025

ARIZONA BOARD OF REGENTS
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Financial Updates

ABOR Policy 3-407

Board policy requires each university to provide a quarterly financial update.

The financial status update should include the following budget monitoring items:

1. The prior year budget vs. actual revenues and expenses;
2. Updated revenue and expense projections for the current fiscal year;
3. A comparison of current year revenue and expense projections to the university's annual budget;
4. A current projection for change in net position at year-end; and
5. Liquidity measures, including cash balances and monthly days cash on hand.

Financial Review Cycle

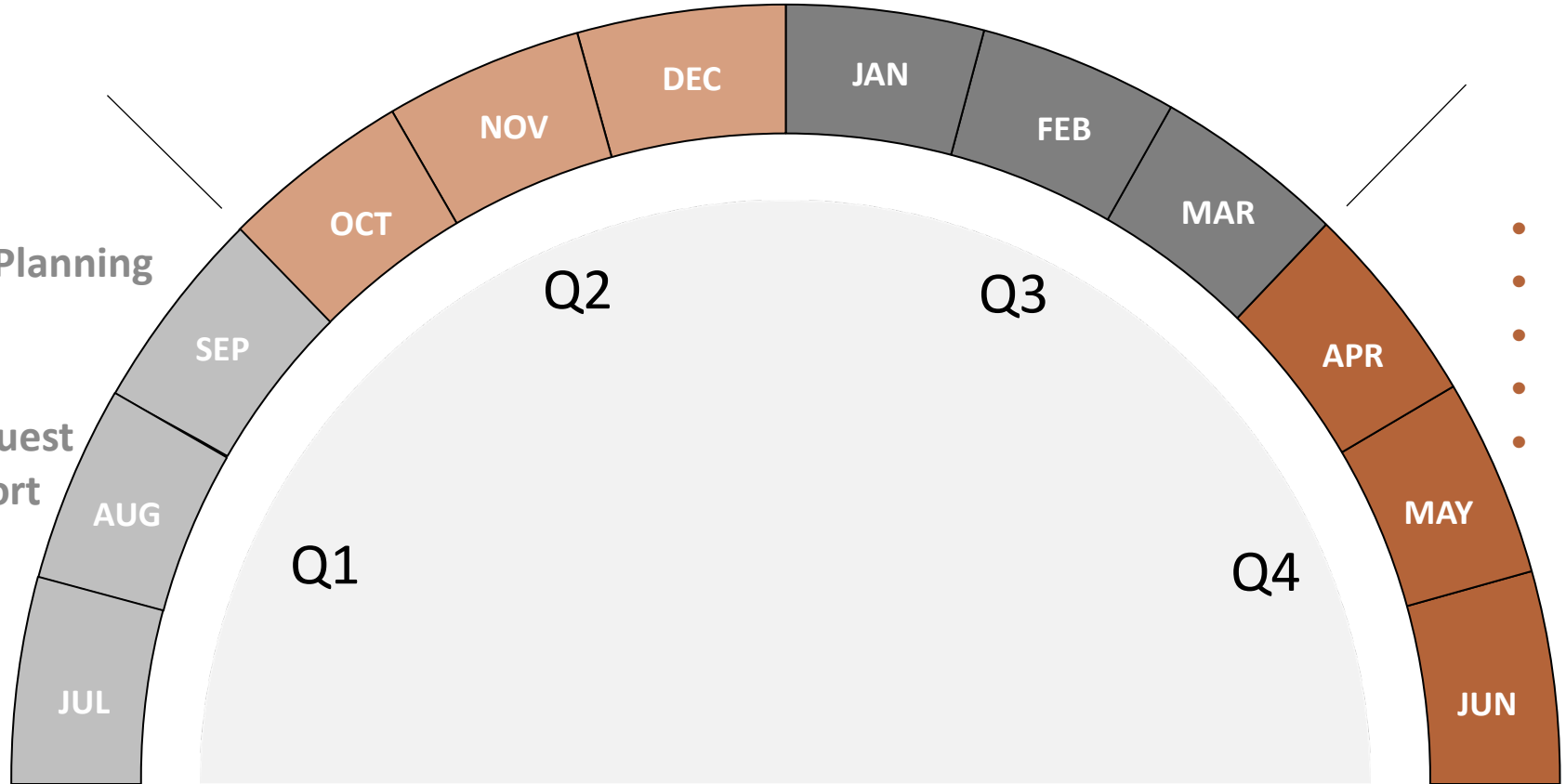
- Q1 Financial Report
- Financial Update
- Fall Enrollment Report
- PY Audited Financials

- Q2 Financial Report
- Annual Financial Review
- Financial Update
- Operational & Financial Reviews

- Capital Planning

- State Budget Request
- Q4 Financial Report

- New Fiscal Year



- Q3 Financial Report
- Financial Update
- Enrollment Forecast
- Budget Proposals
- Audit & Risk Plans

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Financial Updates: Summer vs. Fall

June

- Revenue, expenditure, and cash balance forecasts based on Q3 financial data
- Budget built around:
  - Executive budget request
  - Early enrollment forecasts

November

- June – Appropriations finalized
- August – Q4 financial report, incl. year-end cash balances
- September – Fall enrollment census
- October – Prior year audited financial statements
- November – Q1 financial data

Financial Updates: Summer vs. Fall

Original FY26 Budget

Built on estimates of FY25 activity and early revenue/enrollment forecasts



Revised FY26 Budget

Informed by actual FY25 activity, actual FY26 Q1 activity, and actual Fall enrollment

Overview

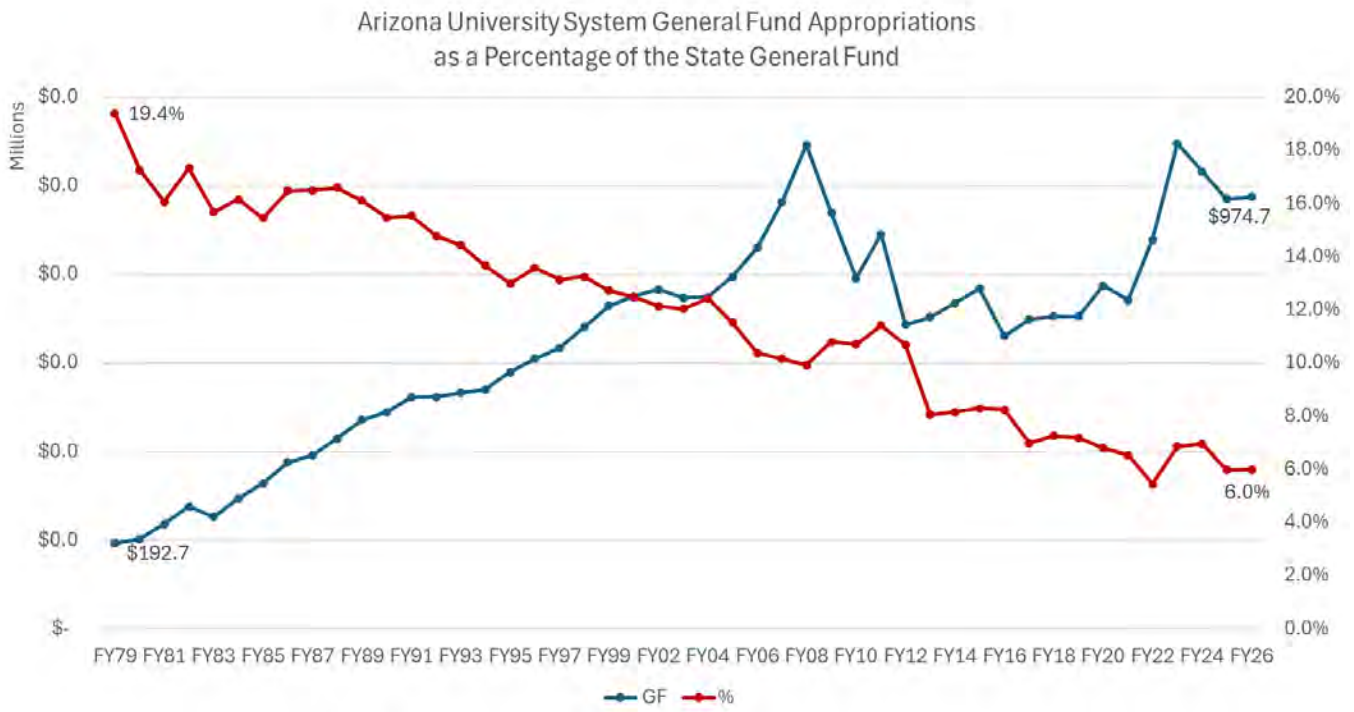
- **Revenue**
  - State appropriations
  - Enrollment-driven revenue
  - Research-driven revenue
  - Auxiliary business revenue

- **Expenses**
  - Increases in current costs
  - Costs associated with growth + opportunities

- **Net Position**

- **Liquidity**

Revenue: State Appropriations



FY25 initiatives	-$46.0
FY26 initiatives	+21.5
Net program funding	*-24.5*
Technical changes	+29.1
Net appropriations	*+4.6*

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Revenue: State Appropriations

ASU		NAU		U of A	
Base appropriations	-	Base appropriations	-	Base appropriations	-
FY25 initiatives	-21.2	FY25 initiatives	-10.1	FY25 initiatives	-14.7
FY26 initiatives	0.5	FY26 initiatives	-	FY26 initiatives	5.6
FY26 appropriations	**-20.7**	**FY26 appropriations**	**-10.1**	**FY26 appropriations**	**-9.1**
Technical adjustments	*24.7*	*Technical adjustments*	*0.5*	*Technical adjustments*	*3.7*

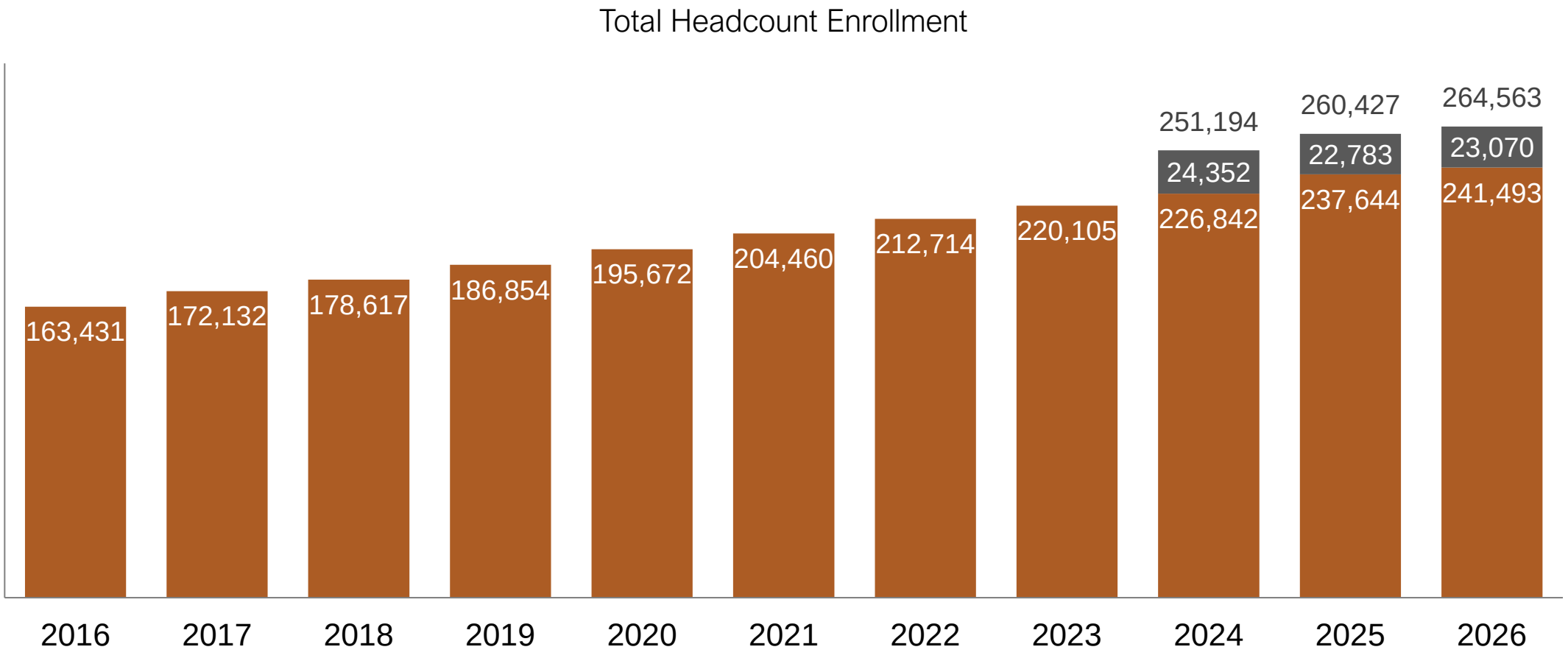
Arizona Promise Program **+16.3**

Arizona Teachers Academy -1.0

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Fall Enrollment

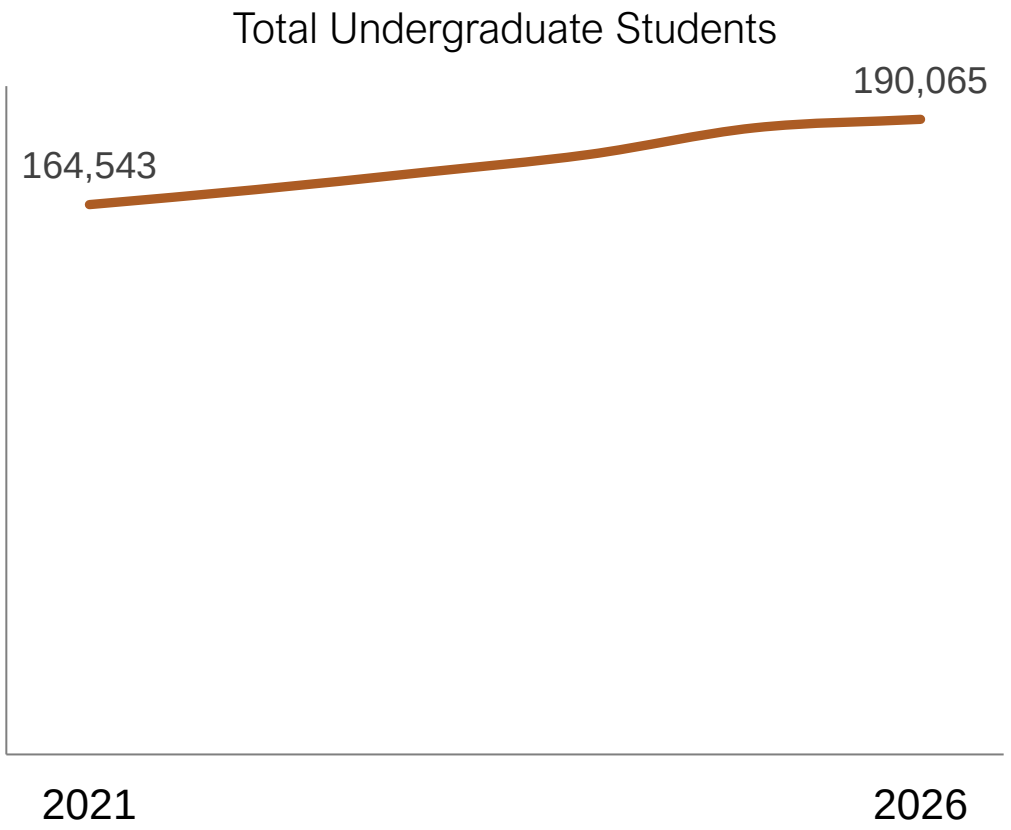
Enrollment Continues to Increase – Census and UAGC estimate



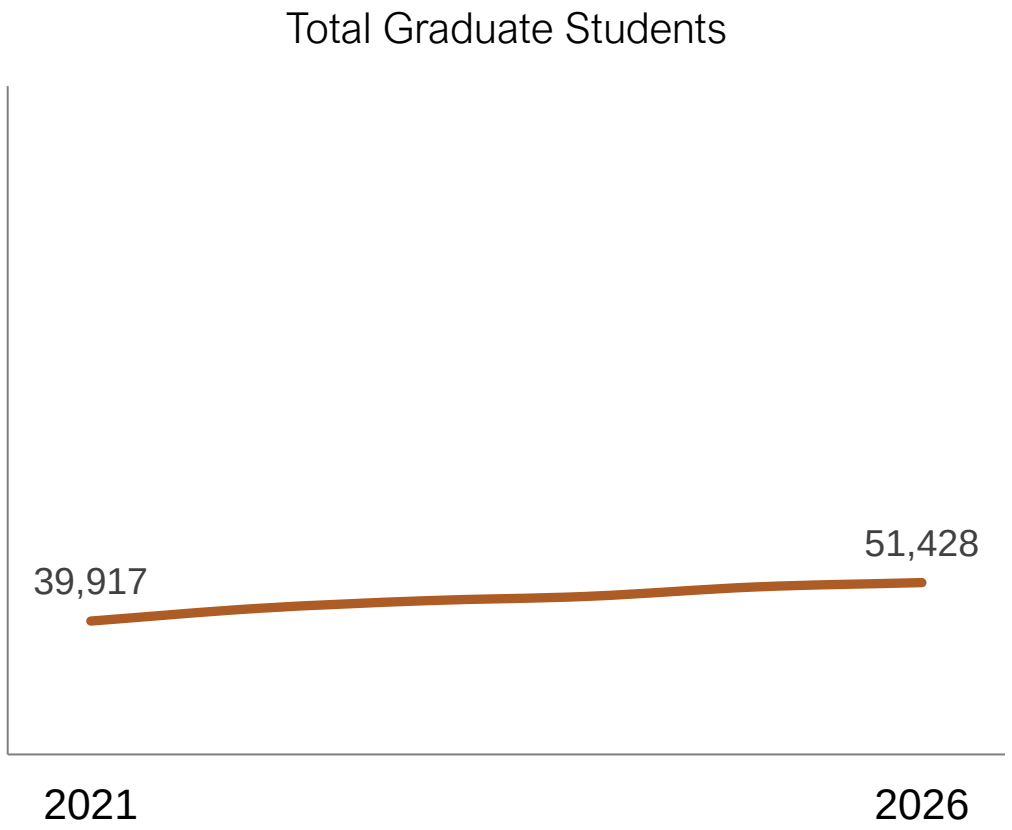
+ 101,132 or 61.9%

Fall Enrollment

Student Population is Increasingly Graduate Students



+ 25,522 or 15.5%

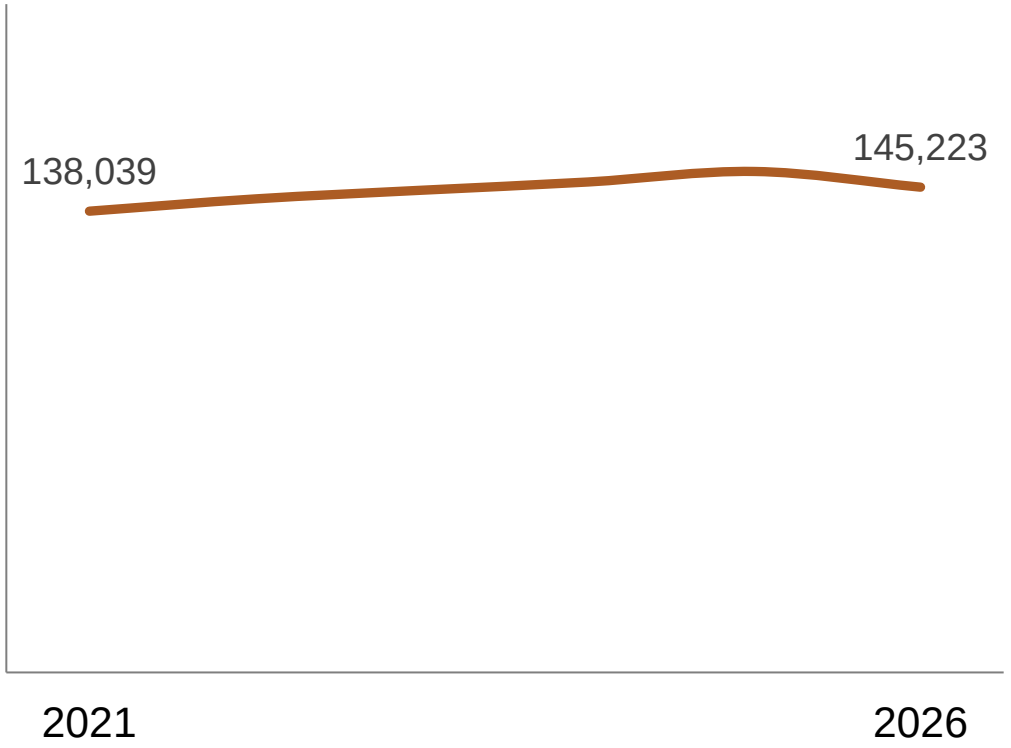


+ 11,511 or 28.8%

Fall Enrollment

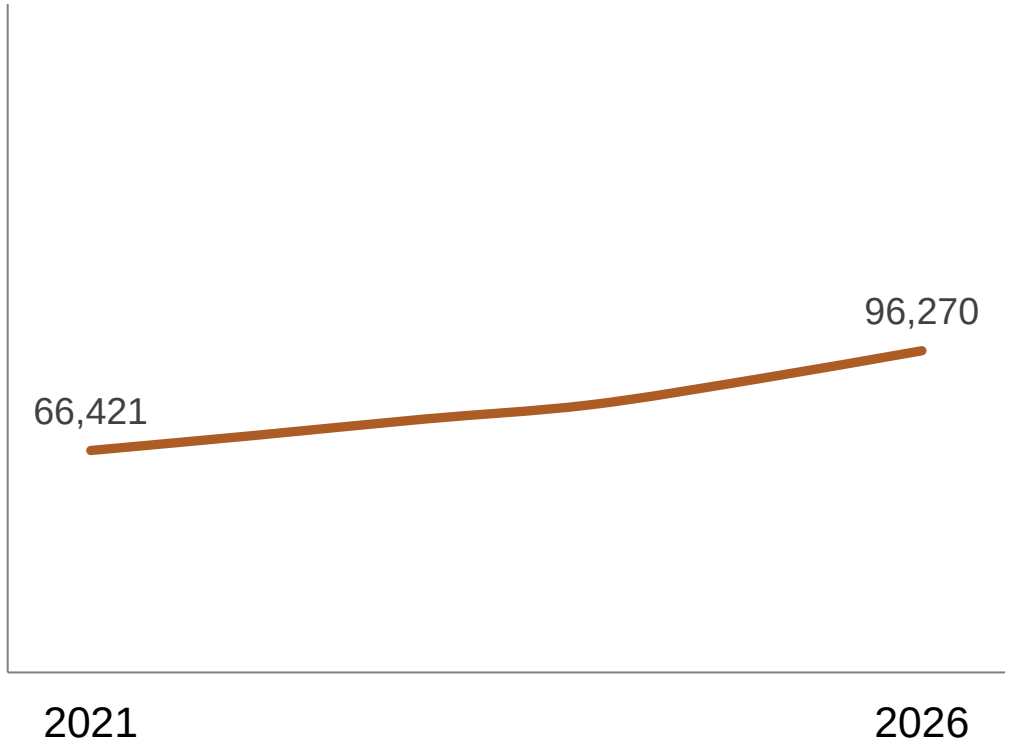
Student Population is Increasingly Online

Total On-Campus Students



+ 7,184 or 5.2%

Total Online Students

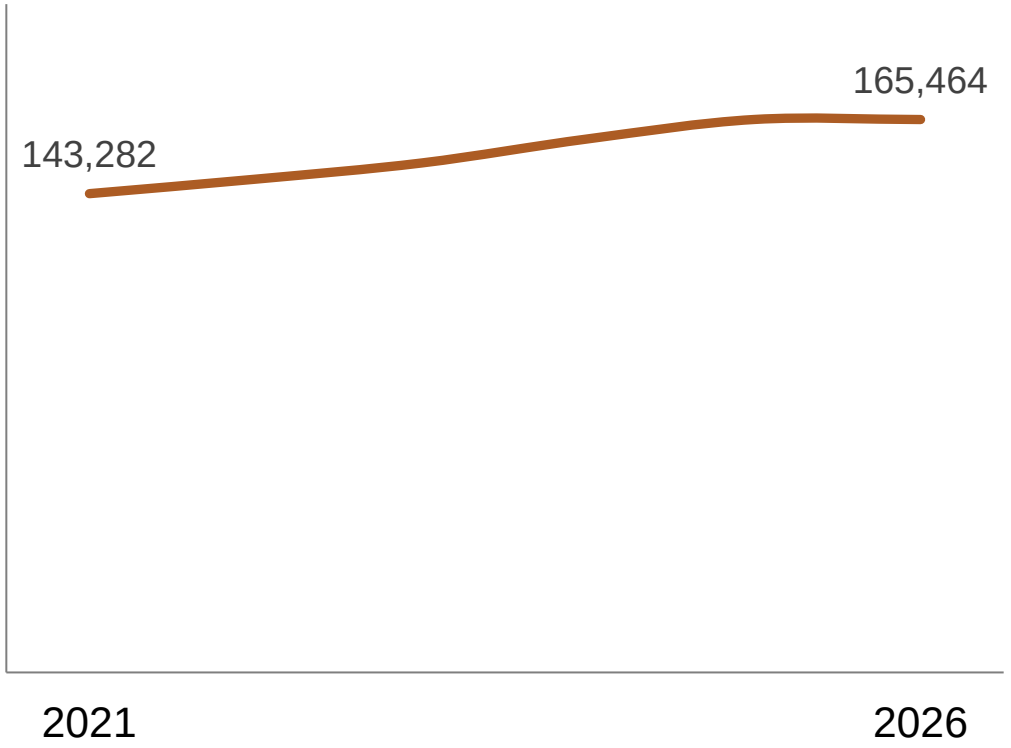


+ 29,8489 or 44.9%

Fall Enrollment

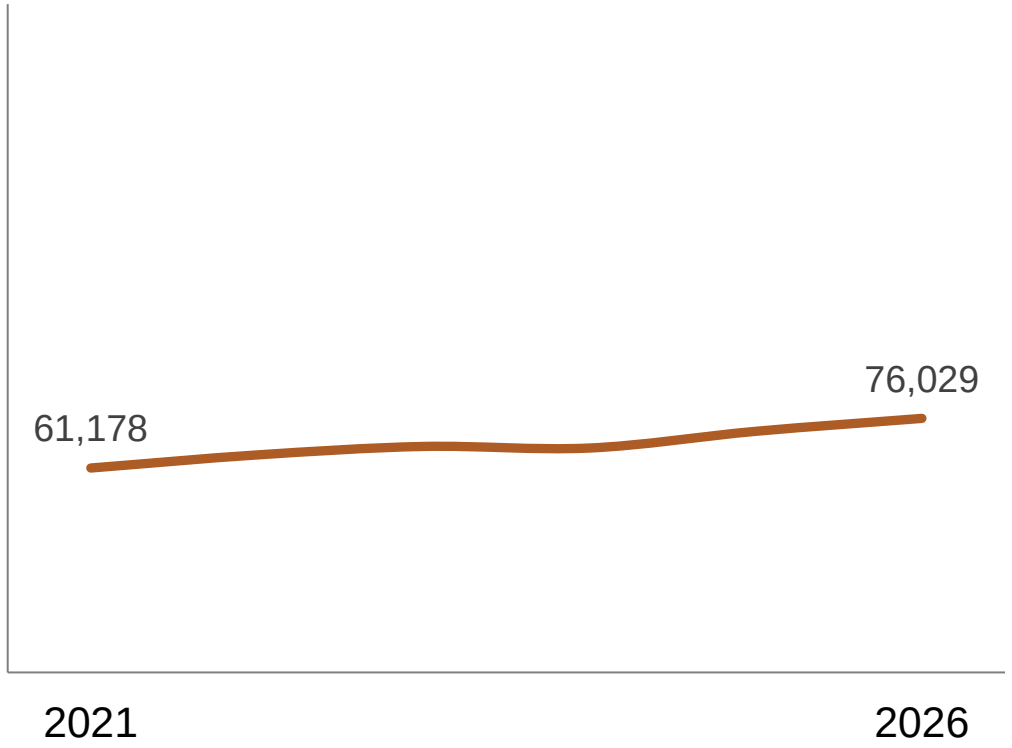
Student Population is Increasingly Part-Time

Total Full-Time Students



+ 22,182 or 15.5%

Total Part-Time Students

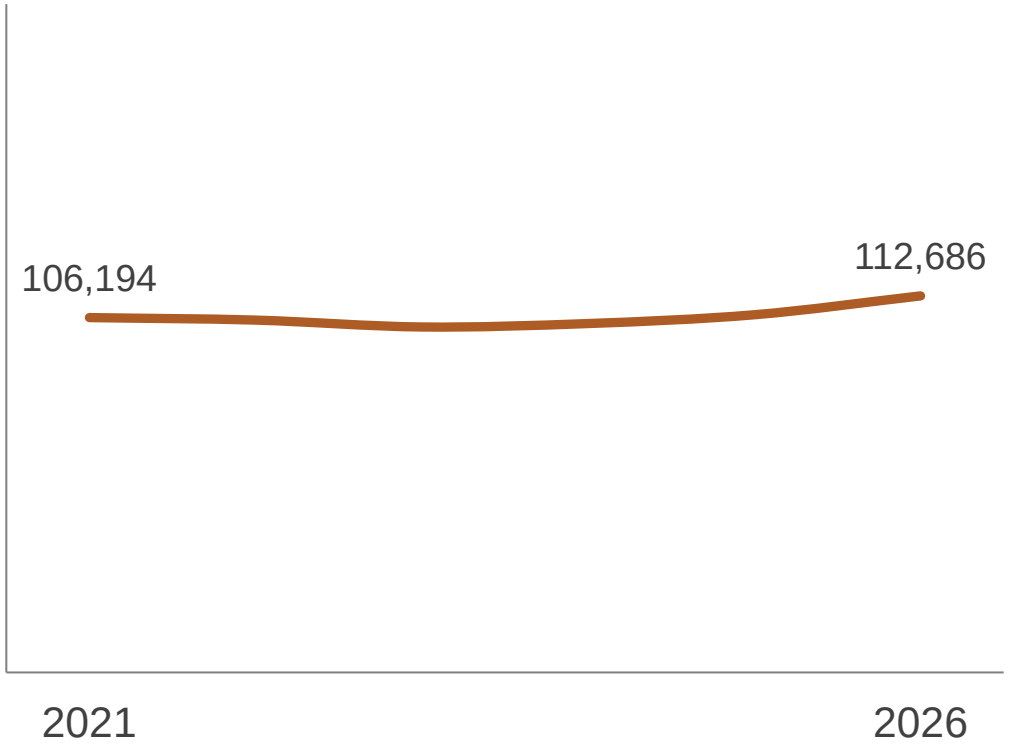


+ 14,851 or 24.3%

Fall Enrollment

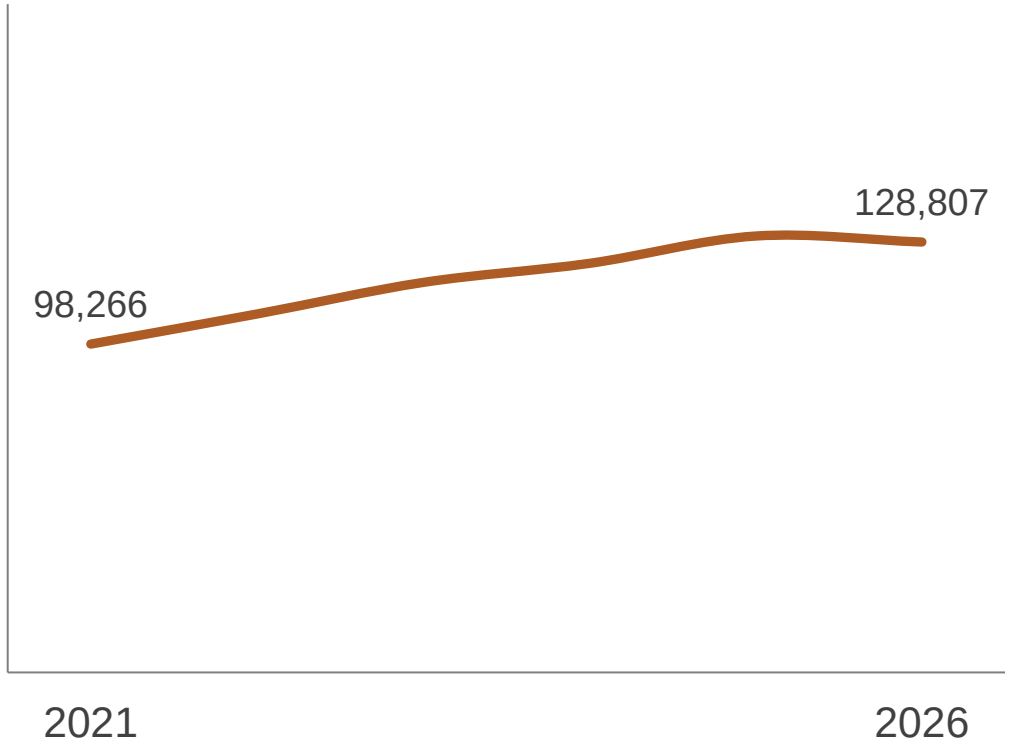
Student Population is Increasingly Non-Resident

Total Resident Students



+ 6,492 or 6.1%

Total Non-Resident Students

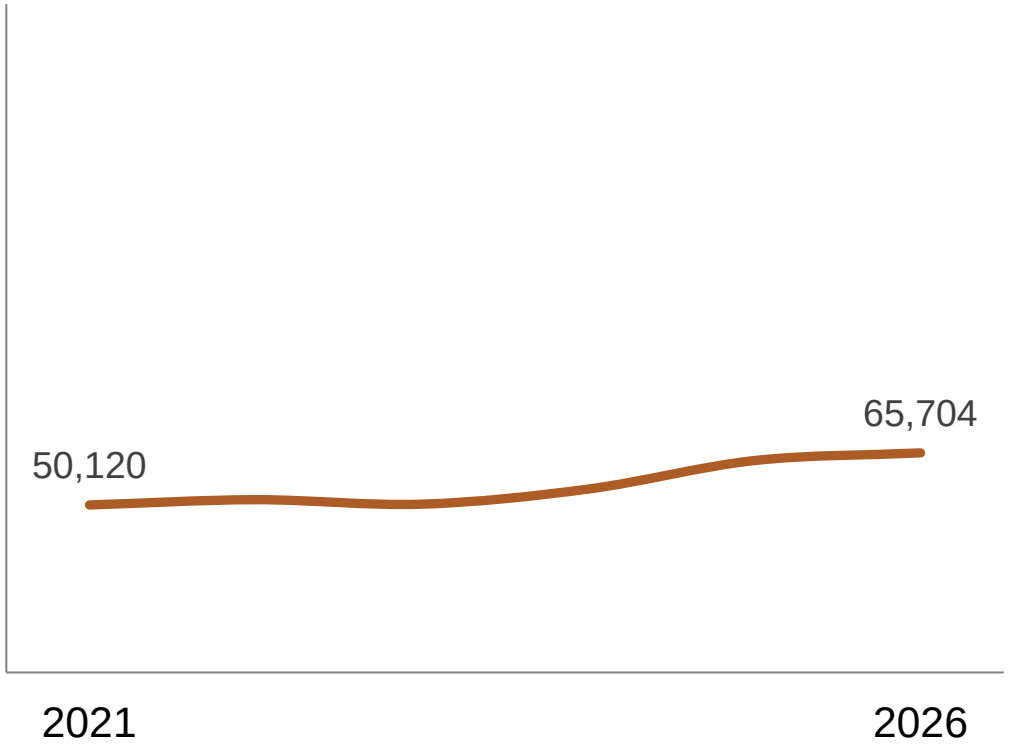


+ 30,541 or 31.1%

Fall Enrollment

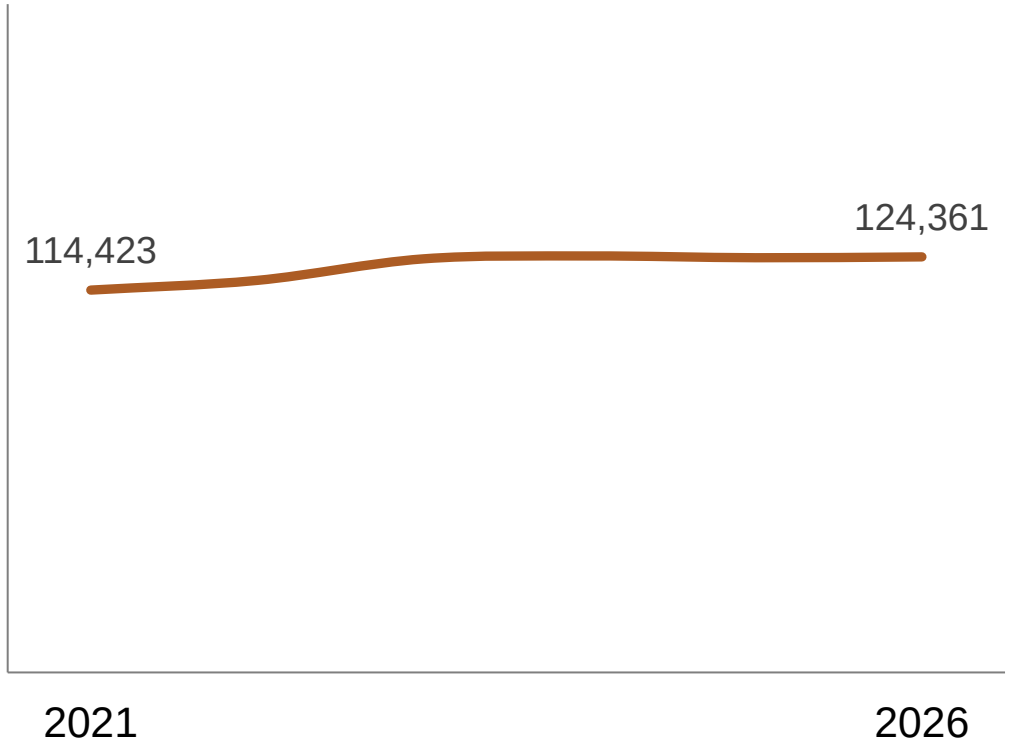
Student Population is Increasingly Pell Grant Supported

Total Pell Students



+ 15,584 or 31.1%

Total All Other Students



+ 9,938 or 8.7%

Revenue: Enrollment

ASU		NAU		U of A	
FY25 net tuition/fees	2,173.1	FY25 net tuition/fees	197.0	FY25 net tuition/fees	978.2
FY26 budget	2,358.4	FY26 budget	197.6	FY26 budget	1,020.2
FY26 revised budget	2,358.4	FY26 revised budget	193.0	FY26 revised budget	969.8
Change from budget	-	**Change from budget**	**-4.6**	**Change from budget**	**-50.4**
	-		-2.3%		-4.9%
Change from FY25	**185.3**	**Change from FY25**	**-4.0**	**Change from FY25**	**-8.4**
	8.5%		-2.0%		0.9%
Due to: online enrollment		*Due to: overall enrollment*		*Due to: non-resident enrollment*	
Scholarship as % of GTF:	**23%**		**51%**		**36%**

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Revenue: Auxiliary Businesses

ASU		NAU		U of A	
FY25 revenue	284.4	FY25 revenue	87.3	FY25 revenue	248.7
FY26 budget	294.5	FY26 budget	93.5	FY26 budget	243.5
FY26 revised budget	294.5	FY26 revised budget	91.0	FY26 revised budget	235.4
Change from budget	- -	**Change from budget**	**-2.5** -2.7%	**Change from budget**	**-8.1** -3.3%
Change from FY25	**10.1** 3.6%	**Change from FY25**	**3.7** 4.2%	**Change from FY25**	**-13.3** -5.3%

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Revenue: Sponsored Research

ASU		NAU		U of A	
FY25 revenue	715.1	FY25 revenue	120.2	FY25 revenue	977.3
FY26 budget	710.0	FY26 budget	100.0	FY26 budget	887.0
FY26 revised budget	710.0	FY26 revised budget	112.0	FY26 revised budget	950.8
Change from budget	- -	**Change from budget**	12.0 12%	**Change from budget**	63.8 7.2%
Change from FY25	-5.1 -0.7%	**Change from FY25**	-8.2 -6.8%	**Change from FY25**	-26.5 -2.7%

ARIZONA BOARD OF REGENTS
ASU ◆ NAU ◆ UA

Expenses

ASU		NAU		U of A	
FY25 expenses	3,936.8	FY25 expenses	676.3	FY25 expenses	2,822.6
FY26 budget	4,219.5	FY26 budget	645.7	FY26 budget	2,804.7
FY26 revised budget	4,150.3	FY26 revised budget	656.9	FY26 revised budget	2,827.6
Change from budget	**-69.2** -1.6%	**Change from budget**	**11.2** 1.7%	**Change from budget**	**22.9** 0.8%
Change from FY25	**213.5** 5.4%	**Change from FY25**	**-19.4** -2.9%	**Change from FY25**	**5.0** 0.2%
Due to: cost containment		*Due to: salary and benefits increases, cost pressures, housing investments*		*Due to: cost pressures, salary increases*	

ARIZONA BOARD OF REGENTS
ASU ◆ NAU ◆ UA

Change in Net Position

ASU		NAU		U of A	
FY25 net position	+242.8	FY25 net position	+5.8	FY25 net position	178.8
FY26 budget	+43.7	FY26 budget	-	FY26 budget	+55.4
FY26 revised budget	+167.3	FY26 revised budget	+1.5	FY26 revised budget	+25.9
Change from budget	**+123.6**	**Change from budget**	**+1.5**	**Change from budget**	**-29.5**
Change from FY25	**-75.5**	**Change from FY25**	**-4.3**	**Change from FY25**	**-152.9**

Liquidity (Days Cash on Hand)

ASU		NAU		U of A	
FY25 year-end	176	FY25 year-end	167	FY25 year-end	77
FY26 budget	161	FY26 budget	167	FY26 budget	77
FY26 revised projection	177	FY26 revised projection	165	FY26 revised projection	78

Satisfactory range: 132 to 220

Regents' Questions + CFO Discussion

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ITEM 3.1: The University of Arizona State of the University: "Reporting on our Promise"

Requested Action: University of Arizona President Suresh Garimella will provide a State of the University presentation and report to the board.

Background
President Garimella and senior leaders will provide the Arizona Board of Regents with the University of Arizona's State of the University Report.

The board receives this report as part of its constitutional responsibility to ensure that Arizona's public universities accomplish their public purpose and mission.

The president and his leadership team present a report and engage in a strategic discussion with the board regarding:

- Progress toward delivering on the goal of success for every student;
- Innovation and progress on the goal of conducting research that shapes the future;
- College-specific efforts to engage with our communities to create opportunity; and
- Key opportunities for growth.

The presentation and strategic discussion that follows will focus on those areas of greatest importance and urgency to the U of A and introduce the strategies and initiatives that will be pursued in the coming year.

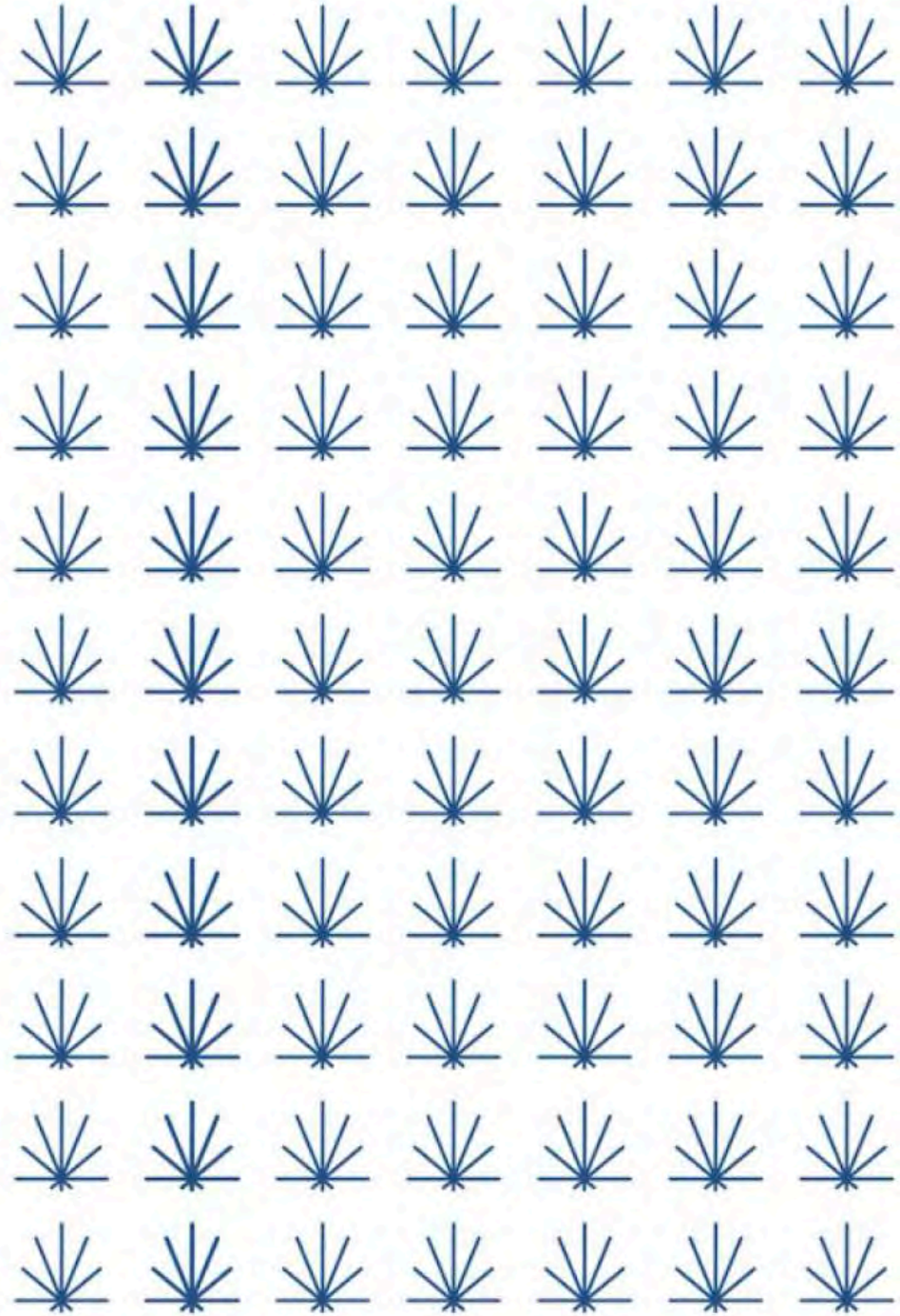
Statutory/Policy Requirements
A.R.S. §15-1626(A) General Administrative powers and duties of board

Contact Information:
President Garimella, U of A president@arizona.edu 520-621-5511

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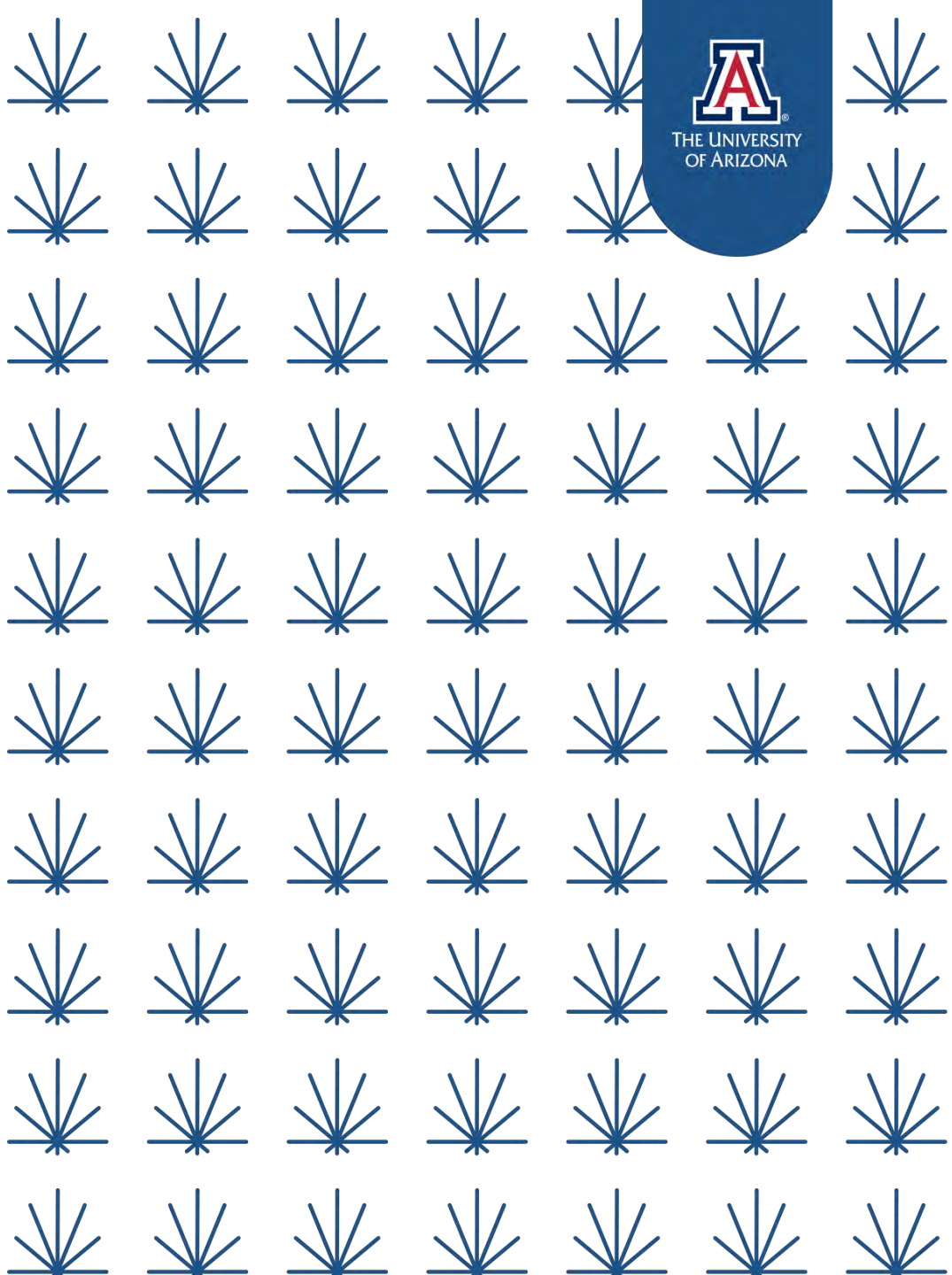
Reporting on our Promise

November 2025



Research That Shapes Arizona's Future

Fueling Arizona's Future Through Discovery and Innovation — Three initiatives driving progress in energy, security and health.




This is an embedded video you can view here:
https://arizona.box.com/s/nvd3s5ekeit63uy5bnyak5p9blfekkyl
Research &
Partnerships

Strategic Initiatives: Purpose-Driven Research for Arizona

- **Fusion Energy:** Advancing clean, abundant power and positioning Arizona as the leader in commercial fusion.
- **National Security:** Building U.S. space resilience and defense readiness through the U of A's world-class assets – our people, place and facilities.
- **AI & Health:** Leading AI and supercomputing to improve health outcomes, expand access and grow Arizona's health-tech economy.

Fusion Energy: Scientific Breakthrough to Commercialization



The New York Times

Major Fusion Energy Breakthrough to Be Announced by Scientists

Researchers working with lasers at Lawrence Livermore National Laboratory are expected to say they made a major advance that could lead to future energy sources.

Dec. 5, 2022

$10B in venture capital invested

Total funding to date:

$9,766,000,000

Total this year:

$2,643,573,000

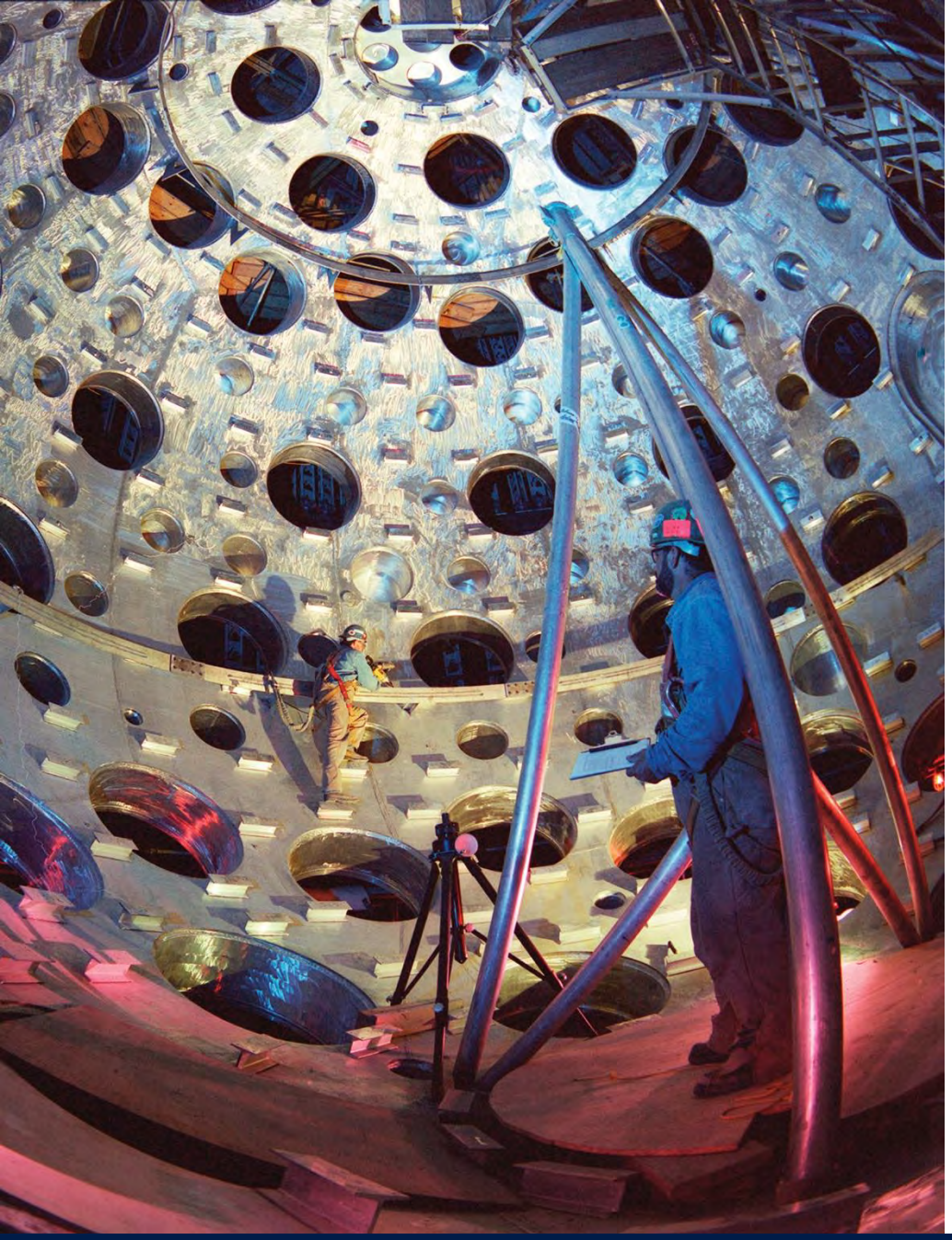
Total private funding to date:

$8,971,150,000

Total public funding to date:

$794,850,000

*Some figures have been converted to dollars/rounded



THE UNIVERSITY OF ARIZONA

Fusion Energy: Powering Arizona's Future

Turning the science of fusion into practical clean power and building the supply chain, future workforce and first fusion power plant here in Arizona

- Arizona Institute for Future Energy (proposed)
- Member of DOE-funded STARFIRE Hub led by LLNL
- Founding member, Fusion Industry Association Research & Education Program
- $200M Inertia + $10M proposal funded by DOE
- PPP to build a facility to test the technologies necessary for fusion power plants

National Security Science: Research Leadership for a Contested Era

- Protecting the nation and critical systems that power communication, commerce, innovation and discovery
- Kyl Institute for National Security
  - Connecting U of A faculty with national security partners
  - Focus on five mission-critical areas





National Security Advantage: From Research to Readiness

- Partnerships with federal agencies, the defense industry, national labs and academia
  - Advancing xGEO to cislunar tracking & object identification ($7.5M)
  - Improving AI-driven guidance, control & navigation for hypersonic systems ($4.5M)
  - Next-gen lower-cost, mass-producible space optics technology ($9M)
  - Production of a large primary mirror assembly ($43M)

AI and Health: Supercomputing for Arizona and the U.S.

- Positioning the U of A as the nation's premier AI supercomputing leader
- Driving convergent research through the cross-campus Responsible AI in Health Innovation Nexus
- Transforming Arizona's innovation economy



Forbes

From Lab Assistant To Lead Investigator: How AI Is Transforming Medical Research And Review

Artificial Intelligence, or AI, is powering phones' voice assistants or curating streaming playlists; it's now transforming how we detect, prevent and treat illness, promising earlier interventions, smarter therapies and more affordable care for everyone.

November 02, 2025

AI and Health: Transforming AI Power into Improved Outcomes for Arizona

- Building on existing strengths: $32M in awards
  - Embedding AI into education, clinical practice
  - Enabling precision diagnostics, personalized medicine, treatments
  - Reshaping care to be real-time and accessible to all Arizonans
- Expanding and strengthening partnerships with Banner Health, providers statewide and tribal and rural communities
- Launching the AI in Health Innovation Fund



Building Arizona's New Research Enterprise

- Nationally recognized experts
- TRIF and major federal awards
- Research, education and innovation aligned to strengthen Arizona's economy, security and health





THE UNIVERSITY OF ARIZONA

Thank You

Reporting on our Promise

Provost Prelock

November 2025



Listening to Our Community:

Campus Conversations with Provost Prelock

“Through these conversations, I hope we can uncover ways to make meaningful and lasting improvements in how we support our students - from the moment they apply, through graduation, and as they go on to make an impact in our communities.”

Academic Success Goals

“The insights from the conversations are shaping the university’s Academic Success Goals and new initiatives to better support every Wildcat.”







Success for Every Student

Our primary goals are to

- Increase student retention and graduation rates
- Improve career readiness and outcomes
- Develop a four-year success plan for every student
- Advance graduate student mentorship and support
- Build a stronger sense of community for transfer students
- Create an integrated ecosystem for student success pathways

WILDCAT JOURNEY

THE UNIVERSITY OF ARIZONA



WILDCAT JOURNEY

Creating a seamless experience for students and families

THE UNIVERSITY OF ARIZONA









RECRUITMENT, ADMISSION & ORIENTATION

ACADEMIC SUPPORT SERVICES

STUDENT SUPPORT & CAREER SERVICES

GRADUATION & WILDCAT FOR LIFE

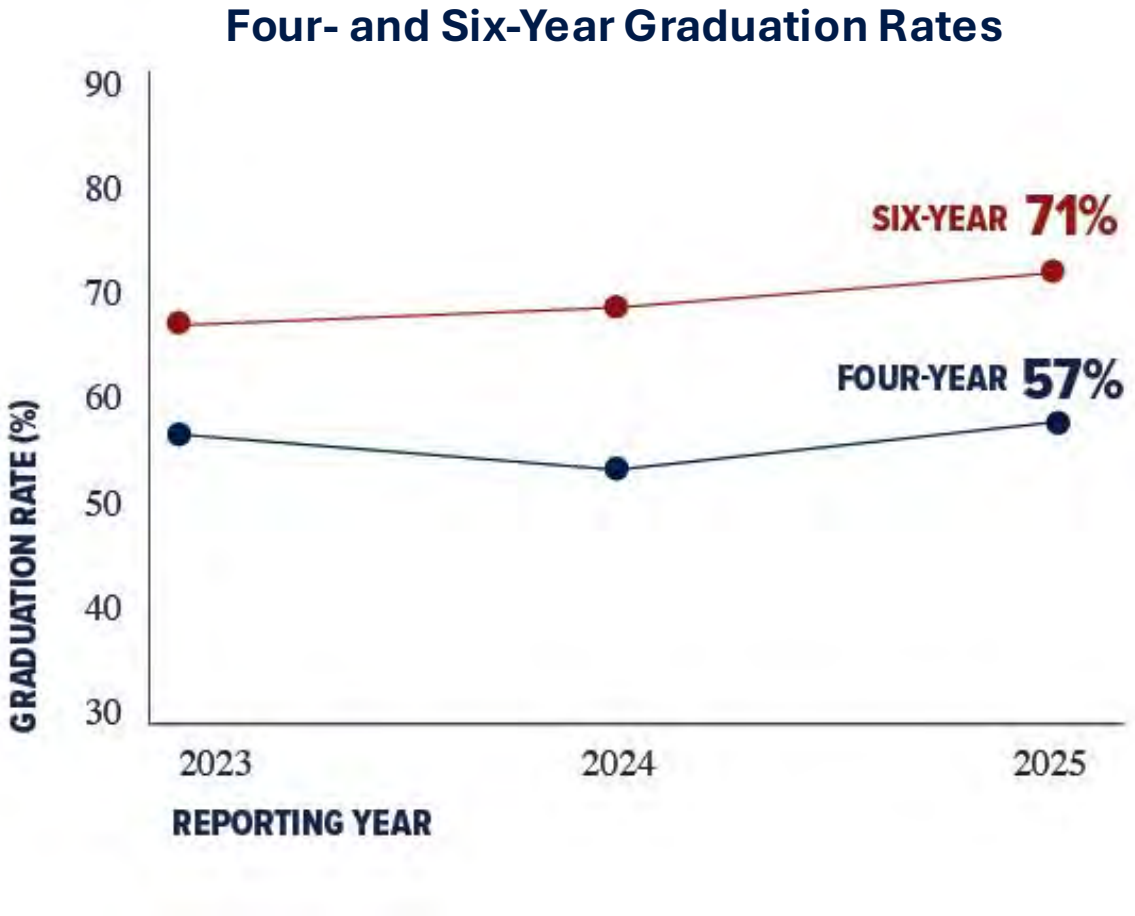

THE UNIVERSITY OF ARIZONA
BARTLETT ACADEMIC SUCCESS CENTER
MAIN LIBRARY
BEAR DOWN
SCIENCE ENG. LIBRARY



Student Success Initiatives

- **Reviewing and improving** General Education UNIV 101/301
  - Establishing an advisory task force to review and enhance the curriculum.
- **Improving** Civic engagement
  - A new required Civic Knowledge course will be added to the general education curriculum for all incoming students starting Fall 2026
- **Improving** our academic advising
  - Enhancing quality and consistency, creating structured milestones with integrated support, and investing in advisor training and development

The Graduation Project





Community College Connections

- Committed to providing **a clear, seamless experience** for students and their families, especially transfer students.
- Strengthening transfer pathways to **ensure a supportive and connected transition** to the University of Arizona.
- **Engaging with community** college leaders to:
  - Strengthen existing and develop new transfer pathways.
  - Improve the overall transfer process.
  - Enhance advising support for transfer students.



Student success is our North Star, guiding every decision and investment.

–Suresh Garimella

This is an embedded video you can view here:
https://arizona.box.com/s/fh7cirxugnc3hxaqct2siafkufjjij8n


THE UNIVERSITY OF ARIZONA
Together, we will make the University of Arizona a model for what "Success for Every Student" truly means.
We will deliver on our promise.



THE UNIVERSITY OF ARIZONA

Thank You

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Approval of Minutes

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DRAFT

ARIZONA BOARD OF REGENTS

Minutes of a Special Board Meeting
Thursday, August 28, 2025

A special board meeting of the Arizona Board of Regents was held on Thursday, August 28, 2025, in the Executive Conference Room and the Lincoln Conference Room at Arizona State University Fulton Center, 300 E. University Drive, 6th floor, Tempe, Arizona 85281.

Members present: Regent Goodyear, Regent Pacheco, Regent Brewster (via video), Regent Mata, Regent Penley, Regent DuVal, Regent Stein (via video), Regent Fisher, and Regent Garcia (joined at 9:07 a.m.)

Members absent: Superintendent Horne and Governor Hobbs

Also present from the board office: Executive Director Chad Sampson, Jennifer Pollock, Samantha Blevins, Kevin Smith, Tom Merriam, Rachel Malefors and Suzanne Templin.

All lists, reports, summaries, background material and other documents referred to in the minutes can be found in the August 28, 2025, Document File and on the board's website.

CALL TO ORDER, GREETINGS AND ANNOUNCEMENTS FROM THE BOARD CHAIR

Chair Goodyear called the meeting to order at 9:01 a.m. and confirmed a quorum of the board was present.

Upon motion by Regent Pacheco, seconded by Regent Penley, the board approved to enter into executive session to discuss the items listed as executive session on the agenda. Regents Goodyear, Pacheco, Brewster, Mata, Penley, DuVal, Stein, and Fisher voted in favor. None opposed and none abstained. The motion carried. Regent Garcia was not present for the vote.

RECESS PUBLIC SESSION

The board recessed public session at 9:02 a.m.

EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.03(A) the board convened in executive session at 9:03 a.m. to discuss the items identified as executive session on the agenda.

RECESS EXECUTIVE SESSION

The board recessed executive session at 12:22 p.m.

RESUME PUBLIC SESSION, GREETINGS AND ANNOUNCEMENTS FROM THE BOARD CHAIR
Members present: Regent Goodyear, Regent Pacheco, Regent Brewster (via video), Regent Mata, Regent Penley, Regent DuVal, Regent Stein (via video), Regent Fisher, and Regent Garcia

Members absent: Superintendent Horne and Governor Hobbs

Also present from the board office: Executive Director Sampson, Jennifer Pollock, Samantha Blevins, Kevin Smith, Brad Kendrex, Megan Gilbertson, Monica Trejo, Xavier Leal, Thomas Merriam, Rachel Malefors and Suzanne Templin; from Arizona State University: President Crow, Nancy Gonzales, Morgan Olsen and Elisa Kawam (via video); from Northern Arizona University: Laurie Dickson and Bjorn Flugstad (via video); and from the University of Arizona: President Garimella, Francisco Garcia, Patricia Prelock (via video), John Arnold and Steve Voeller.

Chair Goodyear resumed the public meeting at 1:15 p.m.

ADOPTION OF CONSENT AGENDA ACTION ITEMS AND ACCEPTANCE OF CONSENT INFORMATION ITEMS
All items on the consent agenda are marked with an asterisk (*). Chair Goodyear asked the board members if they had any conflict to declare. No conflicts were declared.

Upon motion by Regent Goodyear, seconded by Regent Pacheco the board approved items 2.1 – 2.9 as listed on the Consent Agenda. Regents Goodyear, Pacheco, Brewster, Mata, Penley, DuVal, Stein, and Fisher voted in favor. None opposed and none abstained. The motion carried.

ADMINISTRATIVE BUSINESS (Item 1)

Request to Approve the Preliminary Budget Request of the Universities and Board Office for FY 2027 (Item 1.1)
Brad Kendrex, ABOR Vice President of Finance and Administration presented the preliminary budget request of the universities and board office for FY 2027. The next fiscal year begins on July 1, 2026, and all state agencies, including the Board of Regents, are required to submit comprehensive financial data and projections to the Office of Strategic Planning and Budgeting. Agencies must also propose ideas for the governor's office to consider in upcoming budget conversations. Last year, the university system successfully avoided budget cuts and secured additional bond capacity for infrastructure investments, thanks to the support from the governor. The board aims to continue representing the needs and opportunities of the university system to ensure resilient state support for education and workforce development.

The board has identified several targeted initiatives to build upon previous successes and investments:

- Arizona Healthy Tomorrow Initiative:
    - $120 million requested for expanding allied health, nursing, and medical programs.
    - Proposal for a new loan assistance program aimed at retaining certified medical professionals in Arizona, modeled after the existing successful veterinary loan assistance program.

- Student Support and Access:
    - Continued investment in the Arizona Promise Program to support low-income students.
    - Proposal for a new merit-based scholarship program to retain high-performing students within the state and enhance Arizona's competitiveness.

- Water, Fire, and Forestry Research:
    - Expansion of university-sponsored research and interventions addressing Arizona's long-term environmental challenges.
    - Special focus on agricultural extension research to support the agricultural community.

- Workforce and Innovation:
    - Introduction of loan assistance programs for students in high-demand engineering, STEM, and technology fields who commit to working in Arizona, aimed at filling critical workforce gaps.

Mr. Kendrex noted that the board office is scheduled to submit these priorities and supporting documentation to the governor's office by September 1. Consultations with the governor's office will continue through the fall, leading up to the release of the executive budget in January. This budget will shape legislative discussions and the finalization of the state budget, optimistically targeted for the spring.

Chair Goodyear added that while last year's request was larger, the current proposal does not indicate a decreased need for funding. Instead, it emphasizes the continued importance of state investment to support education and workforce development for the future. The budget has been scaled back to reflect responsible priorities aligned with the state's needs.

Upon motion by Regent Goodyear, seconded by Regent Pacheco, the board approved the FY 2027 state budget request for the universities and the ABOR office as presented in the executive summary and supporting documentation. Regents Goodyear, Pacheco, Brewster, Mata, Penley, DuVal, Stein, and Fisher voted in favor. None opposed and none abstained. The motion carried.

RECESS PUBLIC SESSION
The board recessed public session at 1:23 p.m.

RECONVENE EXECUTIVE SESSION
Pursuant to A.R.S. §38-431.03(A) the board reconvened in executive session at 1:30 p.m. to discuss the items identified as executive session on the agenda.

CONSENT AGENDA (Item 2)
The following items were considered by a single motion with no discussion and approved.

2.1 *Request to Accept the Arizona Board of Regents FY 2025 Annual Report

2.2 *Request to Approve the FY 2025 Annual Personnel Report

2.3 *Request to Approve the FY 2025 Arizona Teachers Academy Annual Report

2.4 *Request to Approve the FY 2025 Technology and Research Initiative Fund (TRIF) Annual Report

2.5 *Request to Approve the FY 2025 Annual Cost Containment Report

2.6 *Request to Approve the FY 2025 Free Expression Annual Report

2.7 *Request to Approve the FY 2026 Adaptive Athletics Special Line Item Funding Allocation

2.8 *Request to Approve List of Qualifying Examinations for High Schools and High School Teacher Incentive Bonuses

2.9 *Arizona State University's Request to Ratify Authorization to Initiate Lawsuits

ADJOURN
The board adjourned at 4:24 p.m.

Submitted by:

_____
Rachel Malefors
Assistant Board Secretary

DRAFT

ARIZONA BOARD OF REGENTS

Minutes of a Special Board Meeting
Wednesday, September 10, 2025

A special board meeting of the Arizona Board of Regents was held on Wednesday, September 10, 2025, in the Large Conference Room at the Arizona Board of Regents Office, 2700 N. Central Avenue, Suite 400, Phoenix, AZ 85004.

Members present: Regent Goodyear, Regent Brewster (via phone, joined at 9:03 a.m.), Regent Mata, Regent Penley, Regent DuVal, Regent Stein, Regent Fisher, Regent Garcia (via video, joined at 9:05 a.m.), and Superintendent Horne

Members absent: Regent Pacheco and Governor Hobbs

Also present from the board office: Executive Director Chad Sampson, Jennifer Pollock, Samantha Blevins, Kevin Smith, Tom Merriam, Rachel Malefors and Suzanne Templin.

All lists, reports, summaries, background material and other documents referred to in the minutes can be found in the September 10, 2025, Document File and on the board's website.

PUBLIC SESSION CALL TO ORDER, GREETINGS AND ANNOUNCEMENTS

Chair Goodyear called the meeting to order at 9:03 a.m. and confirmed a quorum of the board was present.

VOTE TO ENTER INTO EXECUTIVE SESSION

Upon motion by Regent Goodyear, seconded by Regent Mata, the board approved to enter into executive session to discuss the items listed as executive session on the agenda. Regents Goodyear, Brewster, Mata, Penley, DuVal, Stein, Fisher and Superintendent Horne voted in favor. None opposed and none abstained. The motion carried. Regent Garcia was not present for the vote.

RECESS PUBLIC SESSION

The board recessed public session at 9:04 a.m.

EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.03(A) the board convened in executive session at 9:05 a.m. to discuss the items identified as executive session on the agenda.

ADJOURNMENT

The board adjourned at 2:03 p.m.

Submitted by:

_____

Rachel Malefors
Assistant Board Secretary

DRAFT

ARIZONA BOARD OF REGENTS

Minutes of a Special Board Meeting
Thursday, September 11, 2025

A special board meeting of the Arizona Board of Regents was held on Thursday, September 11, 2025, in the Executive Conference Room at Arizona State University Fulton Center, 300 E. University Drive, 6th floor, Tempe, Arizona 85281.

Members present: Regent Goodyear, Regent Pacheco, Regent Brewster, Regent Mata, Regent DuVal, Regent Stein, Regent Fisher (joined at 9:07 a.m.), and Regent Garcia (via video).

Members absent: Regent Penley, Superintendent Horne and Governor Hobbs

Also present from the board office: Executive Director Chad Sampson, Jennifer Pollock, Samantha Blevins, Kevin Smith, Tom Merriam, Rachel Malefors and Suzanne Templin; from the Auditor General's Office Staria Warnell and Lexie Bisaro.

All lists, reports, summaries, background material and other documents referred to in the minutes can be found in the September 11, 2025, Document File and on the board's website.

PUBLIC SESSION CALL TO ORDER, GREETINGS AND ANNOUNCEMENTS

Chair Goodyear called the meeting to order at 9:03 a.m. and confirmed a quorum of the board was present.

VOTE TO ENTER INTO EXECUTIVE SESSION

Upon motion by Regent Goodyear, seconded by Regent Pacheco, the board approved to enter into executive session to discuss the items listed as executive session on the agenda. Regents Goodyear, Pacheco, Brewster, Mata, DuVal, and Stein voted in favor. None opposed and none abstained. The motion carried. Regent Fisher was not present for the vote.

RECESS PUBLIC SESSION

The board recessed public session at 9:04 a.m.

EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.03(A) the board convened in executive session at 9:05 a.m. to discuss the items identified as executive session on the agenda.

RECESS EXECUTIVE SESSION

The board recessed executive session at 10:47 a.m.

RECONVENE EXECUTIVE SESSION
Pursuant to A.R.S. §38-431.03(A) the board reconvened in executive session at 2:00 p.m. to discuss the items identified as executive session on the agenda.

ADJOURNMENT
The board adjourned at 2:08 p.m.

Submitted by:

_____
Rachel Malefors
Assistant Board Secretary

DRAFT

ARIZONA BOARD OF REGENTS
Minutes of a Regular Meeting
Thursday, September 25, and
Friday, September 26, 2025

A meeting of the Arizona Board of Regents was held on Thursday, September 25, and Friday, September 26, 2025, in the Doyle/Rees and Humphreys Rooms at Northern Arizona University, High Country Conference Center, 201 W Butler Ave, Flagstaff, AZ 86001.

Thursday, September 25, 2025
Humphreys Room

Members present: Regent Goodyear, Regent Pacheco, Regent Brewster, Regent Mata (via video), Regent Penley, Regent DuVal (via video), Regent Stein, Regent McCain, Regent Fisher, and Regent Garcia.

Members absent: Superintendent Horne and Governor Hobbs

Also present from the board office: Executive Director Chad Sampson, Jennifer Pollock, Bradley Kendrex, Samantha Blevins, Kevin Smith, Sarah Harper, Tom Merriam, Rachel Malefors, Debbie Sale, and Suzanne Templin; from Arizona State University: President Michael Crow and Christine Wilkinson; from Northern Arizona University: President José Luis Cruz Rivera and Laurie Dickson; from the University of Arizona: Francisco García; and from the Arizona Auditor General's Office: Staria Warnell (via video).

CALL TO ORDER, GREETINGS, AND ANNOUNCEMENTS
Chair Goodyear confirmed quorum of the board and called the meeting to order at 9:01 a.m. and Regent Fisher led the Pledge of Allegiance.

Chair Goodyear thanked President Cruz Rivera and his team for organizing and hosting the September board meeting and recognized and welcomed Governor Hobbs newly nominated regent, Jim McCain.

Regent McCain thanked Regent Goodyear, the board and the universities and expressed eagerness to contribute to Arizona's goals.

VOTE TO ENTER INTO EXECUTIVE SESSION
Upon motion by Regent Goodyear, seconded by Regent Pacheco, the board approved to enter into executive session for the executive session items on the agenda, immediately following the Call to the Audience. Regents Goodyear, Pacheco, Brewster, Mata, Penley, DuVal, Stein, McCain, and Fisher voted in favor. None opposed and none abstained. The motion carried.

CALL TO THE AUDIENCE
The board received public comment from the following individual(s):

- Gracie Martinez – Associated Students of Northern Arizona University (ASNAU) – spoke about the need for visible safety measures like emergency blue light systems and the impact of new visa restrictions on international student enrollment. She urges the Regents to ensure student safety and support.

- Savannah Glenn – ASNAU – spoke about the high cost of living in Flagstaff, which averages $16,826 for on-campus living. She shares stories of students struggling with housing costs and emphasizes the need for affordable housing to ensure student success.

- Eesha Syeda – ASNAU – spoke about the impact of declining enrollment on the university's budget and student opportunities. She emphasizes the importance of listening to student voices and suggests expanding the time for students to speak directly to the Regents.

- Ellham Chelabi – University of Arizona Graduate and Professional Students Council (GPSC) – spoke about the financial struggles of graduate students due to federal grant cuts, the stress caused by visa changes for international students, and campus safety concerns. Elham urges the Regents to prioritize financial well-being, transparent communication, and safety measures.

- Jasmine Letofsky – ASNAU – spoke about the University Union Multi-Purpose facility, commonly known as the university's ice rink for student engagement and community benefits.

- Mercedes Sandoval – Unite Here Local 11 – Aramark - expressed pride in being a member of Unite Here Local 11 and representing ASU and serving the students. Ms. Sandoval shared issues she and her coworkers are facing such as lack of respect, low wages, and financial struggles. She asked for better wages and support.

- Fernando Joqeñi – Unite Here Local 11 – spoke about working at ASU Barrett and is struggling financially and not able to afford medical insurance and fears losing his home due to medical bills. He further addressed the high cost of parking.

- Eric Cadman – Unite Here – spoke about the union representing about 650 employees at Aramark at the four ASU campuses. Workers, including dining hall staff and baristas earn low wages, with most making $19 an hour and student workers earning $15.15. They face issues like unaffordable healthcare, lack of benefits, and understaffing. The collective bargaining agreement expired in August and they expect a contentious contract fight. Their goal is to establish a dialogue with the Board of Regents.

- Natalie Dalton – Unite Here Local 11 – Aramark – spoke about issues faced by her and her coworkers, such as low wages, lack of respect and understaffing. She further expressed concerns about the upcoming collective bargaining agreement and the potential for labor conflicts. They are here to bring the issues they are facing to light and to work with the Board as issues arise.

- Ashley Ray – Unite Here Local 11 – Aramark – shared that since the semester began, nearly 150 workers have resigned due to understaffing. She is the only full-time person in their unit, often trains new hires despite minimal training themselves. They rarely get full breaks and struggle to take lunch. She feels the strain of being on their feet all day but cannot leave the job due to lack of support. The collective bargaining agreement expired in August, giving union workers the right to strike for better conditions. They are entering contentious negotiations and want to highlight these issues.

- Bertha Monge – Unite Here Local 11 - Aramark – shared her personal and work-related struggles. She lives alone, pays $1600 in rent, recently had surgery, and cares for her elderly mother. She and her coworkers face issues like lack of respect, understaffing, and low wages, making it difficult to make ends meet.

- Mariposa Gallegos – Aramark – Maxwell Yuen joined Mariposa Gallegos and read her comments. Mr. Yuen expressed Ms. Gallegos concerns about disrespect from management, understaffing, low wages, and expensive healthcare. Ms. Gallegos has diabetes, needs surgery, and is in constant pain and financial strain. The collective bargaining agreement expired in August, and Ms. Gallegos and her coworkers are preparing for potentially contentious negotiations with Aramark for better staffing protections and higher wages.

- Vicente Martinez – Unite Here Local 11 - Aramark – spoke about disrespect from management, understaffing, and high turnover. Nearly 150 workers have resigned since the semester began, leading to overwhelming workloads for the remaining staff. The union's collective bargaining agreement expired in August, and they are preparing for negotiations to improve conditions.

- Angelica Delgado – Unite Here Local 11 – Aramark – spoke about the challenges faced by her department, including understaffing and mandatory overtime. With their collective bargaining agreement expired, she and her coworkers are preparing for potentially contentious negotiations to advocate for better staff protections and higher wages.

- Mark Stegeman – University of Arizona Faculty Senate/General Education Committee – spoke about the progress and challenges in implementing civics education at universities. Five years ago, the board mandated civics education for all university students. Despite initial efforts, progress has been slow. A revised proposal requires significant planning and faculty engagement. The faculty Senate's involvement is crucial.

- Scott Menor – Community / Alumni - criticized the involvement of unethical influences in higher education governance, highlighted the role of tobacco lobbyists and military-industrial companies. Mr. Menor further condemned the university's actions, including hosting controversial figures and failing to protect students, and calls for the removal of current board members.

RECESS PUBLIC SESSION
The board recessed public session at 9:41 a.m.

EXECUTIVE SESSION
Doyle/Rees Room
Pursuant to A.R.S. 38-431.03(A), the board convened in executive session in the Doyle/Rees Room at 9:50 a.m. to discuss the items identified as executive session on the agenda.

RECESS EXECUTIVE SESSION
The board recessed executive session at 12:20 p.m.

RESUME PUBLIC SESSION, GREETINGS, AND ANNOUNCEMENTS
Humphreys Room

Members present: Regent Goodyear, Regent Pacheco, Regent Brewster, Regent Mata (via video), Regent Penley, Regent DuVal (joined at 1:05 p.m. via video), Regent Stein, Regent McCain, Regent Fisher, and Regent Garcia.

Members absent: Superintendent Horne and Governor Hobbs

Also present from the board office: Executive Director Chad Sampson, Jennifer Pollock, Bradley Kendrex, Samantha Blevins, Kevin Smith, Sarah Harper, Tom Merriam, Rachel Malefors, Debbie Sale, and Suzanne Templin; from Arizona State University: President Michael Crow, Christine Wilkinson, Lisa Loo, Morgan Olsen, Sally Morten, Elisa Kawam, Graham Rossini (via video); from Northern Arizona University: President José Luis Cruz Rivera, Laurie Dickson, Karen Pugliesi, Michelle Parker, Bjorn Flugstad, Uri Farkas; and from the University of Arizona: Francisco García, Patricia Prelock, John Arnold, and Art Lee; and from the Arizona Auditor General's Office: Staria Warnell (via video).

The board resumed public session at 1:02 p.m.

NORTHERN ARIZONA UNIVERSITY PRESIDENT'S WELCOME
President Cruz Rivera welcomed the Arizona Board of Regents, university colleagues, and the public to the Flagstaff campus of Northern Arizona University (NAU). He expressed gratitude for the regents' support and emphasized the honor of hosting the meeting at NAU, especially as it marks the start of his fifth year as president. He further welcomed Regent McCain and highlighted his family's legacy of service and anticipates contributions to public education in Arizona. President Cruz Rivera further highlighted NAU's achievements:

- Highest Proportion of Arizona Residents: NAU enrolls more Arizona residents than any other public university, with initiatives like "Access to Excellence" ensuring tuition coverage for low- and middle-income Arizonans.
- Workforce Development: NAU Health pledges to double graduates in physical and behavioral health fields by 2030 to address urgent workforce needs.

- Research Expansion: NAU is expanding research with regional impact on wildfires, water, and community health, and is seeing record levels of philanthropic support.

President Cruz Rivera looks forward to important conversations ahead and continued collaboration to build the future of public higher education in Arizona.

ADOPTION OF CONSENT AGENDA ACTION ITEMS AND ACCEPTANCE OF CONSENT INFORMATION ITEMS
All items on the consent agenda are marked with an asterisk (*). Consent Agenda action items and consent information items (7.1 – 7.21) approved are listed under the Consent Agenda - Item 7.

Chair Goodyear asked the board members if they had any conflict to declare. Regent Stein declared a conflict and recused himself for item 7.18. Chair Goodyear divided the consent agenda into two motions.

Upon motion by Regent Goodyear, seconded by Regent Pacheco, the board approved items 7.1 – 7.17 and 7.19-7.21 as listed on the consent agenda. Regents Goodyear, Pacheco, Brewster, Mata, Penley, DuVal, Stein, and Fisher voted in favor. None opposed and Regent McCain abstained.

Upon motion by Regent Goodyear, seconded by Regent Pacheco, the board approved item 7.18 as listed on the consent agenda. Regents Goodyear, Pacheco, Brewster, Mata, Penley, DuVal, and Fisher voted in favor. None opposed and Regent McCain abstained. Regent Stein recused himself from this action.

EXECUTIVE DIRECTOR'S REPORT (Item 1)
Executive Director Sampson presented his report and shared the progress made to strengthen higher education in Arizona and reflected on the accomplishments over the past year achieved under Chair Mata's leadership. The Annual Report is available and has been sent to the governor's office and the legislature as a testament to the tremendous work done by the board, university presidents, and their teams.

Executive Director Sampson noted the most important responsibilities of the enterprise, which are the charge to provide an excellent education—one that guarantees every student experiences excellence—and to fight for the universities so they can continue their vital work in research and service to the state. As the board builds on last year's achievements, the ABOR team will focus on the core mission – the constitutional charge to deliver outstanding education, prepare the workforce Arizona needs, and add value to humanity and the state through cutting-edge research. The budget request to the governor and legislature reflects this mission - funding to advance and improve Arizona's healthcare workforce, drive talent development for rapidly growing tech industries, and support research in water, forestry, and other technical areas that help Arizona thrive. The budget ask this year doubles down on growth in FAFSA outreach, access, and entertainment. Arizona is now the sixth fastest-growing state for FAFSA completion, thanks to partnerships with organizations like the Cactus League, Diamondbacks, and governor's office. In fact,

the governor has proclaimed October as FAFSA Month in Arizona, and ABOR's communications team is driving these collaborations. Real progress is being made. Completing the FAFSA—the Free Application for Federal Student Aid—is the first step toward funding college, trade school, or whatever comes next. Just as practice leads to success in sports, completing the FAFSA sets you up for success. It's free, it's easy, and it opens doors to grants, scholarships, and work-study opportunities. Don't miss out—score big by completing your FAFSA today. Executive Director Sampson shared a video regarding FAFSA.

ADMINISTRATIVE BUSINESS (Item 2)
Request to Approve Presidents' Contracts and Executive Director's Notice of Appointment and Payment for Achievement of 2024-2025 At-Risk Compensation Goals (*ACTION*) (Item 2.1)
Jennifer Pollock, ABOR Senior Vice President and General Counsel presented that the board conducts annual performance reviews every year, and, as a result of those reviews, the board can consider amendments to the presidents' contracts and consider achievement of previously assigned at-risk compensation goals. With the proposed action, board approval would authorize the board chair to amend and restate the contracts and notice of appointment for the presidents and the executive director, as well as authorize the chair to make any necessary technical or conforming changes to those contracts.

Regent Penley commented on the process, stating that the board assess the presidents' performances based on these at-risk goals and is always looking closely at the three presidents' performance. He said, "we have three excellent presidents doing very different jobs with three very distinctively different universities." Regent Penley commented further that, moving forward, the board needs to make sure that it is assuring improving the excellence of the experience for students, improving the kind of valuable research being done at the universities, and improving the quality of life in general for the public. The at-risk goals drive the institutions through the leadership of the three presidents toward making necessary changes to take each university and make it just a little better each year. This year, each of the three presidents has achieved all assigned goals. The at-risk compensation is a way to state the board's continued focus on the future. The three universities are driven through the great leaderships of the three presidents. Regent Penley ended his comments by stating that he is happy to endorse approval of the at-risk compensation.

Regent Brewster commented that he helped develop the at-risk goals for 2024-2025 with the three presidents and other regents. He wished to thank all involved, saying, "The collaboration to find those best areas for our presidents to lean in and move their universities forward towards goals that area meaningful and ultimately pay off for the State of Arizona is an incredible amount of work." He also pointed out that it has been an "incredibly wild" year relative to other things coming down from the federal government. The presidents and their staff are juggling several influences while focusing on the things that truly matter. Further, Regent Brewster commented that he is very proud of how the presidents work to make sure their goals are worked, updated, and fairly looked at for true outcomes. The goals are, for the most part, individual and university-specific, there is a

large amount of collaboration between the three presidents. The state of Arizona is the true winner because of this collaboration.

Chair Goodyear commented that he is unbelievably proud of the universities and the individuals who lead them. The three presidents are some of the best in the country and the schools are in good hands. The presidents care deeply about their institutions. Chair Goodyear commended Executive Director Chad Sampson on his performance, and that he is a joy to work with and has done a marvelous job.

Regent Mata commented that last fiscal year (FY 2024-2025) was a difficult one. She feels encouraged and proud of everything that has been accomplished and everything happening now. She commented further that the staff at ABOR, U of A, ASU, and NAU are amazing and help these things happen.

Regent Brewster thanked Jennie Pollock for her guidance in this process.

Upon motion by Regent Goodyear, seconded by Regent Pacheco, the board approved payment for achievement of the 2024-2025 annual at-risk compensation goals assigned to the presidents, the executive director and the Enterprise Executive Committee; approved proposed amendments to the presidents' contracts and the notice of appointment for the executive director; and authorized the board chair to amend and restate the contracts for the presidents and the notice of appointment for the executive director as described in the executive summary, including attachments, and make any necessary, technical, or conforming changes. Regents Goodyear, Pacheco, Brewster, Mata, Penley, DuVal, Stein, and Fisher voted in favor. None opposed and Regent McCain abstained.

Discussion of Collegiate Athletic Landscape (*INFORMATION/DISCUSSION)* (Item 2.2)
Chad Sampson introduced Mike Zavodsky, athletic consultant with WME. Mr. Zavodsky spoke about the importance of athletics in the university ecosystem and how athletics is a "front door" for opening opportunities for each university. He highlighted brand building and differentiating the fan experience, merchandising, and digital engagement to connect with audiences. While the university's brand signifies learning, the athletics brand signifies camaraderie and connectivity.

Mr. Zavodsky shared his expertise in monetizing through fan consumption and the critical role of data and analytics to personalize marketing and deepen engagement.
He listed the following monetization avenues:

- Licensing, merchandising, and private-label brands.
- Creator networks leveraging athlete influence for both athlete and university revenue.
- Content production (e.g., documentaries, YouTube) tells a story that people want to listen to and be a part of. Content production should be used as both marketing and revenue tools.
- Experiential opportunities (in-venue experiences, food & beverage innovations, field suites, road caravans). All these experiences create a differentiated experience that elevates engagement that people remember and talk about.

- Evolved sponsorships focused on Intellectual Property (IP) use; storytelling, narratives and partnerships integration.

Mr. Zavodsky described the term “vertical integration”: to create and maintain a cohesive story across all platforms and suggested that engagement should be funneled into centralized locations that maintain a consistent tone and voice that allows nuanced adjustments to different audiences.

U of A Athletic Director, Desireé Reed-Francois thanked the board and highlighted the value of WME as a world-class partner in navigating the rapidly evolving college athletics landscape. The mission remains clear, to create an environment for coaches and student-athletes to win championships, graduate leaders, and strengthen community ties. Ms. Reed-Francois stressed that institutions must adapt or risk falling behind, noting steps the U of A has taken such as leveraging the 501(c)(3) Arizona Sports Enterprises, embracing new revenue and community-building opportunities, addressing budget deficits, and implementing revenue-sharing strategies. Further discussion reaffirmed Arizona’s commitment to maintaining elite status through the Bear Down Blueprint, focusing on business foundations and strategic growth. Key priorities include expanding the national and global athletics brand, unlocking licensing opportunities, and utilizing analytics to drive smarter decisions and revenue growth. Ms. Reed-Francois expressed enthusiasm for continued collaboration with WME to advance branding, monetization, and data-driven strategies, concluding with a commitment to making the board proud through hard work and innovation.

Athletic Director Graham Rossini from ASU expressed his appreciation for Mike Zavodsky and the WME affiliation. Mr. Rossini described ASU Athletics as a talent development organization, responsible for helping over 600 student-athletes from 40+ countries become productive, responsible adults while competing at the highest level. This is done by investing in top quality coaches and implementing a unified department approach with the department focused on cohesive, vertically integrated operations, connecting emotionally to ASU and unifying under one athletic identity.

Mr. Rossini emphasized community-building and strengthening ASU’s brand by leveraging Arizona’s population growth to enhance fan affinity, position athletics as a tool for enrollment growth and improve student retention. Efforts include new fan experiences like field-level suites (sold out immediately), planned basketball arena renovations, and expanded amenities and seating options to meet evolving fan behaviors and preferences. The vision includes sharing the success stories of ASU’s 600 global student-athletes and promoting them as brand ambassadors to illuminate all that ASU offers through the on-campus game day experience and content consumption.

Mr. Rossini spoke on ASU’s commercial success and momentum noting that ASU achieved 98% of football season ticket renewal (well above industry norms), sold 8,000 new tickets, and sold out the first two games. Success is extending to other sports, such as a top 15 hockey program competing before sellout crowds in Mullet Arena. With 250+ live events

annually, ASU is cross-promoting all 26 sports, enhancing value for corporate partners, donors, and fans year-round while adapting and evolving to stay ahead of the movement.

Mr. Rossini concluded with ASU Athletics guiding principle, to "obsess over the people who obsess over us" — emphasizing customer service, value creation, and continuous improvement of every game-day and fan touchpoint.

NAU Vice President for Intercollegiate Athletics Yuri Farkas, expressed appreciation to fellow athletic directors for their warm welcome. Mr. Farkas noted NAU's three pillars of NAU Athletics include graduating student-athletes, competing for championships, and maintaining fiscal responsibility. The partnership with Mike Zavodsky and the WME team has provided a valuable "to-do list" that has guided NAU's strategic growth while holding true to these three pillars. The key areas of progress include implementing "pockets" of premium seating in the Skydome, successfully boosting attendance and revenue. Ticket sales reached 98% capacity this football season, balancing affordability for the Flagstaff community with growth in premium spaces.

Mr. Farkas shared new, innovative revenue streams through creative naming rights partnerships as well as focusing on improving underperforming merchandise sales, with new branding opportunities soon available to fans. He further emphasized enthusiasm for continued collaboration with ASU, U of A, and WME to further enhance NAU Athletics' reach and success.

Regent Stein asked about engagement around other sports. Mike Zavodsky explained the strategy of increasing engagement for sports other than football is to use the energy around each sport through social engagement, game attendance, and eliciting the media is a start. Interconnecting sports programs and trading the equity of each sport is key.

Ms. Reed-Francios commented that cross-promotion is fundamental, noting that the halo affect is real and sited the women's basketball coach's promotion and involvement in competition with the U of A's National Championship Triathlon team which caused a spike in social media engagement. One Arizona consists of teams and their fans supporting and promoting other teams within the Arizona athletics family.

Mr. Rossini shared that ASU leverages its large on-campus and international student population to strengthen campus engagement through sports. The university promotes affordability across tickets, concessions, and merchandise to drive attendance. With 26 athletic programs and athletes from 40+ different countries, wherever students are from, and whatever sport they are into, ASU has it. Cross-promotion between sports encourages year-round involvement, while targeted efforts—like transportation for students from other campuses and coach participation in campus events, help build relationships and school spirit. Record attendance at soccer, volleyball, and lacrosse reflects this success. Overall, athletics serves as a key student retention and community-building tool, creating memorable experiences and pride in the ASU brand.

Ms. Reed-Francois added details of programs and events at the U of A that provide the student body special opportunities to get to know student-athletes and coaches to make memories.

Yuri Farkas noted that while NAU has led the league in soccer and volleyball attendance, the focus has now shifted to strengthening football engagement. With President Cruz Rivera's support and the hiring of a championship-level coach, NAU is seeing major growth in ticket sales and student participation, including sold-out tailgate lots and reservations. Mr. Farkas emphasized that boosting football success will elevate all athletic programs and drive overall revenue growth.

Regent Brewster commented on the level of expertise in all three of the universities' athletic directors and commended each on their collaboration and success in the short amount of time each has been with their university.

Discussion on Campus Safety and Wellbeing (*INFORMATION/DISCUSSION)* (Item 2.3) Brad Kendrex, ABOR Vice President, Finance and Administration, opened the discussion on campus safety and student wellbeing, emphasizing that campus safety is foundational to the three universities' missions and that it entails student support, emergency preparedness and community partnerships. Balancing openness and accessibility with safety and security is important.

Regent Fisher provided a student's perspectives on safety explaining that the fear of gun violence is the most common safety concern among students. Regent Fisher requested to hear what the universities have in place to keep students safe and suggested more communication to students as many students likely don't know what safety measures are in place.

Steve Patterson, chief safety officer for U of A, described the U of A's safety practices emphasizing community awareness and access to mental health and threat assessment resources. He described collaboration with community members, Students Affairs and Dean of Students coupled with technology, law enforcement officers and alert systems as critical safety tools. Mr. Patterson noted there are challenges to maintaining an open campus while keeping students and faculty safe and successful.

The board heard from NAU Chief of Police Missy Freshour on NAU's approach to student wellbeing and campus safety which includes awareness in the larger community and what might be coming into the university community. NAU maintains strong community partnerships with public safety entities. NAU works closely with law enforcement and shared radio systems, Computer Aided Dispatch (CAD) and record systems that ensure all public safety personnel continuously know what's going on in the community and on campus.

ASU's Police Chief John Thompson outlined ASU's safety programs, which include collaboration with local law enforcement agencies and the use of internal threat assessment teams to proactively address issues affecting students and faculty. He noted

that ASU also leverages technology to enhance campus safety, beyond the presence of officers, to identify potential concerns.

Regent Garcia spoke on the launch of U of A's safety app and asked the panel how they are working with students to share and develop resources. Steve Patterson, speaking on behalf of the U of A, discussed the reorganization of the Student Affairs division to ensure that all student support services—including counseling and psychological services, safety resources, the Dean of Students Office, housing, and related programs—are integrated under one organizational structure. He also highlighted the university's Crisis Mobile Team, a co-responder model in which a counselor and a peace officer jointly respond to calls involving mental health crises. Joanne Vogel, vice president of Student Services at ASU works with the student leadership and the Associated Students of ASU to shape safety efforts including as mentioned, the LiveSafe App and the 24/7 mental health, campus safety walks, and crisis response services. ASU partners with the community, business like Impact, and others that meet the full spectrum of support for campus crisis assistance. Margot Saltonstall, vice president of Student Affairs at NAU spoke to student involvement and the importance of showing up and listening. NAU uses surveys to learn about students' position and perception of their physical and psychological safety. NAU practices debriefing with students when situations arise on campus. NAU's Care Teams collect information and receive referrals from students about safety. Regent Pacheco, spoke as a parent of students who attend Arizona public universities and praised the universities for their clear and consistent safety communications and shared her observation that the mobile safety apps are effective student tools.

Regent Goodyear noted that Arizona's public universities often host large public events. While the events serve students, faculty, the state of Arizona, and the broader public good, he expressed concern that many of these events attract attendees who are not affiliated with the campuses. He also raised concerns about universities becoming venues for large public gatherings that pose safety risks and result in significant security costs for the institutions.

Chief Freshour responded to Regent Goodyear's concerns. She confirmed public events strain university and community safety resources and is concerned herself about long-term multi-day events that stretch both university and local resources such as the fire department, first responders, medical personnel and local police.

Morgan Olson from ASU acknowledged that the universities are in a bully pulpit position wherein groups gather at the universities to talk about the issues that are important to them and opposition arises from those talks. A fundamental part of handling these events is planning, training and preparation to maintain safety and protect people's constitutional rights and safety.

Steve Patterson reported that U of A is the central hub for Tucson events. Leadership works closely with city, state and federal partners for high-profile external events. These events require coordination to assess potential security risks tied to visiting speakers and

performers. The security departments for all three universities collaborate regularly to organize and plan for potential risks.

President Crow emphasized that Arizona's public universities are among the nation's most open and free speech–protected institutions. However, this openness also attracts external groups seeking national attention, some of which act in manipulative or disruptive ways. He explained that proactive measures are taken to mitigate risks posed by such outside actors. President Crow cited an example of an individual who was paid to stage antisemitic graffiti to gain media attention and disrupt public discourse. He also referenced the Israel–Palestine encampment protests at ASU in April 2024, during which 52 of the 72 individuals arrested were not ASU students. He noted heightened concerns about other outside groups joining the event and ASU's proactive measures taken to decrease threats to student and faculty safety.

Chief Freshour responded to Regent Brewster's request for clarification regarding the role of federal agencies in supporting campus security and safety. She explained that regular meetings are held with federal and local law enforcement leaders to coordinate efforts and enhance university safety. Federal agents are also embedded in local task forces to assist in responding to threats. Chief Freshour cited an example of a SWAT incident that occurred on the first day of classes, during which her department and the university received immediate support from the FBI, DEA, and Homeland Security. She also noted that the partnership is reciprocal, with NAU's police force providing assistance to federal agencies when needed.

Regent Penley noted the efforts of the board and Arizona's three public universities regarding free speech and the assurance that people on these campuses have the right to free speech. The board and the three universities have prioritized free expression and have earned the Foundation for Individual Rights and Expression's (FIRE) highest rating, the "Green Light" for protecting free expression. Regent Penley commended university police/security and student affairs leadership who maintain the balance between safety and free speech.

Regent McCain noted that communication with students and parents is apparent, and proactive planning to handle threats is evident in the statements of the student affairs and police leadership. He thanked the group for their efforts to keep campuses safe and secure.

Request to Approve the Revocation of the Charter for the Strategic Initiatives and Planning Committee and Related Revisions to ABOR Policy 1-206 Strategic Planning, (First Reading) *(ACTION)* (Item 2.4)
Brad Kendrex presented the proposal to revoke the charter for the Strategic Initiatives and Planning Committee and revise ABOR Policy 1-206. The Strategic Initiatives and Planning Committee (SIP) was organized to allow regents the opportunity for strategic discussion and to address important issues that couldn't be addressed due to constraints in regular committee meetings. The discussions were valuable and productive. As the board has worked to streamline processes and committee structure, the SIP committee's function

has merged into University Governance and Operations Committee, maintaining the content and the value of discussion.

Upon motion by Regent Goodyear, seconded by Regent Pacheco, the board approved the revocation of the Charter for the Strategic Initiatives and Planning Committee and review on first reading revisions to ABOR Policy 1-206 Strategic Planning. Regents Goodyear, Pacheco, Brewster, Mata, Penley, DuVal, Stein, and Fisher voted in favor. None opposed and Regent McCain abstained.

Request to Approve Allocation of SPEED Bond Capacity to Universities *(ACTION)* (Item 2.5)
Brad Kendrex briefly explained the expansion of Arizona's SPEED Bond Program. He noted the state legislature increased capacity of the SPEED Bond Program, allowing universities to borrow using their own credit with state lottery revenue subsidizing debt payments. The state/lottery revenues cover 80% of costs and 20% of costs are covered by the universities. The benefit of this program is to advance capital projects more quickly and avoid passing costs onto tuition or other revenue sources. It enables essential investments in infrastructure and academics.

Mr. Kendrex commented on the board's approval of the universities' Capital Plans and asked the board to prioritize projects for preferential funding and proposed the following allocations:

- Arizona State University (ASU): $123.5 million – funding for ASU Health Headquarters in downtown Phoenix, supporting new health, engineering, public health and medical school programs
- Northern Arizona University (NAU): $87.75 million – investment in health education including construction of new nursing building and renovations and upgrades to Cline Library.
- University of Arizona (UA): $113.75 million – continued investment in campus infrastructure and enhanced student experience

Funding will be implemented over two years (half this year, half next year)
This package is meant to address the regents' and universities priorities and the careful stewardship towards what is most impactful for the state.

Upon motion by Regent Goodyear, seconded by Regent Pacheco, the board approved the allocation of SPEED bond authority to universities as described in the executive summary. Regents Goodyear, Pacheco, Brewster, Mata, Penley, DuVal, Stein, and Fisher voted in favor. None opposed and Regent McCain abstained.

20 - MINUTE BREAK – No break was held.

UNIVERSITY GOVERNANCE AND OPERATIONS COMMITTEE (Item 3)
Report on the September 11, 2025 University Governance and Operations Committee Meeting (*INFORMATION/DISCUSSION*) (Item 3.1)
Regent Pacheco reported on the September 11, 2025, University Governance and Operations Committee meeting. Items included an amended multi-year contract

agreement for U of A's head basketball coach, Fall 2025 enrollment expectations, and a discussion on the annual capital plans for all three universities. The committee heard and discussed U of A 's request for adoption of the Arizona State Museum proposed rates and fees. ABOR staff presented revisions to ABOR policies intended to streamline board processes and improve efficiency.

STUDENT REGENT REPORT (Item 4)
Regent Fisher introduced and welcomed Regent Felipe Garcia to his first regular board meeting. Regent Fisher reported on her participation as a panelist with Regent Pacheco at the Inside the Issues: Education Solutions for Arizona Town Hall on Post-Secondary Education. Regent Fisher noted that mental health and wellness listening sessions are scheduled for the upcoming year, and that she will be attending SHEEO's Basic Needs Data Academy in October 2025.

Regent Garcia reported efforts with Regent Fisher to connect with student government to identify common ground for meaningful collaboration for the upcoming academic year. Regent Garcia will be traveling to New York in October representing Arizona at the Carnegie Summit for National Service and will be participating in orientations at NAU and ASU, meeting with leadership and learning more about each campus and its students.

REPORT FROM THE ARIZONA FACULTIES COUNCIL (Item 5)
Dr. Elisa Kawam, ASU, reported on the Arizona Faculty Council's and acknowledged that the value of public higher education goes beyond the career pipeline asserting that universities are essential to defending democracy, strengthening civil society, fueling economic growth and fostering character and well-being. Dr. Kawan substantiated this statement by noting FY 2024 NIH funding that added $94 billion to the economy, and university research led to 80% more startups and innovation and new ideas. She further noted that trends in government investments in university projects created a 150% to 300% return on investment while a decrease in investments hurt American citizens financially.

Dr. Kawan listed some of the universities' public service projects aimed at building safer communities, creating jobs, advancing high-speed technology and cultivating health. Other projects include benefiting veterans and military-connected families, aging-out foster care students, empowering students with disabilities, promoting food and housing substantiable systems, and other noteworthy efforts.

Dr. Kawan noted that the core mission of the faculty is the creation and application of knowledge that not only powers innovation and economic development but also serves as a catalyst for meaningful change in society. She spoke to the AFC's central tenant, the importance of academic freedom stressing that progress and truth arise from open inquiry and evidence, not ideology. She described professors as disciplined stewards of knowledge, working deliberately not reactively to serve the public good.

The AFC urged the board and policymakers to lead in defending democracy and promoting the conditions that support research, academic freedom, knowledge application and civic engagement. They further suggest the board partner with Arizona's university faculty to

support efforts to identify funding and collaborative opportunities, promote the arts, humanities and innovation, further amplify the impact of university research and service and share faculty work more broadly for public benefit.

INQUIRIES, REQUESTS, REPORTS, AND COMMENTS FROM REGENTS AND MEMBERS OF THE ENTERPRISE EXECUTIVE COMMITTEE (Item 6)
Executive Director Sampson shared that Regent DuVal was honored with the Public Service of the Year Award from Arizona Bio. The AZ Bio's mission is to support the needs of Arizona's growing life science ecosystem and have done so for the past 20 years. Regent DuVal has led several key areas of focus for the board over the years that include the Arizona Teachers Academy, Research and Community Grants, the Lumina Foundation initiatives on getting ahead and the establishment of AZ Transfer, and improving the life science ecosystem. The award is well-deserved. Executive Director Sampson thanked Regent Duval for all his work.

Regent Goodyear announced for those attending the reception, it will be at the 1899 Bar and Grill Patio, beginning at 4:00 p.m. Friday morning there is a Faculty Breakfast at 7:45 a.m. and following the breakfast the board is scheduled to reconvene in executive session at 9:00 a.m. in the Doyle/Rees room for a review of assignments with President Cruz Rivera and Executive Director Sampson.

RECESS PUBLIC SESSION
The board recessed public session at 2:43 p.m.

RECONVENE EXECUTIVE SESSION
Friday, September 26, 2025
Doyle/Rees Room

Members present: Regent Goodyear, Regent Brewster, Regent Mata (via video), Regent Penley, Regent DuVal (via video), Regent Stein, Regent McCain, Regent Fisher, and Regent Garcia.

Members absent: Regent Pacheco, Superintendent Horne and Governor Hobbs

Also present from the board office: Executive Director Chad Sampson, Jennifer Pollock, Bradley Kendrex, Samantha Blevins, Kevin Smith, and Suzanne Templin; from Northern Arizona University: President José Luis Cruz Rivera, Laurie Dickson, and Michelle Parker; from and from the Arizona Auditor General's Office: Staria Warnell (via video).

The board reconvened in executive session at 9:06 a.m. in the Doyle/Rees Room, to discuss the items identified as executive session on the agenda.

CONSENT AGENDA *(ACTION)* (Item 7)
The following items were considered in two motions with no discussion and approved.

7.1 *Request to Approve Minutes for:
- a) Amended April 18-19, 2024, Executive Session
- b) March 27, 2025, Special Executive Session
- c) April 10-11, 2025, Executive Session
- d) April 24, 2025, Special Executive Session
- e) May 29, 2025, Special Executive Session
- f) June 12-13, 2025, Regular Meeting
- g) July 2, 2025, Special Board Meeting
- h) August 5, 2025, Special Board Meeting

7.2 *Request to Approve on Second Reading Proposed New ABOR Policy 1-127 Collaborative Initiatives

7.3 *Request to Approve on Second Reading Proposed Revisions to ABOR Policy 3-412 Administration of the Technology and Research Initiative Fund (TRIF)

7.4 *Adoption of Arizona State Museum Rates and Fees for the University of Arizona

7.5 *Request to Approve New Academic Units for Arizona State University

7.6 *Request to Approve the Annual Capital Plan, Including Waiver of ABOR Policy Requiring ACP Projects to Appear on a Previous Capital Improvement Plan for Arizona State University

7.7 *Request to Approve the Annual Capital Plan for Northern Arizona University

7.8 *Request to Approve the Annual Capital Plan, Including Waiver of ABOR Policy Requiring ACP Projects to Appear on the Previous Capital Improvement Plan for the University of Arizona

7.9 *Request to Approve Individual Project and Financing for FY 2026 Deferred Maintenance for the University of Arizona

7.10 *Request to Approve Individual Project and Financing for Athletics Deferred Maintenance and Infrastructure Upgrades for the University of Arizona

7.11 *Request to Approve Individual Project and Financing for Student Experience and Student Union Enhancements for the University of Arizona

7.12 *Acceptance of Novus® 2025 Annual Report for Arizona State University

7.13 *Request to Approve FY 2027 – 2030 Capital Improvement Plan for Arizona State University

7.14 *Request to Approve FY 2027 – 2030 Capital Improvement Plan for Northern Arizona University

7.15 *Request to Approve FY 2027 – 2030 Capital Improvement Plan for the University of Arizona

7.16 *Review on First Reading Proposed Revisions to ABOR Policy 1-125 Oversight of University Relationships with Component Unit Affiliates

7.17 *Review on First Reading Proposed Revisions to ABOR Policies 7-102 Capital Development Process and 7-207 Leases

7.18 *Review on First Reading Proposed Revisions to ABOR Policy 6-609 University Police Department Public Safety Personnel Retirement System Pension Funding Policy

7.19 *Review on First Reading Proposed Revisions of ABOR Policies 2-221 Academic Degree Programs, 2-222 Descriptions and Definitions of Academic Units, 2-224 Academic Credit, 2-225 Academic Program Review, 2-320 Academic Year Calendar, 4-320 Purpose, Responsibility, and Goals (C. Student Financial Aid), 4-321 Financial Aid Regulations, 6-103 Salary Adjustments, 6-804 Sick Leave, 6-806 Bereavement Leave, and 6-901 Salary Increases

7.20 *Review on First Reading Proposed Revisions of ABOR Policies 4-203 Requirements to be Considered in Determining an Individual's Residency Classification for Tuition Purposes, 2-325 Arizona Teachers Academy, 4-323 Tuition Waiver Scholarships and Institutionally Supported Financial Aid Programs, 4-406 Law Enforcement Officers Spouse and Dependents Tuition Scholarship, and 4-405 Spouses of Military Veterans' Tuition Scholarship

7.21 *Arizona State University's Request for Authorization to Initiate Lawsuit Against eCollege.com, Inc.

ADJOURNMENT

The board adjourned at 11:40 a.m.

Submitted by:

Suzanne Templin
Secretary to the Boad

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DRAFT

ARIZONA BOARD OF REGENTS

Minutes of a Special Board Meeting
Friday, October 17, 2025

A special board meeting of the Arizona Board of Regents was held virtually on Friday, October 17, 2025.

Members present via video: Regent Goodyear, Regent Pacheco, Regent Mata, Regent Penley, Regent DuVal, Regent Stein, Regent McCain, Regent Fisher, Regent Garcia, and Superintendent Horne (joined at 4:12 p.m.)

Members absent: Regent Brewster and Governor Hobbs

Also present from the board office: Executive Director Chad Sampson, Jennifer Pollock, Brad Kendrex, Tom Merriam, Logan Reid, Rachel Malefors, Debbie Sale, and Suzanne Templin; from the University of Arizona President Garimella and Steve Voeller.

All lists, reports, summaries, background material and other documents referred to in the minutes can be found in the October 17, 2025, Document File and on the board's website.

CALL TO ORDER

Chair Goodyear called the meeting to order at 4:01 p.m. and confirmed a quorum of the board was present.

VOTE TO ENTER INTO EXECUTIVE SESSION

Upon motion by Regent Goodyear, seconded by Regent Pacheco, the board approved to enter into executive session to discuss the items listed as executive session on the agenda. Regents Goodyear, Pacheco, Mata, Penley, DuVal, Stein, McCain and Fisher voted in favor. None opposed and none abstained. The motion carried. Superintendent Horne was not present for the vote.

RECESS PUBLIC SESSION

The board recessed public session at 4:01 p.m.

EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.03(A) the board convened in executive session at 4:03 p.m. to discuss the items identified as executive session on the agenda.

ADJOURNMENT

The board adjourned at 5:07 p.m.

Submitted by:

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Rachel Malefors
Assistant Board Secretary

ITEM 7.2: Approve on Second Reading Proposed Revisions to ABOR Policy 1-125 Oversight of University Relationships with Component Unit Affiliates

Requested Action: The board office asks the board to approve on second reading proposed revisions to ABOR Policy 1-125 Oversight of University Relationships with Component Unit Affiliates, as described in this executive summary and supporting document/s.

Committee Review and Recommendation

The University Governance and Operations committee reviewed this item at its September 11, 2025, meeting and recommended forwarding the item to the board to review on first reading and subsequent approval with no changes.

Background/History of Previous Board Action

- At its November 2021 meeting, the board adopted ABOR Policy 1-125 Oversight of University Relationships with Component Unit Affiliates, which replaced the prior Guidelines Governing the Relationships between Component Unit Affiliates and Universities under the Jurisdiction of the Arizona Board of Regents.

- This policy governs university contracts with university-affiliated entities, such as university development foundations, alumni associations, and other organizations that are component units for financial reporting purposes.

- The board reviewed this item on first reading at its September 2025 meeting.

Discussion

- Sections B.4 and F.1 of policy require each university to provide an annual Component Unit Affiliates Report to the University Governance and Operations Committee.

- Since the annual enterprise risk management discussions for component unit affiliates occur during executive session of the Audit and Risk Management Committee meeting, the board office proposes amending Sections B.4 and F.1 to require the annual report be submitted to the Audit and Risk Management Committee instead of the University and Governance Operations Committee.

Supporting Document/s

Proposed Revisions ABOR Policy 1-125 Component Unit Affiliates

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ARIZONA BOARD OF REGENTS
POLICY MANUAL

1-125 Oversight of University Relationships with Component Unit Affiliates

Revision Dates
6/15/2023 (effective 7/1/2023), 11/18/2021 (adopted)

A. For purposes of this policy, a component unit affiliate is a legally separate and independent entity that:

1. Is affiliated with one of the Arizona public universities through a written agreement, and

2. Is a component unit for financial reporting purposes as defined by Governmental Accounting Standards Board Statement No. 14, as amended by Statement Nos. 39 and 61 and any other amendments that become effective after the adoption of the policy.

B. The board recognizes the importance of university relationships with component unit affiliates in supporting the success of the universities. Component unit affiliates are not public bodies and the board does not govern these independent entities, but it has a governance and fiduciary responsibility to provide appropriate oversight of and guidance to the universities regarding their relationships with component units. Through this policy, the board will:

1. Establish requirements for university agreements with component unit affiliates,

2. Require submission of university agreements with component unit affiliates to the board chair, the executive director and board counsel,

3. Require university oversight of component unit affiliates, and

4. Require university reporting regarding these relationships to the board ~~University Governance and Operations~~ AUDIT AND RISK MANAGEMENT Committee.

C. University Agreements with Component Unit Affiliates

1. Each agreement will recognize the separate and independent status of the component unit affiliate and is subject to applicable law, including laws regarding the use of public resources.

2. The agreement will include language to reflect that:

    a. The component unit affiliate is not the agent of the university and shall not represent or imply that it operates under an agency, partnership, or joint venture relationship with the university; and

    b. The component unit affiliate must take appropriate steps in dealing with third parties to ensure that the third parties understand that the component unit affiliate is a separate legal entity from the university, including separate business cards, letterhead, signage, and appropriate identification of the affiliate in communications, on websites and in social media.

3. The component unit affiliate must agree to comply with current and future board and university policies regarding component unit affiliates.

4. The activities of the component unit affiliate and the affiliation agreement must follow sound fiscal and business practices, and the agreement must provide that the component unit affiliate:

    a. Be audited annually by an independent CPA firm that meets criteria set by the board; and

    b. Operate in accordance with an annual budget process as described in the agreement with the university.

5. The mission of the component unit affiliate must be in support of, or complementary to, the mission of the university.

6. The university will require component unit affiliates to comply with provisions regarding university approval of restrictive terms and conditions attached to gifts, to the extent the restrictive term(s) impose a commitment, obligation or responsibility on the university.

7. Each university will establish protocols regarding approval of any payments by the component unit affiliate to or for the benefit of a university employee.

8. No component unit affiliate shall offer any course or seminar in which the name of the university is used without first obtaining the university's permission.

9. A component unit affiliate must establish and enforce conflicts of interest policies covering relationships both between the organization and its directors, officers and employees and persons doing business with the

entity.

10. A university may require evidence of bonding of officers and staff members of a component unit affiliate.

11. A component unit affiliate must provide the university with access to the following items:

    a. Annually, a copy of the entity's Form 990, except any portion that may be exempt from disclosure under federal statute or Internal Revenue Service Regulations (the university may deem this requirement satisfied through public availability of the Form 990 on the internet);

    b. Annually, a copy of the audited financial statements and such other documents as the university may require from time to time and on a schedule as determined by the university; and

    c. Copies of any amendments to the entity's articles of incorporation or bylaws.

12. A university may require a component unit affiliate to indemnify the university from damages or liabilities that the university may incur as the result of the organization's negligence or willful misconduct.

13. A university may impose requirements for the component unit affiliate to maintain general liability insurance, property casualty insurance, commercial/business automobile liability insurance, or other insurance it deems appropriate.

14. An affiliation agreement may authorize the component unit affiliate to:

    a. Use designated university space, equipment, and administrative/financial services and staff in the performance of the organization's functions;

    b. Use the university's name or logo on conditions determined by the agreement; and

    c. Receive other rights, services, or benefits that the agreement may authorize.

15. University contracts with component unit affiliates are subject to other applicable requirements for university contracts as provided in university and board policy.

D. Submission of Agreements to the Board Chair, the Executive Director, and Board

Counsel

1. Upon board approval of this policy, each university will submit to the board chair, the executive director and board counsel copies of current master affiliation agreements between the university and any component unit affiliate that were entered prior to the effective date of this policy. A master agreement is the comprehensive services or affiliation agreement defining the ongoing relationship between the university and the affiliated entity.

2. The university must submit to the board chair, the executive director and board counsel all new master agreements with affiliated entities and all amendments to previously submitted master affiliation agreements.

3. All transactions between a component unit affiliate and the university shall meet the normal tests for ordinary business transactions, including proper documentation and approvals. Benefits received by the university and university resources provided to the component unit affiliate will be documented in a manner that reflects compliance with Article 9 Section 7 of the Arizona Constitution.

E. University Oversight of Component Unit Affiliates

1. Each university will adopt a policy, consistent with board policy, regarding the establishment and oversight by the university of its component unit affiliates.

2. Each university will designate a senior university official responsible for oversight of university relationships with component unit affiliates. The senior university official is responsible for reviewing agreements with component unit affiliates, maintaining copies of documentation regarding resources provided and services received and working with other members of the university community to identify, monitor and mitigate risks associated with the agreement.

3. The relationship between a university and each of its component unit affiliates must be memorialized through a written master agreement that is reviewed by university counsel and the university president or the president’s designee. Amendments to these agreements must also be reviewed by university counsel and the university president or the president’s designee before being provided to the board chair, the executive director and board counsel.

4. Each university will conduct a periodic review (at least once every five years) of its relationship with each of its component unit affiliates to

determine whether the agreement reflects the needs of the university and is compliant with board policy and applicable law.

F. University Reports on Component Unit Affiliates

1. Each university will provide an annual report on the university's component unit affiliates to the board ~~University Governance and Operations~~ AUDIT AND RISK MANAGEMENT Committee. The annual report will include audited financial reports from each affiliated entity and will be due on a schedule determined by the executive director. Each annual report will include:

   a. A list of component unit affiliates and a brief description of each.

   b. A description of the activities of the component unit affiliates and any associated risks and liabilities.

   c. A description of resource exchanges between the university and the component unit affiliates.

   d. A description of any periodic reviews of component unit affiliates conducted pursuant to E.4. during the reporting period.

2. The senior university official will facilitate communications among the board representatives, the university, and the component unit affiliates, as requested.

3. Each university will communicate promptly to the board chair, the executive director and board counsel regarding any reasonably suspected material breach of an agreement with a component unit affiliate or regarding any concerns that might threaten or challenge the affiliation. Communications may be through the president, through counsel or through the senior university oversight official.

Policy History

11/18/2021 Approved by the Board on second reading.

6/15/2023 Policy revision approved by the Board on second reading to be effective 7/1/2023.

Related Information

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ITEM 7.3: Approve on Second Reading Proposed Revisions to ABOR Policies 7-102 Capital Development Process and 7-207 Leases

Requested Action: The board office asks the board to approve on second reading proposed revisions to ABOR 7-102 Capital Development Process and 7-207 Leases, as described in this executive summary and supporting document/s.

Committee Review and Recommendation

The University Governance and Operations committee reviewed this item at its September 11, 2025, meeting and recommended forwarding the item to the board to review on first reading and subsequent approval with no changes.

Background/History of Previous Board Action

- The board office has received feedback regarding requested changes to the capital policies.
- The tri-university construction work group has reviewed the proposed policy changes.
- The board reviewed this item on first reading at its September 2025 meeting.

Discussion

- The board office proposes amending the following five sections of capital policies:
    - ABOR Policy 7-102.B.2.a.i: If a project was not listed as a coming fiscal year project in the prior Capital Improvement Plan, require the university to explain in the Annual Capital Plan the reason the project now needs to proceed more quickly than originally expected. (See page 5.)
    - ABOR Policy 7-102.B.4.a.iii: Require the university to report to the board office if a project's funding source changes by 10% or more. (See page 11.)
    - ABOR Policy 7-207.A.1.a.iii: Allow the university to execute lease amendments as tenant or lessee for prior-approved projects without review by the University Governance and Operations Committee review or board approval, provided the amendment does not impose an increased financial burden on the university. Any non-financial changes to the lease's structure or terms of the lease shall be reported in the Lease Report of the annual Capital Improvement Plan as required by Board Policy 7-102.B.3.b.v. (See page 16.)
    - ABOR Policy 7-207.B.2.c.i: For a commercial long-term lease, require the university to include information on whether the university will share in any increased value of the lease or leasehold interest. (See page 19.)

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- ABOR Policy 7-207.B.2.c.xiii: Language was developed to determine acceptable methods of 'valuation methodology' for a commercial long-term lease's final lease terms, which is in accordance with a finding of the Auditor General's Commercial Real Estate Audit. (See pages 20 – 21.)

Supporting Document/s
Proposed Revisions ABOR Policy 7-102 and 7-207

Statutory/Policy Requirements
A.R.S. §15-1626

ARIZONA BOARD OF REGENTS
POLICY MANUAL

7-102 Capital Development Process

Revision Dates

9/27/2024, 6/15/2023 (effective 7/1/2023), 6/9/2022, 6/12/2020, 9/27/2018, 4/6/2018 (effective 7/1/2018), 4/6/2012, 6/18/2009, 4/24/2008, 6/16/2005, 9/26/2001, 1/15/1999 (renumbered), 7/15/1993, 6/12/1992 (renumbered), 6/1/1990, 5/19/1989, 9/9/1988, 1/15/1988 (adopted)

A. All Major Capital Projects require committee review and board approval.

1. A university shall not divide a Major Capital Project into multiple contracts, each with an estimated cost of $10,000,000 or less, for the purpose of evading committee review and board approval.

2. Projects that originally were not required to enter the capital development process, but subsequently are forecasted to meet the definition of Major Capital Projects.

3. Major Capital Projects where the board and the university share with other entities (e.g., federal, state, local, development groups, public/private ventures, etc.) the control, financing, or ownership (current or future) of the project and/or its delivery process and that are for university use and are subject to review under Board Policy 7-207(A)(1).

B. The capital development process for any university Major Capital Project is divided into six phases: Master Plan, Annual Capital Plan, Capital Improvement Plan, Individual Project and Financing, Project Construction, and Project Closeout.

1. Master Plan. Master Plans will be developed by the universities for university campuses to guide their development, which will align with the university's strategic plan pursuant to Board Policy 1-206. During the Master Planning phase, the University Governance and Operations Committee and the board focus on the relationship between the university's mission statement, strategic plan, and campus physical development plans.

a. The Master Plan shall define the campus planning boundaries.

b. Sub-Area Plans within the campus planning boundaries shall be developed as the universities deem necessary, and submitted to

the University Governance and Operations Committee for review as set forth in subsection (B)(1)(h) below.

c. Master and Sub-Area Plans should define the direction, physical needs, Land Acquisition, and overall approach of the university for a 10-year timeframe. Campus physical development plans should be based on the academic and research services the institution intends to provide, on the student population it projects to serve, and on the image the university leadership wishes to project.

d. A list of other large parcels of university land outside of the campus planning boundaries, including any planned uses for the parcels, shall be submitted to the University Governance and Operations Committee in an appendix of the Master Plan. Large parcels are those that are greater than 100 acres or those that have been identified as being in a strategic location.

e. Master Plans shall be brought to the University Governance and Operations Committee for review and to the board for approval.

i. The universities will maintain an ongoing planning process and conduct comprehensive Master Plan reviews.

ii. Each university will have a Master Plan that has been reviewed by the University Governance and Operations Committee and approved by the board. The board will approve any revisions to the Master Plan.

f. The presentation of materials to the committee and board shall include an identification of major areas of public concern, if any, and how the plan will address those concerns.

g. The Master Plan shall support the university's mission statement and strategic plan.

h. Sub-Area Plans shall be brought to the University Governance and Operations Committee for review and to the board for approval under the following circumstances:

i. Plans deviate from the guidelines established by the approved Master Plan; and

ii. Plans pose a potential for identifiable impact on the local municipalities and/or communities, either adjoining or remote from campus boundaries. This impact shall be discussed as appropriate.

i. Board approval of a Master Plan does not constitute approval of any specific projects or developments included in the Master Plan. All such projects must follow the capital development process as outlined in this Chapter 7.

j. Approval of specific design standards or architectural guidelines that may be references in a plan shall be delegated to the university president after the plan is approved.

2. Annual Capital Plan. Each university shall submit an Annual Capital Plan (ACP) for the upcoming 12-month period in accordance with the calendar and form approved by the Executive Director of the board. The ACP identifies Major Capital Projects that contribute to the attainment of the university mission statement and strategic plan, justifies the project need and cost, and defines elements of the scope, schedule, budget, and funding and/or financing plan. The University Governance and Operations Committee and the board focus on the strategic planning perspective when reviewing and approving the ACP.

a. Major Capital Projects included in the ACP are carried forward from the previously approved CIP. In order for a project to appear in the ACP, it must first have been approved as part of the prior CIP.

i. IF A PROJECT WAS NOT LISTED AS A COMING YEAR FISCAL YEAR PROJECT IN THE PRIOR CIP, THE UNIVERSITY SHALL EXPLAIN IN THE ACP THE REASON THE PROJECT NOW NEEDS TO PROCEED MORE QUICKLY THAN ORIGINALLY EXPECTED.

ii. If a project has not appeared in a prior CIP, a waiver of this board policy can be requested in order for a project to appear on an ACP that has not appeared on a CIP.

iii. For previously approved projects that have not received individual project and financing approval, the project shall be re-submitted for ACP approval.

b. ACPs are reviewed by the University Governance and Operations Committee and approved by the board.

c. Amendments to the ACP shall be reviewed by the University Governance and Operations Committee and considered for approval at board meetings for projects requiring budget and/or scope increases and for new projects added outside of the regular ACP schedule.

d. Each new project submitted for ACP approval shall include a concise Project Justification Report to the board. The project justification report shall be in a form developed by the Executive Director of the board and should justify the need for the project based upon the university's mission, strategic plan, and other supporting documentation. The Project Justification Report shall include at least the following information:

i. Prior University Governance and Operations Committee and board action;

ii. Statutory and board policy requirements;

iii. Project justification, strategic implications, and project compliance with mission, university and system strategic plans and goals, campus Master Plan and community input process. When applicable, this section may also include a review of how the project aligns with the following university priorities:

(1) Academic and research needs;

(2) Student support requirements;

(3) Operational priorities; and

(4) Funding sources/financing options.

iv. Project description, scope and compliance with space standards, including the expected useful life of the project;

v. Project delivery method and process;

vi. Project costs and the methodology used to develop the Total Project Cost, including estimates prepared by professionals and comparison of cost to other similar previously approved projects and completed projects from the databases established pursuant to subsection B.5.e.(4), including an explanation of significant cost differences from the comparable projects;

vii. Project status and schedule;

viii. A fiscal impact and finance plan, which explains how the universities intend to fund the project, and to include annual

debt service and the impact to the funding sources that will pay the debt service, as well as annual operations and maintenance costs;

ix. A backfill plan for how Release Space will be reoccupied, including an estimate of associated costs and source of funds.

x. A description of other related projects including related Infrastructure improvements;

xi. The number of anticipated Third-Party Projects, component unit projects, and long-term leases that are commercial in nature expected to be entered into in the next year and that require board approval; and

xii. Project site plan.

e. Description of project financing:

i. Universities must designate the funding sources required to construct each project proposed in the ACP. If the project will be debt financed, the plan must include the funding sources for debt service.

ii. The ACP must include the estimated costs of the project and the debt issuance, information on debt capacity, outstanding debt levels, and debt service payments.

iii. Any Capital Project funded with debt may not increase the university's Debt Ratio to more than 8% for any year.

iv. The final maturity of any capital financing undertaken by a university will not exceed 40 years or the estimated useful life of the capital asset being acquired or constructed, whichever is less.

f. If Major Capital Projects require specific Legislative review:

i. The projects may be presented to the Legislature, or its designated committee, for review after receiving ACP approval.

ii. The request for Legislative review shall include the estimated costs of the project, and if applicable, the bond issuance.

iii. Use of bond authority for a project in excess of the amount initially approved by the board and reviewed by the Legislature will require board approval prior to seeking review of the increased amount by the Legislature.

g. Authority granted by ACP approval

i. ACP approval authorizes the universities to seek Legislative review for debt-funded or Third-Party Projects, if applicable.

ii. The university may transfer funds among expenditure categories in the total project budget without board approval.

iii. Board approval is required to amend an ACP.

3. Capital Improvement Plan. Each university will complete an annual Capital Improvement Plan (CIP), as required by state statute and board policy. During the CIP phase, the University Governance and Operations Committee and the board focus on the existing condition, utilization, and expenditure of capital resources at each of the universities. The CIP includes a report on the university's land and leasing activities, Building Renewal needs, and Deferred Maintenance activities. In each report, the universities identify proposed Major Capital Projects for the coming fiscal year, which is the year following the submittal of the report, and forecast Major Capital Projects that may begin in the subsequent three fiscal years.

a. The annual CIP serves three main functions:

i. To serve as a reference document for current facilities inventory and related financial management information;

ii. To request general fund monies, including Building Renewal, from the state; and

iii. To identify Major Capital Projects the university intends to implement during the next fiscal year along with a forecast of proposed activities in the following three fiscal years.

b. Each university will submit to the University Governance and Operations Committee for review and to the board for approval a fully developed CIP in accordance with the calendar approved by the committee chair. The plan shall include the following elements:

i. Capital allocation for projects by source and use of funds;

ii. Building Renewal report;

iii. Deferred Maintenance report;

iv. Building Inventory report;

v. Lease Report;

vi. Land Report;

vii. Capital Project Status Report;

viii. Capital Project Status Report for projects that have been submitted to the Joint Committee on Capital Review and have not been substantially completed;

ix. One-year capital plan plus a three-year forecast;

x. For first year projects, project descriptions, justifications, scope, delivery method and budgets, including alignment with university-specific and system-wide strategic plans and goals;

xi. Debt capacity in accordance with Board Policy 3-411 “Annual Report on Debt Capacity”; and

xii. The number of anticipated Third-Party Projects, component unit projects, and long-term leases that are commercial in nature expected to be entered into in the next year and that require board approval.

c. Authority granted by CIP approval

i. CIP approval authorizes the universities to contract for outside professional and consultant services, construction management and preconstruction services, and site investigation and preparation.

d. Building Renewal

i. Building Renewal funds shall be calculated for every eligible building by the universities each year utilizing the formula approved by the Legislature’s Joint Committee on Capital Review (A.R.S. § 41-793.01) and instructions from the board office. Each university shall request from the Legislature, via the submission of the annual CIP, the total amount of Building Renewal calculated.

ii. The amount of funds generated by the Building Renewal formula for each eligible building shall be included in the building inventory report, which is incorporated into the annual CIP. The report also shall list the estimated Deferred Maintenance for each building.

iii. Building Renewal appropriated by the state may be used for projects as defined in State statute (A.R.S. § 41-790) or in session law.

iv. Building replacement values along with building age are the primary variables in computing the state-appropriated Building Renewal request. The board office and universities shall develop and maintain a methodology to be used for calculating the estimated replacement values for the building inventory report. The board office shall provide direction to the universities for calculating estimated building replacement value and Building Renewal.

e. The board office and universities shall develop and maintain a methodology for developing design and construction guidelines to assist in planning potential Capital Projects and to estimate building replacement values.

4. Individual Project and Financing. Major Capital Projects that are included in an approved ACP must be submitted for individual project and financing review by the University Governance and Operations Committee and approval by the board, based upon the budget, schedule, scope, and other considerations as warranted. Each project will be submitted separately and may be submitted at the same meeting as the ACP.

a. Authority granted by individual project and financing approval

i. Individual project and financing approval authorizes a university to proceed with financing and execution of construction contracts for an approved project.

ii. A project must be resubmitted to the University Governance and Operations Committee for review and then forwarded to the full board for approval, if the university does not initiate construction within 12 months of individual project and financing approval by the board.

iii. If a project's gross square footage changes by 15% or more, ~~or~~ if the Total Project Cost increases by 10% or more, OR IF

THE FUNDING SOURCE CHANGES BY 10% OR MORE, the university shall report the changes to the board office AS AN INFORMATION UPDATE.

5. Project Construction. During project construction, the university awards contracts and constructs the project in accordance with Board Policy 3-804 “Professional Services and Construction Services Procurement”. During project construction:

   a. Universities select or continue with previously selected consultants;

   b. Universities proceed with the bidding process, contractor selection, contract execution, contract award and construction;

   c. The universities may transfer funds among expenditure categories in the total project budget without University Governance and Operations Committee or board approval;

   d. University Governance and Operations Committee review and board approval is required for a 10% or more increase in Total Project Cost; and

   e. The universities shall develop procedures as follows:

      i. The selection of architect/engineers, construction managers, contractors, and selection of specialty consultants and the monitoring of construction shall be consistent with board policies;

      ii. These procedures shall include controls to ensure that projects requiring Legislative approval obtain approval prior to commencing construction;

      iii. Project control procedures shall include university requirements for change orders, cost estimates, project reporting, and records management; and

      iv. A cost information database shall be developed for completed projects to provide actual cost information for similar projects.

   f. Building design for accessibility: All new buildings and structures constructed or renovated at each university shall comply with all applicable laws, regulations and policies, including the provisions of the Arizonans with Disabilities Act of 1992, A.R.S. §§ 41-1492, applicable university policies, as revised, replaced or amended

from time to time, relating to making public buildings accessible and functional for individuals with disabilities.

g. Plaques for buildings: A university may install a plaque on a new building. If installed, the plaque shall carry the names of members of the board in office at the time the construction contract was awarded and other participants deemed appropriate.

6. Project Closeout. During project closeout, the project reaches substantial completion, the university completes building commission and final inspection, accepts and occupies the facility, and provides final payment to the consultants and contractors. The universities shall develop and maintain consistent procedures for project closeout.

C. Forms referenced in this chapter: Under the direction of the Executive Director of the board, the board office and the universities have the responsibility to update and improve the various reports referenced in board policy with the objective of presenting information to the University Governance and Operations Committee and the board in an effective format and manner.

D. Waivers: A university may request a waiver of this board policy as long as it is in the best interest of the university and it complies with applicable state laws.

Policy History

1/15/1988	Approved by the Board on second reading.
5/19/1989	Policy revision approved by the Board on second reading.
6/1/1990	Policy revision approved by the Board on second reading.
6/12/1992	Policy revision, including renumbering, approved by the Board on second reading.
7/15/1993	Policy revision approved by the Board on second reading.
1/15/1999	Policy revision, including renumbering, approved by the Board on second reading.
9/26/2001	Policy revision, including renumbering, approved by the Board on second reading.
4/26/2002	Policy revision approved by the Board on second reading.
6/16/2005	Policy revision, including renumbering, approved by the Board on second reading.
4/24/2008	Policy revision approved by the Board on second reading.

4/6/2018 Policy revision approved by the Board on second reading to be effective 7/1/2018.

6/9/2022 Policy revision approved by the Board on second reading.

6/15/2023 Policy revision approved by the Board on second reading to be effective 7/1/2023.

9/27/2024 Policy revision approved by the Board on second reading.

Related Information

This policy has had many numbers since it was adopted in 1988. It was originally numbered as 7-101 and titled Introduction and Overview from its adoption until June 1992 when it was renumbered to 7-102. In January 1999, it was renumbered to 7-105. It became 7-106 in September 2001. Finally, it was numbered as 7-102 in June 2005.

In June 2022, Chapter VII was revised. Several policies were repealed and substantive portions of them were added to this policy, including: 7-105 Master Plans, 7-106 Annual Capital Improvement Plans, 7-107 Capital Development Plan, 7-110 Project Construction, 7-111 Project Closeout, and 7-114 Building Renewal.

In addition to this policy, 7-102 has been the number assigned to multiple policies since the Policy Manual was adopted in 1983. It was originally assigned to the Capital Projects Funded from Local Funds policy. Article A of Chapter VII was revised in January 1988 and 7-102 was assigned to the Project Initiation Phase policy. 7-102 was assigned to Strategic Planning from January 1999 until June 2005.

ARIZONA BOARD OF REGENTS
POLICY MANUAL

7-207 Leases

Revision Dates

9/27/2024, 6/15/2023 (effective 7/1/2023), 11/18/2022, 6/9/2022, 6/12/2020, 12/18/2018, 9/27/2018, 4/6/2018 (effective 7/1/2018), 6/18/2009, 6/16/2005, 4/15/1999 (renumbered), 1/21/1994, 3/13/1992, 9/14/1990, 1/15/1988, 3/12/1983 (adopted; effective 5/1/1983)

A. University Use: A university may lease real property as either a landlord or lessor, or as a tenant or lessee.

1. Leases of Real Property

a. All lease agreements and amendments of lease agreements of real property, including lease agreements in connection with any development of capital projects, as defined in Board Policy 7-102(A)(3) shall be reviewed by the University Governance and Operations Committee and approved by the board before becoming effective, except as provided below:

i. A university may enter into a lease or lease amendments as landlord or lessor without University Governance and Operations Committee review and board approval (except for use of athletic facilities by professional teams), provided all of the following criteria are met:

(1) The lease term including all renewals shall not exceed 120 months;

(2) The annual base lease amount does not exceed $1,000,000; and

(3) The rental rate meets or exceeds the fair rental value of the property.

ii. A university may enter into leases or lease amendments as tenant or lessee without University Governance and Operations Committee review and board approval provided all of the following criteria are met:

(1) The original lease term shall not exceed a total of 60 months;

(2) Renewal options in total shall not exceed an additional 60 months;

(3) The total annual base lease amount does not exceed $1,000,000;

(4) The rental rate does not exceed fair rental value; and

(5) Funds are available.

iii. A UNIVERSITY MAY EXECUTE LEASE AMENDMENTS ON A LEASE PREVIOUSLY APPROVED BY THE BOARD AS TENANT OR LESSEE WITHOUT UNIVERSITY GOVERNANCE AND OPERATIONS COMMITTEE REVIEW OR BOARD APPROVAL, PROVIDED THE AMENDMENT DOES NOT IMPOSE AN INCREASED FINANCIAL BURDEN ON THE UNIVERSITY. ANY NON-FINANCIAL CHANGES TO THE LEASE'S STRUCTURE OR TERMS OF THE LEASE SHALL BE REPORTED IN THE LEASE REPORT OF THE ANNUAL CAPITAL IMPROVEMENT PLAN AS REQUIRED BY ABOR POLICY 7-102.B.3.b.v.

2. Rental Rates

a. The rental rates for use of university facilities and properties by off-campus organizations shall be approved by the president of each institution. Rental rates should reflect considerations of the fair market value rates charged by comparable facilities, actual expenses incurred in providing the space (operations, maintenance, and deferred maintenance), and inflation. Each university shall review its established rates annually. A university may offer reduced rental rates to affiliated non-profit organizations.

3. Use of Athletic Facilities by Professional Teams

a. Each university may authorize the use of university athletic facilities by professional teams. All such uses shall meet the following standards:

i. The use must be consistent with all applicable rules of the National Collegiate Athletic Association (NCAA) and the

Athletic Conference in which the university holds membership;

ii. The university shall adhere to board policy regarding rental rates;

iii. There shall be a written agreement approved as to form by university counsel; and

iv. The term of the agreement (including any renewals) shall not exceed three years.

B. Commercial Long-Term Leases: A university may seek board approval for a Long-Term Lease that is Commercial in Nature. Such leases are subject to the following additional considerations:

1. When considering a Long-Term Lease of University Property that is Commercial in Nature as described in this subsection B:

a. Such Long-Term Leases of University Property should, to the extent possible, optimize the value of the property to the university and enhance the institutional mission of the university.

b. The university should use financial transactions (whether sale, lease, sale-leaseback or other means) that support the needs of the university to facilitate development of University Property.

c. In general, when a transaction is Commercial in Nature, the university should consider Long-Term Leases over the sale of University Property unless the university can demonstrate to the board that a sale will provide a greater long-term benefit.

d. Universities shall not engage in Long-Term Leases that are Commercial in Nature if the primary purpose is to remove private land or real property improvements from property tax rolls.

e. The university shall document the economic benefits to the university and the state of each such Long-Term Lease, including the university's understanding of the tax treatment of the real property and proposed improvements, and shall document how such Long-Term Lease furthers the institutional mission of the university.

f. Board review of proposed Long-Term Leases that are Commercial in Nature shall include a review of any payment to the university, the property tax impacts on other taxing jurisdictions, and any

service agreements, including payments, with relevant governmental entities.

g. Board review of proposed Long-Term Leases will include a review of appropriate community outreach and coordination with community partners and relevant governmental entities.

2. All Long-Term Leases that are Commercial in Nature as described in this subsection B shall be non-binding until reviewed by the University Governance and Operations Committee and approved by the board as follows, and as applicable, reports may be given in executive session:

a. Notification. The university shall provide written notification to the board office, for their distribution to the University Governance and Operations Committee chair and vice chair as appropriate, on its intent to solicit proposals or to enter into transactions with possible partners for Long-Term Leases on University Property that will be Commercial in Nature. The report shall include the preliminary development concept, if any associated with the Long-Term Lease.

b. Preliminary Presentation of Proposal. Following entering into a letter of intent or other agreement to provide exclusive rights under a Long-Term Lease that is anticipated to be Commercial in Nature, a university shall present its preliminary lease plan to the University Governance and Operations Committee in executive session as appropriate. The presentation shall include the following elements, as appropriate to the scope and structure of the transaction:

i. Conformance with the principles and requirements outlined in subsection B, paragraph 1.

ii. Preliminary transaction timing and project schedules.

iii. Preliminary financial terms and conditions, including income and cost estimates, as applicable.

iv. Other information as coordinated with the executive director of the board.

c. Final Lease Terms. The university shall request a final review of the terms of the Long-Term Lease that is Commercial in Nature from the University Governance and Operations Committee and approval of such lease terms from the board, unless the approval process is otherwise modified or specified by board resolution. The final lease transaction submitted to the committee and the board

shall include the following elements, including the assumptions and methodology used to determine, as appropriate:

i. Provisions regarding future transfer or sale of the lease or the leasehold interest, as appropriate, INCLUDING WHETHER THE UNIVERSITY WILL SHARE IN ANY INCREASED VALUE OF THE LEASE OR LEASEHOLD INTEREST THAT CAN BE DISCUSSED IN EXECUTIVE SESSION AS APPROPRIATE.

ii. Risk assessment.

iii. Transaction description.

iv. Description of how the project enhances or furthers the mission of the university.

v. Type of lease transaction.

vi. Transaction schedule.

vii. Development schedule.

viii. Term of the lease.

ix. Measurable performance standards and lease remedy provisions if established performance standards are not met.

x. Identification of parties.

xi. Community outreach and coordination with relevant government entities, including agreements if applicable.

xii. Structure, including payment schedule.

xiii. Valuation methodology~~.~~ BASED ON THE LEASE'S STRUCTURE, COMPLEXITY AND BEST INTEREST OF THE BOARD AND THE STATE OF ARIZONA. ACCEPTABLE VALUATION METHODS INCLUDE:

(1) INCOME CAPITALIZATION APPROACH – COMMONLY USED FOR INCOME-GENERATING GROUND LEASES, THIS METHOD ESTIMATES LEASE VALUE BASED ON THE LAND OR BUILDING'S INCOME POTENTIAL AND AN APPROPRIATE CAPITALIZATION RATE;

(2) DISCOUNTED CASH FLOW (DCF) ANALYSIS – APPLIED TO LEASES WITH COMPLEX OR VARIABLE CASH FLOWS, THIS METHOD PROJECTS FUTURE LEASE PAYMENTS AND DISCOUNTS THEM TO PRESENT VALUE USING A RISK-ADJUSTED RATE;

(3) RESIDUAL LAND VALUE METHOD – USED WHEN THE LAND IS PART OF A LARGER DEVELOPMENT, THIS METHOD CALCULATES THE LAND'S VALUE BY SUBTRACTING THE COST OF IMPROVEMENTS FROM THE TOTAL PROJECT VALUE;

(4) MARKET COMPARISON APPROACH – BENCHMARKS LEASE RATES AGAINST COMPARABLE GROUND OR BUILDING LEASES IN THE REGION OR SECTOR TO DETERMINE FAIR MARKET VALUE; AND

(5) OTHER METHODS – ANY ALTERNATIVE METHODOLOGY MAY BE USED IF IT IS APPROPRIATELY JUSTIFIED AND DOCUMENTED BY THE UNIVERSITY.

xiv. Anticipated tax status of the property.

xv. Information regarding reporting and oversight responsibilities of designees representing board and/or university interests with respect to Master Leases.

(1) Master Leases entered into and/or revised after June 12, 2020, shall contain a provision that describes the process for approval and reporting of financial information.

(2) Master Leases entered into after June 12, 2020, shall identify the process and requirements pursuant to which tenants under Master Leases may enter into subleases.

(3) Designees representing the board and/or a university who serve on a governing board of a third party with whom the university has a Master Lease ("third party governing board") must segregate their responsibility to such third party governing board from their

responsibility to the board and/or university and must follow applicable state law and board and university policies governing conflicts of interest, as well as the conflict of interest policies of such third party. At the time the board or university designee is exercising governance responsibilities for such third party governing board, the designee may not at the same time take official action on behalf of the university in connection with the Master Lease. Any approval or decision required or requested of the university or board in connection with such Master Lease must be made outside of such third party governing board governance activities and must follow the terms and conditions of the Master Lease. Operational responsibilities shall also be separated from governance responsibilities of the third party.

xvi. Other information as requested by the executive director of the board.

3. Ongoing Monitoring and Reporting. At a time agreed to by the executive director of the board, the university shall at least annually report on the status of all executed Long-Term Leases that are Commercial in Nature subject to subsection B. The report shall categorize projects by location and will include the status of completed, in progress, and planned improvements, including standards and requirements identified in the agreement and other anticipated outcomes identified when the final lease plan was submitted for approval.

4. All leases entered into shall be reported to the board office annually in accordance with procedures developed by the executive director of the board.

C. Waivers: A university may request a waiver of this board policy as long as it is in the best interest of the university and it complies with applicable state laws.

Policy History

3/12/1983 The Policy Manual was adopted by the Board to be effective 5/1/1983.

1/15/1988 Policy revision approved by the Board on second reading.

9/14/1990 Policy revision approved by the Board on second reading.

3/13/1992 Policy revision approved by the Board on second reading.

1/21/1994 Policy revision approved by the Board on second reading.

4/15/1999 Policy revision, including renumbering, approved by the Board on second reading.

6/16/2005 Policy revision approved by the Board on second reading.

6/18/2009 Policy revision approved by the Board on second reading.

4/6/2018 Policy revision approved by the Board on second reading to be effective 7/1/2018.

9/27/2018 Policy revised to reflect “Executive Director” of the Board in place of “President.”

12/18/2018 Policy revision approved by the Board on second reading.

6/12/2020 Policy revision approved by the Board on second reading.

6/9/2022 Policy revision approved by the Board on second reading.

11/18/2022 Policy revision approved by the Board on second reading.

6/15/2023 Policy revision approved by the Board on second reading to be effective 7/1/2023.

9/27/2024 Policy revision approved by the Board on second reading.

Related Information

This policy was originally numbered as 7-306 from its adoption in 1983 until 4/15/1999.

In June 2022, Chapter VII was revised. Several policies in the chapter were repealed and substantive portions of some of them were added to 7-207, including: 7-208 Use of Athletic Facilities by Professional Teams and 7-209 Rental Rates.

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ITEM 7.4: Approve on Second Reading Proposed Revisions to ABOR Policy 6-609 University Police Department Public Safety Personnel Retirement System Pension Funding Policy

Requested Action: The board office asks the board to approve on second reading proposed revisions to ABOR Policy 6-609 University Police Department Public Safety Personnel Retirement System Pension Funding Policy, as described in this executive summary and supporting document/s.

Committee Review and Recommendation

The University Governance and Operations committee reviewed this item at its September 11, 2025, meeting and recommended forwarding the item to the board to review on first reading and subsequent approval with no changes.

Background/History of Previous Board Action

- Seven years ago, the Legislature promulgated HB 2097 (Laws 2018, Chapter 112, now codified at A.R.S. § 38-863.01), which requires governing bodies of employers participating in the Public Safety Personnel Retirement System (PSPRS) to:

  1. Adopt a pension funding policy for the PSPRS for employees hired before July 1, 2017; and

- The board promulgated ABOR Policy 6-609 to meet the requirements established by A.R.S. § 38-863.01, which the board adopted at its June 2019 meeting.

- The board reviewed this item on first reading at its September 2025 meeting.

Discussion

- Section C.1 of policy requires the board's PSPRS funding ratio goal for each university to be 100 percent (fully funded) by June 30, 2036.

- Since Laws 2022, Chapter 325 appropriated monies to fully fund each university's PSPRS funding ratio, the board office proposes amending Section C.1 of policy to acknowledge that the 100 percent ratio was met in 2022, and the new funding ratio goal is to be 100 percent (fully funded) or as close to fully funded as possible.

Supporting Document/s

Proposed Revisions to ABOR Policy 6-609

Statutory/Policy Requirements

A.R.S. §38-863.01

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ARIZONA BOARD OF REGENTS POLICY MANUAL	
6-609	University Police Department Public Safety Personnel Retirement System Pension Funding Policy
Revision Dates 6/14/2019 (adopted)	

This policy is the pension funding policy for university police department ("PD") employees who are AZ post certified and regularly assigned hazardous duty and who participate in the Arizona Public Safety Personnel Retirement System ("police employees"). The intent of this policy is to comply with the statutory requirements of laws 2018, chapter 112.

A. Definitions

The following terms as used in this policy shall have the meanings set forth below unless otherwise specified:

1. "Unfunded Actuarial Accrued Liability" ("UAAL") means the difference between trust assets and the estimated future cost of pensions earned by employees. This UAAL results from actual results (interest earnings, member mortality, disability rates, etc.) Being different from the assumptions used in previous actuarial valuations.

2. "Annual Required Contribution" ("ARC") means the annual amount required to pay into the pension funds, as determined through annual actuarial valuations. It is comprised of two primary components: normal pension cost – which is the estimated cost of pension benefits earned by employees in the current year; and amortization of UAAL – which is the cost needed to cover the unfunded portion of pensions earned by employees in previous years. The UAAL is collected over a period of time referred to as the amortization period. The arc is a percentage of the current payroll.

3. "Funded Ratio" means a ratio of fund assets to actuarial accrued liability. The higher the ratio the better funded the pension is with 100 percent being fully funded.

4. "Intergenerational Equity" means that no generation will be burdened by substantially more or less pension costs than past or future generations.

B. Arizona Public Safety Personnel Retirement System

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1. The Arizona Public Safety Personnel Retirement System ("PSPRS") is administered as an agent multiple-employer pension plan. An agent multiple-employer plan has two main functions: 1) to comingle assets of all plans under its administration, thus achieving economy of scale for more cost effective investments, and invest those assets for the benefit of all members under its administration; and 2) to serve as the statewide uniform administrator for the distribution of benefits.

   Under an agent multiple-employer plan, each agency and university participating in the plan has an individual trust fund administered by PSPRS reflecting that agency's/university's assets and liabilities. Under this plan all contributions are deposited to and distributions are made from that fund's assets; each fund has its own funded ratio and contribution rate; and each fund has a unique annual actuarial valuation. Thus, one trust fund exists for Arizona State University's ("ASU") police employees; one trust fund exists for Northern Arizona University's ("NAU") police employees; and one trust fund exists for the University of Arizona's ("UA") police employees.

2. Each university will annually submit to the Arizona board of regents (the "board") for the board's consideration and acceptance the assets, liabilities and current funding ratios of its PSPRS trust fund based on PSPRS' most recent actuarial valuations for police employees hired before July 1, 2017. Each university will submit this information in the following format beginning with PSPRS' June 30, 2018 actuarial valuations. The board will post this information on its website.

Trust Fund	Assets	Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio
ASUPD				
NAUPD				
UAPD				

C. PSPRS Funding Goal

1. The board's PSPRS funding ratio goal for each university is to be 100 percent (fully funded) ~~by June 30, 2036~~, OR AS CLOSE TO FULLY FUNDED AS POSSIBLE. THE 100 PERCENT WAS MET IN 2022. Each university will take the following action, at minimum, to achieve that goal:

a. Make payments to PSPRS timely using the PSPRS payment portal, or other agreed upon method.

b. Maintain its full ARC payment from university operating funds.

2. Each university acknowledges and supports the following PSPRS funding goals:

a. Maintain adequate assets so that current plan assets plus future contributions and investment earnings are sufficient to fund all benefits expected to be paid to police employees and their beneficiaries.

b. Maintain stability of police employee and employer contribution rates, consistent with other funding objectives.

c. Maintain public policy goals of accountability and transparency. Each policy element is clear in intent and effect, and each should allow an assessment of whether, how and when the funding requirements of the plan will be met.

d. Promote intergenerational equity. Each generation of police employees and employers should incur the cost of benefits for the employees who provide services to them, rather than deferring those costs to future police employees and employers.

e. Provide a reasonable margin for adverse experience to help offset risks.

f. Continue progress of systematic reduction of the UAAL.

3. Each university will report the following to the board on an annual basis:

a. Its estimated combined university police department ARC for each fiscal year.

b. Its actions toward achieving the board's PSPRS funding ratio goal.

D. Employer's Share of Assets and Liabilities

Beginning on or before July 1, 2019, the board shall annually accept ASU's, NAU's and UA's share of the assets and liabilities under the PSPRS based on the PSPRS' actuarial valuation report for each university.

Policy History

6/14/2019 Approved by the Board on second reading.

Related Information

ITEM 7.5: Approve on Second Reading Proposed Revisions to ABOR Policies 2-221 Academic Degree Programs, 2-222 Descriptions and Definitions of Academic Units, 2-224 Academic Credit, 2-225 Academic Program Review, 2-320 Academic Year Calendar, 4-320 Purpose, Responsibility, and Goals (C. Student Financial Aid), 4-321 Financial Aid Regulations, 6-103 Salary Adjustments, 6-804 Sick Leave, 6-806 Bereavement Leave, and 6-901 Salary Increases

Requested Action: The board office asks the board to approve on second reading proposed revisions to ABOR Policies 2-221 Academic Degree Programs, 2-222 Descriptions and Definitions of Academic Units, 2-224 Academic Credit, 2-225 Academic Program Review, 2-320 Academic Year Calendar, 4-320 Purpose, Responsibility, and Goals (C. Student Financial Aid), 4-321 Financial Aid Regulations, 6-103 Salary Adjustments, 6-804 Sick Leave, 6-806 Bereavement Leave, and 6-901 Salary Increases, as described in this executive summary and supporting document/s.

Committee Review and Recommendation
The University Governance and Operations committee reviewed this item at its September 11, 2025, meeting and recommended forwarding the item to the board to review on first reading and subsequent approval with no changes.

Background/History of Previous Board Action
The board office reviews ABOR policy to ensure that individual policies are current and up to date. Recently, the universities were requested by the board to submit suggestions for policy updates and streamlining.

The board reviewed this item on first reading at its September 2025 meeting.

Discussion
Board staff have carried out a review of policies from the above processes and have identified an initial set involving relatively minor changes. This initial set is recommended to the committee for review and forwarding to the board for approval. Should the committee do so, it is anticipated that the revisions will come to the board for their first reading at its September 2025 meeting and, if approved, for their second reading and final approval at the November 2025 regular board meeting.

The proposed edits to the individual policies are summarized in the following table, including a brief rationale for each. The full policy documents with proposed revisions to each are appended.

Supporting Document/s
ABOR Policies 2-221,2-222,2-224,2-225,2-320,4-320,4-321,6-103,6-804,6-806,6-901

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Statutory/Policy Requirements

A.R.S. §15-1626 General Administrative Powers and Duties of Board

Policy	Proposed Change	Rationale
2-221 Academic Degree Programs	E. Master's enroute to a doctoral degree An institution may confer, on an individual basis, a master's degree in any subject matter area in which it has an approved ~~Ph.D.~~ DOCTORAL degree program. The master's degree will carry the same title as that of the ~~Ph.D.~~ DOCTORAL program.	Provide professional doctorate students with a master's credential enroute to their doctoral program. This is already possible for Ph.D. students and the revision provides the institutions with that option for all doctoral programs.
2-222 Descriptions and Definitions of Academic Units	~~B. Committee~~ ~~1. Administers a teaching and research program, usually graduate level and usually results in awarding of degrees;~~ ~~2. Depends primarily upon cross-listed courses or courses taught by other units;~~ ~~3. Includes faculty from more than one existing administrative organization;~~ ~~4. Uses resources, but is not a budget center.~~	Remove section B defining "Committee" because degree programs run by committees are interdisciplinary and not formal organizational units. This section is redundant because those committees are reviewed with approval of new degree programs.
2-224 Academic Credit	A. Definition of a Unit of Credit An hour of work is ~~the equivalent of~~ 50 minutes of class time (often called a "contact hour"), ~~or~~ 60 minutes of independent study work, OR THE EQUIVALENT IN ASYNCHRONOUS LEARNING ACTIVITIES […] --- C. Credit for Former or Current Military Members Pursuant to A.R.S. § 15-1898, universities shall award academic credit that may be used toward the pursuit of a baccalaureate degree OR GRADUATE DEGREE, AS APPROPRIATE, to a person who is currently serving or who has served in the United States Air Force, Army, Navy, Marine Corps or Coast Guard, National Guard, or a reserve unit of any of these branches of the United States Military […]	Update section A to include contemporary modalities, including hybrid and online. --- Amend section C to include graduate academic credits that meet the criteria in the policy. This will enable the universities to expand graduate opportunities for US military personnel and veterans.
2-225 Academic Program Review	B.3.d. The review will include an assessment of the adequacy of physical and fiscal resources available to the unit; the quality of the faculty and staff; research, and scholarly or creative activities; student RECRUITMENT, RETENTION, AND performance; and outcomes of the program and an assessment of the level of the degree productivity. ~~B.3.e. The review will include an assessment of the unit's plans and performance related to the hiring of faculty and staff and to recruitment and retention of students from underrepresented groups.~~ --- B.7. The results of the reviews shall be ~~reported to~~ AVAILABLE UPON REQUEST OF the University Governance and Operations Committee ~~annually on a date and~~ in a format determined by the executive director of the board. ~~The reports shall include specific plans to address deficiencies identified in the review. The Committee may request special follow-up reports on matters of major significance regarding the quality of the program.~~	Section B.3.e. plans related to employees are covered in other areas of policy, and the student element has been moved to B.3.d. --- B.7. Update language to reflect current practice.

2-320 Academic Year Calendar	[…] ~~All academic calendar submissions must be sent in writing to the board executive director no less than five years in advance, and all revisions to the current academic calendar must be submitted to the board executive director at least one year in advance.~~ ACADEMIC CALENDARS SHALL BE SUBMITTED ON A SCHEDULE DETERMINED BY THE BOARD EXECUTIVE DIRECTOR. […]	Streamlining academic calendar process.
4-320 Purpose, Responsibility, and Goals (C. Student Financial Aid)	C.1. To support the enrollment and success of a ~~diverse~~ BROAD population of students by attracting highly qualified students and reducing the cost of attendance for students and their families with documented need; --- C.3. ~~To ensure that the majority of institutional need and merit based financial aid is awarded to support resident students at the undergraduate level~~ TO ENSURE THAT INSTITUTIONAL NEED AND MERIT BASED UNDERGRADUATE FINANCIAL AID IS AWARDED CONSISTENT WITH THE MISSIONS OF THE BOARD AND UNIVERSITIES;	C.1. Update language. --- C.3. Update to align with mission differentiation across the universities.
4-321 Financial Aid Regulations	A.1. "Cost of attendance" is the estimated cost for a student to attend an institution and includes tuition, fees, ~~room and board~~ FOOD AND HOUSING, books and supplies, transportation, and personal expenses.	Update to match federal terminology.
6-103 Salary Adjustments	B.~~1. In no case shall the former administrator have any expectation that the academic year salary shall be set by dividing the previous fiscal year contract by 1.2 or by any other numerical factor.~~	Streamline and remove confusing language. Remaining sections of policy are clear on how former administrator salaries are set.
6-804 Sick Leave	A. Administrative, Professional, UNIVERSITY, and Classified Staff employees who are employed at 50% time or more and whose employment is expected to continue six months or more, are entitled to accrue paid sick leave at the rate of one (1) day for each month of service from the first day of eligible employment. --- E.1. An eligible employee is unable to perform his or her duties because of illness, injury, MENTAL HEALTH, pregnancy, childbirth, or related medical conditions;	Amend to include University Staff. --- Inclusion of mental health reinforces value of employee well-being.
6-806 Bereavement Leave	A. Faculty, administrative, professional, UNIVERSITY, and classified staff employees who are employed 50% time or more and whose employment is expected to continue six months or more, are eligible […]	Amend to include University Staff.
6-901 Salary Increases	Each of the Arizona universities shall establish and maintain a system of compensation which encourages and promotes excellence in performance of faculty, ~~professional staff,~~ administrat~~ors~~IVE, PROFESSIONAL, UNIVERSITY, and classified staff EMPLOYEE GROUPS. […] --- Sections B, C and D: Strikethroughs of "~~four~~" where employee groups are mentioned.	Amend to include University Staff and clarify that this is the set of employee groups. --- Update to reflect amendment above.

ARIZONA BOARD OF REGENTS
POLICY MANUAL

2-221 Academic Degree Programs (formerly 2-202)

Revision Dates

6/15/2018, 6/9/2017, 6/10/2016, 2/8/2013 (adopted)

A. Definition of Academic Degree Program

An academic degree program is a course of study with a prescribed set of requirements which a student must complete. It is identified by a specific degree title and a specific major subject matter area. The name of the major must reflect accurately the skills, competencies, and knowledge to be attained in the course of studies.

B. Minors

An institution may offer a minor in any subject matter area in which it has an approved degree program or sequence of approved courses that constitute an interdisciplinary minor or minor in a specialized area of study.

C. Subspecializations

Within each academic degree program, the Universities may offer subspecialties which may be called emphases, concentrations, specializations, or other appropriate terminology which indicates a subdivision of the major. Undergraduate subspecializations may not develop to the extent that they require students to complete more than 60 percent of the total number of credit hours required in courses in the major field of study.

D. Master's Degrees

An institution may offer a master's degree in any subject matter area in which it has an approved doctoral degree program.

E. Master's enroute to a doctoral degree

An institution may confer, on an individual basis, a master's degree in any subject matter area in which it has an approved ~~Ph.D.~~ DOCTORAL degree program. The master's degree will carry the same title as that of the ~~Ph.D.~~ DOCTORAL program.

Policy History

2/8/2013 The Board repealed 2-202 and adopted 2-221 in its place.

6/10/2016 Policy revision approved by the Board on second reading.

6/9/2017 Policy revision approved by the Board on second reading.

6/15/2018 Policy revision approved by the Board on second reading.

Related Information

ARIZONA BOARD OF REGENTS POLICY MANUAL
2-222 Descriptions and Definitions of Academic Units (formerly 2-302)
Revision Dates 6/15/2018, 6/9/2017, 6/10/2016, 2/8/2013 (adopted)

The following descriptions and definitions will be used by the universities to obtain consistency in function and in terminology for new and existing organizational units, which encompass teaching, research, and public service programs. An academic unit at a university constitutes one of the below definitions regardless of its working title.

A. Department

~~1.~~ Offers degrees and course work in a field of study;

~~2.~~ Has assigned faculty and staff;

~~3.~~ Is responsible for major teaching, research, and public service in a field of study;

~~4.~~ Has separate identification in university operating budget.

B. ~~Committee~~

~~1. Administers a teaching and research program, usually graduate level and usually results in awarding of degrees;~~

~~2. Depends primarily upon cross-listed courses or courses taught by other units;~~

~~3. Includes faculty from more than one existing administrative organization;~~

~~4. Uses resources, but is not a budget center.~~

B. ~~C.~~ Center or Institute

1. Emphasizes research and/or public service;

2. Includes faculty or staff from several disciplines to coordinate research or public service;

3. Disseminates new knowledge or provides technical assistance;

4. Has separate identification in university operating budget;

5. Has assigned faculty and staff;

6. Is recognized by federal agencies providing budgetary support on a temporary basis;

7. May offer course work and continuing education.

C. ~~D.~~ Laboratory or Bureau

Laboratory: Primarily for research Bureau: Primarily for public service

1. Does not offer courses or degrees;

2. Is usually found within a single discipline and established for a specific purpose;

3. Has separate identification in university operating budget;

4. Has assigned faculty and staff.

D. ~~E.~~ Other Academic Units (Including, but not limited to office, agency, or unit)

1. Is not necessarily budgeted separately in university operating budget;

2. Coordinates course offerings, research efforts, or public service activities within other approved academic units.

E. ~~F.~~ College

1. Has separate identification in university operating budget;

2. Is led by a dean or equivalent senior administrator;

3. Meets the definition of a department or is comprised of multiple academic units, but is above a department in the university organizational hierarchy.

Policy History

2/8/2013 The Board repealed 2-302 and adopted 2-222 in its place.

11/17/2022 Policy revision approved by the Board on second reading.

Related Information

ARIZONA BOARD OF REGENTS
POLICY MANUAL

2-224 Academic Credit (formerly 2-206)

Revision Dates

10/2/2020, 3/19/2020, 9/23/2016, 2/8/2013 (adopted)

A. Definition of a Unit of Credit

An hour of work is ~~the equivalent of~~ 50 minutes of class time (often called a "contact hour"), ~~or~~ 60 minutes of independent study work, OR THE EQUIVALENT IN ASYNCHRONOUS LEARNING ACTIVITIES. A minimum of 45 hours of work by each student is required for each unit of credit. Ordinarily, a course must cover a one-week period for every unit of credit given. During summer sessions, however, six units of credit may be given over a five-week period.

1. At least 15 contact hours of recitation, lecture, discussion, testing or evaluation, seminar, or colloquium, as well as a minimum of 30 hours of student homework is required for each unit of credit;

2. Workshops must involve a minimum of 45 hours for each unit of credit, including a minimum of 15 contact hours, with the balance of the requirement in homework;

3. Studios must involve at least 30 contact hours and at least 15 hours of homework for each unit of credit;

4. Laboratory courses require a minimum of 45 contact hours per unit of credit;

5. Field trips will be counted hour-for-hour as laboratory meetings;

6. Each unit of internship or practicum must require a minimum of 45 clock hours of work; and

7. Music instruction and specialized types of music performance offerings must conform to the requirement for accreditation of the National Association of Schools of Music.

8. Off-campus courses, regardless of mode of delivery, may be assigned credit based on competencies or learning outcomes that

are acquired through coursework and are equivalent to those of students in a traditional classroom setting. An equivalent of 45 hours of work by each student is required for each unit of credit.

9. Nursing simulation experiences conform to the standard outlined by the Arizona State Board of Nursing (AZBN).

B. Credit for Courses Developed Under Contract

Universities may contract with outside agencies for the development and/or delivery of training programs to agency employees. The normal contract provides reimbursement to the university for the cost incurred in the development and/or delivery of these courses to the employees of these contracting agencies. While many of the courses may be specifically tailored to the needs of the agency and delivered in a format different from that appropriate for credit course offerings, there may be circumstances under which courses developed in this way will be of such quality that students who successfully complete them may be awarded academic credit by a university. The following are guidelines for the awarding of credit in courses developed under contract to outside agencies.

1. The decision to award academic credit for a course developed under contract and the securing of approvals to award such credit must follow the same procedures as those for any other course developed in the university. The same approvals by curriculum and other committees in the university and from the Arizona Board of Regents are required as those for any other course.

2. A university cannot teach a course developed under contract with an outside agency using the title and number of a course which already exists in the university catalog.

3. A course developed under contract may not be offered for credit under "house numbers," in more than two semesters. Afterward, the course must be subjected to university curriculum procedures applicable to new courses.

4. When a course is to be delivered under contract to an outside agency, the negotiations by the university for the delivery price should include the consideration of whether employees of the agency may receive credit for the course. If the university and the agency agree that agency employees may receive credit for the course, the cost of record keeping for these students, and any other costs specifically identified with the awarding of academic credit, must be included in the contract. Students who would not

be charged for a university course because they are employees of an agency under contract with the university for delivery of the course cannot be charged extra for the course if they wish to receive credit for it.

5. The awarding of credit and assignment of grades for courses developed and/or offered under contract will be conducted in precisely the same way as for any other course offered by the university. The integrity of the academic processes shall not be compromised by the contractual origin or the nature of the course delivery mechanism.

C. Credit for Former or Current Military Members

Pursuant to A.R.S. § 15-1898, universities shall award academic credit that may be used toward the pursuit of a baccalaureate degree OR GRADUATE DEGREE, AS APPROPRIATE, to a person who is currently serving or who has served in the United States Air Force, Army, Navy, Marine Corps or Coast Guard, National Guard, or a reserve unit of any of these branches of the United States Military, unless the person was dishonorably discharged. In consultation with the Department of Veterans' Services, the number of academic credits awarded is determined by each university, but shall be based on both of the following criteria:

1. The person's length of time of active duty service in the United States military.

2. Skills, knowledge and competencies the person acquired during service in the United States military.

D. Awarding undergraduate credit on the basis of advanced placement, Cambridge International, CLEP, Dantes Subject Standardized Tests, and International Baccalaureate Examination scores

1. Each university will annually review any new or revised advance placement, Cambridge International, CLEP, Dantes Subject Standardized Test, and International Baccalaureate Examination to determine the scores necessary for the awarding of undergraduate credit and the number of credits awarded toward degree completion.

2. The universities will jointly establish the scores required to receive credit for an exam and the amount of credit awarded. The scores and amount of credit awarded will be uniform across all three universities except as provided in this policy.

3. Each university may individually determine whether to award credits and how credit applies toward fulfilling a major requirement, a general education category requirement or an elective requirement.

4. If a university wishes to deviate from the scores and credits collectively determined by the universities under this policy, the university will submit a request to the academic council or its designees. The request will include an evidence-based justification for the variance.

5. If the academic council grants a variance from the uniform score, it will provide notice to the Arizona Board of Regents' executive director with an explanation of the need for the requested variance.

6. Exam scores for students transferring from an Arizona community college that has adopted the Arizona General Education Curriculum will be awarded in accordance with the accepting institution's published scores required to receive credit, and type of credit awarded. Completed Arizona General Education Curriculum containing exam credit will be awarded in accordance with the AZTransfer Articulation Taskforce policies and procedures.

7. Arizona's public universities will adopt policies governing the awarding of undergraduate credit on the basis of exam scores consistent with this policy and will publish such policies on their website.

Policy History

2/8/2013	The Board repealed 2-206 and adopted 2-224 in its place.
9/23/2016	Policy revision approved by the Board on second reading.
3/19/2020	Policy revision approved by the Board on first reading with immediate implementation.
10/2/2020	Policy revision approved by the Board on second reading.

Related Information

ARIZONA BOARD OF REGENTS POLICY MANUAL
2-225 Academic Program Review (formerly 2-208)
Revision Dates 6/12/2025, 6/15/2023 (effective 7/1/2023), 9/27/2018, 4/6/2018 (effective 7/1/2018), 2/8/2013 (adopted)

A. The primary purposes of academic program review are:

1. To provide information that can be used by the University to strengthen and improve academic programs;

2. To ensure effective use of state resources;

3. To provide information for university and system-wide planning;

4. To reduce unnecessary program duplication within and between Universities and to eliminate unproductive programs;

5. To provide information for use in University and Board evaluation of new program proposals, of budget requests and of capital project requests.

6. To identify and provide special recognition for outstanding programs that have achieved national or international stature.

B. Internal Program Review

1. Each University shall conduct a review of each program at least once every seven years.

2. Although departments are the basic unit for review, it is expected that some programs will be reviewed at the college level or at the major level.

3. Each University shall adopt program review policies that shall include at least the following provisions:

   a. Each review will include a self-study conducted by administrators and faculty within the unit.

   b. The review team will include external consultants who are selected through University policies and procedures designed to ensure maximum objectivity.

c. The review will include evaluation of all undergraduate and graduate degree programs offered by the unit.

d. The review will include an assessment of the adequacy of physical and fiscal resources available to the unit; the quality of the faculty and staff; research, and scholarly or creative activities; student RECRUITMENT, RETENTION, AND performance; and outcomes of the program and an assessment of the level of the degree productivity.

e. ~~The review will include an assessment of the unit's plans and performance related to the hiring of faculty and staff and to recruitment and retention of students from underrepresented groups.~~

~~f.~~ E. For low productive degree programs with graduations below established thresholds, an evaluation will be conducted in accordance with the Board approved guidelines as set forth in the document entitled “A Methodology for Identifying Low Productive and Duplicative Programs” and reported to the University Governance and Operations Committee. Except when a University recommends elimination of a program, it must provide the additional information specified in the approved methodology.

4. An accreditation review may be used to satisfy the requirements of this Policy only if the review meets all of the criteria established by the Board and the university.

5. Funding for the reviews shall be provided from the University's existing operating budget.

6. Each University shall adopt policies and procedures for a systematic and comprehensive follow-up and monitoring of review recommendations.

7. The results of the reviews shall be ~~reported to~~ AVAILABLE UPON REQUEST OF the University Governance and Operations Committee ~~annually on a date and~~ in a format determined by the executive director of the board. ~~The reports shall include specific plans to address deficiencies identified in the review. The Committee may request special follow-up reports on matters of major significance regarding the quality of the program.~~

8. A representative of the board's office or a member of the University Governance and Operations may observe at least one program review on each campus each year.

Policy History

2/8/2013	The Board repealed 2-208 and adopted 2-225 in its place.
4/6/2018	Policy revision approved by the Board on second reading to be effective 7/1/2018.
9/27/2018	Policy revised to reflect “Executive Director” of the Board in place of “President.”
6/15/2023	Policy revision approved by the Board on second reading to be effective 7/1/2023.
6/12/2025	Policy revision approved by the Board on second reading.

Related Information

ARIZONA BOARD OF REGENTS POLICY MANUAL
2-320 Academic Year Calendar (formerly 2-401)
Revision Dates 9/27/2018, 9/29/2017, 4/8/2016, 2/8/2013 (adopted)

The Arizona Board of Regents Office shall adopt academic year calendars setting the first day of instruction and the last day of final examinations for each university in the Arizona University System for the Fall and Spring semesters. The last day of the Fall semester must be no later than December 22. ~~All academic calendar submissions must be sent in writing to the board executive director no less than five years in advance, and all revisions to the current academic calendar must be submitted to the board executive director at least one year in advance.~~ ACADEMIC CALENDARS SHALL BE SUBMITTED ON A SCHEDULE DETERMINED BY THE BOARD EXECUTIVE DIRECTOR. Within the approved dates, each university may arrange its class and holiday schedule depending upon the needs of its students, local customs, and policy and accreditation requirements. This policy only applies to traditional, in-person undergraduate courses and programs and board approval is not required for online, accelerated, distributed, graduate, professional, or study abroad courses/programs.

Policy History

2/8/2013 The Board repealed 2-401 and adopted 2-320 in its place.

4/8/2016 Policy revision approved by the Board on second reading.

9/29/2017 Policy revision approved by the Board on second reading.

9/27/2018 Policy revised to reflect “Executive Director” of the Board in place of “President.”

Related Information

ARIZONA BOARD OF REGENTS POLICY MANUAL
4-320 Purpose, Responsibility, and Goals
Revision Dates 12/6/2012 (adopted)

C. STUDENT FINANCIAL AID

A. Purpose

The purpose of financial aid is to support the Board's Enterprise Plan and its goals of creating an educated work force in Arizona, within the limits of the available resources, by promoting access to higher education for qualified students, and by fostering retention and graduation of students.

B. Responsibilities

1. The State, the universities, and students and their families share responsibility for funding higher education.

2. The Arizona Constitution requires state legislative appropriations "…as shall insure the proper maintenance of all state educational institutions, and …such special appropriations as shall provide for their development and improvement" and that the instruction provided at the universities "…shall be as nearly free as possible."

3. Students and their families should share, within their financial ability, in the cost of attendance.

4. The universities should:

   a. In awarding financial aid, make effective use of all sources of aid to minimize the disparity between student and family resources and cost of attendance. Effective use of all sources of aid includes balancing federal, state, independent and institutional funds in the forms of gift aid and self-help aid;

   b. Inform students of the possibility that, depending on an individual student's situation, additional items may be included in the calculation of the cost of attendance, and of the availability of an appeals process concerning their financial aid award.

C. Goals

The Arizona Board of Regents financial aid goals are:

1. To support the enrollment and success of a ~~diverse~~ BROAD population of students by attracting highly qualified students and reducing the cost of attendance for students and their families with documented need;

2. To provide flexibility to the universities in administering institutional financial aid in order to address Board initiatives, student needs, and resource availability;

3. ~~To ensure that the majority of institutional need and merit based financial aid is awarded to support resident students at the undergraduate level~~ TO ENSURE THAT INSTITUTIONAL NEED AND MERIT BASED UNDERGRADUATE FINANCIAL AID IS AWARDED CONSISTENT WITH THE MISSIONS OF THE BOARD AND UNIVERSITIES;

4. To take into account the special needs of students from groups that historically have been underrepresented in the Arizona University System; and

5. To encourage independent entities such as the University Foundations to raise funds, develop endowments, and create long-term trusts to expand and enhance the available base of financial aid sources.

Policy History

12/6/2012 Approved by the Board on second reading.

Related Information

ARIZONA BOARD OF REGENTS POLICY MANUAL
4-321 Financial Aid Regulations
Revision Dates 2/9/2023 (effective 12/13/2022), 12/6/2012 (adopted)

A. Definitions

1. "Cost of attendance" is the estimated cost for a student to attend an institution and includes tuition, fees, ~~room and board~~ FOOD AND HOUSING, books and supplies, transportation, and personal expenses.

2. "Demonstrated financial need" is calculated by a federally approved needs assessment system or for students who do not meet the requirements of 34 C.F.R. § 668.32(i), a similar needs assessment system to be developed by the universities that takes into account a student's expected family contribution and financial aid from outside sources to determine the amount of aid a student requires to cover the cost of attendance.

3. "Gift aid" is an award, such as a grant or scholarship, which does not have to be repaid.

4. "Graduate Assistants and Associates"

   a. Graduate Teaching Assistants and Associates are full-time graduate students, selected for excellence in scholarship and promise as teachers, who do part-time teaching as a portion of their training under the direct supervision of faculty members.

   b. Graduate Research Assistants and Associates are full-time graduate students, selected for excellence in scholarship and promise as researchers, who engage in part-time research as a portion of their training under the direct supervision of faculty members.

   c. Graduate (Teaching and Research) Assistants and Associates may be considered residents to tuition purposes.

5. "Grants" are a form of gift aid that do not have to be repaid, and are generally distributed based on financial need.

6. "Scholarships" are a form of gift aid that do not have to be repaid, and are generally distributed based upon a special ability, talent or meritorious achievement.

7. "Self-help aid" is a loan, work study or other on campus employment.

8. "Tuition Waivers" are defined as follows:

   a. A resident tuition waiver waives the resident tuition approved by the Board.

   b. A nonresident tuition waiver waives the difference between nonresident tuition and resident tuition approved by the Board.

B. General Requirements for Awarding Financial Aid

1. Financial aid may include a combination of self-help aid and gift aid. A reasonable proportion of self-help aid and gift aid should be determined in a manner that minimizes loan indebtedness and weekly work burdens. This calculation will vary by student circumstances and may differ for undergraduate and graduate students.

   Institutional financial aid awards should give priority to gift aid and be used to ensure the appropriate proportion of gift and self-help aid.

2. To ensure a combination of awards based upon academic merit and financial needs:

   a. At least 50 percent of undergraduate institutional aid for Arizona residents shall be awarded to students who have demonstrated financial need. The universities must use a federally approved needs assessment or for students who do not meet the requirements of 34 C.F.R. § 668.32(i), a similar needs assessment system developed by the universities that takes into account a student's expected family contribution and financial aid from outside sources to determine the amount of aid a student requires to cover the cost of attendance.

   b. At least 30 percent of undergraduate institutional aid for Arizona residents shall be awarded to students on the basis of merit.

   c. Meritorious students with demonstrated financial need may be included in the calculations described in both a and b.

d. The following categories of awards are not included in the calculations described in a and b:

(1) Tuition waivers required by statute, as described in ABOR Policy 4-323(B);

(2) Resident tuition waivers for members of the Community College All-Arizona Academic Team, as described in ABOR Policy 4-323(C)(1);

(3) Awards to student athletes, as described in ABOR Policy 4- 323(D)(1); and

(4) Employee benefits such as the Qualified Tuition Reduction (described in ABOR Policy 6-902) and the Educational Assistance Plan (described in ABOR Policy 6-903).

C. Regents Set Aside – Board of Regents Designated Tuition Retained and Set aside for Need-based Student Financial Aid

As part of each institution's financial aid program, the Regents set aside is an amount of Board designated tuition retained and set aside at each university for awards to students with demonstrated financial need.

1. Each year at the time the Board sets the expenditure authority for the ensuing fiscal year, the Regents set aside amount for each university shall be 14% of the resident tuition for the academic year multiplied by the estimated sum of resident full pay equivalents and non-resident full pay equivalents.

The Board may consider additional Regents set aside amounts at its discretion.

A resident full pay equivalent is generated by collection of an amount equal to resident tuition and a non-resident full pay equivalent is generated by collection of an amount equal to non-resident tuition.

2. The university shall award the Regents set aside funds consistent with the following provisions:

a. All awards shall be in the form of gift aid to students with demonstrated financial need.

b. Priority for awards shall be given to undergraduate Arizona residents.

c. Need shall be determined by the federally approved need assessment system or by a similar needs assessment system developed by the universities that takes into account a student's expected family contribution and financial aid from outside sources to determine the amount of aid a student requires to cover the cost of attendance.

d. Each university may use the funds in a manner to best meet the specific needs of the applicants for financial aid on that campus.

e. Awards made from these funds shall not be used to replace federal grants to which the student is entitled.

f. The universities may continue to use the funds to provide the required institutional match for the Federal Perkins Student Loan Program under Title IV of the Higher Education Act, as amended.

D. Reporting Requirements

1. Prior to the Board setting tuition, each university will submit for Board approval its financial aid report for the most recently completed academic year and its financial aid plan for the next two academic years. The report shall be used to communicate the sources and distribution of financial aid to students at each university in order to evaluate the impact of financial aid in advancing enterprise goals. Each financial aid report and financial aid plan must contain information regarding:

a. The value of any waivers, grants, and scholarships and their distribution among residents and nonresidents;

b. The distribution of financial aid between needy and meritorious recipients;

c. The distribution of financial aid between undergraduate and graduate students;

d. The total institutional aid awarded by scholarships, regents set aside, and other awards required by Statute or Board Policy;

e. The amount of aid awarded by type and by source;

f. The ratio of gift aid to self-help aid;

g. The documented need for various categories such as undergraduate and graduate students;

h. Financial aid distribution by income level;

i. Regarding funding from the Arizona Financial Aid Trust (AFAT), the plans to expend each institutions allocation of immediate aid funds for the coming program year, the use of the funds in the current and previous year, and a status report on the AFAT accounts;

j. As required in A.R.S. §15-1646, information for the prior academic year related to each merit based scholarship awarded to students from public, private, charter, and home schools:

(1) The total number and dollar amount of awards and the total number of applicants, aggregated by type of student;

(2) The specific criteria used to award each scholarship, including average and range of SAT and ACT scores; and

(3) The number of newly awarded scholarships and the number of renewed scholarships;

k. Information to assist in the analysis of how each institution's financial aid programs have been allocated to maintain or improve affordability for resident undergraduates; and

l. Any other requirements as prescribed in A.R.S. §15-1650.

2. Prior to the Board setting tuition, each university will report information on the cost of attendance calculated using a common framework.

3. As required in A.R.S. §15-1642, beginning on July 1, 1992, the Board shall report every three years to the Legislature and the Governor on the status of the AFAT Fund.

E. Naming of Board Established Financial Aid Programs

1. A Board-established financial aid program shall not be named for a living person without a two-thirds majority vote of the members of the Board present.

2. The name or title of any Board-established financial aid program must be approved in advance by the Board.

F. Student Loan Collections

Overdue student loans may be placed for collection with nationwide collection agencies and/or law firms selected by the university.

Policy History

12/6/2012	Approved by the Board on second reading.
12/13/2022	Policy revision approved by the Board on first reading with immediate implementation.
2/9/2023	Policy revision approved by the Board on second reading.

Related Information

ARIZONA BOARD OF REGENTS
POLICY MANUAL

6-103 Salary Adjustments for Administrators Who Return to Faculty Positions

Revision Dates
12/4/2008, 3/12/1983 (adopted; effective 5/1/1983)

A. The Board delegates to university presidents the authority to enter employment contracts in which administrative personnel are changed to an academic assignment and to determine appropriate compensation for that assignment, consistent with applicable board policies.

B. When a former university administrator who was employed on a fiscal year contract returns to an appointment as a faculty member on an academic year basis, the academic year salary shall be determined by the president on the same basis as all other academic year faculty salaries.

~~1. In no case shall the former administrator have any expectation that the academic year salary shall be set by dividing the previous fiscal year contract by 1.2 or by any other numerical factor.~~

~~2.~~1. The president shall consider the individual's academic rank, length of time in that rank, prior achievements, potential for performance as a university faculty member and salaries of faculty peers in establishing the individual's academic year salary.

Policy History

3/12/1983 The Policy Manual was adopted by the Board to be effective 5/1/1983.

12/4/2008 Policy revision approved by the Board on second reading.

Related Information

See 3/12/1983 meeting minutes

ARIZONA BOARD OF REGENTS
POLICY MANUAL

6-804 Sick Leave

Revision Dates

9/27/2018, 12/10/2010, 12/4/2009, 1/26/2001, 9/24/1998, 8/27/1992, 2/19/1988, 3/12/1983 (adopted; effective 5/1/1983)

A. Administrative, Professional, UNIVERSITY, and Classified Staff employees who are employed at 50% time or more and whose employment is expected to continue six months or more, are entitled to accrue paid sick leave at the rate of one (1) day for each month of service from the first day of eligible employment.

B. Each university shall establish policy governing the accrual of sick leave based on time of service and governing the usage of such leave for eligible employees including faculty.

C. Subject to the approval of the Board executive director and board counsel, universities and the board office may adopt policies to temporarily allow the limited advancement of sick leave to employees who have otherwise exhausted other forms of paid leave. Decisions to advance sick leave during periods of serious contagious illness, such as a pandemic, will consider public health benefits and continuance of institutional, instructional, research and service functions while minimizing disruption and delay that would otherwise be occasioned by an ill workforce.

D. The amount of sick leave earned in accordance with paragraph A. is based on 100% full-time equivalent employment. Employees working less than 100% full-time equivalent, but at least 50% full-time equivalent, earn sick leave prorated to the percentage of time paid.

E. Accrued Sick Leave May Be Used Only When:

1. An eligible employee is unable to perform his or her duties because of illness, injury, MENTAL HEALTH, pregnancy, childbirth, or related medical conditions;

2. An eligible employee wishes to obtain health-related services not reasonably available before or after the employee’s regular working hours; or

3. An eligible employee is absent due to illness or communicable disease within the employee's immediate family, established household, or in

situations which place primary responsibility for care on the employee; or

4. An eligible employee wishes to use sick leave upon the death of family members who are not covered under board policy 6-806, Bereavement Leave. Employees may use up to three days of accrued sick leave for this purpose and two additional days to attend or arrange funeral services out- of-state.

F. Upon termination of employment, except for retirement, an employee shall not be paid for accumulated sick leave. All faculty and staff at each university shall be eligible to receive payment for accumulated sick leave at the time of retirement consistent with the provisions of A.R.S. § 38-615, subject to the availability of funds. Upon termination, an employee may be responsible for repayment of sick leave advanced under university or board office policy.

Policy History

3/12/1983	The Policy Manual was adopted by the Board to be effective 5/1/1983.
2/19/1988	Policy revision approved by the Board on second reading.
8/27/1992	Policy revision approved by the Board on second reading.
9/24/1998	Policy revision approved by the Board on second reading.
1/26/2001	Policy revision approved by the Board on second reading.
12/4/2009	Policy revision approved by the Board on second reading.
12/10/2010	Policy revision approved by the Board on second reading.
9/27/2018	Policy revised to reflect “Executive Director” of the Board in place of “President.”

Related Information

See 3/12/1983 meeting minutes.

This policy was originally numbered as 6-704 from its adoption in 1983 until 2/19/1988

ARIZONA BOARD OF REGENTS
POLICY MANUAL

6-806 Bereavement Leave

Revision Dates
1/26/2001, 11/28/1995, 2/19/1988 (adopted)

A. Faculty, administrative, professional, UNIVERSITY, and classified staff employees who are employed 50% time or more and whose employment is expected to continue six months or more, are eligible for up to three (3) paid working days bereavement leave upon the death of a parent, parent-in-law, brother, sister, spouse, child, grandparents, grandchildren, brother-in-law, sister- in-law, son-in-law, daughter-in-law, and any other person who is a member of the employee's established household. A parent is defined as a natural parent, step parent, adoptive parent or surrogate parent. A child is defined as a natural child, adoptive child, foster child or step-child.

B. Two (2) additional paid working days may be granted to attend or arrange funeral services out-of-state.

C. Employees must be in a pay status in order to receive paid bereavement leave.

Policy History

2/19/1988 Approved by the Board on second reading.

11/28/1995 Policy revision approved by the Board on second reading.

1/26/2001 Policy revision approved by the Board on second reading.

Related Information

ARIZONA BOARD OF REGENTS
POLICY MANUAL

6-901 Salary Increases

Revision Dates
9/27/2018, 12/6/2007, 3/21/2002, 1/11/1996, 12/4/1987, 3/23/1984, 12/2/1983 (adopted)

ARTICLE I. GENERAL

A. General Policy

Each of the Arizona universities shall establish and maintain a system of compensation which encourages and promotes excellence in performance of faculty, ~~professional staff,~~ administrat~~ors~~IVE, PROFESSIONAL, UNIVERSITY, and classified staff EMPLOYEE GROUPS. To this end, the universities shall operate with a board-approved salary increase plan that provides for rewarding employees in recognition of satisfactory and above-satisfactory performance and provides for a process by which other salary increase considerations are resolved. Monies appropriated and identified by the Legislature as funds to be used by the universities for salary increases shall be divided and distributed under guidelines applicable to two categories: (1) adjustment funds; and (2) performance funds.

B. Adjustment Funds

In order to maintain an effective compensation plan on each of the campuses, the universities shall continually assess the need for these increases. Such increases may include: (1) market, (2) equity, (3) promotion, and (4) reclassification. Each university shall determine the amount of adjustment funds needed each year for each of the ~~four~~ employee groups and shall request that the Arizona Board of Regents set aside such an amount from the total funds made available by the Legislature for salary increase purposes.

C. Performance Funds

Performance increases shall be distributed on the basis of an assessment of employee performance. University-approved formal performance evaluation plans administered at the departmental or other organization unit level at each university shall provide the documentation for performance awards to employees in each of the ~~four~~ groups.

D. Procedures

Funds appropriated to each university for salary increase purposes shall be allocated to each of the ~~four~~ employee groups (faculty, professional, administrative, classified) in proportion to their share of the salary base of that university. Each university shall submit to the Board of Regents a plan for dividing the funds allocated to each of the ~~four~~ employee groups between adjustment funds and performance funds. The Board of Regents shall authorize such division of funds for each of the ~~four~~ employee groups, recognizing different circumstances and needs may lead to different proportions of adjustment funds and performance funds among the various employee groups and among the three universities. Unless exception is approved by the Arizona Board of Regents, no funds allocated to an employee group ~~(faculty, professional, administrative, classified)~~ shall be used to enhance the salaries of employees outside of that employee group. Any exception must be based on compensation- related factors and circumstances which justify an alternative distribution method.

E. Compensation Report/Salary Adjustment Report

Each year the president of each university shall submit a compensation report to the Arizona Board of Regents upon request. The report shall include such information as requested by the board.

F. Performance Based Incentives

Each university and the board office may establish procedures to develop and administer a performance based incentive program to promote efficiency and effectiveness subject to the following:

1. Incentives shall clearly relate to a measurable standard of performance which must be achieved.

2. Program must be for all employee groups. All employees in .50 - 1.0 FTE positions shall be eligible to participate.

3. Incentives shall result in cost reductions, improved service quality or improved productivity.

4. No increase in compensation for future services shall exceed the amount of increase in compensation for future services permitted by A.R.S. §38- 618 or other applicable provision of Arizona law. The increase in compensation for future services may not be added to an employee's base pay.

5. Sources of funds may be from up to 80 percent of salary savings, other monies appropriated from the state general fund, or other sources.

University procedures for awarding increases in compensation for future services shall be submitted to the executive director of the board for presentation to the incentives program oversight review committee for review and recommendation. This policy shall not prevent a university or the board office from establishing other performance based incentive programs that provide for other means of recognizing and rewarding exemplary performance in addition to increases in compensation for future services. These may include one-time incentive or recognition awards based upon previously established criteria for measuring performance.

Policy History

12/2/1983	Approved by the Board on second reading.
3/23/1984	Policy revision approved by the Board on second reading.
12/4/1987	Policy revision approved by the Board on second reading.
1/11/1996	Policy revision approved by the Board on second reading.
3/21/2002	Policy revision approved by the Board on second reading.
12/6/2007	Policy revision approved by the Board on second reading.
9/27/2018	Policy revised to reflect “Executive Director” of the Board in place of “President.”

Related Information

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ITEM 7.6: Approve on Second Reading Proposed Revisions to ABOR Policies 4-203 Requirements to be Considered in Determining an Individual's Residency Classification for Tuition Purposes, 2-325 Arizona Teachers Academy, 4-323 Tuition Waiver Scholarships and Institutionally Supported Financial Aid Programs, 4-406 Law Enforcement Officers Spouse and Dependents Tuition Scholarship, and 4-405 Spouses of Military Veterans' Tuition Scholarship

Requested Action: The board office asks the board to approve on second reading proposed revisions to ABOR Policies 4-203 Requirements to be Considered in Determining an Individual's Residency Classification for Tuition Purposes, and 2-325 Arizona Teachers Academy, to be implemented retroactively upon approval to September 26, 2025; and ABOR Policies 4-323 Tuition Waiver Scholarships and Institutionally Supported Financial Aid Programs, 4-406 Law Enforcement Officers Spouse and Dependents Tuition Scholarship, and 4-405 Spouses of Military Veterans' Tuition Scholarship to be implemented retroactively upon approval to June 30, 2025; as described in this executive summary.

Committee Review and Recommendation
The University Governance and Operations committee reviewed this item at its September 11, 2025, meeting and recommended forwarding the item to the board to review on first reading and subsequent approval with highlighted changes.

Overview
The Fifty-seventh Arizona Legislature enacted several provisions into law that necessitated amendments to the Arizona Board of Regents policies. The general effective date for these requirements is September 26, 2025. However, SB 1742 contains a retroactivity provision making the amendments to A.R.S. §§ 15-1650.06, 15-1655, 15-1705 and 15-1809 and the new 15-1809.02, apply retroactively "to from and after" June 30, 2025.

Discussion
To comply with the S.B.1742, ABOR will make the following revisions to apply retroactively "to from and after" June 30, 2025.

1. Policy 4-406, "Law Enforcement Officers Spouse and Dependents Tuition Scholarship," will be amended to reflect the new A.R.S. § 15-1809.02.
2. Policy 4-405, "Spouses of Military Veterans' Tuition Scholarship" will be amended to reflect the revisions to A.R.S. § 15-1809.
3. Policy 4-323, "Tuition Waiver Scholarships and Institutionally Supported Financial Aid Programs," will be amended to meet the statutory obligations in administering the University Promise Fund and the Community Colleges Promise Fund under the revised A.R.S. §§15-1705 and 15-1701.

Contact Information:
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The following revisions will be effective upon September 26, 2025, the general effective date for the legislation passed by the Fifty-seventh Legislature - First Regular Session:

1. To comply with S.B. 1021, Policy 4-203, "Requirements to be Considered in Determining an Individual's Residency Classification for Tuition Purposes," is amended to grant in state student classification to a person who is a contracted cadet participating in a Reserve Officer Training Corp program in this state.
2. To comply with H.B. 2765, Policy 2-325, Arizona Teachers Academy, is amended to reflect the change in the definition of "eligible postsecondary institution" in the amended A.R.S. 15-1655(I) and to include a clarified definition of public school.

The board reviewed this item on first reading at its September 2025 meeting.

Supporting Document/s
Rev ABOR Policies 4-203, 4-323, 4-406, 4-405, 2-325

Statutory/Policy Requirements
A.R.S. §§15-1626, 15-1802, 15-1705, 15-1809, 15-1809.02, and 15-1701

ARIZONA BOARD OF REGENTS POLICY MANUAL	
4-203	Requirements to be Considered in Determining an Individual's Residency Classification for Tuition Purposes
Revision Dates 9/27/2024, 9/29/2022, 6/10/2021, 6/8/2017, 6/10/2016, 9/25/2015, 6/6/2014, 11/21/2013, 8/4/2011, 9/24/2009, 3/8/2007, 12/1/2005, 4/25/2002, 9/1/2000, 1/20/2000, 8/13/1999, 8/21/1996, 6/1/1995, 3/10/1995, 4/14/1994, 12/17/1992, 6/12/1992, 11/7/1986, 2/21/1986 (adopted)	

A. Residency classification for tuition purposes is to be determined in accordance with Arizona law and board policy, and board policy is not intended to limit or expand the statutory definitions of residency.

B. Unless an exception exists in board policy, all students seeking classification as an in-state resident for tuition purposes must establish, by a preponderance of the evidence, the following factors, as applicable:

1. Continuous Physical Presence: the student has been continuously physically present in Arizona for the 12 calendar months immediately preceding the last day of registration for the term which the student is seeking classification as an in-state resident for tuition purposes, as demonstrated by objective evidence. Any relevant evidence may be considered, including the following categories of evidence; however, no single category is determinative:

    a. Ownership or lease of property;

    b. Bank or other financial records reflecting continuous presence in Arizona;

    c. Utility bills/records of continuous usage;

    d. State and federal tax returns;

    e. Employment history, including records of Arizona employment;

    f. All other materials of whatever kind or source, which may have a bearing on determining continuous presence.

2. Arizona Residency: the student is an Arizona resident, and Arizona is the student's domicile as demonstrated by objective evidence. Any relevant evidence may be considered, including the following categories of

evidence; however, no single category is determinative:

a. The severance of ties to the student's former state of residence;

b. Date of registration and state in which motor vehicle is registered;

c. Date of issuance and state issuing driver's license or state identification card;

d. Employment history, including dates and location of employment and employer;

e. The transfer of major banking services to Arizona;

f. State where the student is registered to vote, date of registration, and whether student has voted in Arizona election;

g. Place of prior attendance in educational institutions, including high schools, and any information held by such schools affecting domicile;

h. Marital status and employment history of spouse;

i. Address provided/given by student on all pertinent records;

j. State in which registered with selective service;

k. Military records;

l. Ownership of real property;

m. Tax records; and

n. All other materials of whatever kind or source, which may have a bearing on determining domicile or residency.

3. Financial Independence: where applicable, the student is financially independent for the 12 months immediately preceding the last day of registration, as demonstrated by objective evidence. Any relevant evidence may be considered, including the following categories of evidence; however, no single category is determinative:

a. Dates of employment and proof of employment earnings;

b. Documentation of all sources of financial/economic support;

c. Applications for loans, scholarships, grants-in-aid, or other such

assistance;

d. Documentation reflecting source of funds used to pay for student's university tuition and living expenses (i.e., housing, utilities, transportation, groceries/food, etc.);

e. Whether the student is or was claimed as a dependent for income tax purposes during the most recent tax year preceding the term for which the student is seeking resident classification;

f. Student's state and federal income tax returns;

g. Veteran status; and

h. All other materials of whatever kind or source, which may have a bearing on financial independence.

C. Exceptions to residency requirements: subject to ABOR policy 4-102, a student may also be classified as an in-state resident for tuition purposes upon establishing by objective evidence that:

1. The student is an Arizona resident and domiciled in Arizona, as set forth in this policy, for more than one year.

2. The student is domiciled in Arizona, for less than one year, as set forth in this policy, and:

   a. The domicile of the student's parent is in Arizona as set forth in this policy; and

   b. The parent of the student who is domiciled in Arizona is entitled to claim the student as an exemption for federal and state tax purposes (whether or not the parent actually claims the student as an exemption).

3. The student is domiciled in Arizona and:

   a. The student's spouse has established domicile in Arizona for at least 12 months immediately preceding the last day of registration and the spouse has demonstrated financial independence as set forth in sections B.2 and B.3, above; and

   b. The student's spouse is entitled to claim the student as an exemption for federal and state tax purposes.

4. The student is domiciled in Arizona and is:

a. Employed by an employer which transferred the student to Arizona for employment purposes; or

b. The spouse of an employee employed by an employer which transferred the student's spouse to Arizona for employment purposes; or

c. An employee of an Arizona employer who is taking not more than six credit hours solely through electronic course delivery at employer-sanctioned sites in Arizona, when the employer is required to pay additional site fees or transmission costs;

d. For the purposes of this policy, "transfer" means an employee who was transferred by the employee's employer at the direction of, and for the benefit for their employer, fewer than 12 months prior to the term in question, is not self-employed or employed in a family-owned business (or subsidiary thereof) not previously operating in Arizona.

5. The student is domiciled in Arizona, is an employee of a school district in Arizona and is under contract to teach on a full-time basis, or is employed as a full-time noncertified classroom aide at a public school within that school district. For purposes of this paragraph, the student is eligible to pay in-state tuition only for courses necessary to complete the requirements for certification by the state board of education to teach in a school district in Arizona. No member of the student's family is eligible for classification as an in-state student pursuant to this paragraph, although the student's family member may otherwise be independently eligible for classification as an in-state student pursuant to other sections of this policy. For these students, the universities:

   a. Shall establish uniform procedures to determine whether courses taken by a teacher or classroom aide qualify under this section;

   b. Shall consider charter schools as public schools consistent with Arizona statutes; and

   c. May apply this section to teachers and classroom aides from private schools where those private schools require that teachers hold Arizona teacher certification.

6. The student is a Member of qualifying federal service who is on active duty for a period of more than 30 days and whose domicile or permanent duty station is in Arizona or is the spouse or dependent child of a Member of qualifying federal service. While in continuous attendance toward the degree in which the student enrolls, the student does not lose in-state classification. A member of qualifying federal service means:

a. A member of the Armed Forces who is on active duty for a period of more than 30 days (as defined in Section 101 of Title 10, United States Code) (10 U.S.C. § 101);

b. A member of the Foreign Service (as defined in Section 103 of the Foreign Service Act of 1980 (22 U.S.C. § 3903) who is on active duty for a period of more than 30 days; or

c. An officer or employee of an element of the Intelligence Community (as such term is defined in Section 3003 of Title 50) (50 U.S.C. § 303) who serves in a position of employment in such element for a period of more than 30 days. The term “Intelligence Community” includes the following:
   i. The Office of the Director of National Intelligence.

   ii. The Central Intelligence Agency.

   iii. The National Security Agency.

   iv. The Defense Intelligence Agency.

   v. The National Geospatial-Intelligence Agency.

   vi. The National Reconnaissance Office.

   vii. Other offices within the Department of Defense for the collection of specialized national intelligence through reconnaissance programs.

   viii. The intelligence elements of the Army, the Navy, the Air Force, the Marine Corps, the Space Force, the Coast Guard, the Federal Bureau of Investigation, the Drug Enforcement Administration, and the Department of Energy.

   ix. The Bureau of Intelligence and Research of the Department of State.

   x. The Office of Intelligence and Analysis of the Department of the Treasury.

   xi. The Office of Intelligence and Analysis of the Department of Homeland Security.

   xii. Such other elements of any department or agency as may be designated by the President, or designated jointly by the Director of National Intelligence and the head of the department or agency concerned, as an element of the intelligence community.

7. The student is a member of the Armed Forces of the United States

stationed outside of Arizona pursuant to military orders or is the spouse or dependent child of the member of the Armed Forces of the United States and the service member claimed Arizona as the service member's legal residence for at least 12 consecutive months prior to the last day of registration for the term which the student is seeking classification as an in-state resident for tuition purposes. The student claiming residency status under this provision is required to:

a. Provide a copy of the military form DD-2058 of the service member which verifies the service member's state of legal residence; and

b. If applicable, provide evidence of having filed an Arizona resident income tax return with the Arizona Department of Revenue for the prior tax year on all income from all sources.

8. The student holds an honorable discharge from the uniformed services of the United States from either active duty or reserve or National Guard status, or has retired from active duty or reserve or National Guard status and has demonstrated objective evidence of intent to be a resident of Arizona. For the purposes of this subsection, objective evidence of intent includes at least one of the following:

    i. Registration to vote in Arizona.

    ii. An Arizona driver license.

    iii. Arizona motor vehicle registration.

    iv. Employment history in Arizona.

    v. Transfer of major banking services to Arizona.

    vi. Change of permanent address on all pertinent records.

    vii. Other materials of whatever kind or source relevant to domicile or residency status.

    The student shall be granted immediate classification as an in-state student and, while continuously enrolled, does not lose in-state student classification.

9. The student is a veteran as defined in Title 38 of the United States Code who, while using education assistance under 38 United States Code Chapter 30, 31, 33, or 35 enrolls in a university under the jurisdiction of the Arizona Board of Regents after the veteran's discharge from active duty service of ninety or more days or who remains continuously enrolled following the student's discharge or the student is a surviving spouse or

child of a veteran under 38 United States Code Chapter 35, and the student has demonstrated objective evidence of intent to be a resident of Arizona. For the purposes of this subsection, objective evidence of intent includes at least one of the following:

i. Registration to vote in Arizona.

ii. An Arizona driver license.

iii. Arizona motor vehicle registration.

iv. Employment history in Arizona.

v. Transfer of major banking services to Arizona.

vi. Change of permanent address on all pertinent records.

vii. Other materials of whatever kind or source relevant to domicile or residency status.

The student shall be granted immediate classification as an in-state student and, while continuously enrolled, does not lose in-state student classification.

10. The student, while using benefits under the Marine Gunnery Sergeant John David Fry Scholarship prescribed in 38 United States Code Section 3311(B)(9), enrolls in a university under the jurisdiction of the Arizona Board of Regents and has demonstrated objective evidence of intent to be a resident of Arizona. For the purposes of this subsection, objective evidence of intent includes at least one of the following:

    i. Registration to vote in Arizona.

    ii. An Arizona driver license.

    iii. Arizona motor vehicle registration.

    iv. Employment history in Arizona.

    v. Transfer of major banking services to Arizona.

    vi. Change of permanent address on all pertinent records.

    vii. Other materials of whatever kind or source relevant to domicile or residency status.

The student shall be granted immediate classification as an in-state student and, while continuously enrolled, does not lose in-state student classification.

11. The student, while using transferred post/911 G.I. bill benefits pursuant to 38 United States Code Section 3319 during a time in which the transferor is a member of the uniformed services serving on active duty, enrolls in a university under the jurisdiction of the Arizona Board of Regents and has demonstrated objective evidence of intent to be a resident of Arizona. For the purposes of this subsection, objective evidence of intent includes at least one of the following:

    i. Registration to vote in Arizona.

    ii. An Arizona driver license.

    iii. Arizona motor vehicle registration.

    iv. Employment history in Arizona.

    v. Transfer of major banking services to Arizona.

    vi. Change of permanent address on all pertinent records.

    vii. Other materials of whatever kind or source relevant to domicile or residency status.

    The student shall be granted immediate classification as an in-state student and, while continuously enrolled, does not lose in-state student classification.

12. The student does not meet the requirements set forth in this section (C)(10) and (C)(11) and, while using educational assistance under 38 United States Code Chapter 30, 31, 33, or 35 enrolls in a university under the jurisdiction of the Arizona Board of Regents after the veteran's discharge from active duty service of ninety or more days or remains continuously enrolled following the student's discharge, and the student has demonstrated objective evidence of intent to be a resident of Arizona. For the purposes of this subsection, objective evidence of intent includes at least one of the following:

    i. Registration to vote in Arizona.

    ii. An Arizona driver license.

    iii. Arizona motor vehicle registration.

iv. Employment history in Arizona.

v. Transfer of major banking services to Arizona.

vi. Change of permanent address on all pertinent records.

vii. Other materials of whatever kind or source relevant to domicile or residency status.

The student shall be granted immediate classification as an in-state student and, while continuously enrolled, does not lose in-state student classification.

13. The student is otherwise described in 38 United States Code Section 3679(C) and has demonstrated objective evidence of intent to be a resident of Arizona. For the purposes of this subsection, objective evidence of intent includes at least one of the following:

    i. Registration to vote in Arizona.

    ii. An Arizona driver license.

    iii. Arizona motor vehicle registration.

    iv. Employment history in Arizona.

    v. Transfer of major banking services to Arizona.

    vi. Change of permanent address on all pertinent records.

    vii. Other materials of whatever kind or source relevant to domicile or residency status.

14. The student is an enrolled member of an Indian tribe recognized by the United States Department of Interior whose reservation land lies wholly or partially in Arizona and extends into another state and is a resident of the reservation. For purposes of residency classification, enrollment as a tribal member in a federally recognized tribe whose reservation land lies wholly or partially in Arizona will be sufficient to establish residency for tuition purposes.

15. The student has participated in the AmeriCorps program or the Volunteers in Service to America program for at least one year in Arizona.

16. The student is domiciled within 75 miles of the Arizona border in Clark County, Nevada or in Washington or Kane Counties, Utah, or in San Bernardino, Imperial, or Riverside Counties in California, including the

cities of Needles, Blythe, El Centro, Brawley, and Winter Haven, and is enrolling in a total of no more than 6 credit hours per semester offered in Mohave, La Paz, or Yuma counties, Arizona by a university under the jurisdiction of the Arizona Board of Regents; or the student is domiciled within 75 miles of the Arizona border in Grant, Hidalgo, or Luna Counties in New Mexico and is enrolling in a total of no more than 6 credit hours per semester offered in Cochise County, Arizona by a university under the jurisdiction of the Arizona Board of Regents. This program is designed to reduce excess capacity; therefore, the presidents of the universities shall assure that classifying the student as a resident in their respective programs does not result in denying course offerings to Arizona residents or result in additional expenditures being required for course offerings.

17. The student is a doctoral graduate student who is a candidate for a degree, having completed all requirements for the degree except the dissertation, and who qualified as a resident student immediately prior to being eligible to begin the dissertation.

18. The student is a graduate assistant or graduate associate at a university under the jurisdiction of the Arizona Board of Regents whose assigned teaching or research responsibilities meet the guidelines established by the university for designation as a resident student.

19. The student is a citizen of the Federated States of Micronesia, the Republic of the Marshall Islands, or the Republic of Palau.

20. THE STUDENT IS A PERSON WHO IS A CONTRACTED CADET PARTICIPATING IN A RESERVE OFFICER TRAINING CORP PROGRAM IN THIS STATE.

D. Subject to ABOR Policy 4-102, a student who does not hold a visa that requires the student to maintain a foreign domicile or that otherwise prohibits establishing domicile in Arizona shall be classified as a resident if the student can establish that, on or before the last day of registration, the student satisfied one of the following criteria:

1. Meets the requirements for classification as a resident for tuition purposes as set forth above; or

2. Qualifies as a resident refugee student by virtue of having been granted refugee status in accordance with all applicable laws of the United States and having established domicile in Arizona as set forth in section B.2 above; provided that in establishing domicile, the student must not hold a visa that prohibits establishing domicile in Arizona.

E. Subject to ABOR Policy 4-102 (nonresident tuition), a fulltime student admitted and enrolled at a university who obtains resident status by virtue of ABOR Policy

4-203 does not lose resident status while in continuous attendance toward the degree for which currently enrolled.

F. The domicile of an unemancipated person is that of either parent. Subject to ABOR Policy 4-102 (nonresident tuition), any unemancipated person who is a student admitted and enrolled at a university and who remains in this state when the person's parent, who had been domiciled in this state, removes from this state does not lose resident status while in continuous attendance toward the degree for which currently enrolled.

G. All students have to provide evidence to demonstrate in-state residency for tuition purposes. When the universities consider evidence for residency classification, they begin with four presumptions:

1. A non-resident student's presence in Arizona is primarily for the purpose of education and not to establish domicile;

2. An individual cannot establish residency or domicile while in Arizona primarily for the purposes of education;

3. An individual cannot establish residency for tuition purposes while attending an educational institution in Arizona as a full-time student;

4. Decisions of an individual as to the establishment of residency and domicile are generally made after the completion of an education, and not before.

H. Evidence being reviewed to determine a student's residency status, whether by a classification officer or a hearing review committee, when the student requests review of a residency classification, will be evaluated as described below:

1. All information provided by the student shall be subject to the classification officer's or hearing review committee's decision as to the weight to be given to it, and such officer or committee shall be the sole judge of the authenticity or truthfulness of any material or statements submitted as supportive evidence. The classification officer may require original or certified copies of documentation.

2. If the student is absent from Arizona for more than 30 total days during the 12 months immediately preceding the last day of registration, this creates a rebuttable presumption that the student is not domiciled in or a resident of Arizona. A student may rebut this presumption with objective evidence that they retained their Arizona domicile and residence despite their absence(s).

3. Evidence offered to establish Arizona residency and domicile must reflect that the student intended to establish residency and domicile in Arizona

throughout the required 12-month period of continuous physical presence. Acts or events occurring less than 12 months before the last day of registration for the term which the student is seeking classification as an in-state resident for tuition purposes may be considered evidence that residency or domicile has not been established.

4. A statement of intent by the student should be weighed in light of the fact that the student knows that the student will realize a substantial reduction in tuition by being classified as a resident for tuition purposes.

5. The domicile of an unemancipated person is that of the person's parent.

6. If a minor applies for classification as a resident and alleges that the minor is emancipated, in addition to the requirements above, that minor must also establish via objective evidence that:

   a. The minor is not living with a parent; and

   b. There has been a complete severance of the parental relationship to all legal rights and liabilities, including but not limited to care, custody, control, and service.

7. Once established, residency for tuition purposes is not lost due only to the student's receipt of funds from a source outside Arizona.

8. The classification of a matriculated student is transferable from one university to another.

I. Any student found to have made a false or misleading statement concerning domicile or tuition status shall be subject to dismissal from the university and be held responsible for the payment of any tuition amounts that would have been charged but for the false or misleading statement.

Policy History

2/21/1986	Approved by the Board on second reading.
11/7/1986	Policy revision approved by the Board on second reading.
6/12/1992	Policy revision approved by the Board on second reading.
12/17/1992	Policy revision approved by the Board on second reading.
4/14/1994	Policy revision approved by the Board on second reading.
3/10/1995	Policy revision approved by the Board on second reading.

6/1/1995 Policy revision approved by the Board on second reading.

8/21/1996 Policy revision approved by the Board on second reading.

8/13/1999 Policy revision approved by the Board on second reading.

1/20/2000 Policy revision approved by the Board on second reading.

9/1/2000 Policy revision approved by the Board on second reading.

4/25/2002 Policy revision approved by the Board on second reading.

12/1/2005 Policy revision approved by the Board on second reading.

3/8/2007 Policy revision approved by the Board on second reading.

9/24/2009 Policy revision approved by the Board on second reading.

8/4/2011 Policy revision approved by the Board on second reading.

11/21/2013 Policy revision approved by the Board on second reading.

6/6/2014 Policy revision approved by the Board on second reading.

9/25/2015 Policy revision approved by the Board on second reading.

6/10/2016 Policy revision approved by the Board on second reading.

6/8/2017 Policy revision approved by the Board on second reading.

6/10/2021 Policy revision approved by the Board on second reading.

9/29/2022 Policy revision approved by the Board on second reading.

9/27/2024 Policy revision approved by the Board on second reading.

Related Information

4-203 was originally used as the number for the Guidelines, Rules, and Regulations for Classification of Persons for Tuition Purposes policy from its adoption in 1983 until 2/21/1986.

ARIZONA BOARD OF REGENTS POLICY MANUAL	
4-323	Tuition Waiver Scholarships and Institutionally Supported Financial Aid Programs
Revision Dates 2/13/2025, 2/9/2023 (effective 12/13/2022), 11/17/2022, 2/10/2022, 11/21/2019, 6/14/2018, 4/7/2017, 11/18/2016, 11/20/2015, 11/21/2013, 9/26/2013, 12/6/2012 (adopted)	

A. Institutional Financial Aid

1. The board will approve institutional funds to be used for financial aid awards as part of the annual financial aid plans.

2. Each university shall establish and administer selection criteria for grants and scholarships to assure fair and equitable access. Criteria for scholarships shall be appropriated to students from public, private, charter, and home schools.

3. Each university shall establish and publicize minimum requirements for the continuation of scholarships and grants.

B. Tuition Waiver Scholarships

1. Tuition Waiver Scholarships for the Children and Spouses of:
Arizona Peace Officers,
Arizona Fire Fighters,
Arizona Emergency Paramedics,
Arizona Military Service Personnel,
Arizona Correctional Officers, and
Arizona National Guard Members Killed in the Line of Duty;

   a. This tuition waiver scholarship program entitles eligible students to the lesser of:

      (1) A tuition waiver scholarship for credit hours that are necessary to obtain a baccalaureate degree; or

      (2) A tuition waiver scholarship for 144 credit hours toward a baccalaureate degree including any waived transfer credits from an Arizona community college or university.

   b. In accordance with the state law, the Arizona Board of Regents authorizes each university to award these tuition waiver

scholarships for sessions occurring within a calendar year to students who meet the following criteria:

(1) The student meets the university's regular admission requirements;

(2) The student maintains a record of satisfactory academic progress in accordance with each university's standards;

(3) Students eligible for the program due to their status as a child of an individual must be 30 years of age or younger on the first day of any semester to which the scholarship would apply;

(4) Students eligible for the program due to their status as a spouse of an individual may not have remarried;

(5) The eligibility of the student must be verified by the appropriate entity:

(a) The eligibility of a student to participate as a child or spouse of an Arizona Peace Officer, Arizona Fire Fighter, Arizona Emergency Paramedic, or Arizona Correctional Officer (as defined in A.R.S. §15-1808(D)(4)) killed in the line of duty must be verified by the Arizona Peace Officers Memorial Board, the Arizona Fallen Firefighters Memorial Committee, or the appropriate correctional official in the relevant state agency, county, city or town.

(b) The eligibility of a student to participate as a child or spouse of Arizona military service personnel killed in the line of duty in response to a Presidential Executive Order, and for severely disabled combat survivors, must be verified by the U.S. Department of Defense or either the Federal or State Department of Veteran Affairs;

(c) The eligibility of a student to participate as a child or spouse of an Arizona National Guard member killed in the line of duty must be verified by the Adjutant General of the National Guard.

2. An Arizona National Guard Member who received a Purple Heart on or after September 11, 2001; and former members of the Arizona National Guard who were medically discharged from the Arizona National Guard due to an injury or disability suffered during status under Title 10, United

States Code, in weekend training status, in annual training status or in response to a state of emergency declared by the Governor, as specified by A.R.S. §15-1808.

a. In accordance with the State law, the Arizona Board of Regents authorizes each university to award these tuition waiver scholarships for sessions occurring within a calendar year to students who meet the following criteria:

(1) The student meets the university's regular admission requirements;

(2) The student maintains a record of satisfactory academic progress in accordance with each university's standards;

(3) The eligibility of the student must be verified by the Adjutant General of the National Guard.

3. Arizona military service personnel who received a Purple Heart citation as specified by A.R.S. §15-1808.

a. In accordance with the state law, the Arizona Board of Regents authorizes each university to award tuition waiver scholarships for sessions occurring within a calendar year to students who meet the following criteria:

(1) The student meets the university's regular admission requirements;

(2) The student maintains a record of satisfactory academic progress in accordance with each university's standards;

(3) The student was a resident of the State of Arizona or was stationed in Arizona at the time of the injury that resulted in the Purple Heart citation, and ;

(4) The student had a disability rating as determined by the United States Department of Veterans Affairs of 50% or more; and

(5) The student has never been convicted of a felony.

(6) The eligibility of the student must be verified by the Arizona Department of Veteran's Services.

4. Non-resident tuition waiver scholarships for students from Sonora, Mexico, as authorized by A.R.S. §15-1626.

The universities are authorized to award a maximum of fifty non-resident tuition waiver scholarships to students from Sonora, Mexico participating in the Educational Exchange Program authorized by A.R.S. §15-1626.

5. Tuition Waiver Scholarships for Students in the Foster Care System at the Age of 14.

   a. The universities shall award tuition and mandatory fee waiver scholarships to a student who:

      (1) Resides in Arizona, and

         (a) Is currently in foster care and at least 14 years of age, or

         (b) Was in foster care when the person was at least 14 years of age, or

         (c) Was adopted from foster care and the adoption was finalized after the person attained 14 years of age, and

      (2) Has total assets, not including scholarships or grants, received by the student that are worth less than $10,000; and

      (3) Is under 23 years of age; and

      (4) Meets the university's regular admission requirements and is accepted into or enrolled in a program at a university under the jurisdiction of the Arizona Board of Regents; and

      (5) Has completed and submitted to the United States Department of Education the FASFA form before each year in which the student receives a tuition waiver scholarship pursuant to this policy;

      (6) Is a United States citizen or is a noncitizen who is lawfully present in this country; and

      (7) Eligibility for this program must be verified by the Arizona Department of Child Safety.

   b. The tuition waiver scholarship provided is to be reduced by the amount of any other federal aid, scholarships, or public grants and any other public aid received, except the tuition waiver scholarship

shall not be reduced by the amount of federal grant received by the individual from the Department of Child Safety under the Arizona Education and Training Voucher Program.

c. The student who has been awarded the tuition waiver scholarship will receive the scholarship in accordance with the following until:

(1) The student reaches the age of 23.

d. The student will also continue to receive the tuition waiver scholarship as long as:

(1) The student maintains a record of satisfactory academic progress in accordance with each university's standards;

(2) The student remains in good standing with the policies established by each university; and

(3) The student completes thirty hours of volunteer service each year after the first year the student receives the tuition waiver scholarship.

e. If the tuition waiver scholarship is terminated before a recipient of the tuition waiver scholarship completes a degree and before the student reaches 23 years of age, that student shall continue to be awarded a tuition waiver scholarship until the student reaches 23 years of age, or completes their degree, whichever occurs first, if the student continues to meet the scholarship criteria prescribed by this policy.

f. ABOR will periodically collect and report aggregate data concerning the scholarship recipients, including number of applicants, enrollment, attendance, graduation rates, academic performance, educational outcomes, withdrawal rates, demographic information, scholarship award amounts and total program costs.

6. Tuition waiver scholarships for the children and spouses of:
Arizona veterans of the United States Armed Forces,
Current and former Arizona peace officers,
Current and former Arizona firefighters, and
Active duty or inactive duty Arizona military service personnel who suffered a post-traumatic stress injury in the line of duty and died by suicide;

a. This tuition waiver scholarship program entitles eligible students to the lesser of:

(1) A tuition waiver scholarship for credit hours that are necessary to obtain a baccalaureate degree; or

(2) A tuition waiver scholarship for 144 credit hours toward a baccalaureate degree including any waived transfer credits from an Arizona community college or university.

b. In accordance with the state law, the Arizona Board of Regents authorizes each university to award these tuition waiver scholarships for sessions occurring within a calendar year to students who meet the following criteria:

(1) The student is the child or spouse of an individual who meets all of the following requirements:

(a) Was a veteran of the United States Armed Forces or was serving or previously served as a peace officer, a firefighter or a member of the United States Armed Forces at the time of the individual's death;

(i) It is not a requirement that the individual was employed as a peace officer or firefighter or was serving on active duty as a member of the United States Armed Forces at the time of the individual's death.

(b) Was a resident of Arizona at the time of the individual's death;

(c) Suffered a posttraumatic stress injury in the line of duty; and,

(d) Died by suicide.

(2) The student meets the university's regular admission requirements;

(3) The student maintains a record of satisfactory academic progress in accordance with each university's standards;

(4) Students eligible for the program due to their status as a child of a qualifying individual under subsection (6)(b)(1) above must be 30 years of age or younger on the first day of any semester to which the scholarship would apply;

(5) Students eligible for the program due to their status as a spouse of a qualifying individual under subsection (6)(b)(1)

above may not have remarried;

(6) The eligibility of the student must be verified by the appropriate entity:

(a) The eligibility of a student to participate as a child or spouse of a current or former Arizona peace officer must be verified by the Arizona Peace Officers Memorial Board;

(b) The eligibility of a student to participate as a child or spouse of a current or former Arizona firefighter must be verified by the Arizona Fallen Firefighter Memorial Committee;

(c) The eligibility of a student to participate as a child or spouse of an Arizona veteran or a member of the United States Armed Forces must be verified by the Federal or State Department of Veteran's Services.

c. The following shall be prima facie evidence that an individual suffered a posttraumatic stress injury in the line of duty:

(1) Documentation that a peace officer or a firefighter at any point received a disability pension under A.R.S. § 38-844 for a posttraumatic stress injury;

(2) Documentation that a peace officer or a firefighter at any point received benefits under A.R.S. Title 38, Chapter 5, Article 4.2;

(3) A discharge or other document from the United States Armed Forces showing the member or veteran of the United States Armed Forces was discharged because of, or suffered from a posttraumatic stress injury;

(4) Documentation from the United States Department of Veteran's Affairs showing that the member or veteran suffered from a posttraumatic stress injury.

d. Beginning July 1, 2023, a student who meets the requirements prescribed in A.R.S. § 15-1808, subsections b and c, is eligible to receive a tuition waiver scholarship regardless of the date on which the student's parent or spouse suffered the posttraumatic stress injury or died by suicide.

e. A student who is eligible to receive a tuition waiver scholarship pursuant to A.R.S. § 15-1808 subsections b and c and who did not receive a tuition waiver scholarship during either the 2023-2024 or 2024-2025 school year, or both, is eligible for reimbursement from the board in an amount equal to the tuition waiver scholarship award that the person was eligible to receive for each school year, minus any gifts, grants, scholarships or other tuition benefits that the person received during each school year.

C. Programs Required by the Board

1. Resident tuition waiver scholarships for members of the Community College All-Arizona Academic Team.

The universities are authorized to award resident tuition waiver scholarships to community college students selected as members of the All-Arizona Academic Team by Phi Theta Kappa, The National Honor Society for Community College. Tuition waiver scholarships are to be awarded to eligible students at the time of the annual All-Arizona Academic Team ceremony. The following conditions apply:

a. No more than two students per community college campus shall be initially awarded resident tuition waiver scholarships each year.

b. Tuition waiver scholarships are to be available upon transfer to any Arizona university and will cover 60 semester hours, for a maximum of 10 semesters excluding summer sessions.

c. To renew a tuition waiver scholarship each semester within the 60 semester hours, for a maximum of 10 semesters, a student must be in continuous attendance, enrolled in a minimum of 6 credits per semester, and maintain a 3.25 or higher grade point average.

d. A student who meets the renewal criteria outlined above may transport a tuition waiver scholarship from one university to another university, but no student may receive the tuition waiver scholarship for more than a total of 60 semester hours for a maximum of 10 semesters.

e. A student's eligibility to receive a tuition waiver scholarships shall be verified by the Arizona Community College Presidents' Council in the form of a list provided to the Arizona Board of Regents. The list shall provide student names, mailing addresses and phone numbers, community college attended, and other information as shall be required by the universities.

f. Tuition waiver scholarships must be claimed by the student enrolling at one of the universities within one year of the tuition waiver scholarship offer. Special consideration of unique situations may be exercised by each university. In particular, students should be encouraged to complete their Arizona General Education Curriculum (AGEC), or their Arizona Associate Degree, prior to transfer to the university.

2. Resident Tuition Waiver Scholarships for recipients of a Regents High Honors Endorsement

The universities are authorized to award partial resident tuition waiver scholarships to Arizona High School graduates who meet the board-approved qualifications for an endorsement of high honors. Awarding of these scholarships is subject to the following conditions:

a. The Arizona Board of Regents High Honors Endorsement Program is established by the board for the purpose of recognizing high school students for outstanding academic achievement, as demonstrated through performance in high school courses and test scores.

b. The board is responsible for implementing the program, for approving program criteria and for determining how the program shall be administered.

c. The Superintendent of Public Instruction is authorized to administer the program for the Arizona Board of Regents and to recommend to the universities students who qualify for the High Honors Endorsement. The recommendation shall be in the form of a list provided to the Arizona Board of Regents which includes student names, mailing addresses and phone numbers, high school attended, and other information as shall be required by the universities.

d. The universities may choose not to award a tuition waiver scholarship to any student who receives other scholarship assistance intended to cover the cost of tuition.

e. The universities may choose not to award a tuition waiver scholarship to any student who does not apply for financial aid, or whose application is incomplete, incorrect, not submitted in a timely fashion, or for any other reason fails to meet university guidelines for applying for financial aid.

f. The board-approved criteria for High Honors Endorsement shall be designed to minimize the likelihood that qualifying students will not

also qualify for tuition scholarships for academic merit as determined by the universities.

g. Any change, or anticipated change, in conditions affecting the number of students who might qualify for a High Honors Endorsement, conditions affecting the number of resident students who might be awarded tuition scholarships for academic merit using university-determined criteria, and any instance where a student qualified for high honors but not for a university determined tuition scholarship shall be reported to the board along with a recommendation for appropriate modifications in the criteria for awarding high honors.

h. A systematic review of the Regents High Honors Endorsement Program will be conducted every 5 years, with the results and any recommendations reported to the board.

i. Tuition waiver scholarships must be claimed by the student enrolling at one of the universities within one year of graduation from an Arizona High School. Special consideration of unique situations may be exercised by each university.

D. Financial Aid awarded to Student Athletes

1. To be eligible for and to retain athletically related financial aid, a student athlete must meet all applicable National Collegiate Athletic Association (NCAA) legislation, conference regulations, Arizona Board of Regents Financial Aid Policies, and university financial aid policies.

2. The universities will administer financial aid for student athletes in compliance with all applicable federal law and regulations, NCAA legislation, conference regulations, Arizona Board of Regents Financial Aid Policies, and university financial aid policies.

E. Arizona Promise Program

1. Universities shall award the Arizona Promise as established by A.R.S. §15-1701 to a student who:

a. Is admitted to an ABOR institution as a new first-time, full-time, on campus degree seeking student;

b. Is an Arizona resident per A.R.S. §15-1802;

c. Graduated from an Arizona high school;

d. Graduated with a minimum 2.5 cumulative high school grade point average on a 4.0 scale;

e. Timely completes and submits to the United States Department of Education the Free Application for Federal Student Aid (FAFSA); and,

f. Meets the eligibility criteria for the Federal Pell Grant. For the purposes of this program, Federal Pell Grant means any Federal Pell Grant award.

2. Student must enroll at university at the beginning of the Fall semester immediately after Arizona high school graduation, with only breaks or gaps in enrollment allowed by institutional policy.

3. Students who submit to the United States Department of Education the FAFSA form with the ABOR university appropriately listed no later than April 1 of the Spring preceding the academic year in which the student is applying will be given funding priority.

4. The Arizona Promise tuition and fee award will be up to the full cost of tuition, mandatory fees, and program fees. The award shall be applied after and reduced by the amount of the following received by the student:

a. federal aid;

b. state aid;

c. private aid and scholarships;

d. public scholarships or grants.

5. The universities will calculate the Arizona Promise award amount one time, and after that initial award, the universities will not recalculate the award amount unless it is to benefit the student or otherwise required by Title IV of the Higher Education Act of 1965.

6. Any institutional gift aid granted to qualifying students for tuition, mandatory fees, and program fees shall be identified as Arizona Promise. An Arizona Promise award, however, does not prevent a university from awarding a student other institutional need-based gift aid for other costs of attendance.

7. Students are eligible for the Arizona Promise program for eight academic semesters or their equivalent. Semesters must be continuous Fall and Spring with breaks allowed by institutional policy.

8. To renew the Arizona Promise Program award a student must:

a. Complete and submit to the United States Department of Education

the FAFSA form no later than April 1;

b. Maintain at least full-time status as determined by federal student financial aid guidelines;

c. Maintain satisfactory academic progress as required for eligibility for federal student financial aid; and

d. Continue to meet the eligibility criteria for the Federal Pell Grant, as defined in this policy.

9. THE BOARD SHALL ADMINISTER THE ARIZONA COMMUNITY COLLEGES PROMISE PROGRAM FUND PURSUANT TO A.R.S. §15-1705.

Policy History

12/6/2012	Approved by the Board on second reading.
9/26/2013	Policy revision approved by the Board on second reading.
11/21/2013	Policy revision approved by the Board on second reading.
11/20/2015	Policy revision approved by the Board on second reading.
11/18/2016	Policy revision approved by the Board on second reading.
4/7/2017	Policy revision approved by the Board on second reading.
6/14/2018	Policy revision approved by the Board on second reading.
11/21/2019	Policy revision approved by the Board on second reading.
2/10/2022	Policy revision approved by the Board on second reading.
11/17/2022	Policy revision approved by the Board on second reading.
12/13/2022	Policy revision approved by the Board on first reading with immediate implementation.
2/9/2023	Policy revision approved by the Board on second reading.
2/13/2025	Policy revision approved by the Board on second reading.

Related Information

ARIZONA BOARD OF REGENTS POLICY MANUAL
4-406 Law Enforcement Officers Spouse and Dependents Tuition Scholarship
Revision Dates 2/13/2025, 2/22/2024 (adopted)

A. The Executive Director of the Board OR DESIGNEE shall administer the Spouses and Dependents of Law Enforcement Officers Tuition Scholarship FUND ("FUND"). ~~("Scholarship")~~ PURSUANT TO A.R.S. § 15-1809.02. ~~beginning in the Fall of 2024 through June 30, 2025 from the Spouses and Dependents of Law Enforcement Officers Tuition Scholarship Fund ("Fund"). Any unexpected and unencumbered monies remaining in the fund after June 30, 2025 shall be transferred to the State General Fund.~~ MONIES IN THE FUND SHALL BE USED TO AWARD TUITION SCHOLARSHIPS ("SCHOLARSHIPS") AS SET FORTH BELOW:

1. This Scholarship is a first come, first served scholarship subject to available funding. If there are insufficient monies in the ~~Scholarship~~ Fund, the Executive Director of the Board OR DESIGNEE may not award a ~~tuition~~ Sscholarship to an Eligible Student.

2. This Scholarship is limited to A TOTAL OF not more than four academic years or eight semesters PER STUDENT ~~in any one program leading towards a career technical education district program certificate or license, a private vocational program as defined in A.R.S. § 32-3001, an associate degree, or a baccalaureate degree~~.

3. ~~This~~ ScholarshipS may be used only FOR A CAREER TECHNICAL EDUCATION DISTRICT PROGRAM CERTIFICATE OR LICENSE, A PRIVATE VOCATIONAL PROGRAM AS DEFINED IN SECTION 32-3001, AN ASSOCIATE DEGREE OR A BACCALAUREATE DEGREE.

~~3~~4. The Executive Director of the Board OR DESIGNEE shall verify student eligibility before awarding a Scholarship. A decision of the Executive Director of the Board as to the administration of the Scholarship is final.

B. Student Eligibility: To be eligible for A ~~the~~ ~~s~~Scholarship, a student must:

1. Be either:

   a. The current spouse of a law enforcement officer; or

b. A dependent of a law enforcement officer who is under twenty-seven years old;

2. BE A RESIDENT OF ARIZONA BOTH WHEN THE STUDENT APPLIES FOR A SCHOLARSHIP AND WHEN THE STUDENT RECEIVES A SCHOLARSHIP PURSUANT TO THIS SECTION.

3. Enroll in a Participating Institution ~~in a program that will award a career technical education district program certificate or license, a private vocational program as defined in A.R.S. § 32-3001, an associate degree, or a baccalaureate degree~~; and

4. Annually complete an application for A ~~the~~ Scholarship and provide sufficient documentation as requested by the Executive Director of the Board or designee.

5. FOR AN INDIVIDUAL WHO IS ENROLLED IN A UNIVERSITY UNDER THE JURISDICTION OF THE ARIZONA BOARD OF REGENTS, IS PHYSICALLY PRESENT IN THIS STATE DURING EACH SEMESTER FOR WHICH THE INDIVIDUAL RECEIVES A TUITION SCHOLARSHIP PURSUANT TO THIS SECTION.

C. Amount of Scholarship

1. For Eligible Students attending a university, community college or career technical education district, THE~~is~~ Scholarship amount is equal to the amount of tuition and mandatory fees charged by that Participating Institution, minus other public and private gifts and aid awarded to that Eligible Student.

2. For Eligible Students attending a private postsecondary educational institution, THE~~is~~ Scholarship may not exceed the remainder of the average resident tuition and mandatory fees charged by universities under the jurisdiction of the Board, minus other public and private gifts and aid awarded to that Eligible Student.

3. This Scholarship award amount will be calculated one time, and after that initial calculation, the Scholarship amount will not be recalculated, unless it is to benefit the student or otherwise required by Title IV of the Higher Education Act of 1965.

D. Scholarship Application Requirements: An Eligible Student must apply annually and provide sufficient documentation of the following to the Executive Director of the Board or designee:

1. Enrollment and/or admission to a Participating Institution;

2. Proof of completed FAFSA application;

3. Copy of Law Enforcement Officer's Commission Card as applicable;

4. Current Employment Verification Letter from Employer; and

5. Marriage Certificate (Spouse) or Birth Certificate or applicable court order (Dependent).

E. Participating Institutions must comply with the following:

1. Sign an agreement with the Board; and

2. Provide data and records as requested by the Executive Director of the Board or designee.

F. Definitions

1. "Fees" are "Mandatory Fees" as defined in Board Policy 4-101(H).

2. "Law Enforcement Officer" is an individual who IS A RESIDENT OF ARIZONA AND WHO is currently employed as either:

   a. A peace officer as defined in A.R.S. § 15-1808(E)(4); or

   b. A correctional officer as defined in A.R.S. § 15-1808(E)(1).

3. A "Participating Institution" is one of the following institutions who have executed an agreement with the Board to administer this scholarship according to applicable law and policy:

   a. A University under the Board's jurisdiction;

   b. A community college as defined in A.R.S. § 15-1401;

   c. A career technical education program that is offered to adults in Arizona or an associate degree program offered by a career technical education district pursuant to A.R.S. § 15-398; or

   d. A private postsecondary educational institution in Arizona that is licensed pursuant to title 32, chapter 30, article 2 of the Arizona Revised Statutes.

Policy History

2/22/2024 Approved by the Board on second reading.

2/13/2025 Policy revision approved by the Board on second reading.

Related Information

ARIZONA BOARD OF REGENTS POLICY MANUAL
4-405 Spouses of Military Veterans' Tuition Scholarship
Revision Dates 2/13/2025, 11/17/2022 (adopted; effective 9/29/2022)

A. Scholarship

1. Subject to available funds, a scholarship awardee receives a financial aid award equal to the remaining amount of tuition and mandatory fees charged by the university or community college in which the awardee is enrolled as calculated below.

2. An awardee who is eligible for benefits under 38 United States Code Chapter 33 may elect to accept those benefits instead of this scholarship.

3. The award is limited to a maximum of eight semesters in support of an awardee's progress towards a certificate or an associate or bachelor's degree. The maximum number of semesters for the award does not increase if the awardee transfers institutions.

4. Tuition scholarship funding is a last dollar scholarship that cover the cost of tuition and fees after all other gift aid is received.

    a. The award amount is reduced by the amount of any federal aid, scholarships or public grants and any other financial gifts, grants or aid received by that person.

    b. The universities and community colleges will calculate the scholarship award amount one time, and after that initial award, the granting institution will not recalculate the award amount unless it is to benefit the student or otherwise required by Title IV of the Higher Education Act of 1965 or 38 United States Code Chapters 31-36.

B. Initial Scholarship Eligibility: Subject to available funds, to qualify for the award, an individual must meet through demonstration of sufficient documentation all of the following criteria:

1. Be enrolled in a university under the jurisdiction of the Arizona Board of Regents or in a community college as defined in Section 15-1401;

2. Be the spouse of an honorably discharged veteran of the Armed Forces of

the United States as verified by:

a. Documentation of honorable discharge or general discharge under honorable conditions of the individual's spouse or by the Arizona Department of Veteran's Services (ADVS); and

b. Documentation demonstrating a current valid spousal relationship with the veteran.

3. Be classified as an in-state student under A.R.S. § 15-1802 at the time of applying for the tuition scholarship;

4. Timely complete and submit the Free Application for Federal Student Aid for the applicable academic year;

5. Be enrolled in a certificate program, an associate degree program or a bachelor's degree program; and

6. Complete and submit a Family Educational Rights and Privacy Act of 1974 (FERPA) release form for each university or community college in which the person is enrolled to authorize the release of personally identifiable information required to determine continued tuition scholarship eligibility.

C. Scholarship Renewal Criteria: To qualify for the award renewal an individual must meet all the following criteria:

1. Remain classified as an in-state student;

2. Meet the standards of satisfactory academic progress for the university or community college in which they are enrolled; and

3. Complete and submit the Free Application for Federal Student Aid each year by April 1st of the preceding academic year.

D. Distribution of Spouses of Military Veterans' Tuition Scholarship Fund:

1. The board executive director shall allocate the scholarship appropriation to eligible institutions.

a. Each year, board staff shall notify each eligible institution of its proposed scholarship allocation for the upcoming fiscal year.

b. Each participating institution shall verify its actual scholarship distribution and provide any information as requested by the board office.

c. After timely verification and documentation of any requested

information by the participating institutions, the board will reimburse each institution up to its scholarship allocation.

d. The executive director may reallocate any unused scholarship funds among the eligible institutions.

2. Any scholarship allocation or reimbursement is subject to legislative appropriations and any other sources of revenue.

3. ~~If sufficient monies are available, the Arizona Board of Regents shall distribute surplus monies that were appropriated to the Spouses of Military Veterans' Tuition Scholarship Fund to each university under the jurisdiction of the Arizona Board of Regents for the costs associated with the tuition waiver scholarships provided pursuant to A.R.S. § 15-1808(B).~~ON OR BEFORE JUNE 30 OF EACH YEAR, IF THERE ARE ANY UNEXPENDED AND UNENCUMBERED MONIES REMAINING IN THE FUND AFTER SCHOLARSHIPS ARE AWARDED PURSUANT TO THIS SECTION AND SURPLUS MONIES ARE DISTRIBUTED PURSUANT TO SECTION 15-1808, THE ARIZONA BOARD OF REGENTS SHALL DEPOSIT THE REMAINING MONIES AS REQUIRED BY A.R.S. § 15-1809(E).

E. Data Collection and Reporting

1. To receive a scholarship reimbursement, an eligible institution shall provide any requested information to the board at a date specified by the executive director or designee.

2. A failure to timely provide information as requested by the board office may result in a forfeit of scholarship reimbursement to the institution for that fiscal year.

Policy History

9/29/2022 Approved by the Board on first reading with immediate implementation.

11/17/2022 Approved by the Board on second reading.

2/13/2025 Policy revision approved by the Board on second reading.

Related Information

ARIZONA BOARD OF REGENTS
POLICY MANUAL

2-325 Arizona Teachers Academy

Revision Dates
2/11/2022, 6/11/2021, 4/16/2021, 2/12/2021, 11/22/2019 (adopted)

A. As provided in A.R.S. § 15-1655, and as further defined in this policy, eligible postsecondary institutions shall provide scholarships to eligible students enrolled in the Arizona Teachers Academy, who commit to teaching in Arizona public schools.

B. Postsecondary Institution Eligibility

1. Eligible postsecondary institutions are defined by A.R.S. § 15-1655.

2. Arizona community colleges and Indian tribes that qualify as eligible postsecondary institutions under A.R.S. § 15-1655 shall execute an agreement with, and return the agreement to, the board prior to the dissemination of any Teachers Academy funds.

3. Eligible postsecondary institutions may develop new or existing teacher preparation programs that are student-focused and that employ proven, research-based models of best practices.

a. Programs offered as part of the Teachers Academy may include the accelerated models provided by A.R.S. § 15-1655(B).

b. While each Teacher Academy eligible program may not exclude sophomore and freshman students from applying for the program, each program may give priority to senior and junior students for any available scholarships.

C. Student Eligibility

1. To be eligible for an Arizona Teachers Academy tuition and fees scholarship, students must meet the following criteria:

a. Be admitted and enrolled in the Arizona Teachers Academy as an undergraduate or graduate university student or as a post-baccalaureate student at a community college or university.

b. File a free application for federal student aid (FAFSA) each year enrolled in the Arizona Teachers Academy and accept all federal, state, institutional, and private grants and scholarships awarded prior to the tuition waiver scholarship being applied to outstanding tuition and fees associated with the Arizona Teachers Academy program of study.

2. To be eligible for a tuition scholarship to earn dual enrollment eligibility, a teacher must:

a. Be currently teaching a dual enrollment course; and

b. Need additional coursework to satisfy the accreditation requirements for the eligible postsecondary institution.

3. Prior to receiving any Teachers Academy funding for any covered purpose under A.R.S. § 15-1655, a student must sign a student agreement that requires the student to meet the eligibility requirements for the Arizona Teachers Academy and specifies the terms of continuing eligibility, the post-graduation or post-certification service obligations and the student's repayment obligations due to failure to meet the eligibility requirements or service obligations.

D. Tuition and Fee Scholarships

1. Tuition and fee scholarships are last dollar scholarships that cover the cost of tuition and fees after all other gift aid is received.

2. Scholarships provided through the Arizona Teachers Academy may include:

a. Up to the actual cost of tuition and fees for a maximum of two academic years or four semesters for graduate university students;

b. Up to the actual cost of tuition aNd fees for a maximum of four academic years or eight semesters for undergraduate university students;

c. Up to the actual cost of tuition and fees for a maximum of two academic years or four semesters for community college students for tuition and fees associated with the student's program of study; or

d. Up to the actual cost of obtaining the requisite course work to satisfy

the requirements for teaching a dual enrollment course as adopted by a higher learning commission that accredits degree-granting postsecondary educational institutions in the north central region, including this state.

e. For the purposes of this section, summer terms are not considered part of the academic year nor count as one of the scholarship semesters.

E. Support for National Board Certification

1. To be eligible for a national board certification scholarship, a teacher must be currently employed in an Arizona public school and seeking National Board Certification through an approved provider as identified by the executive director.

2. The executive director shall identify postsecondary institutions that provide support for National Board Certification.

3. Each postsecondary institution that enters into an agreement with the board for National Board Certification funding shall provide one-time scholarship to teachers currently employed in an Arizona public school seeking National Board Certification to support the fees associated with initial certification.

4. The amount of funding available for National Board Certification shall be approved by the board.

F. Coordinating Induction Services

1. Eligible postsecondary institutions shall provide induction services to academy graduates during the first year of teaching immediately following completion of the Teachers Academy.

a. Induction services are only provided in the first year if the graduate is in the process of meeting his or her service obligations within the required timeframe.

b. Institutions are not required to provide induction services to students who have not met the service obligation.

2. Funding for induction will be based on the number of academy graduates that graduated in the prior fiscal year.

3. Institutions may be required to report to the board regarding the induction services provided.

G. Distributing Monies in the Arizona Teachers Academy Fund to Eligible Postsecondary Institutions

1. ~~Each year by July 1,~~ FOR EACH FISCAL YEAR, board staff shall notify eligible postsecondary institutions of the amount of funds allocated to the institution for the upcoming fiscal year.

   a. Scholarship funding allocations shall be based on prior year enrollment in the Arizona Teachers Academy at the participating institutions and subject to legislative appropriations and any other sources of revenue to the Arizona Teachers Academy fund.

   b. Tuition scholarship funding is last dollar scholarships that cover the cost of tuition and fees after all other gift aid is received.

2. Eligible postsecondary institutions shall provide to the executive director or the executive director's designee, THE actual amount of scholarships provided in Academy programs, and any other documents and related data as requested.

3. The executive director shall make distributions based on the reported actual amount of scholarships provided appropriately prorated for the applicable academic period.

   a. The executive director may reallocate unused scholarship funds among the eligible postsecondary institutions.

   b. The executive director shall reimburse eligible postsecondary institutions for inductions services offered in the first year after completion of the Arizona Teachers Academy program.

   c. The executive director shall distribute monies for National Board Certification to institutions that have entered into an agreement with the board to offer scholarships to Arizona teachers seeking National Board Certification.

4. The executive director may prorate any distributed funding based on the amount of dollars available.

5. The executive director may establish a process for and distribute funds to cover the costs of obtaining a teaching certificate, including the cost of exams required for certification. If a student does not follow the proscribed payment process, they may not be eligible for reimbursement.

H. Compliance with Arizona Teachers Academy Program and Service Obligations and Conditions of Repayment

1. Prior to receipt of funds, a student shall enter into a written agreement as discussed in subsection C (3) of this policy, which shall set forth the terms of repayment of funds in the event the recipient does not satisfy the teaching or program.
    a. FOR EACH ACADEMIC YEAR THAT THE STUDENT SUCCESSFULLY COMPLETES AND FOR WHICH THE STUDENT RECEIVES AN ARIZONA TEACHERS ACADEMY SCHOLARSHIP, THE STUDENT MUST AGREE TO TEACH FOR ONE FULL SCHOOL YEAR IN A PUBLIC SCHOOL IN THIS STATE.
        1. IF THE STUDENT DOES NOT FULFILL THE STUDENT'S OBLIGATION TO TEACH IN A PUBLIC SCHOOL, THE STUDENT MUST REIMBURSE THE ARIZONA BOARD OF REGENTS FOR THE PROPORTIONAL AMOUNT OF THE SCHOLARSHIP FOR TUITION AND FEES THAT THE STUDENT RECEIVED THAT CORRESPONDS TO THE NUMBER OF SCHOOL YEARS THE STUDENT AGREED TO TEACH BUT DID NOT TEACH IN A PUBLIC SCHOOL IN THIS STATE.
    b. FOR STUDENTS WHO ARE TEACHING AND RECEIVING THE SCHOLARSHIP CONCURRENTLY, THE COMMITMENT PERIOD BEGINS AFTER GRADUATION FROM THE ARIZONA TEACHERS ACADEMY.
    c. FOR TEACHERS WHO ARE SEEKING A NATIONAL BOARD CERTIFICATION, THE TEACHING COMMITMENT IS ONE ADDITIONAL YEAR AFTER COMPLETING THE REQUIREMENTS OF THE NATIONAL BOARD CERTIFICATION PROGRAM OBLIGATIONS.

2. If a student enrolls in a summer term, that term may not be included in the calculation of the student’s postgraduation public service commitment.

3. Students who do not successfully complete the academic year in good academic standing or who cease to be enrolled in the Arizona Teachers Academy shall reimburse the board for the total amount of funding received for that year.

4. The executive director or the executive director’s designee shall monitor Arizona Teachers Academy graduates’ progress toward meeting their teaching obligations.

5. Recipients will have a grace period of 12 months after graduation, or completion of an approved course of study leading to a teaching credential, to sign a teaching contract in an Arizona public school.

6. Recipients will have a grace period of 12 months after graduation, or completion of an approved course of study leading to a teaching credential, to sign a teaching contract in an Arizona public school. If the recipient has not secured employment in an Arizona public school, the repayment shall begin at the end of the 12-month grace period.

7. Students who do not fulfill their obligation to teach in an Arizona public school shall reimburse the board for the proportional amount of the scholarship for tuition and fees that the student received that corresponds to the number of school years the student agreed to teach but did not teach.

8. The board staff or designee shall provide to each person in repayment an amortization schedule. There shall be no interest charged and the repayment duration shall be no more than 10 years.

I. Deferment of the Service Obligation

1. The executive director or the executive director's designee, upon written request of a recipient, may grant deferment of time for satisfying the teaching commitment if the recipient:

   a. Is temporarily unable to work and/or disabled for a period not to exceed three years, as established by written documentation from a health care provider, or

   b. Is called to active duty in the Armed Forces of the United States, or

   c. Is enrolled, registered and progressing toward timely degree completion in a graduate degree program that would delay required full-time teaching requirement to one year following completion of the graduate degree program or two years post-bachelor's degree, whichever is less, or

   d. Is unable to fulfill their teaching commitment due to extraordinary circumstances beyond their control.

2. In each case, the recipient must provide complete and verifiable documentation to support the request.

J. Cancellation of Service Obligation

1. The executive director or the executive director's designee, may cancel the service obligation made under this program if they determine that:

   a. The recipient is totally and permanently disabled as established by written documentation by a health care provider;

   b. The recipient has died. The executive director or the executive director's designee shall require a copy of the death certificate or other appropriate confirmation of the recipient's death; or

   c. The recipient or their spouse was relocated out of state by the Armed Forces of the United States.

K. Data Collection and Reporting

1. Each eligible postsecondary institution shall provide to the board by July 15 of each year, or as specified by the executive director or the executive director's designee, information as requested by board staff to meet the board's reporting requirements under A.R.S. § 15-1655(H).

2. Each eligible postsecondary institution shall provide to the board by January 15 of each year, or as specified by the executive director or by the executive director's designee, information as requested by board staff to meet the board's reporting requirements under A.R.S. § 15-1655(G).

L. DEFINITIONS

1. PUBLIC SCHOOL: FOR THE PURPOSES OF FULFILLING THE SERVICE OBLIGATION, "PUBLIC SCHOOL" REFERS TO ANY PUBLIC INSTITUTION AS DEFINED IN A.R.S. § 15-101(22), AND EXPLICITLY INCLUDES, BUT IS NOT LIMITED TO:
   a. CHARTER SCHOOLS AS DEFINED IN A.R.S. § 15-101(3); AND
   b. SCHOOLS THAT SERVE PRIMARILY PUBLIC SCHOOL STUDENTS WITH DISABILITIES AS DEFINED IN A.R.S. § 15-1655.

Policy History

11/22/2019 Approved by the Board on second reading.

2/12/2021 Policy revision approved by the Board on first reading with immediate implementation.

4/16/2021 Policy revision approved by the Board on second reading. Another revision was also approved by the Board on first reading with immediate implementation.

6/11/2021 Policy revision approved by the Board on second reading.

2/11/2022 Policy revision approved by the Board on second reading.

Related Information

ITEM 7.7: Request to Approve on Second Reading Proposed Revisions to ABOR Policy 1-206 Strategic Planning

Requested Action: The board office asks the board to approve on second reading proposed revisions to ABOR Policy 1-206 Strategic Planning, as described in this executive summary and supporting document/s.

Discussion

- The board approved the revocation of the Strategic Initiatives and Planning Committee (SIP) at is September 2025 board meeting.
- As part of that revocation, the board reviewed the proposed revision to ABOR Policy 1-206 Strategic Planning on first reading.
- Proposed revisions will update board policy to remove references to the SIP committee.

Supporting Document/s

Proposed Revisions to ABOR Policy 1-206

Statutory/Policy Requirements

A.R.S. §15-1626(A) General Administrative powers and duties of board.

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ARIZONA BOARD OF REGENTS
POLICY MANUAL

1-206 Strategic Planning

Revision Dates

6/15/2023 (effective 7/1/2023), 6/9/2022 (renumbered), 4/6/2018 (effective 7/1/2018), 6/17/2005, 9/26/2001, 1/15/1999, 3/12/1983 (adopted; effective 5/1/1983)

A. Each year the universities shall review and, if necessary, update their mission statements and strategic plans.

B. The board shall review these updated mission statements and strategic plans to ensure that they are consistent with systemwide goals and reflect current priorities.

C. The universities shall, in consultation with the board office, develop consistent minimum reporting requirements for university strategic plans. Strategic plans shall identify major capital and operating implications of key strategies, e.g., comprehensive plans, sub-area plans. The ~~Strategic Initiatives and Planning~~ UNIVERSITY GOVERNANCE AND OPERATIONS Committee shall review the portions of university strategic plans relating to the implied or proposed Major Capital Projects and operational impacts to the university's Master Plan and Annual Capital Plan.

D. Major Capital Projects must contribute to specific strategic objectives or satisfy other important criteria such as meeting life safety requirements or correcting existing deficiencies.

E. University procedures for setting preliminary project priorities shall include processes to update mission statements and strategic plans, identify project proposals, and produce a preliminary project ranking.

Policy History

3/12/1983	The Policy Manual was adopted by the Board to be effective 5/1/1983.
1/15/1999	Policy revision approved by the Board on second reading.
9/26/2001	Policy revision approved by the Board on second reading.
6/17/2005	Policy revision approved by the Board on second reading.
4/6/2018	Policy revision approved by the Board on second reading to be effective 7/1/2018.

6/9/2022 Policy revision, including renumbering, approved by the Board on second reading.

6/15/2023 Policy revision approved by the Board on second reading to be effective 7/1/2023.

Related Information

This policy was originally numbered as 7-104 from its adoption in 1983 until 6/9/2022.

ITEM 7.8: Request to Approve a No-cost Extension for the FY 2023 Regents' Research Grant: 3D Sound Localization of Bark Beetles with Acoustic Holography

Requested Action: The board office asks the board to approve a no-cost extension for the TRIF Regents' Research Grant: 3D Sound Localization of Bark Beetles with Acoustic Holography: A Regents' Research Grant to NAU in response to the Arizona Department of Forestry and Fire's Opportunity Statement, as described in this executive summary.

Background/History of Previous Board Action
Arizona law established TRIF from Proposition 301 state sales tax revenue and gives ABOR the authority to administer the fund on behalf of Arizona State University (ASU), Northern Arizona University (NAU), and the University of Arizona (U of A). The board manages and administers the TRIF revenues through awarding and allocating revenues.

Discussion
Purpose
The purpose of Regents' Research Grants is to address and deliver solutions to critical issues facing the State of Arizona and its citizens. The Regents may award TRIF funding to Arizona public universities in the form of Regents' Grants to support:

- Academic research in areas of greatest need and interest to the State of Arizona and/or its citizens.
- Programs and initiatives aimed at having a large economic impact directly tied to the State of Arizona.

The Regents' Research Grants are designed to address and deliver solutions through academic research to critical issues facing the State of Arizona and its citizens by:

- Accelerating and delivering solutions to critical unmet needs for the State of Arizona;
- Bringing together and leverage synergistic skill sets resident at multiple Arizona public universities; and
- Establishing centers of excellence that will generate sustainable future research funding.

Proposals evaluations were based on:

- Potential Near-term Benefit to Arizona. The proposal's potential to impact Arizona citizens' most pressing unmet needs. Arizona agency feedback and scoring of the proposals are a prime factor in evaluating the potential to impact Arizona.
- Strength of Research Team and Creativity of Proposal.
- Sustainable Funding. Potential to attract future sustainable external funding.
- Budget. Is the budget requested appropriate for the work to be performed?
- Timeline. Is the research timeline appropriate for the tasks proposed?

Contact Information:
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Discussion
In FY 2023, the board approved 3 years of funding totaling $548,236 for the Regents' Research Grant: 3D Sound Localization of Bark Beetles with Acoustic Holography: A Research Proposal from NAU in response to the Arizona Department of Forestry and Fire's Opportunity Statement addressing critical unmet needs.

Accomplishments of the project to date:
A brief list of what was accomplished to date:

- Prototype device & algorithms. Built and iterated a modular acoustic microphone detection array and a near-field acoustic holography (NAH) processing pipeline for accurate 3D localization on tree surfaces—positioning us well for IP protection and field deployment.
- Peer-reviewed publication. Assessment of Ponderosa Pine Bark Acoustic Properties (RJ Malahowski, EF Mendoza, CJ Mann; Open Journal of Acoustics 13(2), 17–35). Dr. Malahowski (Ph.D. candidate supported by this grant) is the lead author; Emily Mendoza (undergraduate) is the second author.
- Second manuscript. An undergraduate-led paper (lead: William Lippincott) detailing NAH data-processing advances is in preparation for submission.
- Student training & workforce development. Supported two Ph.D. students and several undergraduates; one Ph.D. candidate is scheduled to defend in Fall 2026 on this project.
- This extension will sustain continuity and provide undergraduates with strong research and translational experience.

Reason for the no-cost extension:

- Finalize device performance. Complete integration, calibration, ruggedization, and reliability testing across species/conditions.
- Algorithmic refinement to reduce false positives. Expand datasets; implement and benchmark neural network–based classifiers; quantify performance via precision/recall.
- Publications and IP. Submit the undergraduate-led NAH processing article and a
- device/performance manuscript; complete IP assessment and (if warranted) file an invention disclosure/provisional for the modular array.
- Seasonal & operational windows. Additional time captures multiple seasonal data-collection windows for robust validation.
- Student continuity. Maintains support and momentum for graduate/undergraduate researchers through dissemination.

Estimated amount of funds that will not be expended by the official end of the Regents Grant:
Approximately $150,000 out of an initial 3-grant of $548,236.

Length of requested extension:
14 months – March 31, 2027

Short description of the work that will be done during the no-cost extension:

- Finalize & validate the device: Complete hardware integration, calibration, enclosure/packaging, and environmental/ruggedness tests; verify repeatability and reliability on representative species/conditions.
- Data collection & curation: Acquire and label additional datasets spanning infestation stages and tree health states to improve generalization.
- Neural network–based classification: Train and evaluate models to reduce false positives; benchmark against current NAH pipeline; provide validation packets (confusion matrices, ROC/AUC) and recommended operational thresholds.
- Field testing & metrics: Execute in-situ trials quantifying localization accuracy, specificity vs. other wood-boring insects, and end-to-end detection time; publish SOPs and user guidance.
- Manuscripts & IP: Submit the undergraduate-led NAH processing paper and a
- device/performance paper; complete IP due diligence and—if appropriate—file a provisional patent on the array's modular architecture.
- Outreach & dissemination: Demonstrations with Arizona Department of Forestry and Fire Management; support anticipated TV/radio features; prepare translational materials for adoption.
- Expansion and commercialization pathways (dual-use opportunities, DoD & SBIR/STTR)
- Our modular NAH array is readily extensible beyond bark beetles to adjacent markets and dual-use applications:
- Forestry & agriculture: Early detection of other wood-boring pests and tree-health monitoring for municipal and commercial forestry/orchards. (The original TRIF proposal documents NAH's broad applicability, including plant disease detection, supporting this extension.)
- Industrial & energy: Gas and fluid leak localization, rotating-machinery diagnostics, and noise-source mapping in factories and energy facilities. (Use of NAH for gas leakage and automotive noise localization is cited in the proposal background.)
- Aerospace & transportation: Cabin/fuselage noise mapping, composite-panel inspection/NDE, and maintenance troubleshooting. (Aircraft interior/cabin NAH examples are noted in the proposal.)
- Defense & homeland security (DoD): Expeditionary leak localization kits for aircraft, vehicles, and shipboard/pressurized systems.
- Quiet, non-contact diagnostics for composite structures (e.g., UAV airframes, radomes).
- Supply-chain protection (screening wood packaging/crates for wood-boring pests at depots/ports).
- UAS-tethered or man-portable variants for rapid field assessment.

- Commercialization path (SBIR/STTR): Phase I (9–12 months): Targeted prototypes for (a) forestry detection and (b) industrial/DoD leak localization; quantify accuracy, false-positive rates, and ruggedness.
- Phase II (24 months): Integrated field-ready kits with software UX, analytics, and
- documentation; multi-site pilots with forestry agencies, and other end-users.
- IP & venture plan: Invention disclosure Q4 2025, provisional patent Q1 2026, PCT evaluation during the extension; explore STTR with NAU for a spinoff/licensing strategy; customer discovery with USFS/USDA, AFWERX/Navy/Army SBIR, and industrial partners.

These directions are consistent with the capabilities and precedents for NAH cited in the original TRIF proposal (e.g., gas leakage, automotive/rail/aircraft noise mapping, plant applications) and leverage our modular design for rapid re-configuration to new form factors.

Statutory/Policy Requirements
A.R.S. §15-1626 General Administrative Powers and Duties of Board
ABOR Policy 3-412 Administration of Technology and Research Initiative Fund.

ITEM 7.9: Request to Approve a No-cost Extension for the FY 2023 Regents' Research Grant: Interventions to Reduce Firefighter Cancer and Cardiovascular Risks.

Requested Action: The board office asks the board to approve a no-cost extension for the TRIF Regents' Research Grant: Interventions to Reduce Firefighter Cancer and Cardiovascular Risks: A joint Regents' Research Grant to the University of Arizona and Arizona State University in response to the Arizona Fire Chiefs Association's Opportunity Statement addressing critical unmet firefighter needs, as described in this executive summary.

Background/History of Previous Board Action
Arizona law established TRIF from Proposition 301 state sales tax revenue and gives ABOR the authority to administer the fund on behalf of Arizona State University (ASU), Northern Arizona University (NAU), and the University of Arizona (U of A). The board manages and administers the TRIF revenues through awarding and allocating revenues.

Discussion
Purpose
The purpose of Regents' Research Grants is to address and deliver solutions to critical issues facing the State of Arizona and its citizens. The Regents may award TRIF funding to Arizona public universities in the form of Regents' Grants to support:

- Academic research in areas of greatest need and interest to the State of Arizona and/or its citizens.
- Programs and initiatives aimed at having a large economic impact directly tied to the State of Arizona.

The Regents' Research Grants are designed to address and deliver solutions through academic research to critical issues facing the State of Arizona and its citizens by:

- Accelerating and delivering solutions to critical unmet needs for the State of Arizona;
- Bringing together and leverage synergistic skill sets resident at multiple Arizona public universities; and
- Establishing centers of excellence that will generate sustainable future research funding.

Proposals evaluations were based on:

- Potential Near-term Benefit to Arizona. The proposal's potential to impact Arizona citizens' most pressing unmet needs. Arizona agency feedback and scoring of the proposals are a prime factor in evaluating the potential to impact Arizona.
- Strength of Research Team and Creativity of Proposal.
- Sustainable Funding. Potential to attract future sustainable external funding.

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- Budget. Is the budget requested appropriate for the work to be performed?
- Timeline. Is the research timeline appropriate for the tasks proposed?

Discussion
In FY2023, the board approved 3 years of funding totaling $4,000,000 (including supplement funding) for the Regents' Research Grant: Interventions to Reduce Firefighter Cancer and Cardiovascular Risks: A Collaborative Research Proposal, including U of A and ASU, in response to the Arizona Fire Chiefs Association Opportunity Statement addressing critical unmet firefighter needs.

Accomplishments of the project to date:
The ABOR Regents' Grant to U of A and ASU has been used to forge a strong working relationship between Arizona firefighters. By the end of this calendar year, the third year of the three-year project, we will have completed over 78% of our project deliverables. Screened 1,932 firefighters into the Firefighter Collaborative Research Project (FCRP).

- Tested and reported personal serum PFAS concentrations from biological collections.
- Published the FCRP protocol manuscript, which outlines the design of the clinical trials
- Identified predictors of enrollment PFAS concentrations and shared the results with the study participants and their fire departments
    - Presented preliminary findings to the Arizona Board of Regents on June 12, 2025
    - Presented preliminary findings at the International Society of Exposure Science and the International Society for Environmental Epidemiology in August 2025
    - Drafted manuscript outlining predictors of PFAS to be submitted for publication in September 2025
    - Fire departments are already using this information to help reduce PFAS exposures

- Intermittent Fasting and Zone 2 Clinical Trials
    - Enrolled 310 firefighters into the intermittent fasting control trial
    - Enrolled 127 firefighters into the zone 2 control trial
    - Completed the clinical trials study activities
    - Tested and reported epigenetic age on all participants who completed the trials
    - Preliminary results reported to participants in the study
    - Presented preliminary findings at the International Society of Exposure Science and the International Society for Environmental Epidemiology

- Blood/Plasma Donation Clinical Trial
    - Enrolled 478 firefighters into the three study arms (blood donation, plasma donation, or no treatment control group)
    - Completed study activity with fire departments in Arizona, Idaho, Washington, Oregon, and San Diego
    - End of study serum PFAS levels have been provided to participants who completed study activities

Reason for the no-cost extension:
Since we had to expand out of state for additional firefighters to meet the target number eligible and enrolled into the blood/plasma donation trial, participant study activities for the 1-year-long trial won't be completed until the 3rd week of December 2025. Additional time will be required to finish testing the remaining samples collected from firefighters during the last quarter of 2025, including serum PFAS and epigenetic age, and report the individual results to firefighters. Following analysis of all biological samples, full-data analyses and write-up of all results will be completed.

Estimated amount of funds that will not be expended by the official end of the Regents Grant:
Approximately $880,000 out of an initial 3-grant of $4,000,000.

Length of requested extension:
12 months

Short description of the work that will be done during the no-cost extension:
- PFAS and epigenetic age testing on samples from firefighters completing the blood/plasma donation clinical trial in the Boston Fire Department, Los Angeles City Fire Department, Orange County Fire Authority, Oxnard Fire Department, and Fire Departments in the Carlsbad, CA region.
- Report personal results for all participants in these departments who completed study activities
- Data analysis
- Complete peer-reviewed publication of the results for the intermittent fasting trial
- Complete peer-reviewed publication of the results for the Zone 2 trial
- Write-up and peer review of results from the blood/plasma donation control trial
- Overall summary report of the outcomes of these trials for fire service distribution in Arizona and nationwide
- Present results at fire service meetings in Arizona and nationally

Statutory/Policy Requirements
A.R.S. §15-1626 General Administrative Powers and Duties of Board
ABOR Policy 3-412 Administration of Technology and Research Initiative Fund.

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ITEM 7.10: Request to Approve a No-cost Extension for the FY 2023 Regents' Research Grant: Mobile Tree Health Monitoring System: Detection and Tree Health REcongition Acoustic Tool (DE-THREAT)

Requested Action: The board office asks the board to approve a no-cost extension for the TRIF Regents' Research Grant: Mobile Tree Health Monitoring System: Detection and Tree Health REcongition Acoustic Tool (DE-THREAT): A Regents' Research Grant to NAU in response to the Arizona Department of Forestry and Fire's Opportunity Statement, as described in this executive summary.

Background/History of Previous Board Action
Arizona law established TRIF from Proposition 301 state sales tax revenue and gives ABOR the authority to administer the fund on behalf of Arizona State University (ASU), Northern Arizona University (NAU), and the University of Arizona (U of A). The board manages and administers the TRIF revenues through awarding and allocating revenues.

Discussion
Purpose
The purpose of Regents' Research Grants is to address and deliver solutions to critical issues facing the State of Arizona and its citizens. The Regents may award TRIF funding to Arizona public universities in the form of Regents' Grants to support:

- Academic research in areas of greatest need and interest to the State of Arizona and/or its citizens.
- Programs and initiatives aimed at having a large economic impact directly tied to the State of Arizona.

The Regents' Research Grants are designed to address and deliver solutions through academic research to critical issues facing the State of Arizona and its citizens by:

- Accelerating and delivering solutions to critical unmet needs for the State of Arizona;
- Bringing together and leverage synergistic skill sets resident at multiple Arizona public universities; and
- Establishing centers of excellence that will generate sustainable future research funding.

Proposals evaluations were based on:

- Potential Near-term Benefit to Arizona. The proposal's potential to impact Arizona citizens' most pressing unmet needs. Arizona agency feedback and scoring of the proposals are a prime factor in evaluating the potential to impact Arizona.
- Strength of Research Team and Creativity of Proposal.
- Sustainable Funding. Potential to attract future sustainable external funding.
- Budget. Is the budget requested appropriate for the work to be performed?

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- Timeline. Is the research timeline appropriate for the tasks proposed?

Discussion
In FY 2023, the board approved 3 years of funding totaling $815,186 for the Regents' Research Grant: Mobile Tree Health Monitoring System: Detection and Tree Health REcongition Acoustic Tool (DE-THREAT): A Research Proposal from NAU in response to the Arizona Department of Forestry and Fire's Opportunity Statement addressing critical unmet needs.

Accomplishments of the project to date:
A brief list of what was accomplished to date:

- Mechanical-electronic transducing system: Created a new system that offers improved sensitivity compared to commercially available transducers, drawing from seismometer design principles. By connecting a piezoelectric disc to a secondary elastic support, we can tune resonant frequency and elastic energy storage, minimizing inertial mass response and producing a flat frequency response highly sensitive to vibrations in wood.
- Electronics design: Developed circuit- and board-level hardware, including signal conditioning, analog-to-digital conversion, computing components for sound detection/classification, wireless communication capability, and a battery-based power supply. We are now partnering with Parallax to build prototypes (one of the primary reasons for this no-cost extension request).
- Software architecture: Designed and verified a multi-core architecture to support data acquisition, detection, classification, wireless communication, and energy management. This system is built to dynamically balance processing loads depending on tree condition, from un-infested (low demand) to heavily infested, multiple wood-infesting insects (high computational demand) in trees and wood products (i.e. homes).
- Algorithm development: Created detection and classification frameworks supported by audio files with and without insect sounds across noise levels and wood/tree species. Machine learning approaches are being developed to optimize classification accuracy under real-world noise conditions.
- Intellectual property: Submitted a provisional patent ("Method and System for Measuring Small Vibrations") describing this mechanical-electronic transducing system, which combines seismometer-inspired mechanics with active noise cancellation to achieve high sensitivity and reliability. Core innovations of patent are:
- Elastic support tuning: Enhances sensitivity and practicality, including remote mounting options.
- Noise cancellation: Employs a microphone-based system to identify and subtract environmental interference, improving signal fidelity.

Reason for the no-cost extension:

- Allow sufficient time to work with Parallax to complete fabrication of 10 hardware prototypes.
- Complete machine learning approaches to optimize classification accuracy under real-world noise conditions.
- Finalize wireless communication and app interface (new software engineer needed to accomplish this)
- Work with stakeholders to test prototype and train users on device operation.

Estimated amount of funds that will not be expended by the official end of the Regents Grant:
Approximately $320,000 out of an initial 3-grant of $815,186.

Length of requested extension:
July 16, 2027 – 18 months

Short description of the work that will be done during the no-cost extension:

- Fabrication and delivery of 10 working prototypes.
- Completion of the wireless communication system and mobile app interface.
- Field testing with stakeholders, including training workshops for landowners and resource managers.
- Refinement of detection/classification algorithms based on field data.
- Preparation for commercial transition and broader dissemination of the technology.

With support from ABOR and the Arizona University network, the PIs will transition project outcomes into commercial products and conduct workshops to train stakeholders and landowners in device use.

Statutory/Policy Requirements
A.R.S. §15-1626 General Administrative Powers and Duties of Board
ABOR Policy 3-412 Administration of Technology and Research Initiative Fund.

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ITEM 7.11: Request to Approve a No-cost Extension for the FY 2023 Regents' Research Grant: Opportunities to Enhance Recharge in Arizona

Requested Action: The board office asks the board to approve a no-cost extension for the TRIF Regents' Research Grant: Opportunities to Enhance Recharge in Arizona: A joint Regents' Research Grant to the University of Arizona, Arizona State University, and Northern Arizona University in response to the Arizona Department of Water Resources' Opportunity Statement addressing critical unmet Arizona water needs, as described in this executive summary.

Background/History of Previous Board Action

Arizona law established TRIF from Proposition 301 state sales tax revenue and gives ABOR the authority to administer the fund on behalf of Arizona State University (ASU), Northern Arizona University (NAU), and the University of Arizona (U of A). The board manages and administers the TRIF revenues through awarding and allocating revenues.

Discussion

Purpose

The purpose of Regents' Research Grants is to address and deliver solutions to critical issues facing the State of Arizona and its citizens. The Regents may award TRIF funding to Arizona public universities in the form of Regents' Grants to support:

- Academic research in areas of greatest need and interest to the State of Arizona and/or its citizens.
- Programs and initiatives aimed at having a large economic impact directly tied to the State of Arizona.

The Regents' Research Grants are designed to address and deliver solutions through academic research to critical issues facing the State of Arizona and its citizens by:

- Accelerating and delivering solutions to critical unmet needs for the State of Arizona;
- Bringing together and leverage synergistic skill sets resident at multiple Arizona public universities; and
- Establishing centers of excellence that will generate sustainable future research funding.

Proposal evaluations were based on:

- Potential Near-term Benefit to Arizona. The proposal's potential to impact Arizona citizens' most pressing unmet needs. Arizona agency feedback and scoring of the proposals are a prime factor in evaluating the potential to impact Arizona.
- Strength of Research Team and Creativity of Proposal.
- Sustainable Funding. Potential to attract future sustainable external funding.
- Budget. Is the budget requested appropriate for the work to be performed?

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- Timeline. Is the research timeline appropriate for the tasks proposed?

Discussion
In FY 2023, the board approved 3 years of funding totaling $ 3,717,472 for the Regents' Research Grant: Recharge and Water Supply Reliability: A Collaborative Research Proposal Including U of A, ASU, and NAU in response to the Arizona Department of Water Resources Opportunity Statement addressing critical unmet Arizona water needs.

Accomplishments of the project to date:

- Since January 1, 2023, our team has held over 65 meetings with 30+ organizations as part of a stakeholder engagement strategy to gather, assess, and integrate community feedback, communicate project goals and methods and share initial products with water, land, and resource managers throughout the state, and identify potential future project partners. We have met with our primary sponsor, the Arizona Department of Water Resources, around a dozen times, including 6 major presentations of our findings.
- We developed water balances in the major surface and groundwater basins in the state using the NOAA National Water Model and Noah-MP land surface model, and quantified their accuracy based on comparison with surface water gauged observations.
- We developed a statewide base-flow index and mapped results of base-flow separation analyses using instrumented stream gauging stations and machine learning for ungauged streams to identify potential recharge locations. This resulted in understanding that roughly 40% of the total surface flows in the state are dependent on groundwater outflows.
- We evaluated alternative approaches to calculating evapotranspiration (ET) from satellite products, model simulations, and ground-based observations and produced bias-corrected ET estimates. ET is a critical component of the water balance, representing more than 95% of the water use across the state, so understanding its role in individual groundwater basins is extremely useful.
- We evaluated water capture potential of drywells and retention basins in the Phoenix metropolitan area and produced estimates of current and future urban recharge potential.
- We developed suitability analyses and maps of potential recharge sites in the state based on geology, land surface, and subsurface conditions, with special case studies in thinning of ponderosa pine forests to enhance recharge, and flood enhanced recharge.
- We assessed the impact of land use change and alternative management techniques on water available for recharge using integrated hydrologic models and climate information.
- We refined estimates of recharge potential given soil properties, vegetation type, and ponding time on a point scale through soil transfer function modeling.

- We developed a matrix of "capture-and-recharge" strategies that includes a wide array of options to collect surface runoff and promote its infiltration to recharge aquifers.
- We prepared initial projections of the impact of climate change on the natural water balance across the state using climate models and the Noah-MP land surface model.
- We have engaged and supported 21 graduate students, 3 undergraduate students, 5 post-doctoral scholars, and 14 faculty across the three universities.
- We have conducted 4 multi-day all-team retreats to share results and plan our research activities.
- We have presented the outcomes of our work at multiple international conferences, including the American Geophysical Union Fall Assembly in 2023 and 2024.

Reason for the no-cost extension:
Project delays due to tragic events at the University of Arizona that led to a change in principle investigator.

Estimated amount of funds that will not be expended by the official end of the Regents Grant:
Approximately $855,000 out of an initial 3-grant of $3,717,472.

Length of requested extension:
June 30, 2027 - 12 months

Short description of the work that will be done during the no-cost extension:
1. Allow graduate students, staff and post docs to complete publications and degrees;
2. Develop integrated summaries and written products useful for ADWR, resource managers, and stakeholders across Arizona;
3. Develop infographics and public information; and
4. Complete acquisition of field data.

Statutory/Policy Requirements
A.R.S. §15-1626 General Administrative Powers and Duties of Board
ABOR Policy 3-412 Administration of Technology and Research Initiative Fund

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ITEM 7.12: Request to Approve Individual Project and Financing for the Center for Advanced Molecular Immunological Therapies, Including Waiver of ABOR Policy 7-102 Requiring Committee Review, for the University of Arizona

Requested Action: The University of Arizona (U of A) asks the board for individual project and financing approval of its Center for Advanced Molecular and Immunological Therapies (CAMI), including waiver of ABOR policy 7-102 requiring committee review, as described in this executive summary. This 202,000 square foot, $232 million major capital project will be financed with SPEED revenue bonds, State of Arizona and Maricopa County American Rescue Plan Act (ARPA) funds, additional bond funds, local funds, and gifts. The debt service will be paid over a 30-year term using lottery revenue proceeds and indirect cost recovery.

Background

- Capital Improvement Plan FY 2025 – 2028 September 2023
- Annual Capital Plan September 2024
- Individual Project and Financing for the Center for Advanced Molecular Immunological Therapies September 2024
- Annual Capital Plan September 2025

Project Justification/Description/Scope

- U of A is currently building a new 202,000 gross square feet (GSF) research and academic facility to house the next phase of expansion on the Phoenix Bioscience Core (PBC). This building will include space for the new Center for Advanced Molecular and Immunological Therapies (CAMI) and other academic and core research laboratory support spaces to enhance U of A's research and academic enterprises in the Phoenix area.

- The new CAMI building will be located on the prominent southwest corner of Filmore Street and 7th Street in downtown Phoenix.

- The new building will be high-rise construction and house wet lab research space sufficient to accommodate thirty-six to forty principal investigators, clinical research space, and dry lab space. Wet lab space will be capable of supporting BSL2 type research and will include provisions for drug development in addition to a Good Manufacturing Process (GMP) laboratory for the use of developing drugs for use in clinical trials. An expansion of the existing underground research core (vivarium) is to be included in the program and will be shelled for future build out.

- This project encompasses 202,000 GSF, which includes approximately 167,000 Net Assignable Square Feet (NASF). This first phase of construction includes 15,000 NASF of wet lab space and 25,000 NASF of shared academic and collaboration space. An

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additional 120,000 NASF of wet lab space, clinical research and core lab space, and 7,000 NASF of vivarium space is shelled and planned for future expansion.

Project Delivery Method and Process

- This project is being delivered through the Design-Build (D-B) delivery method. This approach was selected for this project because it can provide early cost control, save time through fast-track project scheduling while still providing contractor design input and coordination throughout the project, improve potentially adversarial project environments, and allow for selection of the most qualified architect-contractor team. Through peer review of the D-B's cost estimate at each phase and low-bid subcontractor work for the actual construction work, this method also provides a high level of cost and quality control.

- The D-B provides a Guaranteed Maximum Price (GMP) based upon the amount previously agreed upon in the D-B agreement. The Design-Builder is at risk to provide the completed project within that price. In the selection of major subcontractors, the Design-Builder uses a qualification-based selection process prescribed by the ABOR Procurement Code to allow major subcontractors a design- assist role during the design phase. All remaining subcontractor work is awarded on the basis of the lowest responsive and responsible subcontractor bids. For this work, a minimum of three subcontractor bids will be required, except for specialty items or instances where proprietary systems are required, such as for energy management systems and door locks. A final report on project control procedures will be provided at project completion.

- The D-B Team was selected through the capital project selection committee process prescribed by the ABOR Procurement Code. A licensed contractor was included on the selection committee as required by ABOR Policy.

Project Status and Schedule

- The early construction and permit packages for site demolition, foundation, and utilities are underway, while design development for the building envelope and interior fit-out of the program spaces is occurring. The construction documents phase for the building's structural/skin and the interiors began in September 2025.

- Project construction started November 2024, with a brief pause in spring 2025 for design and finance re-evaluation, with substantial completion anticipated in spring 2027.

Project Cost

- The construction cost for this project is $183.9 million ($898 per GSF), and the total project cost is $232 million ($1,132 per GSF).

- Comparable similar previously approved projects:

Comparable Similar Previously Approved Projects					
Project	**University**	**Total Project Budget**	**Project GSF**	**Total $/GSF**	**Constr. $/GSF**
Grand Challenges Research Building	U of A	$99,000,000	107,877	$918/gsf	$748/gsf
Applied Research Building	U of A	$85,000,000	89,000	$955/gsf	$746/gsf
Biomedical Sciences Partnership Building	U of A	$133,000,000	245,000	$543/gsf	$467/gsf

Fiscal Impact and Financing Plan

- U of A plans to finance $75.0 million for the project using SPEED revenue bonds (SPEED). The annual debt service on the SPEED is estimated to be $4.9 million based on a conservative budget of 5 percent interest rate for a 30-year maturity. U of A plans to use lottery revenue proceeds and indirect cost recovery to pay the debt service. U of A plans to use State and County ARPA funds, local funds, additional bond funding, and gifts to finance the remaining $157 million project costs.

- When the bond is issued for the project, the U of A's estimated outstanding debt at the end of the fiscal year will be $1.62 billion. At the same time, the University would have retired $78.2 million in debt principal.

- The estimated Operations and Maintenance (O&M) cost for the project is $3,161,231 annually. The U of A plans to fund the O&M with tuition.

- U of A will:
  (a) issue one or more series of SPEED revenue bonds to finance the project, costs of issuance and payments to a bond insurer or other credit enhancer, provided such payments result in a benefit that exceeds the amount of such payments;
  (b) issue bonds at a price above or below par, on a tax-exempt or taxable basis, in one or more series, at a fixed or variable rate of interest;
  (c) enter into necessary agreements, including those related to bond insurance or other credit enhancement agreements; and
  (d) utilize a financial advisor, bond counsel, and bond trustee for the financing. The SPEED revenue bonds will be marketed and sold on a negotiated basis, either to one

or more investment banking firms currently in a pool of bond underwriters procured by the three state universities or by the State of Arizona, or by a direct sale to a bank or banks or other financial institutions.

- **Debt Ratio Impact**: The estimated annual debt service of $4.9 million on this project's SPEED Bonds would increase the U of A debt ratio (including SPEED) by 0.17 percent. The projected highest debt ratio is 4.9 percent, including SPEED revenue bonds. This maximum remains well below the 8.0 percent debt ratio limit established by ABOR policy and state statute

Occupancy Plan

- The project will provide new research space for the newly created center.

- This facility will provide new space for new faculty and research. It is not anticipated that any existing space will be released or that any existing facilities will be demolished.

Statutory/Policy Requirements

- Pursuant to ABOR Policy 7-102.B.4, each university shall submit an individual project and financing plan.

- Individual project and financing plans are reviewed by the University Governance and Operations Committee and approved by the board.

- Approval of the individual project and financing plan authorizes the university to proceed with financing and execution of construction contracts for the project.

- Pursuant to ABOR Policy 7-102.D, a university may request a waiver of this board policy as long as it is in the best interest of the university and it complies with applicable state laws.

University of Arizona
Capital Project Information Summary
Center for Advanced Molecular Immunotherapies (CAMI)

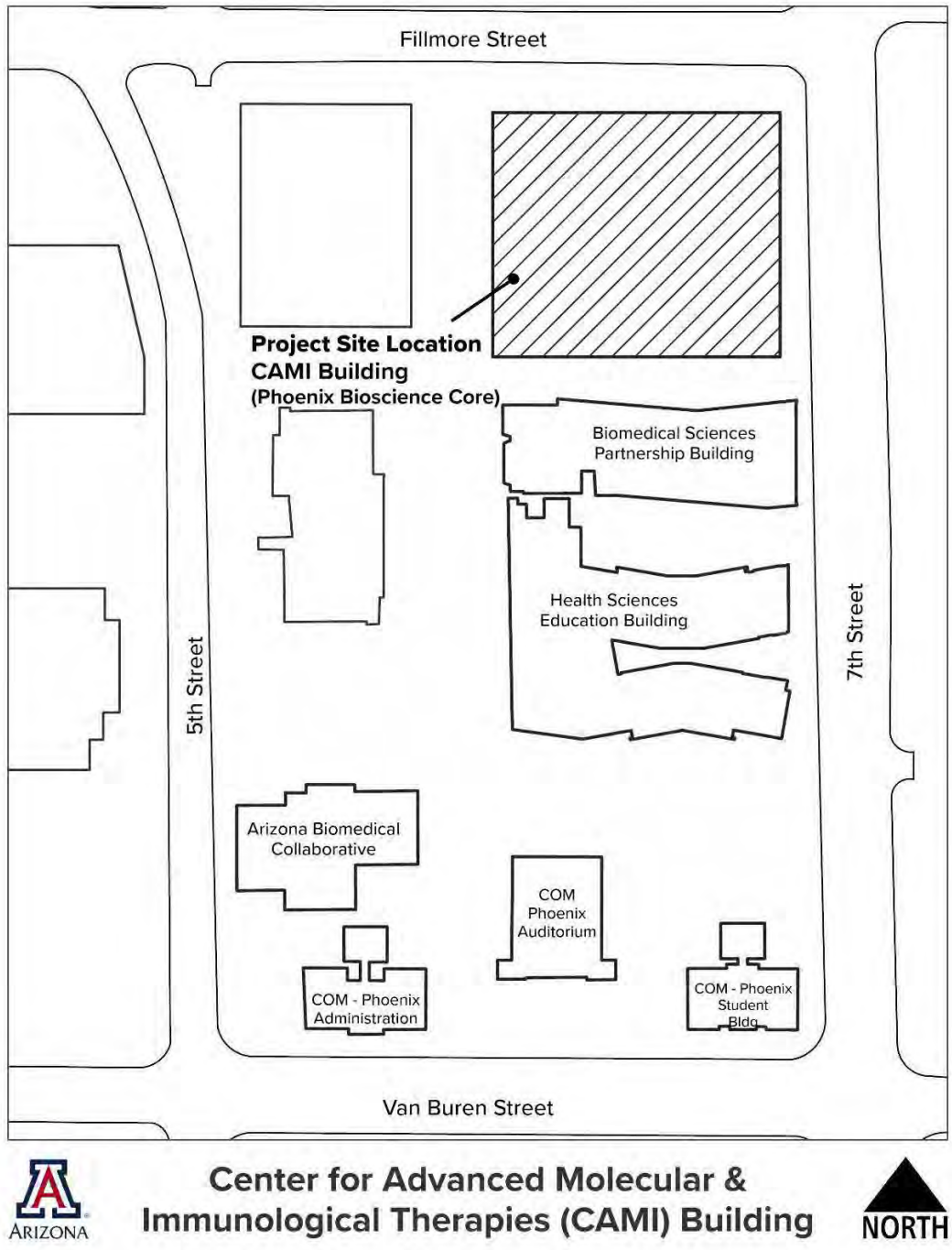
Project Description / Location:
This project will be a new research facility for the Center for Advanced Molecular and Immunological Therapies and will include clinical research and core facilities to support the Center along with the other research missions on the Phoenix campus. The project will be located at the Phoenix Bioscience Core in downtown Phoenix.

	Individual Project Financing Report September 2024	Amended Individual Project Financing Report November 2025
Project Schedule (Beginning Month/Year):		
Planning	August 2023	August 2023
Design	January 2024	January 2024
Construction	November 2024	November 2024
Occupancy	June 2027	June 2027
Project Budget:		
Total Project Cost	$ 290,000,000	$ 232,000,000
Total Project Cost per GSF	$ 1,415	$ 1,132
Direct Construction Cost - New	$ 232,000,000	$ 183,900,000
Construction Cost per GSF - New	$ 1,132	$ 898
Change in Annual Oper./Maint. Cost		$3,161,231
Utilities	$820,000	
Personnel	$ 638,600	
Other	$ 315,900	
Funding Sources:		
Capital:		
• State/County ARPA Funds	$ 215,000,000	$65,000,000
• System Revenue Bonds	$75,000,000	$0
• SPEED Revenue Bonds, Other Local Funds	$0	$75,000,000
• Local Funds through ARPA Grant	$0	$31,000,000
• Gifts and Other University Sources	$0	$61,000,000
Operation/Maintenance:		
• Retained Tuition	$1,774,500	$3,161,231

University of Arizona
Capital Project Budget Summary
Center for Advanced Molecular Immunotherapies (CAMI)

	Individual Project Financing Report	Amended Individual Project Financing Report
Date of Budget Estimate	September 2024	October 2025
1. Land	$ 0	$ 0
2. Construction Cost		
A. New Construction	$ 228,000,000	$ 181,000,000
B. Renovation	$ 0	$ 0
C. Fixed Equipment	$ 3,000,000	$ 1,600,000
D. Site Development (exclude 2.E.)	$ 0	$ 0
E. Parking & Landscaping	$ 0	$ 0
F. Utilities Extensions	$ 1,000,000	$ 1,300,000
G. Other (asbestos only)	$ 0	$ 0
Subtotal Construction Cost	**$ 232,000,000**	**$ 183,900,000**
3. Consultant Fees		
A. Construction Manager	$ 0	$ 0
B. Architect/Engineering Fees	$ 29,000,000	$ 32,000,000
C. Other (Programming, Special Consult.)	$ 2,000,000	$ 1,600,000
Subtotal Consultant Fees	**$ 31,000,000**	**$ 33,600,000**
4. Furniture Fixtures and Equipment	$ 8,000,000	$ 2,750,000
5. Contingency, Design Phase	$ 4,000,000	$ 3,700,000
6. Contingency, Construction Phase	$ 7,000,000	$ 4,200,000
7. Parking Reserve	$ 0	$ 0
8. Telecommunications Equipment	$ 2,300,000	$ 750,000
Subtotal Items 4-8	**$ 21,300,000**	**$ 11,400,000**
9. Additional University Costs		
A. Surveys and Tests	$ 1,400,000	$ 700,000
B. Move-in Costs	$ 100,000	$ 50,000
C. Public Art	$ 0	$ 0
D. Printing/Advertisement	$ 0	$ 0
E. Univ. Facilities & Project Management	$ 3,000,000	$ 1,500,000
F. State Risk Mgt. Ins	$ 1,200,000	$ 850,000
Subtotal Additional University Costs	**$ 5,700,000**	**$ 3,100,000**
TOTAL CAPITAL COST	**$ 290,000,000**	**$ 232,000,000**

University of Arizona
Project Site Location Map
Center for Advanced Molecular Immunotherapies (CAMI)



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ITEM 7.13: Request to Approve Individual Project and Financing for MTW Partnership Renovations, Including Waiver of ABOR Policy 7-102 Requiring Committee Review, for Arizona State University

Requested Action: Arizona State University (ASU) asks the board for individual project and financing approval of the MTW Partnership Renovations project, including waiver of ABOR policy 7-102 requiring committee review, as described in this executive summary. The $40 million major capital project will be debt-financed with system revenue bonds and amortized over approximately a thirty-year term.

Background

- Annual Capital Plan September 2025
- Capital Improvement Plan Project Waiver Request September 2025

Project Justification/Description/Scope

- This project will renovate infrastructure, equipment and research lab spaces including deferred maintenance, operational systems and new tool installations at MacroTechnology Works (MTW) within the ASU Research Park, located at 7700 S. River Parkway, as depicted on the map attached as Exhibit A.

- $17M will be used to renovate infrastructure and research lab spaces in partnership with Applied Materials Inc. (AMAT).

- $23M will be used to address deferred maintenance and provide improved infrastructure and space utilization to expand this research, development and prototyping facility. The renovated research spaces will allow for additional industry partners to work with ASU to develop collaborative spaces and shared equipment areas within the existing 261,188 gross-square-foot (GSF) building.

- These projects will renovate the existing research laboratories to provide state-of-the-art facilities that will meet the growing demands of the university's research initiatives and comply with code requirements.

- The MTW building accelerates semiconductor, advanced materials and energy device research as a unique national resource that combines the equipment, expertise and training necessary to develop new technology from proof of concept to pilot scale.

- Increasing research activity and the arrival of new faculty continue to make laboratory renovation projects a university priority. Spaces must be updated and renovated to address the needs of incoming researchers and to support successful grant applications. These laboratories will provide the core infrastructure required to enable faculty and students to compete in the global marketplace of ideas, not only

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stimulating advances in science and human health but also potentially advancing the regional economy

- The building will support ASU's mission to become a leading global center for interdisciplinary research, discovery, innovation, entrepreneurship and economic development. The facility will strengthen regional economic competitiveness for microelectronics and semiconductor industry jobs through research, discovery and value-added programs. The education and innovations gained will serve the growing demand for engineering talent at companies like Intel and Taiwan Semiconductor Manufacturing Company, which have made huge investments in Arizona semiconductor manufacturing operations.

- At its September 25-26, 2025 board meeting, the board granted ASU a waiver to ABOR Policy 7-102.B.2.a. which requires a project to have been approved as part of the prior Capital improvement Plan (CIP) in order to appear in the Annual Capital Plan (ACP). The project was not originally included in the previous CIP, which was approved by ABOR on September 28, 2024. A large third-party capital investment by AMAT and the Materials-to-Fab partnership spurred the need for this project so AMAT can best position themselves for successful research and development and/or pilot production opportunities.

Project Delivery Method and Process

- Depending on the nature of the work, the components of this project may be delivered either through the Construction Manager at Risk (CMAR) or Job Order Contracting (JOC) method.

- ASU has not yet selected a CMAR, JOC or design professional (DP) firm for this project bundle. Contractors and DPs will be selected according to ABOR policy and Arizona law.

Project Status and Schedule

- The designs for each project that is part of this bundle will be completed within approximately 6-9 months after the DP contract is awarded.

- General construction for these projects is scheduled to begin when the designs are completed and after all approvals are in place. Construction on all project components is targeted for completion by December 2028.

Project Cost

- The budget for this project is $40 million. The budget represents an estimated construction cost of $33.7 million.

- No preliminary external cost estimates have been provided by third-party consultants. Independent cost estimates will be provided by the DP, CMAR or JOC contractor after these selections are complete.

- For projects selected to use the CMAR delivery method, the construction manager will be at risk to provide the completed project within the agreed-upon guaranteed maximum price (GMP).

- Comparable Projects:

Project	Description	Location	Project Size GSF	Total Project Cost/GSF	Year Completed
MTW Area 2 Renovations	Infrastructure upgrades for semiconductor processing cleanroom space and tool installations	Tempe	10,000	$7,000	2026
Bateman Physical Sciences Center D & E Wings	Infrastructure, classroom and research lab upgrades at existing building	Tempe	87,866	$683	2023
MTW Area 5 Rolston Lab Renovation	Infrastructure and lab upgrades at existing building	Tempe	860	$1,274	2022
MTW Area 3 & 5 Lab TI	Infrastructure and lab upgrades at existing building	Tempe	4,306	$1,254	2022
Average Comparable Total Project Cost			**$2,553**		

Fiscal Impact and Financing Plan

- The $40 million project will be debt-financed with system revenue bonds and amortized over approximately a thirty-year term. Funding annual debt service of $2,673,000 from tuition revenue is included in current budget planning.

- **Debt Ratio Impact:** The projected incremental debt ratio impact for this project is 0.06 percent.

- There are no expected increases in O&M costs associated with this project.

- ASU will:
  (a) issue one or more series of system revenue bonds to finance the project, costs of issuance and payments to a bond insurer or other credit enhancer, provided such payments result in a benefit that exceeds the amount of such payments.
  (b) issue bonds at a price at, above or below par, on a tax-exempt or taxable basis, in one or more series, at a fixed or variable rate of interest.
  (c) enter into necessary agreements, including those related to bond insurance or other

credit enhancement agreements, if any.

(d) utilize a financial advisor, bond counsel, and bond trustee for the financing. The system revenue bonds will be marketed and sold either on a competitive or negotiated basis, in the open market or to one or more investment banking firms currently in a pool of bond underwriters procured by the three state universities, or by the State of Arizona, or by a direct sale to a bank or banks or other financial institutions.

Occupancy Plan

- Some project components will reconfigure and renew research labs. Current occupants will be temporarily relocated as needed for renovations. Occupants generally will reoccupy the spaces upon completion.

Statutory/Policy Requirements

- Pursuant to ABOR Policy 7-102.B.4, each university shall submit an individual project and financing plan.

- Individual project and financing plans are reviewed by the University Governance and Operations Committee and approved by the board.

- Approval of the individual project and financing plan authorizes the university to proceed with financing and execution of construction contracts for the project.

- Pursuant to ABOR Policy 7-102.D, a university may request a waiver of this board policy as long as it is in the best interest of the university and it complies with applicable state laws.

Capital Project Information Summary

University: Arizona State University **Project Name:** MTW Partnership Renovations

Project Description and Location: This project will renovate infrastructure, equipment and research lab spaces including deferred maintenance, operational systems and new tool installations at MacroTechnology Works (MTW) within the ASU Research Park. In total, $17 million will be used to renovate infrastructure and research lab spaces in partnership with Applied Materials Inc. (AMAT), and $23 million will be used to provide improved infrastructure and space utilization capacity to expand the research, development and prototyping facility. The renovated research spaces will allow for additional industry partners to work with ASU to develop collaborative spaces and shared equipment within the existing 261,188 GSF building, located at 7700 S. River Parkway, as depicted on the map attached as Exhibit A.

Project Schedule:

Planning	July	2025
Design Start	July	2025
Construction Start	June	2026
Construction Completion	December	2028

Project Budget:

Total Project Cost	$ 40,000,000
Total Project Construction Cost	$ 33,700,000
Total Project Cost per GSF	$ N/A
Construction Cost per GSF	$ N/A
Utilities	$ 0
Personnel	$ 0
All Other Operating	$ 0
Subtotal	$ 0

Estimated Annual O & M Cost: $0

Funding Sources:

A. System Revenue Bonds $ 40,000,000
Debt Service Funding Source: Tuition

B. Operations/Maintenance $ 0
Funding Sources: Not Applicable

Exhibit A
MTW Partnership Renovations
Site Location Map



ITEM 7.14: Request to Approve Individual Project and Financing for McCain Center, Including Waiver of ABOR Policy 7-102 Requiring Committee Review, for Arizona State University

Requested Action: Arizona State University (ASU) asks the board for individual project and financing approval of its McCain Center project, including waiver of ABOR policy 7-102 requiring committee review, as described in this executive summary. This approximately 82,000 square foot, $187 million major capital project will be funded with federal grant and university funds.

Background

- Annual Capital Plan September 2025
- FY 2026–2029 Capital Improvement Plan September 2024

Project Justification/Description/Scope

- This project will construct an approximately 82,000 gross-square-foot (GSF) building that will feature a museum, library, cafe, lecture hall, event spaces, and academic and administrative program rooms. The facility will be located adjacent to Papago Park, on the site previously occupied by the Community Services Building at 200 E. Curry Road, as depicted on the map attached as Exhibit A

- The building will include approximately 9,100 GSF for academic programs; 6,700 GSF for the lecture hall; 4,400 GSF for the library and archives; 19,400 GSF for the museum; and 28,400 GSF for other common areas, café, administrative and event spaces.

- The museum will include state-of-the-art virtual technology and audiovisual experiences that will educate visitors on Senator John McCain's life, legacy and achievements, as well as serving as a convening point for informed discussions around public affairs, international relations and public policy.

- The McCain Center will provide Arizonans and other visitors a place to learn, work and gain important access to health monitoring. The McCain Center will offer inclusive programs to underserved communities and increase community access to safe and secure broadband connectivity.

Project Delivery Method and Process

- This project will be managed under the Construction Manager at Risk (CMAR) delivery method. This approach was selected to facilitate a coordinated design with constant contractor input and guidance throughout the project development and costing phases.

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- The project delivery plan maximizes value by creating efficiencies in both the design and construction phases using a team approach, while ensuring complete alignment with ASU standards.

- ASU has selected Clark | Chasse – Joint Venture as the CMAR and SHoP Architects as the Design Professional for this project. The CMAR selection process included eight submissions and four teams were interviewed. The DP selection process included 19 submissions and six teams were interviewed.

Project Status and Schedule

- Project construction is scheduled to begin in July 2026 and is scheduled for completion in January 2028.

- ASU will identify complementary programs, uses and partners that can be integrated into the site to honor Senator McCain's extraordinary life and legacy. They will serve the principles to which he devoted his life and career and carry his legacy forward for future generations.

Project Cost

- The budget for this approximately 82,000 GSF project is $187 million. The budget represents an estimated construction cost of $120.2 million, which is approximately $1,469 per GSF. The estimated total project cost is $2,285 per GSF.

- This project does not have any applicable comparable projects because of its unique and specialized scope. The facility will feature multiple distinct functions including a museum, library, café, large lecture hall, and a variety of exhibit spaces within a single integrated project.

Fiscal Impact and Financing Plan

- Funding for the $187 million project from a federal grant and university funds is included in current budget planning

- **Debt Ratio Impact**: None

- The estimated annual operations and maintenance cost for this project is $744,765.

Occupancy Plan

- This project will not affect occupancy or existing programs as the existing Community Services Building is currently vacant and all existing programs and personnel have already moved to new locations in existing ASU space.

Statutory/Policy Requirements

- Pursuant to ABOR Policy 7-102.B.4, each university shall submit an individual project and financing plan.

- Individual project and financing plans are reviewed by the University Governance and Operations Committee and approved by the board.

- Approval of the individual project and financing plan authorizes the university to proceed with financing and execution of construction contracts for the project.

- Pursuant to ABOR Policy 7-102.D, a university may request a waiver of this board policy as long as it is in the best interest of the university and it complies with applicable state laws.

Capital Project Information Summary

University: Arizona State University **Project Name:** McCain Center

Project Description and Location: This project constructs an approximately 81,847 GSF building that will feature a museum, library, cafe, 200-occupant lecture hall, and separate event spaces and spaces for academic and administrative programs. The facility will be located adjacent to Papago Park, on the site previously occupied by the Community Services Building at 200 E. Curry Road. The site is depicted on the map attached as Exhibit A.

Project Schedule:

Planning	November	2023
Design Start	November	2024
Construction Start	July	2026
Construction Completion	January	2028

Project Budget:

Total Project Cost	$ 187,000,000
Total Project Construction Cost	$ 120,200,000
Total Project Cost per GSF	$ 2,285
Construction Cost per GSF	$ 1,469
Utilities	$ 258,486
Personnel	$ 176,093
All Other Operating	$ 310,186
Subtotal	$ 744,765

Estimated Annual O&M Cost: $744,765

Funding Sources:

A. System Revenue Bonds $ 187,000,000
Debt Service Funding Source: Federal grant, University funds

B. Operations/Maintenance $ 744,765
Funding Sources: Tuition, University funds

Capital Project Budget Summary

University: Arizona State University
Project: McCain Center

	Annual Capital Plan
Capital Costs	
1. Land Acquisition	$0
2. Construction Cost	
A. New Construction	$137,200,000
B. Tenant Improvement	$0
C. Special Fixed Equipment	$250,000
D. Site Development (excl. 2.E.)	$175,000
E. Parking and Landscaping	$800,000
F. Utilities Extensions	$175,000
G. Other* (Demolition/abatement)	$4,500,000
Subtotal Construction Cost	$143,100,000
3. Fees	
A. CMAR Pre-Construction	$1,900,000
B. Architect/Engineer	$14,658,000
C. Other	$7,325,000
Subtotal Consultant Fees	$23,883,000
4. FF&E Movable	$1,750,000
5. Contingency, Design Phase	$350,000
6. Contingency, Constr. Phase	$5,227,171
7. Parking Reserve	$0
8. Telecommunications Equipment	$4,400,000
Subtotal Items 4-8	$11,727,171
9. Additional University Costs	
A. Surveys, Tests, Haz. Mat. Abatement	$885,000
B. Move-in Costs	$150,000
C. Printing Advertisement	$30,000
D. Keying, signage, facilities support	$5,000
E. Project Management Cost	$6,602,547
F. State Risk Mgt. Ins. (.0034 **)	$617,282
Subtotal Addl. Univ. Costs	$8,289,829
Total Capital Cost	$187,000,000

* Universities shall identify items included in this category.

** State Risk Management Insurance factor is calculated on construction costs and consultant fees.

Exhibit A
McCain Center
Site Location Map



ITEM 7.15: Request to Approve Individual Project and Financing for ASU Health Building, Including Waiver of ABOR Policy 7-102 Requiring Committee Review, for Arizona State University

Requested Action: Arizona State University (ASU) asks the board for individual project and financing approval of the ASU Health Building project, including waiver of ABOR policy 7-102 requiring committee review, as described in this executive summary. The approximately 190,000 square foot, $200 million major capital project will be debt-financed with SPEED and system revenue bonds amortized over approximately a thirty-year term and funded by tuition and lottery revenue. This includes the 38% ($123.5 million) allocation to ASU of the recent $325 million increase in SPEED bond authority.

Background

- Annual Capital Plan September 2025
- FY 2026–2029 Capital Improvement Plan September 2024

Project Justification/Description/Scope

- This project will construct an approximately 190,000 gross-square-foot (GSF), multi-level facility that will serve as headquarters for ASU Health, including the School of Medicine and Advanced Medical Engineering and the School of Technology for Public Health. The facility will be located within the Phoenix Bioscience Core between Fillmore and Pierce Streets to the north and south, and Fourth and Fifth Streets to the east and west, as depicted on the map attached as Exhibit A.

- The program consists of faculty and administrative offices, traditional and virtual reality classrooms, and healthcare simulation and skills labs. The building amenities will include learning communities, lounges, break rooms, a library, conference rooms, interview and wellness rooms, storage and additional program growth space.

- The building will include approximately 20,100 GSF for academic teaching spaces; 5,300 GSF for group based applied labs; 43,700 GSF of space for simulation, clinical skills, anatomy and standardized patient (SP) training; 6,100 GSF for future medical suites; 2,200 GSF for health observatory and non-wet lab research; 7,100 GSF for a library and study areas; 5,225 GSF for student amenities; 15,800 GSF for admin support spaces; 8,000 GSF for an engagement center; and 4,900 GSF for building support spaces.

- ASU Health includes new and existing schools with a focus on advancing health care research, discovery and treatment. ASU Health is aligned with the Arizona Board of Regents' AZ Healthy Tomorrow initiative, a plan to grow Arizona's health care workforce.

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- The headquarters location was selected to be in the heart of the Phoenix BioCore, a cluster of industry leaders spearheading research on the world's most important health science discoveries.

- ASU Health will be integral to solving workforce shortages and improving the quality of health for Arizonans.

- The building will house the John Shufeldt School of Medicine and Medical Engineering, a new kind of medical school that will produce physicians who blend medicine, engineering, technology and humanities. Graduates will leverage new tools such as artificial intelligence and data science to connect with more patients, seek innovative practices and improve health outcomes.

- The building also will house the School of Technology for Public Health, which aims to create a new and rapidly evolving space for the integration of digital technology, data-driven decision-making and a significant focus on local impact within public health.

Project Delivery Method and Process

- This project will be delivered through the Construction Manager at Risk (CMAR) delivery method. This approach was selected to facilitate a coordinated design with constant contractor input and guidance throughout the project development and costing phases.

- The project delivery method maximizes value by creating efficiencies in both the design phase and construction phase as a team, while ensuring complete alignment with ASU standards.

- ASU has selected McCarthy Building Companies as the CMAR and DFDG Architecture as the Design Professional for this project. The CMAR selection process included nine submissions and three teams were interviewed. The DP selection process included 16 submissions and three teams were interviewed.

Project Status and Schedule

- Construction is scheduled to begin in July 2026. The project is scheduled for completion in June 2028.

- ASU will identify industry leaders, researchers and clinical partners that can be integrated into the headquarters to advance healthcare, research, discovery and treatment.

Project Cost

- The budget for this approximately 190,000 GSF project is $200 million. The budget represents an estimated construction cost of $152,295,500, which is approximately $802 per GSF. The estimated total project cost is $1,053 per GSF.

- Comparable Projects:

Project	Description	Location	Project Size GSF	Total Project Cost/GS	Year Completed
ISTB12	State-of-the-art, multi-level research and education building	Polytechnic	173,194	$1,080	2025
Media and Immersive eXperience (MIX) Center	Multi-level education building with a theatre, studios, sound stages, control rooms, classrooms and offices	Mesa	117,795	$794	2022
Average Comparable Total Project Cost			**$937**		

Fiscal Impact and Financing Plan

- The $200 million project will be debt-financed with SPEED and system revenue bonds and amortized over approximately a thirty-year term. The SPEED bonds reflect the 38% ($123.5 million) share allocated to ASU of the recent $325 million increase in SPEED bond authority. The annual debt service of $13,077,000 from lottery revenues, tuition and other revenue is included in current budget planning.

- **Debt Ratio Impact**: The projected incremental debt ratio impact for this project is 0.11 percent without SPEED debt service and 0.29 percent with SPEED debt service.

- Operations and maintenance costs for this project are estimated to be $3,459,008 annually and will be funded by tuition.

- ASU will:
  (a) issue one or more series of SPEED and system revenue bonds to finance the project, costs of issuance and payments to a bond insurer or other credit enhancer, provided such payments result in a benefit that exceeds the amount of such payments.
  (b) issue bonds at a price at, above or below par, on a tax-exempt or taxable basis, in one or more series, at a fixed or variable rate of interest.
  (c) enter into necessary agreements, including those related to bond insurance or other credit enhancement agreements, if any.

(d) utilize a financial advisor, bond counsel, and bond trustee for the financing. The SPEED and system revenue bonds will be marketed and sold either on a competitive or negotiated basis, in the open market or to one or more investment banking firms currently in a pool of bond underwriters procured by the three state universities, or by the State of Arizona, or by a direct sale to a bank or banks or other financial institutions.

Occupancy Plan

- Once construction is completed, selected program, personnel and departments will begin moving into the facility for regular operations.

Statutory/Policy Requirements

- Pursuant to ABOR Policy 7-102.B.4, each university shall submit an individual project and financing plan.

- Individual project and financing plans are reviewed by the University Governance and Operations Committee and approved by the board.

- Approval of the individual project and financing plan authorizes the university to proceed with financing and execution of construction contracts for the project.

- Pursuant to ABOR Policy 7-102.D, a university may request a waiver of this board policy as long as it is in the best interest of the university and it complies with applicable state laws.

Capital Project Information Summary

University: Arizona State University **Project Name:** ASU Health Building

Project Description and Location: This project will construct an approximately 190,000 GSF, multi-level facility that will serve as headquarters for ASU Health, which will include the Shufeldt School of Medicine and Medical Engineering and the School of Technology for Public Health. The facility will be located within the Phoenix BioCore between Fillmore and Pierce Streets to the north and south, and Fourth and Fifth Streets to the east and west, as depicted on the map attached as Exhibit E.

Project Schedule:

Planning	September	2024
Design Start	June	2025
Construction Start	July	2026
Construction Completion	June	2028

Project Budget:

Total Project Cost	$ 200,000,000
Total Project Construction Cost	$ 152,295,500
Total Project Cost per GSF	$ 1,053
Construction Cost per GSF	$ 802

Estimated Annual O & M Cost:

Utilities	$ 1,861,209
Personnel	630,091
All Other Operating	967,708
Subtotal	$ 3,459,008

Funding Sources:

A. SPEED Revenue Bonds	$123,500,000
Debt Service Funding Source:	Lottery revenue, Tuition, Other revenue
B. System Revenue Bonds	$ 76,500,000
Debt Service Funding Source:	Tuition, Other revenue

C. Operations/Maintenance	$3,459,008
Funding Sources:	Tuition

Capital Project Budget Summary

University: Arizona State University
Project: ASU Health Building

	Annual Capital Plan
Capital Costs	
1. Land Acquisition	$0
2. Construction Cost	
A. New Construction	$142,637,500
B. Tenant Improvement	$0
C. Special Fixed Equipment	$395,000
D. Site Development (excl. 2.E.)	$3,993,000
E. Parking and Landscaping	$1,200,000
F. Utilities Extensions	$4,000,000
G. Other* (Demolition/abatement)	$70,000
Subtotal Construction Cost	$152,295,500
3. Fees	
A. CMAR Pre-Construction	$2,800,000
B. Architect/Engineer	$17,657,160
C. Other	$840,428
Subtotal Consultant Fees	$21,297,588
4. FF&E Movable	$3,060,173
5. Contingency, Design Phase	$800,000
6. Contingency, Constr. Phase	$6,064,011
7. Parking Reserve	$150,000
8. Telecommunications Equipment	$7,531,834
Subtotal Items 4-8	$17,606,018
9. Additional University Costs	
A. Surveys, Tests, Haz. Mat. Abatement	$725,000
B. Move-in Costs	$300,000
C. Printing Advertisement	$28,000
D. Keying, signage, facilities support	$32,500
E. Project Management Cost	$7,061,548
F. State Risk Mgt. Ins. (.0034 **)	$653,846
Subtotal Addl. Univ. Costs	$8,800,894
Total Capital Cost	$200,000,000

* Universities shall identify items included in this category.

** State Risk Management Insurance factor is calculated on construction costs and consultant fees.

Exhibit A
ASU Health Building Site Location Map



A.E. England Building 424 N. Central Ave.	AEEB 3C	**Fusion on First** 380 N. 1st Ave.	FOF 2B	**Mercado** E. Monroe St.	MERCA-F 4G
Arizona Biomedical Collaborative 425 N. 5th St.	ABC1 3F	**Gard. Off. Spc. - Arizona Center** 455 N. 3rd St.	AZCNTR 3E	**Post Office** 522 N. Central Ave.	POST 2C
Arizona Center Tower 400 E. Van Buren St.	AZCT 3F	**Gordon Commons** 120 E. Taylor Pl.	GRDNC 2D	**Sun Devil Fitness Complex** 330 N. 1st Ave.	SDFCD 2D
ASU Prep Academy 735 E. Fillmore St.	PHXPADM 2H	**Grant Street Studio** 605 E. Grant St.	GSS 7G	**Thunderbird Global Headquarters Building** 401 N. 1st St.	TGHB 3D
Beus Center for Law and Society 111 E. Taylor St.	BCLS 3D	**Health North** 550 N. 3rd St.	HLTHN 2E	**University Center** 411 N. Central Ave.	UCENT 3C
Collaboratory on Central 618 N. Central Ave.	CLBC 1C	**Health South** 500 N. 3rd St.	HLTHS 2E		
Cronkite/Arizona PBS 555 N. Central Ave.	CRONK 2C	**Intrdiscip. Science and Techology Bldg. 8** 850 N. 5th St.	ISTB8 1F		

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ITEM 7.16: Request to Approve Individual Project and Financing for PSH Research Laboratory Complex Modernization, Including Waiver of ABOR Policy 7-102 Requiring Committee Review, for Arizona State University

Requested Action: Arizona State University (ASU) asks the board for individual project and financing approval of its PSH Research Laboratory Complex Modernization project, including waiver of ABOR policy 7-102 requiring committee review, as described in this executive summary. The approximately 131,710 square foot, $115 million major capital project will be debt-financed with system revenue bonds and amortized over approximately a thirty-year term and funded by tuition revenue.

Background

- Annual Capital Plan September 2025
- FY 2026–2029 Capital Improvement Plan September 2024

Project Justification/Description/Scope

- This project will renovate Bateman Physical Sciences Center H Wing (PSH) to meet the current and future demands of the university's academic and research programs. The project scope includes the comprehensive renovation of the existing laboratories, offices and classrooms while maintaining the same general space types within PSH, located at 525 E. University Drive on the Tempe campus. This is depicted on the map attached as Exhibit A.

- The project will renovate 17 wet labs, 15 dry labs and 24 office spaces. This work is essential to increase the facility's research capabilities, extend the building's useful life and create a more efficient and flexible learning and research environment.

- The Bateman Complex is comprised of multiple wings, including the 131,710 gross-square-foot (GSF) H-Wing constructed in 1991. H Wing primarily houses wet and dry instructional laboratories, wet research laboratories, classrooms and office spaces

- The renovation will address significant building infrastructure needs, including the demolition and improvement of interior spaces, upgrades and/or full replacement of mechanical, electrical and plumbing (MEP) systems, exterior envelope improvements and enhancements to accessibility and life safety systems. These critical upgrades will significantly improve the reliability and capacity of building utilities, enabling the support of research initiatives that are not currently possible.

- These renovations will directly support ASU's mission of advancing innovative research and providing high-quality, accessible education by creating state-of-the-art wet and dry instructional laboratories, wet research laboratories, classrooms and office spaces that meet the evolving needs of faculty, students and research partners.

Contact Information:
Morgan Olsen, ASU Morgan.R.Olsen@asu.edu 480-727-9920

Project Delivery Method and Process

- This project will be managed through the Construction Manager at Risk (CMAR) delivery method. This approach was selected to facilitate a coordinated design with constant contractor input and guidance throughout the project development and costing phases.

- The project delivery plan maximizes value by creating efficiencies in both the design and construction phases through a team approach, while ensuring complete alignment with ASU standards.

- ASU has selected Mortenson Company as the CMAR and BWS Architects as the Design Professional (DP) for this project. The CMAR selection process included nine submissions and four teams were interviewed. The DP selection process included 18 submissions and three teams were interviewed.

Project Status and Schedule

- The project is scheduled to begin construction in December 2025 and completion in July 2028.

Project Cost

- The budget for this approximately 131,710 GSF project is $115 million. The budget represents an estimated construction cost of $80.6 million, which is approximately $611 per GSF. The estimated total project cost is $873 per GSF.

- Comparable Projects:

Project	Description	Location	Project Size GSF	Total Project Cost/GSF	Year Completed
ISTB7	New five-story, high-performance research facility	Tempe	281,378	$682	2022
ISTB12	New three-story, state-of-the-art research facility	Polytechnic	173,194	$1,080	2025
Bateman Physical Sciences Center D and E Wing	Renovations included infrastructure, classroom and research lab upgrades	Tempe	87,866	$683	2023
Average Comparable Total Project Cost				**$815**	

Fiscal Impact and Financing Plan

- This $115 million project will be debt-financed with system revenue bonds and amortized over approximately a thirty-year term. Tuition revenue funding for the estimated annual debt service of $8,047,000 is included in current budget planning.

- **Debt Ratio Impact**: The projected incremental debt ratio impact for this project is 0.17 percent.

- There are no expected increases in operations and maintenance costs associated with this project.

- ASU will:
  (a) issue one or more series of system revenue bonds to finance the project, costs of issuance and payments to a bond insurer or other credit enhancer, provided such payments result in a benefit that exceeds the amount of such payments.
  (b) issue bonds at a price at, above or below par, on a tax-exempt or taxable basis, in one or more series, at a fixed or variable rate of interest.
  (c) enter into necessary agreements, including those related to bond insurance or other credit enhancement agreements, if any.
  (d) utilize a financial advisor, bond counsel, and bond trustee for the financing. The system revenue bonds will be marketed and sold either on a competitive or negotiated basis, in the open market or to one or more investment banking firms currently in a pool of bond underwriters procured by the three state universities, or by the State of Arizona, or by a direct sale to a bank or banks or other financial institutions.

Occupancy Plan

- Some project components will reconfigure research labs, classrooms and office spaces. Current occupants will be temporarily displaced as needed for renovations. Occupants will reoccupy the spaces upon completion.

Statutory/Policy Requirements

- Pursuant to ABOR Policy 7-102.B.4, each university shall submit an individual project and financing plan.

- Individual project and financing plans are reviewed by the University Governance and Operations Committee and approved by the board.

- Approval of the individual project and financing plan authorizes the university to proceed with financing and execution of construction contracts for the project.

- Pursuant to ABOR Policy 7-102.D, a university may request a waiver of this board policy as long as it is in the best interest of the university and it complies with applicable state laws.

Capital Project Information Summary

University: Arizona State University **Project Name:** PSH Research Laboratory Complex Modernization

Project Description and Location: This project will renovate PSH to meet the current and future demands of the university's academic and research programs, extend the building's useful life and create a more efficient and flexible learning and research environment. The project will renovate 17 wet labs, 15 dry labs and 24 office spaces while maintaining the same general types of spaces within PSH, located at 525 E. University Drive on the Tempe campus, as depicted on the map attached as Exhibit A.

Project Schedule:

Planning	April	2024
Design Start	January	2025
Construction Start	December	2025
Construction Completion	July	2028

Project Budget:

Total Project Cost	$ 115,000,000
Total Project Construction Cost	$ 80,600,000
Total Project Cost per GSF	$ 873
Construction Cost per GSF	$ 611

Estimated Annual O&M Cost:

Utilities	$ 0
Personnel	0
All Other Operations	0
Subtotal	$ 0

Funding Sources:

A. System Revenue Bonds	$ 115,000,000
Debt Service Funding Source:	Tuition
B. Operation/Maintenance	$ 0
Funding Source:	Not Applicable

Capital Project Budget Summary

University: Arizona State University
Project: PSH Research Laboratory Complex Modernization

	Annual Capital Plan
Capital Costs	
1. Land Acquisition	$0
2. Construction Cost	
A. New Construction	$0
B. Tenant Improvement	$80,500,000
C. Special Fixed Equipment	$0
D. Site Development (excl. 2.E.)	$0
E. Parking and Landscaping	$0
F. Utilities Extensions	$0
G. Other* (Demolition/abatement)	$100,000
Subtotal Construction Cost	$80,600,000
3. Fees	
A. CMAR Pre-Construction	$1,500,000
B. Architect/Engineer	$9,000,000
C. Other	$2,400,000
Subtotal Consultant Fees	$12,900,000
4. FF&E Movable	$2,013,649
5. Contingency, Design Phase	$840,000
6. Contingency, Constr. Phase	$10,500,000
7. Parking Reserve	$0
8. Telecommunications Equipment	$3,000,000
Subtotal Items 4-8	$16,353,649
9. Additional University Costs	
A. Surveys, Tests, Haz. Mat. Abatement	$100,000
B. Move-in Costs	$500,000
C. Printing Advertisement	$0
D. Keying, signage, facilities support	$110,000
E. Project Management Cost	$4,060,389
F. State Risk Mgt. Ins. (.0034 **)	$375,962
Subtotal Addl. Univ. Costs	$5,146,351
Total Capital Cost	$115,000,000

* Universities shall identify items included in this category.

** State Risk Management Insurance factor is calculated on construction costs and consultant fees.

Exhibit A
PSH Research Laboratory Complex Modernization
Site Location Map



Acacia Hall	ACACI 7E	**Cmb'd Heat & Pwr. Fac.**	CHPF 6F	**Helmick Center**	HLMK 3C	**Music Building**	MUSIC 6B	**Student Services Bldg.**	SSV 6C
Acourtia Hall	ACHAL 6F	**Community Serv. Bldg.**	CSB 1F	**Honors Hall**	HONHAL 7F	**Neeb Hall**	NEEB 5B	**Sun Angel Clubhouse**	SAC 1H
Adelphi Commons	ADEL 7F	**Coor Hall**	COOR 5B	**Interdisciplin. A/B**	INTDSA/B 6C	**Nelson Fine Arts Center**	FAC 5B	**Sun Devil Hall**	SDH 6D
Agave Hall	AGVHAL 7F	**Cottonwood Hall**	CWHAL 7F	**Intrdiscip. Sc. & Tech. 1**	ISTB1 5D	**Noble Sci. Library**	NOBLE 5E	**Sun Devil Sports Perf.**	SDSP 3H
Aquatic Complex	AQUAT 3D	**Cowden Fam. Rsrcs.**	COWDN 4C	**Intrdiscip. Sc. & Tech. 2**	ISTB2 4E	**Northern Chiller Plant**	NCP 3D	**Sun Angel Stadium**	TRACK 2F
Armstrong Hall	ARM 6E	**Creativity Commons**	CRTVC 6D	**Intrdiscip. Sc. & Tech. 4**	ISTB4 6F	**Off-Camp. Stdnt. Srv.**	OCSS 5G	**The Annex**	ANX 3C
Arroyo Hall	ARHAL 7E	**Danforth Chapel**	CHAPL 6C	**Intrdiscip. Sc. & Tech. 5**	ISTB5 4E	**Old Main**	MAIN 4D	**Tooker House A-D**	TKRHA-D 3D
Art Building	ART 4B	**Desert Financial Arena**	DFA 3E	**Intrdiscip. Sc. & Tech. 10**	ISTBX 4C	**Orchidhouse (Brckyd.)**	BYOH 3B	**Tower Center**	TOWER 4B
Art Warehouse	ARWH 4B	**Design Annex**	DSGNX 3C	**Irish Hall**	IRISH 7C	**Palo Verde East**	PVE 3D	**University Cntr. A-C**	UCNTRA-C 3H
ASU at Mirabella	MRBLA 4B	**Design North**	CDN 4B	**Jojoba Hall**	JOBA 7E	**Palo Verde West**	PVW 3D	**University Club**	UCLUB 4D
Best Hall	MB 7C	**Design South**	CDS 4B	**Juniper Hall**	JNHAL 7F	**Payne Hall**	EDB 5B	**University Gateway Bldg.**	UGB 5A
Business Admin.	BA 6C	**Discovery Hall**	DISCVRY 6C	**Life Sciences Center**	LS 5D	**Perform. & Media Arts**	APMA 3G	**University Services Bldg.**	USB 8G
Business Admin. C Wing	BAC 6D	**Dixie Gammage Hall**	GHALL 5C	**Life Sciences C-wing**	LSC 5D	**Physical Sci. Wings**	PSB-H 4D	**Urban Systems Engin.**	USE 4E
Biodsgn. Inst. Bldg. A	BDA 5F	**Durham Hall**	DH 4C	**Life Sciences Tower**	LSE 5D	**Piper Writers House**	PWH 4D	**University Towers**	UNIVT 2C
Biodsgn. Inst. Bldg. B	BDB 5F	**Education Lecture Hall**	EDC 6B	**Lyceum Theatre**	LYC 4C	**Police**	ASUPD 7C	**Verbena Hall**	VBHAL 6F
Biodsgn. Inst. Bldg. C	BDC 5F	**Engineering Center**	ECA-G 5D	**Manzanita Hall**	MANZH 4E	**Psychology Building**	PSY 5E	**Verde Dickey Dome**	VDDM 6F
Bookstore	BKSTR 6D	**Engin. Research Cntr.**	ENGRC 5D	**Matthews Center**	MCENT 5C	**Psychology North**	PSYN 4E	**Vista del Sol Cmplx.**	VDS 8E
Brickyard Artisan Crtyrd.	BYAC 3B	**Farmer Education Bldg.**	ED 6B	**Material Srv. Bldg.**	MSB 8G	**Rosewood Hall**	RWHAL 6F	**Villas @ Vista del Sol**	VVDS 8E
Brickyard Engnr.	BYENG 3A	**Farrington Softball Stdm.**	ALBER 2H	**Matthews Hall**	MHALL 5C	**Ross-Blakley Hall**	RBHL 6E	**Walton Cntr. for Plntry. Hlth.**	WCPH 4F
Bulldog Hall	BDH 6E	**Fulton Center**	FULTN 4C	**McClintock Hall**	MCL 5C	**Sage Hall**	SGHAL 7F	**Weatherup Center**	WUC 3H
Carson Stdnt Ath Cntr.	CSAC 2D	**Gammage Auditorium**	GGMA 6B	**McCord Hall**	MCRD 6D	**San Pablo Hall**	PABLO 3D	**West Hall**	WHALL 5C
Centerpoint	CTRPT 3A	**Goldwater Center**	GWC 4E	**Memorial Union**	MU 6C	**Schwada Building**	SCDB 5E	**Wexler Hall**	WXLR 4D
Cereus Hall	CERHAL 7F	**Greek Ldrsp. Vlg. A-D**	GLVA-D 5G	**Mesquite Hall**	MSHAL 6F	**Sch. Hu. Ev. Soc. Chg.**	SHESC 4C	**Willow Hall**	WILOHAL 6F
Center for Fam. Studies	CFS 4C	**Greek Ldrsp. Vlg. CC.**	GLVCC 5G	**Mill Ave. Student Housing**	MASH 5B	**Social Sciences**	SS 5C	**Wilson Hall**	WLSN 5C
Central Plant	CP 5D	**Grounds Maint. Facility**	GMF 8G	**Moeur Building**	MOEUR 6C	**Sonora Center**	SCD 8F	**Womens Gymst. Trng.**	WGTF 2H
Central Plant South	CPS 8F	**Harrington-Birchett House**	HBH 3C	**Mohave Hall**	MVHAL 7E	**Stauffer Comm.**	STAUF 5B	**Wrestling Training Fac.**	WTF 2H
Cholla Apartments	CHOLA 5G	**Hayden Hall**	HAYDN 7C	**Mountain America Stadium**	MAS 2D	**Sun Devil Fit. Cmplx.**	SDFCT 8E	**Zero Waste Office**	ZWO 8G
Chuparosa Hall	CHUPA 7E	**Hayden Library**	LIB 5C	**Mullett Arena**	MA 2F	**Student Athlete Facility**	SAF 1D	**777 Tower at Novus**	NVS1 3F
College Ave. Market	CAM 3C	**Health Service**	HSB 4D	**Murdock Lecture Hall**	MUR 5D	**Student Pavilion**	STPV 5D		

ITEM 7.17: Request to Approve New Academic Units, Including Waiver of ABOR Policy 2-223 Requiring Committee Review, for Arizona State University

Requested Action: Arizona State University asks the board to approve new academic unit requests, including waiver of ABOR Policy 2-223 requiring committee review, as described in this executive summary and supporting document/s.

Background
As provided in the board policy, new academic unit requests may be submitted throughout the year with the approval of the University Governance and Operations Committee.

Discussion
Proposals are presented to create two centers and two academic units within the new John Shufeldt School of Medicine and Medical Engineering. The proposed centers support Arizona State University's (ASU) ability to advance innovative and principled solutions to global challenges.

Supporting Document/s
ASU New Academic Organizational Units

Statutory/Policy Requirements
ABOR Policy 2-223 Academic Locations, Degree Programs and Organizational Units

Contact Information:
Nancy Gonzales, ASU nancy.gonzales@asu.edu 480-965-4995

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Request to Establish a New Academic Organizational Unit

University: Arizona State University

Name of Organizational Unit: ASU Farm
Academic Department: The College of Liberal Arts and Sciences / ASU Global Futures Laboratory
Geographic Site: Tempe campus
Proposed Inception Term: Spring 2026
Brief Description: The mission of ASU Farm is to foster a vibrant and inclusive community by cultivating character through sustainable agricultural practices, educating students holistically, reconnecting them with the land, deepening an understanding of human interdependence with the natural world, and strengthening ecological relationships to promote collective well-being and sustainability. Central to ASU Farm's philosophy are six focal virtues: environmental stewardship, strong work ethic, cooperation, care, environmental humility and adaptability. In collaboration with Maya's Farm, located approximately six miles southwest of ASU's Tempe Campus, ASU Farm provides experiential learning opportunities for students and community members. Activities include volunteer days, Humanities Lab courses, and a speaker series focused on the cultivation of plants and character. These initiatives aim to integrate ASU's design aspiration of Principled Innovation into various programs, fostering individual and community development of civic, moral and intellectual virtues.
Reason for Establishing the Organizational Unit: The ASU Farm initiative, "Cultivating Plants, People and Planet," emerges as a transformative initiative that aligns with Arizona State University's mission to advance inclusive, innovative, and impactful solutions to global challenges. Rooted in sustainability and community engagement, the center addresses critical issues such as food security, environmental resilience, and social equity while fostering meaningful connections between people and the land. It achieves this by integrating academic scholarship, hands-on learning, and community partnerships.
Resources ASU Farm is designed to be a sustainable and impactful center, supported by a strategic mix of research grants, foundation funding, private philanthropy, and long-term endowment efforts. A key component of the funding strategy involves collaboration with the ASU Foundation and the

Principled Innovation team to identify and secure philanthropic donations aligned with the center's mission.

ASU Farm is in year 2 of 3 in the Principled Innovation Catalysts funding, which will help support major activities and programs at the center. ASU will support staffing in the launch phase to help establish the center to be able to connect with donors and apply for the various opportunities for external grants. When the center is established, at least two office spaces plus a storage space will be necessary. No additional equipment will be needed during the next three years.

Request to Establish a New Academic Organizational Unit

University: Arizona State University

Name of Organizational Unit: Principled Innovation Infrastructure for Discovery and Engagement
Academic Department: Global Futures Laboratory
Geographic Site: Tempe campus
Proposed Inception Term: Spring 2026
Brief Description: The Principled Innovation Infrastructure for Discovery and Engagement center will partner with research and large-scale ASU initiatives to enhance their capacity to practice principled innovation. To further the creation of a culture and an operational capacity to bring Principled Innovation to bear on large-scale activities, the center's work will be structured at three levels -- an executive committee of cross-university, cross-disciplinary research leaders; a contact group of centers and organized research initiatives and activities; and rank-and-file faculty members.
Reason for Establishing the Organizational Unit: The center's mission will be to build an institutional capacity to provide and coordinate foresight, engagement and integrative services to large-scale initiatives and projects, while simultaneously advancing goals from Principled Innovation, the university's Charter, and other design aspirations.
Resources Existing Principled Innovation funding will be used to support current needs. Additional faculty may be hired if resources become available through sponsored research collaborations, philanthropy, etc. No additional facilities or equipment will be necessary.

Request to Establish a New Academic Organizational Unit

University: Arizona State University

Name of Organizational Unit: Department of Foundational Sciences
Academic Department: John Shufeldt School of Medicine and Medical Engineering
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley campuses
Proposed Inception Term: Summer 2026
Brief Description: To address Arizona's physician shortage and growing healthcare challenges, ASU proposes to establish the Department of Foundational Sciences within the School of Medicine and Advanced Medical Engineering. The department will house foundational coursework for the MD degree and the medical school.
Reason for Establishing the Organizational Unit: AZ Healthy Tomorrow is a bold initiative dedicated to enhancing the overall health of Arizona communities and residents. Compared to other U.S. states, Arizona faces many health care challenges, including a critical shortage of primary care physicians, an underperforming healthcare system that is ranked 32nd in the nation and numerous health care disparities. The John Shufeldt School of Medicine and Medical Engineering will produce physician-engineers with advanced technology skills who are poised to solve the health care issues facing the state and to develop unique technology-based solutions that improve the health of Arizona. This department will serve as the home for the foundational educational experiences that lead to clinical training. A Department of Clinical Sciences is also proposed.
Resources The Department of Foundational Sciences will utilize resources from the John Shufeldt School of Medicine and Medical Engineering, which is being designed to build upon ASU's existing, significant capacity in related areas.

Request to Establish a New Academic Organizational Unit

University: Arizona State University

Name of Organizational Unit: Department of Clinical Sciences
Academic Department: John Shufeldt School of Medicine and Medical Engineering
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West campuses
Proposed Inception Term: Summer 2026
Brief Description: To address Arizona's physician shortage and growing health care challenges, ASU proposes to establish the Department of Clinical Sciences within the John Shufeldt School of Medicine and Medical Engineering. The department will manage and house clinical training and coursework for the MD degree and the medical school.
Reason for Establishing the Organizational Unit: AZ Healthy Tomorrow is a bold initiative dedicated to enhancing the overall health of Arizona communities and residents. Compared to other U.S. states, Arizona faces numerous healthcare challenges, including a critical shortage of primary care physicians, an underperforming healthcare system ranked 32nd in the nation, and numerous health care disparities. The ASU John Shufeldt School of Medicine and Medical Engineering will produce physician-engineers with advanced technology skills who are poised to solve the health care issues facing the state and to develop unique technology-based solutions that improve the health of Arizona. This department will serve as the home for the clinical experiences required for the MD degree. A Department of Foundational Sciences is also proposed.
Resources The Department of Clinical Sciences will utilize resources from the ASU John Shufeldt School of Medicine and Medical Engineering that is being designed to build upon ASU's existing, significant capacity in related areas.

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ITEM 7.18: Request to Approve New Academic Programs, Including Waiver of ABOR Policy 2-223 Requiring Committee Review, for Arizona State University

Requested Action: Arizona State University asks the board to approve new academic program requests, including waiver of ABOR Policy 2-223 requiring committee review, as described in this executive summary and supporting document/s.

Background

As provided in the board policy, new program requests may be submitted throughout the year with the approval of the University Governance and Operations Committee.

Discussion

Arizona State University is requesting the following new academic programs.

- BA in Innovation
- BS in Innovation
- BS in Conservation
- Executive Master of Sustainability (EMSust) in Sustainability Strategy and Solutions
- Master of Sustainability (MSust) in Sustainability Strategy and Solutions
- MS in Conservation
- MS in Innovation
- MS in Dietetics
- MS in Health Professions Education
- MS in Artificial Intelligence for Nursing Science
- MS in Global Nursing and Care Management
- BA in Performing Arts Industries
- BS in Game Studio Production
- MAS in Virtual Production
- MFA in Virtual Production and Cinematic Innovation
- MM in Music Education
- MS in Game Design
- PhD in Art History
- AS in Computer Science and Artificial Intelligence
- MS in Space Mission Design and Engineering
- MS in Sustainable Chemical Processes
- PhD in Environmental Engineering
- BEd in Education
- BS in Behavior Analysis
- PhD in Education
- PSM in Mathematical Modeling
- MLS in Health Care Compliance and Administration

Contact Information:
Nancy Gonzales, ASU nancy.gonzales@asu.edu 480-965-4995

- BA in American Constitutionalism
- BS in Philosophy, Politics and Economics
- MS in Applied Statistics and Data Science
- MA in War and Strategy
- BA in Science Communication
- BA in Content Creation
- BA in Sports Strategic Communication
- BS in Media Production
- MA in Journalism
- MA in Science Communication
- MS in Media Production
- MS in Media Research and Technology
- BS in Tourism, Hospitality and Event Management

Degree planning at ASU is founded on the Charter: ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.

All academic degree programs go through multiple review and approval processes to ensure their currency, quality, and relevance. The academic deans, in consultation with the directors of the academic units, submit information on all proposed new degrees, concentrations, minors, and certificates for the ensuing year, as well as changes to existing degree titles, program disestablishments, and creation of new organizations, organizational changes and disestablishments. Once reviewed and approved by the provost, these initiatives begin the review process, including, as applicable, the curriculum committees in the academic unit, college, Graduate College, and University Senate. At each level, a substantive review of the proposed program is completed to ensure quality and to avoid redundancy with other programs.

The provost reviews all resources involved in program development, both in the college offering the degree program and other colleges offering supporting courses. The distribution of the institution's resources, including faculty, infrastructure, administration and support staff, are reviewed to optimize and maximize capacity. In addition, the university invests annually in academic units based on enrollment growth, allowing academic units to expand capacity, with the additional funds invested in strategic hiring. The academic units also receive increasing revenue from summer and online operations which provide resources for the initiatives.

The proposed degrees leverage ASU's design aspirations in support of the Charter and support our current initiatives and goals.

Many of the proposed programs support ASU's commitment to innovation across disciplinary boundaries. The College of Global Futures, in addition to requesting the first conservation programs in the new Rob Walton School of Conservation Futures, are also launching degrees focused on interdisciplinary innovation and solutions-focused strategies.

In support of our continuing commitment to AZ Healthy Tomorrow, ASU proposes new programs to train cutting edge healthcare professionals. Programs focus on educating health professionals, infusing nursing sciences with AI, and enhancing access to ASU's health expertise via dietetics and global-focused nursing. Additionally, the Sandra Day O'Connor College of Law proposes a legal studies degree that focuses on the law and health care compliance.

Herberger Institute for Design and the Arts has proposed several programs to expand upon The GAME School, including programs in game design and production, virtual production, music education and art history.

The Ira A. Fulton Schools of Engineering propose programs in environmental engineering, sustainable chemical processes, space mission design and engineering. They will also expand ASU's partnership with the United States Naval Community College by offering an AS in Computer Science and Artificial Intelligence for the enlisted population.

Other proposals include programs focused on civics, philosophy, math and statistics, and hospitality. The Walter Cronkite School of Journalism and Mass Communication offerings include programs in communication in science and sports, digital media content creation, media production and research.

To address Arizona's teacher shortage by reducing time-to-degree without sacrificing quality or rigor, The Mary Lou Fulton College for Teaching and Learning Innovation proposes ASU's first 90-credit-hour degree.

These degree proposals are aligned strategically with our design aspirations to leverage our place, transform society, value entrepreneurship, include use-inspired research, enable student success, fuse intellectual disciplines, be socially embedded, practice principled innovation, and engage students with issues locally, nationally and internationally.

Supporting Document/s
ASU New Programs

Statutory/Policy Requirements
ABOR Policy 2-223 Academic Locations, Degree Programs and Organizational Units

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Program Name	College
BA in Innovation	Rob Walton College of Global Futures
BS in Innovation	Rob Walton College of Global Futures
BS in Conservation	Rob Walton College of Global Futures
Executive Master of Sustainability (EMSust) in Sustainability Strategy and Solutions	Rob Walton College of Global Futures
Master of Sustainability (MSust) in Sustainability Strategy and Solutions	Rob Walton College of Global Futures
MS in Conservation	Rob Walton College of Global Futures
MS in Innovation	Rob Walton College of Global Futures
MS in Dietetics	College of Health Solutions
MS in Health Professions Education	Edson College of Nursing and Health Innovation
MS in Artificial Intelligence for Nursing Science	Edson College of Nursing and Health Innovation
MS in Global Nursing and Care Management	Edson College of Nursing and Health Innovation
BA in Performing Arts Industries	Herberger Institute for Design and the Arts
BS in Game Studio Production	Herberger Institute for Design and the Arts
MAS in Virtual Production	Herberger Institute for Design and the Arts
MFA in Virtual Production and Cinematic Innovation	Herberger Institute for Design and the Arts
MM in Music Education	Herberger Institute for Design and the Arts
MS in Game Design	Herberger Institute for Design and the Arts
PhD in Art History	Herberger Institute for Design and the Arts
AS in Computer Science and Artificial Intelligence	Ira A. Fulton Schools of Engineering
MS in Space Mission Design and Engineering	Ira A. Fulton Schools of Engineering /The College of Liberal Arts and Sciences
MS in Sustainable Chemical Processes	Ira A. Fulton Schools of Engineering
PhD in Environmental Engineering	Ira A. Fulton Schools of Engineering

BEd in Education	Mary Lou Fulton College for Teaching and Learning Innovation
BS in Behavior Analysis	Mary Lou Fulton College for Teaching and Learning Innovation
PhD in Education	Mary Lou Fulton College for Teaching and Learning Innovation
PSM in Mathematical Modeling	New College of Interdisciplinary Arts and Sciences
MLS in Health Care Compliance and Administration	Sandra Day O'Connor College of Law
BA in American Constitutionalism	The College of Liberal Arts and Sciences
BS in Philosophy, Politics and Economics	The College of Liberal Arts and Sciences
MS in Applied Statistics and Data Science	The College of Liberal Arts and Sciences
MA in War and Strategy	The College of Liberal Arts and Sciences
BA in Science Communication	Walter Cronkite School of Journalism and Mass Communication
BA in Content Creation	Walter Cronkite School of Journalism and Mass Communication
BA in Sports Strategic Communication	Walter Cronkite School of Journalism and Mass Communication
BS in Media Production	Walter Cronkite School of Journalism and Mass Communication
MA in Journalism	Walter Cronkite School of Journalism and Mass Communication
MA in Science Communication	Walter Cronkite School of Journalism and Mass Communication
MS in Media Production	Walter Cronkite School of Journalism and Mass Communication
MS in Media Research and Technology	Walter Cronkite School of Journalism and Mass Communication
BS in Tourism, Hospitality and Event Management	Watts College of Public Service and Community Solutions

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: BA in Innovation
Academic Department: Rob Walton College of Global Futures *School for the Future of Innovation in Society (proposed to change to the School of Innovation)*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: 2026
Brief Program Description: This program will offer students a transdisciplinary hands-on education in innovation studies, focusing on cultivating cross-functional capabilities in innovation across diverse sectors, both domestic and international. The program will create an academic journey that empowers students with the skills and experiences necessary to ensure high employability and prepare them to make a meaningful real-world impact. The curriculum will feature core courses covering the history and principles of innovation, innovation policy, innovation processes and systems, technology development and commercialization, systems thinking, and ethical principles that underpin responsible innovation. Additionally, the program will include specialized "innovation labs," where students will develop marketable skills and technological literacy. To further enhance their employability, students will engage in experiential learning opportunities such as client-based projects, internships, study abroad programs, research projects and design challenges. The degree will offer specialized tracks, informed by market demand, in collaboration with academic units within the College of Global Futures and across ASU. This Bachelor of Arts degree is designed for students interested in the arts and humanities and takes a less technical approach than the proposed Bachelor of Science in Innovation degree. It has lower math requirements and does not include additional technical courses, making it a

better fit for students who want to explore innovation through creative, cultural and social lenses of innovation.

Graduates will be well-equipped for roles that require creativity, problem-solving and the ability to integrate multiple disciplines and perspectives to foster innovation in dynamic and complex environments. The program aims to ensure students' employability by equipping them with the skills, knowledge and experiences to be able to design and implement innovation initiatives in various sectors while understanding the ethical, social and environmental implications of innovation for the betterment of humanity and the planet. The World Economic Forum's Future of Jobs report predicts that 65% of children entering primary school today will work in job categories that do not yet exist. By mastering the principles of innovation, students acquire future-proof skills to adapt to changing job markets and thrive across sectors, both in the U.S. and abroad.

In alignment with the ASU charter and design principles, students graduating from this program will be positive, transformational "change agents" for improving the economic, social, cultural and overall health of the communities they serve. This degree aligns with ASU's mission to advance global access to education and innovation. It will establish a new category in the academic market, positioning ASU and the school as leaders in innovation education, building on ASU's #1 innovation ranking

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will apply transdisciplinary perspectives to foundational principles of innovation.

- **Concepts:** history of innovation, principles of innovation, types of innovation and innovation policies, types of innovation processes and systems, systems thinking, design thinking, types of innovation management, ethical perspectives on innovation, socio-political-economic drivers and impacts of innovation
- **Competencies:** Graduates will be able to identify and categorize innovation types and processes, apply systems and design thinking approaches, evaluate socio-political, economic, and ethical impacts of innovation, integrate transdisciplinary perspectives in innovation problem-solving, and communicate complex innovation issues across disciplinary boundaries.
- **Assessment Process and Measures Summary:** The learning outcome will be assessed using direct and indirect measures to assess the overall effectiveness of the curriculum in teaching these principles. The capstone project will be assessed via a faculty-developed rubric and will demonstrate students' ability to integrate interdisciplinary perspectives on an innovation problem/challenge. The program will also employ an exit survey for graduating students to capture indirect data, including the question, "How well did the program prepare you to integrate interdisciplinary perspectives into innovation problems/challenges?" Assessment results will be used for continuous improvement.

Learning Outcome 2: Students will solve complex innovation problems by applying project management, leadership skills and data science methodologies.

- **Concepts:** project management, assessment and evaluation techniques, data analysis methodologies, leadership practices relevant to innovation problems
- **Competencies:** Graduates will apply project management and leadership skills, data analysis methodologies, and assessment/evaluation techniques to innovation challenges/problems involving real-world experiences.

- **Assessment Process and Measures Summary:** The learning outcome will be assessed using two direct student artifacts produced during two Innovation Labs, which will involve hands-on experiences working on innovation projects with industry partners (domestic or international). Faculty-developed rubrics will be used to assess the application of skills in project management and leadership skills, qualitative data analysis methodologies, and the incorporation of stakeholder and user feedback in student projects/portfolios. Data from student artifacts will be analyzed to assess the overall effectiveness of the curriculum in teaching these skills, and results from the assessment will be reviewed by the program committee. Assessment results will be used for continuous improvement.

Learning Outcome 3: Students will design an innovation solution to a real-world problem through humanistic inquiry.

- **Concepts:** innovation design, stakeholder analysis and impact assessment
- **Competencies:** Graduates will apply innovation design, use stakeholder analysis, incorporate impact analysis and implement a real-world innovation.
- **Assessment Process and Measures Summary:** Students will be assessed on their ability to clearly articulate and implement a solution to an innovation challenge/problem and assess its impact for a sector and society. This will be assessed in the second component of the capstone project. The capstone project will be assessed on the following areas: utilization of innovation types, innovation processes, systems and design thinking relevant to the client-based needs; evaluation and integration of socio-political, economic and ethical impacts of innovation relevant to the client-based project; application humanistic inquiry, and communication about the project that illustrates complex innovation issues across disciplinary boundaries.
  Faculty and the external client will provide input in the assessment of the capstone projects, using a faculty-designed rubric, which focuses on how well the project design, implementation, assessment and communication meets the client's needs and requirements. Assessment results will be used for continuous improvement.

Projected Enrollment for the First Three Years:

Year 1: 50-100
Year 2: 150-200
Year 3: 250-350

Evidence of Market Demand:

This will be the first degree of its kind in Arizona and unique in the world, with no peer academic competitors, and offers a unique, groundbreaking, transdisciplinary education that integrates core innovation knowledge and hands-on skills with a societal, ethical and environmental impact mindset.

The degree will leverage ASU's #1 innovation ranking to address future market needs. The demand for innovation-centric education is growing rapidly, driven by advances in artificial intelligence, immersive technologies and sustainability. According to the Bureau of Labor Statistics, robust job growth is projected in AI and data science (21% by 2031). Reports from Lightcast and industry insights from partners like Morgan Stanley highlight the increasing importance of interdisciplinary skills and specialization in fields such as innovation in product management and emerging technologies.

Moreover, students in this degree will gain highly sought-after skills, including project management, design thinking, futuring and foresight, and product innovation. They will work with partners on client-based projects, acquiring skills that translate to in-demand jobs across public, private and nonprofit sectors — both domestic and international. While projected enrollment numbers are ambitious, the school is developing a comprehensive marketing and recruitment plan involving ASU and external partners, including key national and international innovation thought leaders, to reach a large-scale audience.

Similar Programs Offered at Arizona Public Universities:

While some programs have innovation as a keyword, none of these programs are focused on innovation as a central concept and academic discipline.

The University of Arizona offers a Bachelor in Creative Intelligence and Innovation (BCII) and a BS in Leadership and Learning Innovation.

Northern Arizona University has no undergraduate offerings with innovation in the title.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required, as existing College of Global Futures resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount: N/A

Fee Justification: N/A

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: BS in Innovation
Academic Department: Rob Walton College of Global Futures *School for the Future of Innovation in Society (proposed to change to the School of Innovation)*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: 2026
Brief Program Description: The BS in Innovation will empower students with the skills and experiences necessary to ensure high employability and prepare them to make meaningful real-world impact. The core courses cover the history and principles of innovation, innovation policy, innovation processes and systems, technology development and commercialization, systems thinking, and the ethical principles that underpin responsible innovation. Additionally, the program will also include specialized "innovation labs" where students will develop marketable skills and technological literacy. To further enhance their employability, students will engage in experiential learning opportunities such as client-based projects, internships, study abroad programs, research projects and design challenges. The degree will offer specialized tracks, informed by market demand, in collaboration with academic units within the College of Global Futures and across ASU. This BS degree in Innovation is tailored for students with a background or interest in engineering, science and the quantitative social science aspects of innovation, while the proposed BA in Innovation degree is designed for students interested in the arts and humanities and takes a less technical approach. With a stronger emphasis on math and analytical skills, the BS includes required courses in science, engineering, and statistics and data analytics. This program will offer students a transdisciplinary education in innovation studies, focusing on cultivating cross-

functional capabilities in innovation across diverse sectors — public, private and nonprofit in both domestic and international contexts.
In alignment with the ASU charter and design principles, students graduating from this program will be positive, transformational "change agents" for improving the economic, social, cultural and overall health of the communities they serve.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will apply transdisciplinary perspectives to foundational principles of innovation.

- **Concepts:** history of innovation; principles of innovation; types of innovation and innovation policies; types of innovation processes and systems; systems thinking; design thinking; types of innovation management; ethical perspectives on innovation; socio-political-economic drives and impacts of innovation
- **Competencies:** Graduates will be able to identify and categorize innovation types and processes; apply systems and design thinking approaches; evaluate socio-political, economic and ethical impacts of innovation; integrate transdisciplinary perspectives in innovation problem-solving; and communicate complex innovation issues across disciplinary boundaries.
- **Assessment Process and Measures Summary**: The learning outcome will be assessed using direct and indirect measures. A capstone project will be assessed via a faculty-developed rubric that measures students' ability to integrate interdisciplinary perspectives on an innovation challenge. The program will also employ an exit survey for graduating students to capture indirect data, including the question, “How well did the program prepare you to integrate interdisciplinary perspectives into innovation problems/challenges?” Results from the assessment will be reviewed by the program committee and will be used for continuous improvement.

Learning Outcome 2: Students will solve complex innovation problems by applying project management, leadership skills and data science methodologies.

- **Concepts:** project management, assessment and evaluation techniques, data analysis methodologies, leadership practices
- **Competencies**: Graduates will be able to learn and apply practical, hands-on use of project management and leadership skills, data analysis methodologies, and assessment and evaluation techniques to innovation challenges and problems involving real-world experiences.
- **Assessment Process and Measures Summary:** The learning outcome will be assessed using two student artifacts produced during two Innovation Labs, which will involve hands-on experiences working on innovation projects with industry partners (domestic and international). Faculty-developed rubrics will be used to assess the application of skills in project management and leadership skills, data analysis methodologies, and the incorporation of stakeholder and user feedback in student projects and portfolios. Data from student artifacts will be analyzed to assess the overall effectiveness of the curriculum in teaching these skills, and results will be used for continuous improvement.

Learning Outcome 3: Students will design an innovation solution to a real-world problem by leveraging technical competencies.

- **Concepts:** innovation design, stakeholder analysis and impact assessment
- **Competencies:** Graduates will apply innovation design, use stakeholder analysis, incorporate impact analysis and implement a real-world innovation.

- **Assessment Process and Measures Summary:** The learning outcome will be assessed using direct data to capture students' ability to clearly articulate and implement a solution to an innovation challenge and assess its impact on a sector and society. The capstone project will be assessed via a faculty-developed rubric including dimensions measuring metrics for design, implementation, assessment and communication. The external client will also provide input in the assessment of the capstone projects, using a faculty-designed rubric, which focuses on how well the project design, implementation, assessment, and communication meet the client's needs and requirements. The capstone project will also be assessed on the project design and the demonstration of the use of innovation types, innovation processes, and systems and design thinking relevant to the client-based needs, and that the project design evaluates and integrates socio-political, economic and ethical impacts of innovation that is relevant to the client-based project. Project design that leverages technical competencies and communication will also be assessed. Assessment results will be used for continuous improvement.

Projected Enrollment for the First Three Years:

Year 1: 50-100
Year 2: 150-200
Year 3: 250-350

Evidence of Market Demand:

This will be the first degree of its kind in Arizona and unique in the world with no peer academic competitors. The degree offers a unique, groundbreaking, transdisciplinary education that integrates core innovation knowledge and hands-on skills with a societal, ethical and environmental impact mindset. The degree will leverage ASU's #1 innovation ranking to address future market needs.

The demand for innovation-centric education is growing rapidly, driven by advances in artificial intelligence, immersive technologies and sustainability. According to the Bureau of Labor Statistics, robust job growth is projected in AI and data science (21% by 2031). Reports from Lightcast and industry insights from partners like Morgan Stanley highlight the increasing importance of interdisciplinary skills and specialization in fields such as innovation in product management and emerging technologies.

Moreover, students in this degree will gain highly sought-after, hands-on skills, including project management, design thinking, futuring and foresight, and product innovation. They will work with partners on client-based projects, acquiring skills that translate to in-demand jobs across public, private and nonprofit sectors — both domestic and international. ASU's leadership in innovation uniquely positions the school to create an innovation degree that will address these growing market needs. While the projected enrollment numbers are ambitious, the school is developing a comprehensive marketing and recruitment plan involving ASU and external partners, including key national and international innovation thought leaders, to reach a large-scale audience.

Similar Programs Offered at Arizona Public Universities:

While some programs have innovation as a keyword, none of these programs are focused on innovation as a central concept and academic discipline.

The University of Arizona offers a Bachelor in Creative Intelligence and Innovation (BCII) and a BS in Leadership and Learning Innovation.

Northern Arizona University has no undergraduate offerings with innovation in the title.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required, as existing College of Global Futures resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount: N/A

Fee Justification: N/A

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: BS in Conservation
Academic Department: Rob Walton College of Global Futures *Rob Walton School of Conservation Futures*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: 2026
Brief Program Description: The Bachelor of Science in Conservation will prepare students with new tools and innovative perspectives for protecting nature and people to create a thriving and healthy future. It will offer transdisciplinary foundations in ecology, biodiversity science, environmental policy and multiple knowledge systems. This will translate into practical skills like environmental assessment, community engagement, project management, modeling, policy and spatial analysis. Students will develop these skills via hands-on field experiences, integrated professional development and career advising, culminating in real-world projects. This program supports ASU's charter's mission of "assuming responsibility for the health of the communities it serves," by empowering our next generation of leaders to care for the planet and its people. This is a degree for those who are passionate about nature, people, and the future of life on Earth — and who want to be part of the solution.
Learning Outcomes and Assessment Plan: **Learning Outcome 1:** Students will be able to analyze conservation challenges across ecosystems and communities through interdisciplinary practices. • **Concepts:** conservation science concepts and frameworks; interdisciplinary approaches to ecology, policy, economics, and social sciences; systems thinking

- **Competencies:** Students will be able to conduct analytical reviews of conservation challenges and apply interdisciplinary techniques to diverse problems, synthesize knowledge from multiple fields, evaluate conservation problems within both ecological and community-based contexts, and produce evidence-based assessments. Students will demonstrate effective communication of findings, particularly in applied or community settings.
- **Assessment Process and Measures Summary:** The learning outcome will be assessed using two direct, student-produced artifacts drawn from the culminating project in the capstone course and the final project from the community engagement course. Both measures will require a high-level analysis that implements interdisciplinary techniques and practices applied to a variety of distinct problems and varied ecosystems and will be assessed using faculty-developed rubrics to ensure consistency in assessment. Data will be collected and evaluated by unit and college leadership to support decisions for continuous improvement of the program.

Learning Outcome 2: Students will be able to evaluate the effectiveness of current practices in conservation science, policy, economics and management in addressing biodiversity loss and ecosystem degradation.

- **Concepts:** theories, practices and policies in conservation science, economics and environmental management, biodiversity loss and degradation
- **Competencies:** Students will critically analyze the effectiveness of current conservation practices in achieving ecological goals; assess policies and management strategies; identify gaps or limitations; propose informed recommendations for improvement, and integrate scientific, economic and policy perspectives into well-reasoned evaluations that contribute to better conservation strategies. They should recognize the strengths, weaknesses and trade-offs of different approaches and gain awareness of how science, governance and economics interact to influence conservation outcomes.
- **Assessment Process and Measures Summary:** The learning outcome will be assessed using two direct, student-produced artifacts from the required science and policy course. The landscape analysis project and policy recommendation assignment will require students to assess common practices, trends, theories and policies and how they affect systemic issues of loss and degradation. Both artifacts will be assessed using faculty-developed rubrics. Data will be collected and evaluated by unit and college leadership to support decisions for continuous improvement of the program.

Learning Outcome 3: Students will be able to apply multidisciplinary environmental management and conservation practice in real-world settings.

- **Concepts:** ecological theory, environmental management principles, conservation practice, conservation policy
- **Competencies:** Students will apply environmental management and conservation practices in professional or community settings, integrate knowledge from diverse disciplines, design and implement strategies that address practical conservation problems, evaluate the outcomes of their work, develop skills for professional employment or advanced academic opportunities, communicate effectively with varied audiences and engage in applied conservation leadership. They need to understand how knowledge from multiple disciplines, including indigenous and traditional ecological perspectives, can be integrated into management strategies.
- **Assessment Process and Measures Summary:** The learning outcome will be assessed using a direct and indirect measure. The practical proposal assignment from the required capstone course will be used to assess student understanding of environmental management and conservation practices as they apply to professional or community

settings. The proposal will be assessed via a faculty-developed rubric. The program will also utilize university exit survey data, specifically the question "Acquiring job or work-related knowledge and skills". Data is evaluated by unit and college leadership to support decisions for continuous improvement of the program.

Projected Enrollment for the First Three Years:

Year 1: 10
Year 2: 25
Year 3: 75

Evidence of Market Demand:

The BS in Conservation will prepare students and learners to enter a labor market with conservation-related jobs growing at a steady rate of about 3.7% and more than four million jobs expected by 2032, according to the U.S. Bureau of Labor Statistics. The U.S. alone will add about 14,000 new jobs per year in the traditional "management of environmental systems" industry. These current estimates and future forecasts likely underestimate demand in the labor market because they do not account for occupations in other sectors that may engage in conservation-related efforts and jobs that do not exist yet.

A broad set of professional competencies are consistently in high demand among practitioners from across a wide range of positions, locations and seniority (Kittinger et. al., 2021). These competencies included scientific proficiency, technical and analytics skills, and "informal skills" such as interpersonal communication and problem solving. ASU faculty have additionally observed the need for skills development in project management, community engagement, and quantitative data assessment. Such skills gaps could be mitigated through early exposure to transdisciplinary and intercultural knowledge systems and integration of practical, hands-on experience into the curriculum of degree and training programs.

Works Cited
Kittinger, J.N., Cheng, S.H., Neher, J.H., Scoville-Weaver, A., Ahumada J. A., Tripati, A., & Lout, G.E. (2021). Preparing conservation practitioners for the Anthropocene. Frontiers in Ecology and the Environment, 19(2), 88-90. https://doi.org/10.1002/fee.2308

Similar Programs Offered at Arizona Public Universities:

The University of Northern Arizona has the following programs in related areas:
BS in Environmental Sciences (Environmental Management)
BS in Environmental and Sustainability Studies
BS in Forestry

The University of Arizona has the following programs in related areas:
BS in Natural Resources (several subplans)
BS in Plant Sciences

Although similar, the BS in Conservation at ASU will focus broadly on conservation in a variety of disciplinary areas and leverage the expertise of the College of Global Futures.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required, as existing College of Global Futures resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount: N/A

Fee Justification: N/A

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: Executive Master of Sustainability (EMSust) in Sustainability Strategy and Solutions
Academic Department: Rob Walton College of Global Futures *School of Sustainability*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: 2026
Brief Program Description: The Executive Master of Sustainability (EMSust) in Sustainable Strategy and Solutions is designed for experienced working professionals who want to develop applied skills in sustainability leadership. Admitted students will have at least three years of professional experience to apply to courses and case studies, creating an environment where peers can share their best practices. The degree prepares them to apply their professional experience in a more sustainability-focused role or in a more sustainability-related organization to lead transformational change. Students will be prepared to incorporate sustainability strategy into existing organizations and industries to create effective solutions. The required coursework incorporates sustainability strategies, communication, global context, and problem-solving to prepare students for leadership roles that emphasize sustainability practices. Through electives, students develop sought-after green skills like sustainability accounting; sustainable entrepreneurship; and Environmental, Social, and Governance (ESG) assessment and reporting. In the culminating experience, students work on a sustainability challenge within their own organization, maximizing the value to their current employers. Providing executive sustainability education to professionals prepares the way for a global shift toward sustainable practices. While individuals are a powerful force for change, organizations must act to create systemic transformations. The program prepares existing leaders to leverage their abilities and lead their organizations toward a greener future. This leverages ASU's

sustainability leadership to enable student success in their studies and their industries, conduct use-inspired research that benefits their existing organizations and communities, and extend the university's impact globally. By preparing current business executives and leaders to apply sustainability mindsets, the EMSust in Sustainablity Strategy and Solutions will also promote principled innovation in diverse organizations.

Graduates of the degree will be prepared to apply their knowledge to existing and future sustainability challenges. Their skills will include assessing personal collaborative strengths as a sustainability leader and applying these strengths to work in teams that assess sustainability opportunities and strategies; assessing sustainability problems that cut across different domains, scales and timelines; comparing existing and emerging organizational models and their implications for sustainability and strategic planning, creating a strategic sustainability plan; critically assessing policies and proposals against a comprehensive set of sustainability criteria, using a suite of sustainable models, tools and cases; evaluating the strengths and limitations of sustainability criteria to develop and implement transformational proposals; and leading sustainability transitions within their organizations.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will integrate sustainability concepts in the design of a strategic sustainability plan.

- **Concepts:** complex systems; Earth systems; transdisciplinarity; sustainable development goals; sustainability problems; three pillars of sustainability; circular economy; life cycle assessment; environmental, social and governance, ecological footprint; carbon neutrality; greenwashing; resilience; and stakeholders
- **Competencies:** Students will have the ability to describe a sustainability problem relevant to their organization; conduct a landscape analysis of potential solutions to a sustainability problem; describe alternative strategies to solve a sustainability problem; and give examples of successful strategies for producing a sustainability outcome, i.e. case studies.
- **Assessment Process and Measure Summary:** The EMSust program comprises graduate students from a variety of disciplinary and experiential backgrounds who enter the program with professional experience. The first measure assignment from the Strategic Sustainability and Leadership course requires students to apply and integrate a variety of systems, ESG (environment, social and governance), and the three pillars of sustainability to solve complex sustainability problems. This project will be weighed against a faculty-developed rubric to ensure objective and consistent assessment is taking place. The second measure assignment from the Mastering the Global Sustainability Context course is focused on organizational change strategies to achieve sustainability (e.g. SDGs, ESGs, Carbon Neutrality, Stakeholders, etc.). This project will be weighed against a faculty-developed rubric to ensure objective and consistent assessment is taking place. Data from these assessments will be used to ensure continuous programmatic improvement as we determine what refinements need to be made. The capstone project challenges students to apply their mastery of sustainability concepts to develop a strategic plan for their professional organization.

Learning Outcome 2: Students will develop strategies that address sustainability challenges of an organization.

- **Concepts:** materiality, stakeholder engagement, co-development, impact analysis, corporate social responsibility, tradeoffs, sustainability outcome

- **Competencies:** Students will be able to generate alternative strategies to achieve a sustainability outcome in response to a specific sustainability problem for an organization; use literature, interviews and or case studies to determine best practices among alternative strategies; recommend a sustainability problem solving strategy; describe expected outcomes following implementation of a sustainability strategy; present and defend a sustainability strategy; and collaborate with team members in the development of a sustainability problem-solving strategy.
- **Assessment Process and Measure Summary:** The culminating experience (applied project) for the EMSust requires students to develop clear, cogent and compelling written section(s) of a sustainability proposal (project) that addresses a specific sustainability challenge affecting their professional organization. Students work independently on the project to recruit stakeholders and obtain needed documentation and data from their organization to develop an individualized strategic plan. This project will be weighed against a faculty-developed rubric to ensure objective and consistent assessment is taking place. The assignment will demonstrate understanding of stakeholder engagement, co-development and impact analysis. This project will be weighed against a faculty-developed rubric to ensure objective and consistent assessment is taking place. Potential course and program improvements will be identified and informed via this process. Data from the assessment will be used to ensure continuous programmatic improvement as we determine what refinements need to be made.

Learning Outcome 3: Students will demonstrate strategic leadership and the application of sustainability problem-solving into their organization's strategy, culture and operations.

- **Concepts: l**eadership, initiative, perseverance, stakeholder engagement, adaptability, project management, networking, teamwork, collaboration, workplace culture
- **Competencies:** Students will have the ability to design institutional initiatives using current ESG business reporting requirements in the U.S. and the E.U.; analyze and make recommendations based on ESG data; identify key technical knowledge typically required of sustainability professionals, e.g. GHG and carbon accounting, life cycle assessment, and LEED certification; use collected information to develop a clear and persuasive business case for sustainability practices within their organization; and effectively present recommended solutions to a sustainability challenge.
- **Assessment Process and Measure Summary:** The final independent applied project that assesses students' capability of understanding, analyzing, and solving organizational sustainability problems and challenges, and demonstrates competency in professionalism, initiative, teamwork and organizational culture. Student success requires knowledge and understanding of key sustainability skills, mastery of organizational leadership principles, and knowledge of their industry and organization. Assessment will emphasize the degree to which a student's strategic plan advances their organization's mission, vision and values. This project will be weighed against a faculty-developed rubric to ensure objective and consistent assessment is taking place. Potential course and program improvements will be identified and informed via this process. The School of Sustainability will conduct a survey of all graduates of the sustainability degree program in alternate years from the College of Global Futures conducting this survey. Potential course and program improvements will be identified via the survey results. Data from these assessments will be used to ensure continuous programmatic improvement as the unit determines what refinements need to be made.

Projected Enrollment for the First Three Years:

Year 1: 5
Year 2: 10
Year 3: 15

Evidence of Market Demand:

The Executive Master of Sustainability in Sustainable Strategy and Solutions represents an opportunity for high-ranking professionals to add sustainability and green skills to the foundations of their undergraduate degree or previous work experience, to advocate for the creation of sustainability jobs in their organization, and to assume leadership roles like Chief Sustainability Officer. Market demand for sustainability alumni must examine both existing jobs and those that have yet to emerge. The Bureau of Labor Statistics reports on "green jobs" rather than sustainability, but their criteria focus on goods, technologies and services in a way that doesn't accurately reflect career outcomes for sustainability degree holders. Their Green Jobs outlook has also not been updated since 2013 due to budget considerations (1). O*Net highlights the bright future outlook for roles and titles that sustainability alumni currently fill: sustainability specialist, sustainability strategic advisor, sustainability consultant or sustainability coordinator (2). Because students in the Executive Master of Sustainability Strategy and Leadership are required to have at least three years of professional experience, they will qualify for executive roles such as chief sustainability officer, sustainability initiatives VP, or sustainability director (3).

There is an existing gap between positions that require green skills and the number of applicants available to fill them, and that gap is widening. The Bureau of Labor Statistics anticipates average growth in top executive positions over the next decade (4), but green jobs are outperforming the average. LinkedIn's Global Green Skills Report 2023 points to a growing market for sustainability skills in both "green" and "greening" jobs. It reports that workers with at least one green skill have a median hiring rate 29% higher than the workforce average, and they project a 2% gap in supply and demand by 2026 (5). The World Economic Forum concluded that the need for green leadership skills is increasing globally, with roles like sustainability analyst, system engineer, and renewable energy engineer in high demand (6). Students in the EMSust will already have professional experience in their industry, and the degree will prepare them to lead sustainability change in their organization.

Research by both the School of Sustainability and EdPlus revealed that sustainability strategy represents a niche that is currently not being served. Strategy is a common search term for business degrees, but it is unused in the field of sustainability. As a name, sustainability describes the content of the degree and represents both a mechanism (strategy) and a result (solutions) in a way that sets this program apart from competitors. Executives who want to add sustainability to their portfolio want to learn with and from other executives and experienced professionals, which they will find in the executive MSust. Future marketing will focus on the school's expertise in filling this niche and providing high-level sustainability training for those who already have professional experience.

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(1) https://www.bls.gov/green/overview.htm
(2) https://www.onetonline.org/link/summary/13-1199.05
(3) https://www.onetonline.org/link/summary/11-1011.03
(4) https://www.bls.gov/ooh/management/top-executives.htm#tab-1

(5) https://economicgraph.linkedin.com/en-us/research/global-green-skills-report
(6) https://linkedin.github.io/global-green-report-2022/

Similar Programs Offered at Arizona Public Universities:

University of Arizona
The U of A has a Master of Science in Environmental Science that includes a non-thesis track, but its coursework focuses on environmental science and soil and water science. It does not include coursework related to green skills or sustainability.

There are University of Arizona faculty in Environmental Sustainability within the School of Government and Public Policy, but that school does not offer a sustainability-focused master's degree.

Northern Arizona University
NAU offers an MS in Environmental Engineering. Its other sustainability-related degree is the PhD program in Earth Sciences and Environmental Sustainability, including an emphasis in Climate and Environmental Change. None of these programs offer a focus on providing professional sustainability experience.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $5532 per semester (12 credits fall/spring)

Fee Justification: The program fee is necessary to pay the costs associated with offering the degree, including instruction and course development costs, staff support costs, and expenses related to the immersive experience available to current students in the program. Students in the Executive Master of Sustainability Leadership are already paying a $439 per credit program fee. Our requested fee of $461 for the EMSust keeps pace with that fee, including the usual 5% per year increase that would have been requested for fall 2026. EMSust students complete the degree in 3 semesters and take 12 credits per semester in the fall and spring semesters ($5532 program fee) and 6 credits in the summer ($2766 program fee). The program cannot launch without the fee in place.

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: Master of Sustainability (MSust) in Sustainability Strategy and Solutions
Academic Department: Rob Walton College of Global Futures *School of Sustainability*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: 2026
Brief Program Description: The Master of Sustainability in Sustainability Strategy and Solutions aligns with ASU's design aspirations to engage globally and enable student success. By making sustainability education affordable and flexible, the MSust provides an opportunity for recent undergraduates and early career professionals to develop sustainability skills on their own schedule. Sustainability is a rapidly transforming field that addresses evolving global challenges. The MSust program is designed for aspiring sustainability professionals who want to apply their knowledge to improve organizational practices. The required coursework incorporates strategy, communication, global context and problem-solving to prepare students for diverse roles that demand “green skills.” Graduates of the degree will be prepared to apply their knowledge to existing and future sustainability challenges. Their skills will include assessing personal collaborative strengths and applying these strengths to work in teams that assess sustainability opportunities and strategies; assessing sustainability problems that cut across different domains, scales and timelines; comparing existing and emerging organizational models and their implications for sustainability and strategic planning; creating a strategic sustainability plan; critically assessing policies and proposals against a comprehensive set of sustainability criteria, using a suite of sustainable models, tools and cases; and evaluating the strengths and limitations of sustainability criteria to develop and implement transformational proposals.

Through electives, students develop sought-after green skills like sustainability accounting, Environmental, Social, and Governance (ESG) assessment and reporting, and sustainable entrepreneurship. In the culminating experience, students work with real-world clients to solve sustainability challenges, which directly contributes to ASU's impact on the community. It also contributes to the students' professional portfolio.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will integrate sustainability concepts in the design of a strategic sustainability plan.

- **Concepts:** complex systems; Earth systems; transdisciplinarity; sustainable development goals; sustainability problems; three pillars of sustainability; circular economy; life cycle assessment; environmental, social and governance; ecological footprint; carbon neutrality; greenwashing; resilience; stakeholders
- **Competencies:** Students will be able to describe a sustainability problem, conduct a landscape analysis of potential solutions, describe alternative strategies, and give examples of successful strategies for producing a sustainability outcome, i.e. case studies.
- **Assessment Process and Measure Summary:** The first measured assignment requires students to apply and integrate a variety of systems, ESG (environment, social and governance), and the three pillars of sustainability to solve complex sustainability problems. This project will be weighed against a faculty-developed rubric to ensure objective and consistent assessment is taking place. The second measured assignment is focused on organizational change strategies to achieve sustainability (e.g. SDGs, ESGs, carbon neutrality, stakeholders, etc.). This project will be weighed against a faculty-developed rubric to ensure objective and consistent assessment is taking place. Data from these assessments will be used to ensure continuous programmatic improvement as we determine what refinements and improvements need to be made.

Learning Outcome 2: Students will develop strategies that address sustainability challenges of an organization.

- **Concepts:** materiality, stakeholder engagement, co-development, impact analysis, corporate social responsibility, tradeoffs, sustainability outcome
- **Competencies:** Students will be able to generate alternative strategies to achieve a sustainability outcome in response to a specific sustainability problem for an organization. They will use literature, interviews and or case studies to determine best practices among alternative strategies, recommend a sustainability problem-solving strategy, describe expected outcomes following implementation of a sustainability strategy, present and defend a sustainability strategy and collaborate with team members in the development of a sustainability problem-solving strategy.
- **Assessment Process and Measure Summary:** In the first measured assignment, students will develop a clear, cogent and compelling written section of a sustainability report that addresses a specific sustainability challenge of a sponsoring organization. This project will be evaluated by a faculty-developed rubric to ensure objective and consistent assessment is taking place. In the second measured assignment, students will demonstrate understanding of stakeholder engagement, co-development, and impact analysis. This project will be weighed against a faculty-developed rubric to ensure objective and consistent assessment is taking place. Potential course and program improvements will be identified and informed via this process. Data from these assessments will be used to ensure continuous programmatic improvement as we determine what refinements and improvements need to be made.

Learning Outcome 3: Students will demonstrate professional sustainability job knowledge and standards necessary to employment.

- **Concepts:** professionalism, initiative, perseverance, self-promotion, adaptability, leadership, networking, teamwork, collaboration and workplace culture
- **Competencies:** Students will be able to name and describe current ESG business reporting requirements in the U.S. and the E.U., analyze (examples of) ESG data, identify key technical knowledge typically required of sustainability professionals, e.g., greenhouse gas and carbon accounting, life cycle assessment, Leadership in Energy and Environmental Design certification, describe potential effects of climate change on a specific organization and spontaneously defend recommended solutions to a sustainability challenge.
- **Assessment Process and Measures Summary:** The client conversation project measures students' capability at understanding, analyzing and solving organizational sustainability problems and challenges, which demonstrates competency in professionalism, initiative, teamwork and organizational culture. Part of the student conversations will require dialogue around how the client organization can meet and prioritize sustainability standards. This project will be weighed against a faculty-developed rubric to ensure objective and consistent assessment is taking place. Potential course and program improvements will be identified and informed via this process. The School of Sustainability and the College of Global Futures will field a survey of all graduates of the degree program. These academic units will alternate years in conducting the survey. Potential course and program improvements will be identified via the survey results. Data from these assessments will be used to ensure continuous programmatic improvement as we determine what refinements and improvements need to be made.

Projected Enrollment for the First Three Years:

Year 1: 80
Year 2: 175
Year 3: 250

Evidence of Market Demand:

Traditional outlets, such as the Bureau of Labor Statistics, do not track sustainability as a career field. The School of Sustainability has assessed demand for the Master of sustainability by looking at reports from LinkedIn, consulting with professionals in the sustainability industry, and outreach to alumni about the roles they fulfill and the organizations where they work. The rapid transformations taking place in the field require a focus on both existing jobs and those expected to emerge.

The Master of Sustainability provides an opportunity for professionals to add sustainability and green skills to the foundations of their undergraduate degree or previous work experience. LinkedIn's Global Green Skills Report 2024 points to a growing market for sustainability skills in both "green" and "greening" jobs. It reports that the demand for green talent in the United States grew 9.8% between 2023 and 2024, and the hiring rate for green talent is 80.3% higher than the hiring rate for talent overall. They predict a growing gap between the demand for green skills and the number of applicants who can fill those roles (1). The World Economic Forum concluded that the need for green skills is increasing globally, with roles like sustainability analyst, system engineer and renewable energy engineer in high demand (2).

O*Net also highlights the bright future outlook for roles and titles that our sustainability master's alumni currently fill: sustainability specialist, sustainability strategic advisor, sustainability consultant or sustainability coordinator (3). Earning the MSust will make graduates more competitive for these emerging opportunities. While the degree is available to recent undergraduates and early career professionals, those who join the program with more professional experience may qualify for roles like chief sustainability officer, sustainability initiatives VP or sustainability director (4).

The Bureau of Labor Statistics reports on "green jobs" rather than sustainability, but their criteria focus on goods, technologies and services in a way that doesn't accurately reflect career outcomes for sustainability degree holders. Their "green jobs" outlook has also not been updated since 2013 due to budget considerations (5).

The School of Sustainability collaborated with EdPlus to assess the market implications of this degree name. While they don't normally recommend long degree names, their marketing and ESO team determined that similar program names are ranking well, and concluded that "sustainability solutions" has good search volume, and "sustainability strategy" has good search volume but no top results among .edu pages. This supports the faculty committee's conclusion that sustainability strategy represents a niche that is currently not being served. As a name, sustainability describes the content of the degree and represents both a mechanism (strategy) and a result (solutions) in a way that sets this program apart from competitors. Future marketing will focus on the school's expertise in filling this niche.

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(1) https://economicgraph.linkedin.com/content/dam/me/economicgraph/en-us/PDF/Global-Green-Skills-Report-2024.pdf
(2) https://linkedin.github.io/global-green-report-2022/
(3) https://www.onetonline.org/link/summary/13-1199.05
(4) https://www.onetonline.org/link/summary/11-1011.03
(5) https://www.bls.gov/green/overview.htm

Similar Programs Offered at Arizona Public Universities:

University of Arizona:
Master of Science in Environmental Science - includes a non-thesis track, but its coursework focuses on environmental science and soil and water science. It does not include coursework related to green skills or sustainability.

There are University of Arizona faculty in Environmental Sustainability within the School of Government and Public Policy, but that school does not offer a sustainability-focused master's degree.

Northern Arizona University:
MS in Environmental Engineering, PhD program in Earth Sciences and Environmental Sustainability, including an emphasis in Climate and Environmental Change. None of these programs offer the same focus on providing professional sustainability experience.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $270 per credit ($2430 per semester for 9 credits)

Fee Justification: The program fee is necessary to pay the costs associated with offering the degree, including instruction and course development costs, staff support costs, and expenses related to the immersive experience available to students in the program. Budget projections for 2025-2026 indicate that these needs can be met with a program fee of $270 per credit for an estimated semester course load of 9 credits. The degree cannot launch without them.

Specialized Accreditation? YES **NO**

Accreditor: Not Applicable

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MS in Conservation
Academic Department: Rob Walton College of Global Futures *Rob Walton School of Conservation Futures*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: 2026
Brief Program Description: The MS in Conservation prepares students for conservation careers in a rapidly changing landscape through a transdisciplinary approach that builds practical skills in environmental and natural resource management. These skills are based on conservation science theories and frameworks, perspectives from ecology, policy, social science and economics and include systems thinking, conservation issues, current trends, practices and policies in conservation. The program offers a flexible foundation in natural sciences and social sciences, which is then paired with applied training in a variety of conservation areas such as restoration science, species and habitat management, community engagement, environmental assessment and resource planning. A hands-on culminating experience gives students the opportunity to apply their learning in real-world settings, preparing them for technical and management roles in conservation organizations, industry, government agencies and other sectors working with communities to protect and restore ecosystems, wildlife and natural landscapes. The MS in Conservation is intended to complement other environmental programs at ASU. This program supports the ASU Charter by “assuming responsibility for the health of the communities it serves,” by empowering our next generation of leaders to help support planetary health. This is a degree for those who are passionate about nature, people and the future of life on Earth—and those who want to be part of developing solutions to support that future.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will evaluate complex conservation challenges through interdisciplinary practice.

- **Concepts:** conservation science theories and frameworks; perspectives from ecology, policy, social science and economics; systems thinking; conservation issues; current trends, practices and policies in conservation
- **Competencies:** Students will be able to apply interdisciplinary frameworks to generate solutions, identify systemic causes of environmental degradation, identify strategies for adaptive management or policy improvement, collaborate across disciplines and work effectively with varied stakeholders to address conservation challenges.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed using two direct student-produced artifacts. The direct measures are drawn from required courses in the program to capture the total program population. The Landscape Analysis project and final applied project culminating experience will require students to assess common practices, trends, theories and policies and how they affect systemic issues of loss and degradation. Both artifacts will be assessed using faculty-developed rubrics. These assessments and student performance will demonstrate where the program is sufficiently providing content knowledge and practice, as well as where content is potentially in need of support. Data will be collected annually by curricular staff and evaluated by unit and college leadership to support decisions for continuous improvement of the program.

Learning Outcome 2: Students will design collaborative and community-engaged conservation innovations.

- **Concepts:** collaborative conservation principles, community engagement in environmental initiatives, socio-economic and political factors that shape local conservation efforts
- **Competencies:** Students will be able to design and implement conservation initiatives that effectively engage communities, collaborate with stakeholders across diverse groups, apply conservation methods in ways that respect local contexts, adapt strategies based on community input, assess the effectiveness of engagement approaches and communicate outcomes clearly to both professional and public audiences. They should also be able to develop knowledge of stakeholder dynamics, cultural contexts and governance structures that influence decision-making in conservation practices.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed using two direct student-produced artifacts. The direct measures are drawn from required courses in the program to capture the total program population. The culminating project from the Community Engagement course and the final applied project culminating experience will require students to design conservation initiatives that effectively engage communities with diverse stakeholders. Both artifacts will be assessed using faculty-developed rubrics to ensure consistency in assessment scoring. These assessments and student performance will demonstrate where the program is sufficiently providing content knowledge and practice, as well as where content is potentially in need of support. Data will be collected annually by curricular staff and evaluated by unit and college leadership to support decisions for continuous improvement of the program.

Learning Outcome 3: Students will employ professional competencies and leadership through cross-sector conservation efforts.

- **Concepts:** professional leadership theories and practices, cross-sector collaboration models, roles of conservation professionals in government, non-profit and private sector contexts
- **Competencies:** Students will be able to apply leadership skills in professional conservation contexts, demonstrating decision-making, communication and organizational effectiveness; have the ability to collaborate across sectors, lead teams in designing and implementing conservation strategies and evaluate the professional and societal impacts of their work; be prepared to transition into careers or advanced academic programs where leadership and cross-sector engagement are central to success; and become familiar with ethical frameworks, communication strategies and organizational dynamics that underpin effective leadership in conservation initiatives.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed using a direct and indirect measure. The applied project culminating experience will be used to assess student understanding of leadership practices in environmental management and conservation practices as they apply to professional or community settings. The project will be assessed via a faculty-developed rubric to ensure consistency across assessment scoring. The program will also utilize university exit survey data, specifically the question "Acquiring leadership and management skills." Data will be collected annually by curricular staff from faculty and university survey reporting and evaluated by unit/college leadership to support decisions for continuous improvement of the program.

Projected Enrollment for the First Three Years:

Year 1: 10
Year 2: 45
Year 3: 60

Evidence of Market Demand:

The MS in Conservation will prepare students to enter a labor market with conservation-related jobs growing at a steady rate of about 3.7% and more than four million jobs expected by 2032, according to the U.S. Bureau of Labor Statistics. The U.S. alone will add about 14,000 new jobs per year in the traditional “management of environmental systems” industry. These current estimates and future forecasts likely underestimate demand in the labor market because they do not account for occupations in other sectors that may engage in conservation-related efforts and jobs that do not exist yet.

A broad set of professional competencies are consistently in high demand among practitioners from across a wide range of positions, locations, and seniority (Kittinger et. al., 2021). These competencies include scientific proficiency, technical and analytics skills and “informal skills” such as interpersonal communication and problem solving. Additionally, ASU faculty have observed the need for skills development in project management, community engagement and quantitative data assessment. Such skills gaps could be mitigated through early exposure to transdisciplinary and intercultural knowledge systems and integration of practical, hands-on experience into the curriculum of the degree and training programs.

Kittinger, J.N., Cheng, S.H., Neher, J.H., Scoville-Weaver, A., Ahumada J. A., Tripati, A., & Lout, G.E. (2021). Preparing conservation practitioners for the Anthropocene. Frontiers in Ecology and the Environment, 19(2), 88-90. https://doi.org/10.1002/fee.2308

Similar Programs Offered at Arizona Public Universities:

Northern Arizona University
Master of Forestry in Forest and Natural Resource Management - The proposed MS in Conservation includes conservation in urban and city environments and takes a comprehensive approach to conservation and biodiversity that includes policy, law, economics, technology and social sciences, rather than a specific focus on forestry.

MS in Biology (Ecology, Evolution and Conservation Biology) - the proposed MS in Conservation includes the scientific basis of conservation and biodiversity, and goes into policy, law, economics, technology and social sciences.

Master of Forestry in Forestry - the proposed program includes conservation in urban and city environments. The MS in Conservation takes a comprehensive approach to conservation and biodiversity that includes policy, law, economics, technology and social sciences, rather than a specific focus on forestry.

University of Arizona
MS in Natural Resources - the proposed MS in Conservation takes a comprehensive approach to conservation and biodiversity that includes policy, law, economics, technology and social sciences, rather than specific Natural Resources.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $2250 per semester (based on $250/credit for a 9 credit semester)

Fee Justification: Program fees will be used to support field experiences, instructional design, and other student support activities.

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MS in Innovation
Academic Department: Rob Walton College of Global Futures *School for the Future of Innovation in Society (proposed to change to the School of Innovation)*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: 2026
Brief Program Description: The Master of Science in Innovation positions Arizona State University and the School for the Future of Innovation in Society as global leaders in innovation studies. This will be the first degree of its kind in Arizona, offering transdisciplinary graduate education that combines advanced innovation knowledge and hands-on skills with a socioeconomic, technological, ethical and environmental impact mindset. Leveraging ASU's #1 ranking in innovation, the degree meets market demands driven by advances in AI, immersive technologies and other growing tech fields. In addition, this degree aims to teach innovation principles that have applications in entertainment, finance, media, public policy, and other non-STEM fields, as well as in any domain or sector seeking innovation. Students will develop a deep understanding of innovation as a systemic and strategic process, gaining the skills to lead diverse teams, navigate complexity, and drive meaningful change. They will learn to approach innovation as a force for advancing organizational effectiveness and societal well-being, moving beyond narrow technical or business definitions. ASU’s global reputation for innovation, commitment to access, and mission-driven focus on public value make it an ideal home for training the next generation of innovation leaders. The program draws on ASU's strengths in transdisciplinary collaboration and socially responsible innovation.

This program is especially suited for students who:

- aspire to influence strategy and lead change across sectors
- seek leadership roles in innovation-related fields
- value innovation that serves both organizational goals and the public good
- want to work across disciplines, sectors and global contexts

Graduates will emerge as transformational change agents equipped to improve the economic, social, cultural and environmental health of the communities they serve. The program also aligns with ASU's broader mission to expand global access to education and innovation.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will examine advanced transdisciplinary strategies to solve complex innovation problems across sectors.

- **Concepts:** advanced innovation theories, models and strategies for public, private and non-profit sectors; advanced concepts of how social, economic, technological and environmental frameworks shape innovation strategies
- **Competencies:** Graduates will be able to identify and categorize advanced innovation types and processes and integrate advanced transdisciplinary perspectives on complex innovation problems across disciplinary boundaries in national and international settings.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed using two direct student-produced artifacts. The real-world innovation challenge in the Advanced Innovation Strategies course will be used to measure students' advanced transdisciplinary skill applications, which require students to integrate advanced theories, models and strategies for innovation. The transdisciplinary innovation analysis in the Foundations of Innovation course will be used to measure students' ability to integrate concepts of social, economic and ethical frameworks to shape innovation strategies. Both assignments will be assessed using faculty-developed rubrics for standardized scoring. If a significant portion of students fall below the “Meets Expectations” level on any rubric dimension, faculty will revisit the course content and instructional methods to implement targeted improvements. Data will be analyzed to assess the overall effectiveness of the curriculum, and results from the assessment will be reviewed by the program committee.

Learning Outcome 2: Students will integrate cross-functional leadership skills in innovation processes.

- **Concepts:** strategic thinking, change management, emotional intelligence, innovation, creativity, motivating and empowering others, problem framing, systems thinking, design thinking approach, facilitating co-creation, mapping, stakeholder engagement
- **Competencies:** Students will be able to describe executive-level leadership styles and practices, use problem-solving to address leadership challenges, identify problems and bottlenecks, and facilitate co-creation and engage stakeholders to develop solutions.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed using two direct student-produced artifacts. A case study assignment in the Leadership for Innovation course will be used to measure students' capability for strategic thinking, systems thinking, and design thinking. The mapping innovation processes assignment in the Managing Innovation course will be used to measure students' ability to incorporate social, economic, technological and environmental frameworks that demonstrate creativity, empowerment, problem solving, and design thinking approaches. Both

assignments will be assessed using faculty-developed rubrics for standardized scoring. If a significant portion of students fall below the "Meets Expectations" level on any rubric dimension, faculty will revisit the course content and instructional methods to implement targeted improvements. Data will be analyzed to assess the overall effectiveness of the curriculum, and results from the assessment will be reviewed by the program committee.

Learning Outcome 3: Students will develop an innovation initiative for a complex real-world problem.

- **Concepts:** innovation design, stakeholder analysis and impact assessment, leadership strategies and practices, value proposition design, safe-to-fail probes, risk management, and open innovation
- **Competencies:** Graduates will have the ability to explain innovation design, develop a stakeholder analysis and impact statement, demonstrate value proposition, implement safe-to-fail probes and describe open innovation methodologies.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed using a direct and indirect measure. The Applied Innovation project from the Innovation Lab course will be assessed via a faculty-developed rubric. The project will demonstrate students' ability to integrate cross-functional leadership skills, advanced theories and concepts of innovation, and advanced interdisciplinary perspectives on a real-world innovation problem or challenge involving an external client. The external client will also provide input in the assessment of the innovation projects, using a faculty-designed rubric, which focuses on how well the project design, implementation, assessment and communication meets clients' needs and requirements. If a significant portion of students fall below the "Meets Expectations" level on any rubric dimension, faculty will revisit the course content and instructional methods to implement targeted improvements. The program will also deploy an exit survey for graduating students to capture indirect data, including the question, "How well did the program prepare you to lead the design, development, and implementation of innovation initiatives?" Direct and indirect data will be analyzed to assess the overall effectiveness of the curriculum in teaching these principles, and results from the assessment will be reviewed by the program committee.

Projected Enrollment for the First Three Years:

Year 1: 30
Year 2: 90
Year 3: 150

Evidence of Market Demand:

The 2025 Quacquarelli Symonds (QS) World Future Skills Index highlights the demand for cross-functional leadership in innovation and the need for higher education to align with industry demands, which would prepare graduates for dynamic, interdisciplinary leadership roles. There is a strong and growing demand for professionals who can lead innovation initiatives that cut across traditional boundaries. According to the U.S. Bureau of Labor Statistics (2023), roles such as innovation directors and strategy leads are projected to grow 6% from 2022 to 2032, faster than the average for all occupations. Median salaries for these roles exceed $100,000, reflecting the high value placed on innovation leadership.

Recent labor market analyses from Lightcast (2023) highlight a sharp increase in employer demand for skills such as strategic innovation, design thinking, cross-functional collaboration and ethical leadership — all of which are core elements of this program. Roles like chief innovation officer, innovation strategist and transformation lead are increasingly common across industries, including technology, healthcare, finance, government and international development. A 2023 LinkedIn Global Talent Report identifies innovation as a top-five skill gap cited by employers, particularly for leadership and interdisciplinary roles. A PricewaterhouseCoopers (PwC) Innovation Benchmarking survey found that 54% of executives struggle to align innovation with business strategy. This degree will fill that need, preparing students for roles projected to grow faster than average through 2033, including chief innovation officers and other leadership positions focused on nurturing cross-functional innovation. In Inc. magazine, Soren Kaplan notes that diverse organizations, including Marriott and the City of San Francisco, now hire innovation leaders. Global trends, particularly in China, India and South America, prioritize STEM-designated degrees, reflecting emerging markets' growing role in global GDP and innovation. Employers nationally and internationally are seeking professionals who can not only manage innovation, but also align it with organizational values, stakeholder needs and long-term impact. This degree responds to those unmet market needs by preparing graduates with the skills and knowledge necessary to design and lead innovation efforts that are impactful, ethical and globally relevant.

Similar Programs Offered at Arizona Public Universities:

Several programs at ASU and other Arizona public universities include "innovation" in their titles or curricula; however, the MS in Innovation is substantively different in both scope and academic focus.

Although there are a few programs across Arizona that have "innovation" as a keyword, after a more detailed analysis, these programs do not focus on innovation as a central concept and academic discipline.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $2250 (based on $250/credit for a 9-credit semester)
Fee Justification: The above fee is a calculation based on $250/credit for a 9-credit semester.

This fee ensures students gain practical, high-value learning experiences while keeping costs reasonable. Examples are:

- Industry-Driven Learning – Supports innovation labs, guest speakers, and real-world consulting projects with industry partners.
- Specialized Digital Resources – Provides access to prototyping tools, databases and analytics software essential for innovation research.
- Professional Development – Funds networking events, mentorship programs, and industry engagement opportunities to enhance career prospects.
- Competitive Benchmarking – Aligns with similar graduate programs that charge fees for experiential and applied learning components.
- Enhanced Online Learning – Ensures high-quality virtual labs, simulations and digital collaboration tools for an engaging online experience.

The program is prepared to move forward even if the fee is not approved.

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MS in Dietetics
Academic Department: College of Health Solutions
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: 2028
Brief Program Description: The Master of Science in Dietetics will meet the requirements of a Graduate Program in Dietetics (GP) through the Academy of Nutrition and Dietetics, and is designed to prepare students for a career as a registered dietitian nutritionist (RDN). This intensive program combines didactic coursework with supervised experiential learning in clinical, community and food service settings. Upon graduation, students will be eligible to sit for the national credentialing exam with the Accreditation Council for Education in Nutrition and Dietetics (ACEND) to become a registered dietitian nutritionist. Students will complete advanced coursework in medical nutrition therapy, counseling and behavior change, food systems management and professional issues in dietetics. The curriculum is designed to build strong evidence-based practice and leadership and communication skills, while also meeting the academic and experiential requirements set by the ACEND. Through a minimum of 1000 hours of supervised experiential learning, students will apply their knowledge in real-world settings by working with diverse populations and interdisciplinary teams. Students will be responsible for arranging their own supervised practice experiences to meet the required 1000 hours of practice locally where they live. The Program Director will assist students who have trouble identifying placement sites. The MS in Dietetics provides a direct pathway to RDN licensure for students who did not complete an undergraduate Didactic Program in Dietetics (DPD). It fills a gap in the college's

current portfolio, which only provides pathways to RDN licensure for students who have completed an undergraduate DPD program.

Aligned with Arizona State University's charter and commitment to inclusion and student success, the program welcomes learners from all backgrounds and supports their path to meaningful, high-impact careers. It also reflects ASU's design aspirations by integrating innovative, use-inspired learning that connects classroom knowledge to the practical needs of communities and the health care system.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will integrate advanced knowledge of medical nutrition therapy in clinical, community, and food service settings.

- **Concepts:** pathophysiology, nutrient metabolism, medical nutrition therapy protocols, evidence-based guidelines, clinical assessment tools, disease states, food-drug interactions, nutrition-focused physical exam, dietetic standards of practice, interdisciplinary collaboration
- **Competencies:** Students will have the ability to interpret nutrition assessment data to identify patient or population needs, apply medical nutrition therapy protocols to specific disease states, evaluate nutrition interventions using evidence-based guidelines, and adapt food and nutrition plans for diverse cultural and clinical contexts.
- **Assessment Process and Measure Summary:** The Clinical Case Study: Nutrition Care Process Application assignment provides students with a detailed patient case file (including medical history, anthropometrics, lab values, dietary intake, and psychosocial context) and requires them to create a written care plan that integrates current clinical guidelines, demonstrates critical thinking, and applies advanced medical nutrition therapy principles. Through this assignment, students will demonstrate the ability to interpret nutrition assessment data to identify patient nutrition problems, develop an individualized nutrition diagnosis, and design an evidence-based intervention plan tailored to the patient's disease state (e.g., diabetes, cardiovascular disease, renal disease). In addition, students will be assigned a multi-morbidity case (e.g., a patient with Type 2 diabetes, chronic kidney disease, and cardiovascular complications) where they will be required to create a case portfolio that includes the nutrition care process and justification of clinical decisions within current guidelines as well as a presentation component that simulates the team care approach. Through this assignment, students will demonstrate a progression of being able to apply medical nutrition knowledge to managing more complex, interdisciplinary cases. Graduates will also complete an exit survey, administered to assess student opinions related to how strongly the program emphasizes program learning outcomes. These measures will be assessed yearly to ascertain whether students are demonstrating competence in this program learning objective. Instructors will use faculty-developed rubrics and grading criteria to assess student academic work and enter grades for data collection and report preparation. These grades will serve as markers for student performance. The program director and the course leads will collaborate with the College of Health Solutions Instructional Support Team to collect and analyze the data to assess the outcome. The CHS Curriculum and Academic Initiatives Team will administer the "exit survey" to graduating students at the end of each term. The program director will evaluate all collected data and prepare the assessment report. In consultation with the program committee, the program director will monitor average rubric scores and survey results compared to historical data when compiling the annual assessment report. Sustained dips in scores or survey results will prompt the committee to examine teaching methods and materials to

improve student comprehension and experience. All findings will be shared with faculty and used to support continuous improvement.

Learning Outcome 2: Students will employ counseling and communication skills to support behavior change in diverse populations.

- **Concepts:** motivational interviewing, behavior change theories, counseling strategies, interpersonal communication, cultural competence, health literacy, patient education materials, active listening, conflict resolution, professional ethics
- **Competencies:** Students will be able to employ motivational interviewing strategies in client interactions, adapt counseling approaches to account for cultural and linguistic diversity, construct patient education materials that align with health literacy principles, and apply interpersonal communication strategies in simulated and real-world scenarios.
- **Assessment Process and Measure Summary:** In the Simulated Counseling Session with Motivational Interviewing, students will conduct a video-recorded counseling session with a peer acting as a client who presents with a nutrition-related concern (e.g., weight management, diabetes self-management, sports nutrition). Students will demonstrate the ability to apply motivational interviewing techniques, incorporate behavior change theory, cultural competence, and provide clear, tailored education and goal setting. In addition, in the Community Nutrition Education Workshop, students will design and deliver a nutrition education workshop for a specific community population (e.g., adolescents, older adults, culturally diverse groups, low-income families). In completing this assignment, students will demonstrate their ability to use appropriate communication methods for a community population, use plain language and visual aids to support learning on the nutrition topic, and engage participants in activities and discussion that reinforce key nutrition messages. An exit survey will be administered to assess student opinions related to how strongly the program emphasizes program learning outcomes. These measures will be assessed yearly to ascertain whether students are demonstrating competence in this program learning objective. For data collection and report preparation, instructors will use faculty-developed rubrics and grading criteria to assess student academic work and enter grades. These grades will serve as markers for student performance. The program director and the course leads will collaborate to collect data from the dashboard to assess the measures. The CHS Curriculum and Academic Initiatives Team will administer the “exit survey” to graduating students at the end of each term and will provide the results to the program director for review and analysis. The program director will evaluate all collected data and prepare an assessment report. In consultation with the program committee, the program director will monitor average rubric scores and survey results compared to historical data when compiling the annual assessment report. Sustained dips in scores or survey results will prompt the committee to examine teaching methods and materials to improve student comprehension and experience. All findings will be shared with faculty and used to support continuous improvement.

Learning Outcome 3: Students will integrate leadership and management principles into professional dietetics practice.

- **Concepts:** leadership theories, management strategies, organizational behavior, food service systems, human resource management, quality improvement, health policy, budgeting, strategic planning, professional standards
- **Competencies:** Students will be able to apply leadership theories to case studies and practice-based scenarios, manage resources in foodservice and community nutrition

settings, evaluate organizational policies and procedures for effectiveness, and implement quality improvement strategies within dietetics practice.

- **Assessment Process and Measure Summary:** In the Food Service Operations Improvement Project course, students will complete a case-based leadership and management project simulating a real-world foodservice or healthcare nutrition department using a provided scenario (e.g., rising costs, staff turnover, low patient satisfaction scores). Through this project, students will demonstrate the ability to analyze organizational changes; design a quality improvement initiative to address a health or business need; and evaluate the potential financial, cultural and organizational impact of their plan. In their Applied Leadership and Management Projects, students will design and complete a capstone project that addresses a leadership or management challenge in a dietetics-related setting (clinical, community, foodservice, or public health). The project must demonstrate integration of leadership theories, management strategies, and quality improvement principles. In addition, an exit survey will be administered to assess student opinions related to how strongly the program emphasizes program learning outcomes. These measures will be assessed yearly to ascertain whether students are demonstrating competence in this program learning objective. For data collection and report preparation, instructors will use faculty-developed rubrics and grading criteria to assess student academic work and enter grades. These grades will serve as markers for student performance. The program director and the course leads will collaborate to collect data from the dashboard to assess the outcome measures. The CHS Curriculum and Academic Initiatives Team will administer the "exit survey" to graduating students at the end of each term and will provide the results to the program director for review and analysis. The program director will evaluate all collected data and prepare an assessment report. In consultation with the program committee, the program director will monitor average rubric scores and survey results compared to historical data when compiling the annual assessment report. Sustained dips in scores or survey results will prompt the committee to examine teaching methods and materials to improve student comprehension and experience. All findings will be shared with faculty and used to support continuous improvement.

Projected Enrollment for the First Three Years:

Year 1: 20
Year 2: 30
Year 3: 45

Evidence of Market Demand:

The demand for registered dietitian nutritionists is expected to grow steadily at both the state and national levels. According to the U.S. Bureau of Labor Statistics, employment of dietitians and nutritionists is projected to grow 7% from 2022 to 2032, faster than the average for all occupations. This growth is driven by increasing interest in the role of nutrition in disease prevention, aging populations requiring medical nutrition therapy and expanding healthcare services in hospitals, long-term care, schools and outpatient care centers.

Nationally, about 5,600 job openings for dietitians and nutritionists are projected each year over the decade, largely due to workforce retirements and the need to replace professionals leaving the field. Median annual wages for dietitians and nutritionists were $69,350 in 2023, with higher earnings in outpatient care centers and specialty hospitals (Bureau of Labor Statistics).

Specifically in Arizona, demand is expected to outpace the national average (2022 ABOR Health Care Analysis Gap Report). According to Lightcast, Arizona projects 13% growth in employment for dietitians and nutritionists between 2023 and 2033, reflecting population growth, expanded healthcare infrastructure and increasing public interest in nutrition and wellness. Additionally, Arizona's growing emphasis on preventative healthcare and chronic disease management is increasing the demand for credentialed nutrition professionals in hospitals, clinics, schools and community organizations.

Graduates of the proposed program will be prepared for a range of roles, including clinical dietitian, nutrition therapist, food service manager, sports nutritionist and nutrition educator. With the registered dietitian credential becoming a requirement for most clinical roles and a master's degree now required for exam eligibility, the proposed program meets a clear and urgent workforce need.

In addition to direct employment demand, this program supports ASU's broader public service mission by preparing highly trained professionals who can contribute to improving health outcomes across Arizona and beyond. By combining coursework with local experiential learning, this program expands access to a critical health profession while ensuring that graduates are job-ready and well-positioned to succeed in a growing and evolving field.

Similar Programs Offered at Arizona Public Universities:

Several ACEND-accredited Graduate Programs in Dietetics (GP) are currently offered by other institutions in Arizona. These programs share a competency-based curriculum structure aligned with ACEND's accreditation standards, consisting of similar coursework in clinical, community and food systems nutrition. However, each program varies in focus, structure and institutional approach. The proposed MS in Dietetics at Arizona State University (ASU) offers a distinct and complementary option within this statewide landscape:

Northern Arizona University (NAU) offers a Master of Public Health (MPH) in Public Health - Nutrition, a 65-credit program that combines public health training with the Graduate Program in Dietetics model. It is dual-accredited by both the Council on Education for Public Health (CEPH) and ACEND, and includes a strong population health and policy focus. (https://degree-search.nau.edu/degree/public-health-nutrition-mph#requirements)

University of Arizona (UArizona) offers a 30-credit Professional Science Master's (PSM) in Applied Nutrition with an emphasis in Dietetics. This program emphasizes applied nutrition and is designed to prepare students for the RDN credential through a practice-based lens. (https://online.arizona.edu/programs/graduate/online-professional-science-masters-applied-nutrition-dietetics-psm)

The proposed program at ASU will offer a similarly rigorous, ACEND-aligned curriculum and experiential learning but stands out in several key ways. Unlike many GP programs, ASU allows students to arrange their supervised experiential learning locally, which reduces relocation barriers and fosters community-engaged learning in the student's own context. In addition, the program aligns closely with ASU's charter of inclusion and use-inspired innovation, emphasizing leadership, health equity, and applied practice in diverse communities.

The proposed program also offers a complementary pathway to retain non-DPD bachelor's degree graduates from ASU to continue their education.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program Fee/Differentiated Tuition? **YES** NO

Estimated Amount: $3,000 per semester (designed to be completed in one year)

Program Fee Justification:

Graduate Program in Dietetics (GP) training programs in the United States are accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND), which requires programs to meet rigorous standards to ensure high-quality education and training of future registered dietitian nutritionists (RDNs). The program fee supports essential components for maintaining accreditation and delivering a high-quality graduate experience, including:

- Dedicated program director, as required by ACEND, to manage compliance and program oversight
- Student support services, such as academic advising and placement contract support
- Hiring and retaining qualified faculty, including credential maintenance through continuing education and attendance at professional conferences
- Accreditation expenses, including the initial application and annual accreditation fees
- Curriculum design and evaluation aligned with ACEND competencies

Specialized Accreditation? **YES** NO

Accreditor: This program is not yet accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND); however, accreditation is expected to be in place prior to the program's first cohort start. Accreditation application and review timelines dictate that the earliest launch of this program, if approved by ABOR and university governance, is Spring 2028.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MS in Health Professions Education
Academic Department: Edson College of Nursing and Health Innovation
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: 2026
Brief Program Description: The Master of Science in Health Professions Education is designed to prepare educators and professionals in healthcare fields to become effective instructors, curriculum developers and leaders in healthcare education. The interprofessional program focuses on developing the knowledge, skills and competencies necessary for teaching, assessment, curriculum design and educational leadership in healthcare settings and within health profession education programs. Learners graduating with an MS in Health Professions Education gain expertise in curriculum design, instructional strategies, and assessment methods tailored to health professions training, enabling them to create evidence-based, learner-centered educational experiences. They also develop leadership and scholarly skills in educational research, program evaluation, and faculty development, preparing them to drive innovation, mentor colleagues, and advance institutional missions in academic medicine and health sciences. These competencies position graduates to influence both classroom and clinical learning environments with rigor, equity, and impact. Interprofessionalism is an explicit value of Edson College of Nursing and Health Innovation, nested within the Edson College 2026 strategic plan outlined by the dean. This purposely interprofessional master's program reflects the college's stated objectives and targets. An interprofessional design ensures that learners in the MS in Health Professions Education are trained to collaborate across disciplines, reflecting the realities of modern healthcare delivery and academic environments. By bringing together educators from nursing, medicine, public

health, and beyond, the program fosters shared perspectives, mutual respect, professional humility, and innovative approaches to teaching and learning that transcend traditional siloed thinking. The interprofessional foundation is both novel and transformative, equipping graduates to lead collaborative change, bridge gaps across health and social care professions, and cultivate learning environments that model the team-based approach that improves individual and population health outcomes.

The program aligns with the university's charter by prioritizing inclusivity and success in its curriculum, ensuring that students from diverse backgrounds can excel in healthcare education and practice. By focusing on advancing research and discovery with public value, the program contributes to the broader goals of improving healthcare outcomes and addressing challenges in health professions education. The program supports ASU's commitment to serving the community's health needs by preparing graduates to take on significant roles in enhancing the economic, social, cultural and overall health of the communities they will serve.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will design teaching and learning strategies that foster learner development in health professions programs.

- **Concepts:** student-centered learning theories: constructivism, behaviorism, andragogy and experiential learning; ethics and professionalism; advocacy; communication; educational technology; and teaching strategies
- **Competencies:** Students will have the ability to apply learning theories to curriculum design, demonstrate effective communication and advocacy for learner development and develop learning activities and assessments that support achievement of learning outcomes.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed using direct student-produced artifacts and graduating student exit survey data. Direct measures are drawn from required courses in the program in order to capture the total program population. The Online Learning Course assignment in the Design and Delivery of Mediated Instruction required course will require students to design, implement and evaluate the development of an online course that considers culture, lifestyle, age, experience, learning styles, learning goals, setting and current technology in the context of providing health care. In the required Instructional Portfolio assignment in the Teaching in Academic and Practice Settings course, students will demonstrate the ability to create an instructional unit using appropriate teaching strategies, technologies and media based on course objectives, resources and cultural relevance. These direct measures will be assessed using faculty-developed rubrics. The Graduate and Law Student Report Card Survey question on the “program's contribution to teaching skills” will be used to collect indirect data from student respondents. Assessment data will be collected annually and evaluated in conjunction with course completion rates and course evaluations. This data will be reviewed by faculty and program leadership to guide continuous improvements to the courses and assignments to ensure learner mastery of outcomes.

Learning Outcome 2: Students will apply strategies for assessment and evaluation of learning to enhance achievement of student learning outcomes.

- **Concepts:** learner assessment, program evaluation, change and evidence-based practice theories, faculty development, assessment of needs and capacity, planning, implementation, evaluation and research, leadership and management

- **Competencies:** Students will be able to apply techniques for assessment planning and evaluation of academic programs, demonstrate the ability to adhere to ethical and legal standards for health professions programs and develop strategies to implement and evaluate a change project.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed using direct student-produced artifacts. Direct measures are drawn from required courses in the program to capture the total program population. The Professional Development Program assignment (Parts 1, 2, & 3) in required course Producing and Evaluating Programs for Academic and Practice Settings will require students to demonstrate the ability to plan educational programs that meet the ethical and legal standards in academic and practice settings. In the culminating experience, the Applied Project Final Proposal assignment will require students to complete the assignment with their mentor's sign-off, demonstrating the ability to define best practices for the implementation and evaluation of a change project. These direct measures will be assessed via faculty-developed rubrics. Assessment data will be collected annually and evaluated in conjunction with course completion rates and course evaluations. This data will be reviewed by faculty and program leadership to guide continuous improvements to the courses and assignments, ensuring learner mastery of outcomes.

Learning Outcome 3: Students will create innovative clinical and academic learning environments that enhance health professions education across various settings.

- **Concepts:** complexity, innovation theories, health education specialist roles and responsibilities, research, leadership and management
- **Competencies:** Students will be able to explore the principles of health profession program administration, appraise their commitment to the central behaviors of the Health Professions Specialist role and develop strategies that guide successful organizational change.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed using direct student-produced artifacts and graduating student exit survey data. Direct measures are drawn from required courses in the program in order to capture the total program population. The Engaging and Committing assignment in the required course Scientific Role Development I requires students to share the exploration of their future role as a Health Education Specialist. The Innovation and Complexity written assignment in the required course Individual and Innovation Leadership in Health Care requires students to demonstrate their examination of the theoretical basis for complexity and innovation to drive change in health care organizations. These direct measures will be assessed via faculty-developed rubrics. The Graduate and Law Student Report Card Survey will be used to collect indirect data from student respondents. Assessment data will be collected annually and evaluated in conjunction with course completion rates and course evaluations. This data will be reviewed by faculty and program leadership to guide continuous improvements to the courses and assignments to ensure learner mastery of outcomes.

Projected Enrollment for the First Three Years:

Year 1: 10
Year 2: 20
Year 3: 30

Evidence of Market Demand:

The U.S. Department of Labor (2024) describes "health education specialist" as a role that provides and manages health education programs that help individuals, families and their communities maximize and maintain healthy lifestyles. They must harness data to identify community needs prior to planning, implementing, monitoring and evaluating programs designed to encourage healthy lifestyles, policies and environments. Graduates of an MS in Health Professions Education program would work not only in the health professions education and clinical care sectors, but also in local, state and national governments; various social services; and private-sector businesses.

According to the Bureau of Labor Statistics (2024), employment of health education specialists is projected to grow roughly 10% in the next 10 years — faster than average for all occupations — reflecting about 7,000 openings projected each year over the next 10 years.
In response to growing needs within the healthcare workforce, ASU has expanded enrollment capacity. In consort with expanding enrollment capacity, plans for two new medical schools in Arizona demonstrate a need for well-trained health educators.

The local need for trained health education specialists is exponential and immediate. While this demand reflects national trends, it is amplified by ASU's rapid expansion in health related education, including the forthcoming School of Medical and Advanced Engineering, School of Public Health Technology, the ASU Medical Master's Institute, as well as continued growth and expansion of the Edson College of Nursing and Health Innovation, College of Health Solutions, Watts College of Public Service and Community Solutions and other health education oriented entities within and affiliated with ASU.

According to Frenk et al. (2022), the annual number of medical and nursing graduates has substantially increased globally in the past 10 years, almost doubling for physicians and tripling for nurses and midwives. Health professional education costs students and governments approximately $110 billion USD per year. International collaboration and communication are increasingly facilitated by the worldwide connectivity of the internet. The COVID-19 pandemic has accelerated a shift toward sustainable, technology-infused blended learning in health professional education, a development Frenk et al. (2022) argue is essential for addressing health equity and professionalism. The MS program in Health Professions Education will prepare future educators to deliver the most current, evidence-based education strategies via evolving technological advances in instructional modalities.

Similar Programs Offered at Arizona Public Universities:

Currently, there are no programs at UA or NAU that offer a master's-level program in Health Professions Education.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $2000 per semester, prorated as the other master's degrees offered in Edson College. (estimated 4 semesters for full time, 6 semesters part time)

Fee Justification: This degree will require doctorally prepared faculty to lead and deliver the program. Program fees will support small course section sizes, support individualized faculty-to-student interaction, instructional design and support technology-enhanced teaching. Currently, Edson College has full-time ranked tenure-track track and clinical-track faculty who will teach in this degree program. There is not anticipated need to hire new faculty to support this degree.

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MS in Artificial Intelligence for Nursing Science
Academic Department: Edson College of Nursing and Health Innovation
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: 2026
Brief Program Description: The MS in Artificial Intelligence for Nursing Science equips students with cutting-edge conceptual knowledge and practical skills necessary to advance artificial intelligence (AI) and informatics principles, empowering them to innovate, evaluate, and lead advancements in AI for nursing science and healthcare. Integrating the fundamentals of AI literacy, students will employ aspects of digital trust, including privacy, confidentiality, and data governance. Additional attention to the roles of safety, bias, and transparency of tools is paired with AI fluency in assessing and validating the relevance, accuracy, and appropriateness of information generated by AI outputs. The program emphasizes advanced cognitive processes, ensuring students are actively prepared for leadership roles and complex decision-making in real-world applications in clinical practice, healthcare management, and research. It also focuses on legal, ethical considerations, and regulatory compliance. Specifically, preparation in the area of AI supports clinical decision support, predictive analytics, patient monitoring and risk assessment, workload management and efficiency, telehealth and remote monitoring, training and education, and informs the ethical and legal application of AI in practice settings. The student experience includes exploring core concepts through case-based scenarios, literature inquiry, and team projects in designing a mock AI tool for practice. The culminating experience integrates knowledge from all previous coursework to design, develop, and implement an AI-based solution to a healthcare problem supervised by faculty. This degree

supports the ASU charter by advancing research and discovery that promotes public value and assumes a fundamental responsibility for the economic, social, cultural, and overall well-being of the communities it serves. This degree will further support the ASU mission to "Demonstrate leadership in enabling academic excellence and accessibility at scale," "Enhance our local impact and social embeddedness," and support the mission of ASU Health.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will investigate concepts of informatics and AI literacy, including safe use, transparency, Principled Innovation, tools, and techniques relevant to healthcare systems.

- **Concepts:** principles of informatics, data management, AI literacy, digital trust, Principled Innovation
- **Competencies:** Students will have the ability to outline principles of informatics, then apply them to data management, using frameworks such as Technology Informatics Guiding Education Reform; demonstrate AI literacy by defining digital trust and applying Principled Innovation; and clearly show AI fluency evident in the student's ability to integrate technologies in accordance with safe and ethical standards (American Nurses Association AI Statement) and which are most effective for practical healthcare.
- **Assessment Process and Measure Summary:** The outcome will be assessed using two direct measures, both article critiques from the Introduction to Artificial Intelligence course and Concepts for Nursing Informatics. These assignments will demonstrate students' application of informatics and AI literacy, such as data management, safe, and ethical use, to prepare students for leadership roles and complex decision-making in real-world applications in clinical practice, healthcare management, and research. Each assignment will be evaluated by a faculty-developed rubric. Data will be collated and analyzed by the Program Director or designee in the program office. This data will be shared with college leadership, program faculty, and curriculum committee annually or as requested to evaluate the effectiveness of teaching and learning in relation to the program's outcomes and to support continuous improvement of the program.

Learning Outcome 2: Students will analyze ethical, legal and regulatory challenges related to AI in healthcare.

- **Concepts:** ethical guidelines, technology frameworks, legal standards, regulatory frameworks
- **Competencies:** Students will be able to differentiate the implications of employing AI within healthcare systems from a legal standpoint, identifying potential issues and proposing strategies for navigating regulatory environments; and recognize and mitigate ethical dilemmas in areas of data privacy (HIPAA compliance), algorithmic fairness and bias through a comprehensive understanding of AI technologies; their applications in clinical and administrative settings; and the ethical, legal and societal implications of these innovations.
- **Assessment Process and Measure Summary:** The outcome will be assessed using two direct measures: both the presentation from the Machine Learning course and the case study assignment from the Foundational Concepts for Nursing Informatics course. These assignments will demonstrate students' comprehensive understanding of AI technologies, neural networks, and deep learning algorithms when applied to clinical and administrative settings in healthcare and navigation of ethical dilemmas in areas of data privacy (HIPAA compliance), algorithmic fairness, and bias The second measure will demonstrate appraisal skills for accreditation, and legal and regulatory requirements for health and safety and nursing informatics practice. Each assignment will be evaluated by

a faculty-developed rubric. Data will be collated and analyzed by the Program Director or designee in the program office. This data will be shared with college leadership, program faculty, and curriculum committee annually or as requested to evaluate the effectiveness of teaching and learning in relation to the program's outcomes and to support continuous improvement of the program.

Learning Outcome 3: Students will design innovative AI systems or algorithms to solve complex healthcare problems and optimize healthcare outcomes.

- **Concepts:** change management, design thinking, Principled Innovation frameworks, human factors engineering
- **Competencies:** Students will be able to use innovative design thinking to create AI-driven healthcare solutions that analyze large, complex datasets; support clinical decision-making; enhance patient monitoring; optimize management practices; apply original thinking and problem-solving; and extrapolate beyond tool use to create novel approaches that advance patient care.
- **Assessment Process and Measure Summary:** The outcome will be assessed using one direct and one indirect measure. The direct measure is evaluated by a faculty-developed rubric that demonstrates the learners' application of strategic processes, digital transformation, IT assets, design thinking, value creation, governance, and change management for strategic application in health care. The indirect measure assesses graduating students' satisfaction in their ability to apply competencies for designing, developing and implementing an AI-based solution to a healthcare problem, integrating knowledge from all courses by answering the specific survey question, “How confident are you in the ability to demonstrate the competencies required to create a strategic design strategy, when executing an IT-based strategy to solve a healthcare problem, integrating knowledge” (Likert scale). Data will be collected and analyzed by the Program Director or designee in the program office. This data will be shared with college leadership, program faculty and curriculum committee annually or as requested to evaluate the effectiveness of teaching and learning in relation to the program's outcomes and to support continuous improvement of the program.

Projected Enrollment for the First Three Years:

Year 1: 20
Year 2: 40
Year 3: 60

Evidence of Market Demand:

The job outlook for Registered Nurses, according to the Bureau of Labor Statistics, projects a 5% growth rate from 3,391,000 in 2024 to 3,557,100 in 2034 (2025, August 28). The nursing education market is expected to grow by $161 billion from 2025 to 2029, driven by competency-based learning and advancements in technology, including AI (Technavio, 2025, February 12). As AI technologies continue to advance and reshape nursing and healthcare practices by automating tasks such as documentation and scheduling, they reduce the time spent on these administrative tasks. This workload can be redirected to focus on patient engagement, personalized care, risk reduction, quality improvement, and clinical judgment. Demand for tech-savvy nurses and healthcare colleagues skilled in AI is rising. Nurses are expected to rapidly integrate new data management platforms, clinical decision systems, predictive analytics,

virtual assistants, digital communication, remote monitoring, and telehealth, and be more involved in AI development, implementation, and data analysis to optimize patient care.

A master's in AI applied to nursing practice encourages professionals to lead these innovations, improving patient outcomes, efficiency, and safety. This specialized expertise positions nurses to meet evolving healthcare demands while advancing their career opportunities. New roles for nurses are emerging, such as AI consultants, telehealth specialists, data analysts, and data scientists (American Nurses Association, 2022; Glauberman et al, 2023; Hassanein et al, 2025; Rony et al., 2024; Wild Iris Medical Education, 2025).

Similar Programs Offered at Arizona Public Universities:

Three national organizations, including Florida State University, offer an MSN with a Concentration in Artificial Intelligence, which differs from the proposed program. Brown University offers an ScM in Health Informatics & Artificial Intelligence, not specific to nursing. Bryant University offers an MS in Health Informatics & AI for its Allied Health programs.

Northern Arizona University does not list any AI Nursing programs.

The University of Arizona's Master of Science in Health Informatics and Analytics, offered within the College of Arts and Sciences, does not contain AI content and is not nursing-specific.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $2000 per semester, estimated 4-5 semesters full time

Fee Justification: The Master of Science in Artificial Intelligence for Nursing Science will require smaller course section sizes. The faculty will be experts in the application of artificial intelligence and technology in health care settings. The fee will support faculty salaries, industry experts, student services and technology infrastructure required for the degree.

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MS in Global Nursing and Care Management
Academic Department: Edson College of Nursing and Health Innovation
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: 2026
Brief Program Description: The quickly advancing global health care field requires nursing and health professionals who are prepared to deliver high-quality patient care and understand, navigate, manage and lead the complexities of healthcare systems worldwide. A master's degree program in Global Nursing and Care Management equips nurses and interprofessional colleagues with the advanced knowledge, leadership capabilities and strategic management skills essential for addressing healthcare disparities, managing cross-border health initiatives and optimizing care delivery models in diverse settings. This program provides a multidisciplinary framework that integrates global health principles, evidence-based practice, policy analysis and health systems management. As healthcare becomes increasingly interconnected, the ability to understand and influence policy, lead multicultural teams and implement scalable care solutions is crucial. Empowering graduates to drive meaningful change across global health systems, this degree fosters a deep understanding of global health challenges such as pandemics, migration, aging populations, the reality of limited resources and international health policy. The growing emphasis on health equity, sustainable development goals and universal health coverage underscores the need for leaders who are both clinically competent and globally aware. This program supports professional development by preparing graduates to assume leadership roles in international health organizations, government agencies, academic

institutions and NGOs, where they can contribute to transformative improvements in care quality, access and outcomes.
An MS in Global Nursing and Care Management is a strategic investment to become a catalyst for positive health system reform, capable of making a tangible impact on global health and human well-being.

This program aligns with the ASU charter by assuming fundamental responsibility for the economic, social, cultural and overall health of the communities ASU serves. Supporting ASU's mission to "Demonstrate leadership in enabling academic excellence and accessibility at scale," this program provides opportunities for domestic and international students to engage in global health management and leadership. Furthermore, this program also aligns with ASU's mission to "Expand ASU's role as the leading global center for interdisciplinary research, discovery and development by 2030," as faculty and students will engage in real-world global health problems by creating innovative solutions through nursing and health care delivery management and leadership.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will design system-level strategies that promote cultural competence within healthcare organizations.

- **Concepts:** communication, cultural perspectives, ethics, health disparities, health equity principles, workforce training and recruitment, and social justice
- **Competencies:** Students will be able to understand global health disparities, assess organizational policies and practices, define goals and success metrics, identify stakeholders, and outline a strategic plan.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed using two direct student-produced artifacts and graduating student exit survey data. Direct measures are drawn from required courses in the program to capture the total program population. In the health systems assessment assignment from the Principles of Global Health Leadership course, students are required to produce a report evaluating the effectiveness, efficiency and equity of a specific service or program in a healthcare organization, focusing on cultural and ethical considerations. In the innovative intervention project from the Health Equity and Social Justice course, students are required to create an innovative intervention that addresses the specified injustice based on the National Academy of Medicine's Culture of Health Equity Action Plan. The assignments will be assessed using faculty-designed rubrics. Data from each of these assignments will be used to assess the outcome. In addition, the Graduate and Law Student Report Card exit survey will be used to help assess the outcome using data from a question that covers the program's training in ethical standards. At the conclusion of each term, the program lead will collect assessment data from course faculty and the university survey system to be reviewed by the program curriculum committee. Committee members will analyze the assessment data and collaboratively prepare the annual assessment report to be submitted to the university assessment portal and shared with college faculty. Assessment data from annual report submissions will be used to identify areas of opportunity in curriculum, teaching methods, and overall program delivery to continuously improve the student learning experience.

Learning Outcome 2: Students will create an innovative plan to advance a traditional organization's culture to a culture of innovation.

- **Concepts:** global health, complex adaptive systems, innovation design theory and process, innovation leadership, implementation science, health care systems, global contexts, and change application techniques
- **Competencies:** Students will have the ability to address health care issues of complexity and rapid change by generating and evaluating the application of principles of effective innovation and global leadership; design an innovation project incorporating principles of innovation, and the identification of supporters and opposition; and present a proposal to implement a project that can be applied to real-world issues in the global health environment.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed using two direct student-produced artifacts and one indirect measure. Direct measures are drawn from required courses in the program in order to capture the total program population. The Systems Thinking in a Complex Environment course final project gives students the opportunity to explore the underpinnings of systems thinking and complexity science in designing comprehensive, innovative projects to address complex global healthcare problems. The Healthcare Innovation course requires students to develop a comprehensive proposal incorporating digital transformation strategy and technology to address global health care needs. The assignments will be assessed using faculty-designed rubrics. Data from each of these assignments will be used to assess the outcome. In addition, the Graduate and Law Student Report Card exit survey will be used to help assess the outcome, using data from a question that covers the program's training related to engaging the community to address global and local issues. Assessment data from annual report submissions will be used to identify areas of opportunity in curriculum, teaching methods, and overall program delivery to continuously improve the student learning experience.

Learning Outcome 3: Students will design a financial plan for an innovative project that incorporates management decision-making, writing skills, and global resources and policy.

- **Concepts:** global health economics, financial analysis, social determinants of health, interdisciplinary and transdisciplinary collaboration, ethics, decision-making, writing skills, global resources, and policy advocacy
- **Competencies:** Students will be able to apply management science, economic principles, innovation principles, health equity, and global policy to improve care of individuals, communities and global populations. Students will use decision-making skills and writing skills to prepare a financial plan.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed using two direct student-produced artifacts and graduating student exit survey data. Direct measures are drawn from required courses in the program in order to capture the total program population. An assignment in the Financing for Innovation course will require students to create a Business Model Canvas, and another assignment from the Innovation Methods course will require students to synthesize an innovation model applicable to global health delivery, focusing on cultural and ethical considerations. Both direct measures will be evaluated using faculty-developed rubrics to ensure standardized scoring across assessment artifacts. In addition, a survey question from the Graduate and Law Student Report Card Survey will be used to evaluate the outcome, specifically the question, “How strong was your graduate program in providing training in subject matter knowledge in your field?” Assessment data from annual report submissions will be used to identify areas of opportunity in curriculum, teaching methods, and overall program delivery to continuously improve the student learning experience.

Projected Enrollment for the First Three Years:

Year 1: 20
Year 2: 40
Year 3: 60

Evidence of Market Demand:

The job market for nurses and global health leaders is strong, as evidenced by increasing global interconnectedness, emerging health threats, and sustained investment in health systems, especially in low and middle-income countries. According to the Bureau of Labor Statistics (BLS, 2025), the third fastest-growing occupation projected between 2023 and 2033 is medical and health services managers. Employment of medical and health services managers is projected to grow 29% through 2033, much faster than the average for all occupations. There is a significant global shortage of nurses, with millions more needed to meet healthcare demands by 2030. Global management is essential to strategically plan and implement solutions to this shortage. According to the World Health Organization (2025), the State of the World's Nursing 2025 report reveals persistent global health inequities with a key action to strengthen nurse leadership and expand nursing roles, including management and advanced practice. Cintana has approached Edson College of Nursing and Health Innovation with a specific need for a degree in global health management, specifically designed for international nurses and health providers. Cintana Education and ASU joined together in 2019 to form the ASU-Cintana Alliance, a global network of universities working together to bring the best of higher education to students in their regions. ASU and Cintana have a goal to extend the network to 65 global institutions by 2030. This partnership aligns with ASU's mission to scale its impact globally, allowing the university to extend its educational resources, contribute to global education innovation and expand its influence far beyond traditional one-on-one university collaborations (https://cintana.com/asu-partnership). This degree will be focused on nursing and interprofessional health colleagues' global management and leadership.

Health care systems, ministries of health, NGOs and international hospitals seek leaders who:

- are trained to lead multidisciplinary teams and manage system-level reforms
- can navigate international policy and health financing
- understand cultural nuance and global standards

The Master of Science in Global Nursing and Care Management is uniquely positioned at the intersection of:

- employer demand in public, private, and nonprofit sectors
- global workforce needs
- health system transformation
- professional nursing advancement

This makes it a strategic, high-impact degree with strong domestic and international market viability.

Similar Programs Offered at Arizona Public Universities:

The master's degree in Global Nursing and Care Management is a novel combination of global health, management science, operations, innovation, health equity, and how leaders in the healthcare space can apply concepts and principles to improve the lives of individuals, communities and populations. Edson will offer this degree with a unique focus that addresses a

growing need for interdisciplinary, culturally competent and systems-level nurse leaders and health care executives who can navigate the complex challenges of healthcare delivery across international contexts.

University of Arizona

- Master of Public Health with a Global Health Emphasis:
  This program prepares students for careers in global health, focusing on public health principles and their application in international settings.
  This program provides flexible options for professionals and those new to the field, offering skill enhancement in global health.
- Certificate of Distinction in Global Health (College of Medicine - Phoenix):
  This program focuses on leadership, education, research, patient care and service in global health. This certificate is awarded to those who advance the prevention, diagnosis, and treatment of disease and injury through education, research, patient care, and service.
- Dual Degree Program with Universidad del Valle de Mexico:
  - UA offers a dual-degree program with UVM, allowing students to earn a BS in Public Health with a Global Health Track from UA and a Bachelor of Medicine from UVM.

Northern Arizona University

- Doctor of Philosophy in Interdisciplinary Health:
  This doctoral program offers an interdisciplinary approach to health research, focusing on health equity, disability, and psychosocial health.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and admin. positions; infrastructure, etc.):

No additional state resources are required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $2000 per semester, estimated completion in one year with full-time study.
Fee Justification: Students in this master's degree program will be provided with smaller course section sizes delivered by experienced faculty, industry and global health experts. The program fee will support faculty salaries, student support services, and technology infrastructure.

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: BA in Performing Arts Industries
Academic Department: Herberger Institute for Design and the Arts *School of Music, Dance and Theatre*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: 2027
Brief Program Description: The BA in Performing Arts Industries will provide an innovative, accessible opportunity for students to receive a comprehensive understanding of the contexts and practices of music, dance and theatre that can be applied both within the performing arts and in a variety of vocational settings. Coursework in the BA in Performing Arts Industries will emphasize the historical, cultural and contemporary contexts of music, dance and theatre as well as developing practical agility needed to succeed in a variety of careers. Students will take courses specific to music, dance and theatre as well as courses that build knowledge and skills that apply across the performing arts. Additionally, students will select electives and a focus area (i.e., entrepreneurship, community, administration, wellness, etc.) aligned with their professional goals. The degree program's curricular flexibility will allow students to gain expertise that is applicable to a variety of career opportunities and professional contexts. Ideas about what a career in performing arts can include continuing to expand beyond the borders of the stage and studio, with many vocations built upon cross-disciplinary or interdisciplinary knowledge of music, dance and theatre. This BA program will be appealing to students who are pursuing full- or part-time employment in the fields of music, dance or theatre who are looking to pursue a college degree while working; students who are interested in acquiring an interdisciplinary understanding of performing arts that applies to fields as varied as

education, health care, community engagement and arts administration; and students interested in prioritizing a theoretical comprehension of the performing arts.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will devise creative processes that reflect contemporary understandings of music, dance and theatre practices.

- **Concepts:** creative processes (idea generation, observation of need, research, ideation, experimentation, evaluation), performance processes (design processes, performer preparation models, composition processes, facilitation processes), models for collaboration
- **Competencies:** Students will be able to identify key practices across performing arts disciplines; compare and contrast creative processes within music, dance and theatre, evaluate creative processes in relation to socio-cultural values, and experiment with individualized creative processes both within and beyond performing arts.
- **Assessment Process and Measure Summary:** Students will be evaluated via a faculty-developed rubric on final projects in the required three courses that teach foundations of performance in music, dance and theatre. Students will also successfully complete a culminating capstone project or internship in their chosen disciplinary field (music, dance, theatre) and will demonstrate student success and student growth in learning. Additionally, the unit will assess student perceptions of the efficacy of the overall curriculum by collecting data from the Graduating Senior Report Card survey related to the development of knowledge and skills in creativity. The data will be used to assess student progress and continuing mentorship needs. Findings will be shared with faculty and used for the continuous improvement of the program.

Learning Outcome 2: Students will analyze specific performing arts products within the context of performing arts ecology, cultures, communities or industries.

- **Concepts:** aesthetic approaches to and social functions of performing arts creation and performance within a specific historic or cultural tradition; cultural and historic contexts for creation and performance and community engaged practices; methods of analysis and interpretation of performing arts productions and industries
- **Competencies:** Students will be able to analyze performing arts practices through a socio-cultural lens; contextualize the socio-cultural functions of performing arts works; interpret socio-cultural connections, and explain conclusions using theory, reasoning, historical and empirical data.
- **Assessment Process and Measure Summary:** The unit will evaluate the final writing assignment, which will be assessed with a faculty developed rubric in the foundational course. All students in the program will take these courses, which focus on analysis, evaluation and interpretation of performing arts with a specific focus on themes in larger society. The unit will also evaluate the final project in the foundational course on the performing arts industries, their ecosystem, and the ways in which arts organizations engage with the community. The students' final projects of the semester will be evaluated by a faculty-designed rubric. Final projects in these courses ask students to draw connections between their learning and the broader social context of the performing arts industries. Thus, these courses are ideal to track students' ability to evaluate and connect their learning to larger social events and trends. Data will be used to assess student progress and continuing mentorship needs. Findings will be shared with faculty and used for the continuous improvement of the program.

Learning Outcome 3: Students will facilitate performing arts experiences or products grounded in cultural and political landscapes of societies.

- **Concepts:** theories of culture and culture creation, performing arts' relationship to social and political trends, entrepreneurship in the performing arts, multidisciplinary collaboration in performing arts
- **Competencies:** Students will be able to contextualize the performing arts' role in broader society; define the impact of the arts in their own society; describe the impact of the arts in specific historical and contemporary societies beyond their own; and articulate what their own impact could be as an artist or arts industry professional in contemporary society.
- **Assessment Process and Measure Summary:** The unit will evaluate the final project in the arts entrepreneurship course that focuses on building concepts of entrepreneurship and entrepreneurial mindset and thinking and explores sound business practices that lead to stable careers in the performing arts industries. It will evaluate students' understanding of the relationship between performing arts and business. The students' final project of the semester will be evaluated by a faculty-designed rubric. The program will also evaluate the final student projects in the capstone or internship course, which includes in-depth investigation of the performing arts industries. Final projects in these courses ask students to draw connections between their learning in performing arts and the broader social context of the course's focus and will be evaluated by a faculty-designed rubric. Data will be used to assess student progress and continuing mentorship needs and for the continuous improvement of the program.

Projected Enrollment for the First Three Years:

Year 1: 25
Year 2: 50
Year 3: 75

Evidence of Market Demand:

Due to the interdisciplinary nature of the degree program, it is difficult to predict precisely the national demands for graduates of this program. Graduates in the performing arts often pursue careers as schoolteachers, performers, designers, directors, composers and choreographers in addition to a variety of opportunities within and adjacent to the creative industries. The Bureau of Labor Statistics estimates a 3.7% increase in performing arts-related jobs year over year. Still, this number only includes predefined careers in the arts (e.g., composer, director, dancer) and does not recognize interdisciplinary careers centered in the arts. In addition to first-time college students, the design of the program will appeal to those with interests or experiences in the performing arts who are looking to upskill while still working full time as well as non-traditional transfer students who may have completed some college coursework but do not have a college degree. The National College Attainment Network estimates that 36.8 million Americans between the ages of 18 and 64 have some college credits but no degree. This program will provide a pathway for those interested in the arts.

Similar Programs Offered at Arizona Public Universities:

Northern Arizona University has a Theatre Studies program that provides a broad understanding of art and craft. NAU also offers general Theatre and Performance degrees, although this ASU program appears to be more comprehensive.

The University of Arizona has a BFA in Dance and BA in Live and Screened Performance, which focuses more narrowly on their respective fields rather than this general program.
Objection(s) Raised by Another Arizona Public University? YES **NO** Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program? **If Yes, Response to Objections:** Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.
New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.): No additional state resources will be required, as existing resources will be reallocated to support this program.
Plan to Request Program/College Fee? YES **NO** **Estimated Amount**: N/A **Fee Justification:** N/A
Specialized Accreditation? YES **NO** **Accreditor:** Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: BS in Game Studio Production
Academic Department: Herberger Institute for Design and the Arts *The GAME School*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses; ASU at Los Angeles
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: 2026
Brief Program Description: The Bachelor of Science in Game Studio Production will prepare students for careers in the rapidly expanding global games sector by combining creative practice, production management and industry acumen. The program emphasizes the management of game production pipelines, providing students with the tools to coordinate interdisciplinary teams, oversee schedules and budgets, and translate creative vision into deliverable products. Alongside this managerial focus, students will engage in hands-on game design courses, gaining practical experience in prototyping, iterative development, and the integration of player feedback. To strengthen real-world connections, the program incorporates structured industry input, applied practicums, and project-based learning opportunities in collaboration with professional partners. Students will also develop foundational knowledge in marketing, entrepreneurship and intellectual property, equipping them to navigate the business and cultural dimensions of the game industries. Graduates of the program will emerge with a hybrid skillset that spans technical literacy, project leadership and industry readiness. They will be well prepared for roles such as associate producer, production coordinator, community manager or business analyst within studios, publishing companies and emerging areas of interactive media. By linking creativity and management, the program addresses workforce needs in both established and independent game development sectors, positioning students to contribute meaningfully to one of the fastest-growing entertainment industries worldwide.

The BS in Game Studio Production aligns closely with the mission and design aspirations of Arizona State University. As a program that unites innovation, technology and creative practice, it supports ASU's commitment to research and discovery of public value, as well as the advancement of student success through inclusion and access. The program reflects the charter's emphasis on serving the community by preparing graduates to enter an industry that is both culturally significant and economically impactful, while also encouraging collaboration with local and regional game studios. Its focus on interdisciplinarity—bridging design, business and technology—embodies ASU's pursuit of academic excellence and use-inspired research.

Within ASU's academic landscape, the BS in Game Studio Production complements existing strengths in Media Arts and Sciences, Game Design, and related digital media programs, while carving out a distinct niche in production leadership and industry engagement. This focus differentiates it from programs that concentrate more exclusively on technical development or artistic production, ensuring that the proposed degree adds breadth to ASU's offerings in the creative and technological domains.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will manage game development pipelines by applying production workflows.

- **Concepts:** production pipelines, project management, resource management, workflow optimization, studio tools and software
- **Competencies:** Students will be able to plan and manage game production pipelines by applying project management frameworks, allocating resources effectively, optimizing workflows, and employing industry-standard studio tools to coordinate interdisciplinary teams and deliver projects efficiently. Students will outline production pipelines, describe project management principles, explain how to optimize workloads and use studio tools and software.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed with a faculty-developed rubric that evaluates a semester-long project called a "dev blog." Throughout the semester, each student will maintain an individual developer blog that documents their experiences, contributions and reflections on the game production process. Dev blogs are an industry-standard practice used by studios and independent developers to share progress, highlight design decisions, and build community engagement. The outcome will also be assessed via a survey of instructors teaching the 400-level studio game production course. The results will be shared with faculty, and the findings will be used to support continuous improvement of the curriculum, teaching methodology and delivery methods.

Learning Outcome 2: Students will critically analyze the structures and business practices of the global games industry.

- **Concepts:** business models, ethics in games, entrepreneurship, intellectual property, marketing strategies, monetization models, industry trends
- **Competencies:** Students will be able to analyze current industry trends, audience demographics, and platform ecosystems; identify opportunities and challenges for a proposed game business plan; describe multiple business models; outline ethics in gaming; describe marketing strategies and monetary modules; and identify industry trends.
- **Assessment Process and Measure Summary:** Students will be assessed on their final project in the senior-level advanced business of games and studio management course, where students design a monetization strategy for a real or hypothetical game studio

and critique its ethical implications. The project is evaluated with a faculty-developed rubric spanning business strategy, application of monetization models, ethical reasoning, and professional communication. The outcome will also be assessed via a survey of all instructors for the 400-level studio game design course. Questions will be focused on students' attainment of business strategy and industry analysis knowledge. The results will be shared with faculty, and the findings will be used to support continuous improvement of the curriculum, teaching methodology and delivery methods.

Learning Outcome 3: Students will evaluate design choices in the production of a game.

- **Concepts:** game design principles, game mechanics, level design, player experience and usability, interaction design, game structures
- **Competencies:** Students will be able to analyze and critique the relationship between game mechanics and underlying structures (rules, systems, progression), assess design coherence and effectiveness, outline game design principles, describe game mechanics, examine player experience and usability, and examine game structures and interactive designs.
- **Assessment Process and Measure Summary:** Students will be assessed via a semester-long coursework journal project of a senior-level required course on game design. Students will receive writing prompts to demonstrate their engagement with assigned weekly readings. The project is evaluated with a faculty-developed rubric spanning game design principles and utilization of multiple design frameworks. A survey of all instructors in the advanced game design course will also be conducted, and it will include questions about how students have attained knowledge of game mechanics and game design. The results will be shared with faculty, and the findings will be used to support continuous improvement of the curriculum, teaching methodology and delivery methods.

Projected Enrollment for the First Three Years:

Year 1: 135
Year 2: 270
Year 3: 500

Evidence of Market Demand:

According to the Entertainment Software Association, at least 205.1 million Americans play video games regularly. Annual consumer spending on video games in the US was $59.3 billion in 2024, and this was a 32% increase from 2019. According to Lightcast, while this specific degree is not attached to a named career, the next step and feeder career pathways for a video game designer have a median salary of over $120,000.

The Bureau of Labor Statistics does not provide specific data for the video game industry but does suggest related classifications of producers and directors, art directors, and project management specialists. According to O*NET, video game designers are expected to see Bright Outlook job prospects, with responsibilities including creation of design documentation, management of production schedules, and cross-functional collaboration across art, programming and design teams—skills directly cultivated through the curriculum's mix of hands-on design and production management practicum.

Similar Programs Offered at Arizona Public Universities:

At University of Arizona offers a BS in Game Design and Development, a BA in Games and Behavior, and an emphasis area in the BA in Applied Humanities in Game Studies.

Northern Arizona University offers a BS in Immersive Media and Games.

The Game Studio Production program will be unique in its focus on entrepreneurship, business, as well as the industry partnerships embedded within the degree curriculum.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required, as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount: N/A

Fee Justification: N/A

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MAS in Virtual Production
Academic Department: Herberger Institute for Design and the Arts *The Sidney Poitier New American Film School*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses; ASU at Mesa City Center; and ASU at Los Angeles
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 36
Proposed Inception Term: 2026
Brief Program Description: For working film and media professionals, it is essential to stay up to date with current technologies that are transforming the media industry through faster production, increased flexibility, more immersive experiences and by changing industrial norms. Traditional film techniques and digital innovations merge in real-time using virtual production technologies like game engines and LED volumes. No longer an emerging field, virtual production is a standard in the industry used by over 50% of Best Picture nominees. Netflix and Home Box Office (HBO) use virtual production pipelines with estimations that only 1000 professionals worldwide have formal and comprehensive virtual production training. The Master of Advanced Study in Virtual Production degree program within the Sidney Poitier New American Film School will help students learn tools such as real-time engines and 3D design software to meet the growing demand for skilled professionals in film and media industries. The program offers students the opportunity to learn from faculty and industry leaders, conduct hands-on, project-based learning, and network with peers on the 3rd largest virtual production stage at a university in the US. This program aligns with ASU's charter by offering accessible and inclusive education through its flexible format. It also advances use and research of emerging technology in the film industry. Through this program, students will specialize in two Virtual Production disciplines of their choice: Foundations in Virtual

Production, World Building, Visual Effects (VFX) and Virtual Production Systems, or Artificial Intelligence (AI) Filmmaking and Interactive Cinema. The program is designed to provide students with advanced technological knowledge and the ability to adapt to emerging media, situating them as industry leaders in Virtual Production.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will create an original portfolio of professional-level work that synthesizes key principles and techniques of virtual production.

- **Concepts:** storytelling, creative ideation, worldbuilding, storyboarding, 3D design, 3D environment design, Virtual Art Direction, character design, motion capture, concept art, animatics, SFX, sound design, AI filmmaking, post-production image manipulation, and virtual lighting design
- **Competencies:** Students will be able to design 3D virtual environments utilizing tools such as Unreal Engine, craft dynamic narratives, build intricate models, create virtual cinematics, conduct narrative motion capture, develop postproduction workflows, build auditory experiences, utilize effective lighting, polish existing work through post-production editing and VFX techniques, and manage productions effectively and efficiently.
- **Assessment Process and Measures Summary:** Based on faculty-developed rubrics and faculty assessment of student oral portfolio defense, students in the MAS in Virtual Production will demonstrate proficiency in creating professional-quality virtual production and innovative work that integrates various elements such as worldbuilding, 3D design, and narrative storytelling. The assessments will focus on the students' ability to create dynamic narratives, design intricate models, implement effective virtual lighting, and showcase post-production workflows in their portfolio pieces. These portfolio assessments will take place primarily in the master's portfolio. Students will submit their final portfolio as the culminating experience for the program. The collective work submitted in each student's final portfolio will be assessed by a faculty-designed rubric. Students will assess and articulate their collected portfolio works upon completion of the final portfolio submission. This individual analysis of each student will be assessed by program faculty to ascertain the student's technical aptitude and professional readiness upon exiting the MAS degree program. The results of these rubric assessments will be collected and analyzed by the degree program head (currently the Associate Director of the Poitier Film School and the Assistant Director of Virtual Production) for continuous improvement. Virtual Production degree faculty will use the data collected during the culminating portfolio submissions to adjust the curriculum as needed for improvement in overall student success. The Associate Director and Assistant Director will specifically look at average rubric scores compared to historical data. Sustained dips in scores will prompt faculty to examine teaching methods and the relevancy of class assignments.

Learning Outcome 2: Students will create an effective immersive world for use in Virtual Production, utilizing emerging and innovative tools in worldbuilding, VFX and AI filmmaking.

- **Concepts:** visual storytelling, creative ideation, worldbuilding, storyboarding, 3D design, 3D environment design, Virtual Art Direction, character design, motion capture, concept art, animatics, SFX, AI filmmaking, post-production image manipulation, and virtual lighting design
- **Competencies:** Students will be able to design 3D virtual environments utilizing emerging and innovative tools in worldbuilding, VFX and AI filmmaking, in addition to tools such as Unreal Engine, etc., craft dynamic narratives, build intricate models,

conduct narrative motion capture, build effective lighting, polish existing work through post-production editing and VFX techniques.

- **Assessment Process and Measures Summary:** Students will demonstrate their ability to create an effective immersive world for use in Virtual Production, utilizing emerging and innovative tools in worldbuilding, VFX and or AI filmmaking in their core coursework. The courses where these student works assessments will take place within the context of the course final projects are Emerging Topics in Worldbuilding and Computational Production, Emerging Topics in VFX and Intelligent Systems for Virtual Production. Students enrolled in these courses will submit their final class project in the corresponding course. The final project work submitted by each student will be assessed by using a faculty-designed rubric. Student success in achieving the outcome will also be measured and assessed by student responses in a skills and confidence survey given at the end of these courses. The results of the rubric and survey assessments will be collected and analyzed by the degree program head (currently the Associate Director of the Poitier Film School and the Assistant Director of Virtual Production) for continuous improvement. Virtual Production degree faculty will use the data collected during the culminating portfolio submissions to adjust the curriculum as needed for improvement in overall student success in these two measures. The Associate Director and Assistant Director will specifically look at average rubric scores compared to historical data. Sustained dips in scores will prompt faculty to examine teaching methods and the relevancy of class assignments.

Learning Outcome 3: Students will generate professional-level pre-production documentation, materials and assets for their own virtual production or AI filmmaking project.

- **Concepts:** creative story ideation, script development, pre-visualization, production planning, art direction, 3D environment creation, Virtual Art Department, production management for virtual production, postproduction workflows, and distribution strategies
- **Competencies:** Students will be able to articulate a clear creative vision for the filmic innovative work within a historically informed context, to render designs for the proposed project using pre-visualization tools to ensure coherence with the creative vision, create 3D environments needed for the project's realization, utilize tools such as Unreal Engine, effectively plan productions by managing logistics, scheduling, budgeting, and resource allocation, understand post-production workflows that involves coordinating editing, visual effects, sound design, complete the project within the virtual production or other specified pipeline, employ strategic foresight for distribution strategies including how to effectively release and promote the film or project.
- **Assessment Process and Measures Summary:** Students in the program will demonstrate proficiency in creating structured pre-production documents, engaging in comprehensive research processes, and synthesizing their creative vision into production-ready materials for virtual production pipelines. These pre-production documents and physical and virtual assets (screenplay, storyboards, 3D designs, concept art, animatics and animations, virtual lighting designs, and 3D environment assets, all integrated within a virtual production workflow) will be assessed using one of the two potential culminating experiences of the program — the On-Set Virtual Production and Showrunning capstone course, or the master's portfolio. The culminating experiences will be assessed using a faculty-designed rubric. The results of these rubric assessments for each class will then be collected and analyzed by the degree program head (currently the Associate Director of the Poitier Film School and the Assistant Director of Virtual Production) for continuous improvement. Virtual Production degree faculty will use the data collected during the course final project submissions to adjust

the curriculum as needed for improvement in overall student success in these two measures. The Associate Director and Assistant Director will specifically look at average rubric scores compared to historical data. Sustained dips in scores will prompt faculty to examine teaching methods and the relevance of class assignments.

Projected Enrollment for the First Three Years:

Year 1: 5
Year 2: 15
Year 3: 20

Evidence of Market Demand:

According to a report by Grand View Research, the global virtual production market size is expected to reach USD 4.4 billion by 2027, with a compound annual growth rate of 15.6% from 2020 to 2027. This growth presents an opportunity for universities to capitalize on this trend by offering specialized programs that cater to the evolving needs of the industry. A MAS in Virtual Production will help prepare students for careers in virtual production by providing hands-on experience with industry-standard technology and workflows and connecting them with professionals in the field. This MAS program offers students the opportunity to complete studies in two areas of specialization in the field of Virtual Production, making this program ideal for people looking to gain knowledge on specific emerging technologies in virtual production.

The 2024 median pay for film and video editors and camera operators, as reported by the Bureau of Labor Statistics (BLS), was $70,570 per year or $33.93 per hour, with the typical entry-level education being a bachelor's degree. In 2023, the
BLS reported 85,400 jobs in this field, and the projected growth rate for employment from 2023 to 2033 is around the average for all occupations at 3%.

In addition to meeting industry demands, an MAS in Virtual Production program can also be a lucrative offering for the film school. According to a report by IBISWorld, the film and video production industry in the US is expected to generate $38.9 billion in revenue in 2025. Offering a unique and specialized program that prepares students for careers in virtual production, the film school can increase enrollment and generate revenue for the university. Furthermore, a more flexible and accessible program allows students to continue working while pursuing their degree. A flexible MAS in Virtual Production program will attract students who may not be able to otherwise participate in a traditional graduate degree program.

Similar Programs Offered at Arizona Public Universities:

There are no comparable virtual production programs available in Arizona, but these programs at ASU are related as they deal with immersive media and extended reality technologies:

- BA in Live and Immersive Arts - UA

ASU will also offer the MFA in Virtual Production and Cinematic Innovation. The MFA is ideal for artists seeking a terminal degree and looking for a robust education that combines technical and creative skills, whereas the MAS prioritizes industry-specific and emerging technical skills specific to virtual production.

No other related programs have been found at Arizona schools.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

Faculty associate support will be needed to run courses necessary for this certificate, which will be supported by the proposed program fee and internal resources. No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $100 per semester, or **$**500 for the entire degree program (We estimate this program would take students 4 semesters and a summer.)

Fee Justification: This program fee will be used to support necessary technological updates, bringing in industry expert guest speakers, tech, production on applied projects, and student enrichment grants. This fee is necessary for the launch of the program.

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MFA in Virtual Production and Cinematic Innovation
Academic Department: Herberger Institute for Design and the Arts *The Sidney Poitier New American Film School*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses; ASU at Mesa City Center; ASU at Los Angeles
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 60
Proposed Inception Term: 2026
Brief Program Description: New technology is rapidly transforming the media industry through faster production, increased flexibility, more immersive experiences, and by changing industrial norms. The field requires creative visionaries prepared to lead in cinematic innovation as virtual production and artificial intelligence (AI) become a key part of the filmmaking process. No longer an emerging field, virtual production is now a standard in the media industry used by over 50% of Best Picture nominees. Despite virtual production pipelines within Netflix and Home Box Office (HBO), there are only an estimated 1000 professionals worldwide with formal and comprehensive training in this field. The Master of Fine Arts in Virtual Production and Cinematic Innovation degree program within the Sidney Poitier New American Film School will help continuing students and career professionals learn tools such as real-time engines and 3D design software to meet the growing demand for skilled professionals in film and media industries. The program offers students the opportunity to learn from faculty and industry leaders, conduct hands-on, project-based learning and network with peers on the 3rd largest virtual production stage at a university in the US. The intertwining of virtual production and cinematic innovation balances both breadth in cinematic design and technology and depth in creative research. This program aligns with ASU's

charter by offering accessible and inclusive education through its flexible format. It also advances the use and research of emerging technology in the film industry.

As a terminal degree program, the MFA in Virtual Production and Cinematic Innovation is designed to position graduates as industry leaders who are additionally able to educate future generations of film artists. In this program, MFA students will specialize to become Cinematic Innovation leaders through the Foundations in Virtual Production and two additional focus areas of their choice: World Building, Visual Effects (VFX) and Virtual Production Systems, or Artificial Intelligence (AI) Filmmaking and Interactive Cinema.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will generate professional-level pre-production documentation, materials, and assets for their own virtual production, AI filmmaking or interactive cinema project.

- **Concepts:** creative story ideation, script development, pre-visualization, production planning, art direction, 3D environment creation, Virtual Art Department, production management for virtual production, post-production workflows, and distribution strategies
- **Competencies:** Students will be able to articulate a clear creative vision for the filmic or cinematically innovative work within a historically informed context, to render designs for the proposed project using pre-visualization tools to ensure coherence with the creative vision, create 3D environments needed for the project's realization, utilize tools such as Unreal Engine, effectively plan productions by managing logistics, scheduling, budgeting, and resource allocation, understand post-production workflows that involves coordinating editing, visual effects, sound design, complete the project within the virtual production or other specified pipeline, employ strategic foresight for distribution strategies including how to effectively release and promote the film/project.
- **Assessment Process and Measure Summary:** Students will demonstrate proficiency in creating structured pre-production documents, engaging in comprehensive research processes, and synthesizing their creative vision into production-ready materials for virtual production pipelines. These pre-production documents and physical and virtual assets will be assessed in two culminating experience courses: the On-Set Virtual Production and Showrunning capstone course, and the Applied Project - MFA Production course. Students enrolled in the On-Set Virtual Production and Showrunning course will work together in small groups to create comprehensive pre-visualization and pre-production elements that collectively lead to a virtual production. These pre-production elements will include a screenplay, storyboards, 3D designs, concept art, animatics and animations, virtual lighting designs, and 3D environment assets, all integrated within a virtual production workflow. Elements will be assessed using a faculty-designed rubric. Students enrolled in Applied Project - MFA Production will create comprehensive pre-visualization and pre-production elements that collectively lead to a virtual production. These pre-production elements will include a screenplay, storyboards, 3D designs, concept art, animatics and animations, virtual lighting designs, and 3D environment assets, all integrated within a virtual production workflow assessed using a faculty-designed rubric. The results of these rubric assessments will then be collected and analyzed by the degree program head (currently the Associate Director of the Poitier Film School and the Assistant Director of Virtual Production) for continuous improvement. Virtual Production degree faculty will use the data collected to adjust the curriculum as needed for improvement in overall student success. The Associate Director and Assistant Director will specifically look at average rubric scores compared to historical data.

Sustained dips in scores will prompt faculty to examine teaching methods and the relevance of class assignments.

Learning Outcome 2: Students will complete work in an executive-level position on a hands-on virtual production set in one of the following key roles: producer, director, cinematographer, virtual cinematics design (environments, animation production design), systems tech (LED wall operator), or post-production supervisor or editor.

- **Concepts:** pre-production planning, producing, directing, cinematography, virtual production design (environment, animation and production design), systems technology (LED wall operation), post-production and editing
- **Competencies:** Students will be able to gain real-world, practical experience in planning for and executing a professional plan on an actual virtual production in essential department head roles, and in pre-production planning, producing, directing, cinematography, virtual production design (environments, animation and production design), systems technology (LED wall operation), post-production and editing. Students will also be able to develop skills in teamwork, collaboration, problem-solving, and working with a diverse group of colleagues to see the collective plan through to completion.
- **Assessment Process and Measure Summary:** The outcome will be assessed based on students' demonstrated proficiency in working collaboratively to produce professional-quality virtual production and VFX work that integrates various elements such as world building, 3D design, virtual cinematography, and narrative storytelling. These assessments will be addressed using a self-confidence survey that focuses on the students' ability to work collaboratively to create dynamic narratives, produce, direct, film and design professional-level virtual production work. In the applied project culminating course, students will engage in a self-confidence assessment survey upon entering and then again upon completing the primary coursework for the applied project. Upon entering the applied project courses, the initial survey, based on a faculty-developed rubric, will determine the individual student's confidence level in their pre-production, on-set, and post-production skills for virtual production as they head into their executive-level role. A faculty-developed rubric will be used to measure growth in on-set self-confidence in working on virtual productions in one of the key executive-level roles. Student success in achieving the outcome will also be measured by each student's faculty-assessed grade in the applied project. These final grades will assess the student's success in executing the key role of their selection or assignment, whether that role be virtual production: producer, director, cinematographer, virtual cinematics design (environments, animation and production design), systems tech (LED wall operator) or post-production editor. The main objective of this course will be to assess the student's performance on the applied project in relation to the outcome throughout the entirety of the MFA Project assignment. The results of these grade assessments and surveys will then be collected and analyzed by the degree program head (currently the Associate Director of the Poitier Film School and the Assistant Director of Virtual Production) for continuous improvement. Virtual Production degree faculty will use the data collected during the course final project submissions to adjust the curriculum as needed for improvement in overall student success in these two measures. The Associate Director and Assistant Director will specifically look at average grade and survey scores compared to historical data. Sustained dips in scores will prompt faculty to examine teaching methods and the relevance of class assignments.

Learning Outcome 3: Students will create an original portfolio of professional-level work that synthesizes key principles and techniques of Virtual Production and Cinematic Innovation.

- **Concepts:** storytelling, creative ideation, worldbuilding, storyboarding, 3D design, 3D environment design, Virtual Art Direction, character design, motion capture, concept art, animatics, virtual cinematography, sound effects, sound design, AI filmmaking, generative cinema, post-production image manipulation, and virtual lighting design
- **Competencies:** Students will be able to design 3D virtual environments utilizing tools such as Unreal Engine, craft dynamic narratives, build intricate models, create virtual cinematics, conduct narrative motion capture, develop post-production workflows, build auditory experiences, utilize effective lighting, polish existing work through post-production editing and VFX techniques, and manage productions effectively and efficiently.
- **Assessment Process and Measure Summary:** Based on faculty-developed rubrics and faculty assessment of student oral portfolio defense, students in the program will demonstrate proficiency in creating professional-quality virtual production and cinematically innovative work that integrates various elements such as worldbuilding, 3D design, virtual cinematography, and narrative storytelling. The assessments will focus on the students' ability to create dynamic narratives, design intricate models, implement effective virtual lighting, and showcase post-production workflows in their portfolio pieces. These portfolio assessments will take place primarily in the Master's Portfolio Development course. Students will submit their final portfolio and will be assessed using a faculty-designed rubric. This individual analysis of each student will be assessed by course faculty to ascertain the student's technical aptitude and professional readiness upon exiting the MFA degree program. The results of these rubric assessments will be collected and analyzed by the degree program head (currently the Associate Director of the Poitier Film School and the Assistant Director of Virtual Production) for continuous improvement. Virtual Production degree faculty will use the data collected during the culminating portfolio course submissions to adjust the curriculum as needed for improvement in overall student success in these two measures. The Associate Director and Assistant Director will specifically look at average rubric scores compared to historical data. Sustained dips in scores will prompt faculty to examine teaching methods and the relevance of class assignments.

Projected Enrollment for the First Three Years:

Year 1: 5
Year 2: 15
Year 3: 20

Evidence of Market Demand:

According to a report by Grand View Research, the global virtual production market size is expected to reach USD 4.4 billion by 2027, with a compound annual growth rate of 15.6% from 2020 to 2027. This growth presents an opportunity for universities to capitalize on this trend by offering specialized programs that cater to the evolving needs of the industry. An MFA in Virtual Production and Cinematic Innovation program will help prepare students for careers in virtual production by providing hands-on experience with industry-standard technology and workflows and connecting them with professionals in the field. This MFA program offers students the opportunity to complete studies in three areas of specialization in the fields of Virtual Production and Cinematic Innovation and conclude their studies with an applied project, making this program ideal for people looking to learn the foundations of virtual production and expand their knowledge in various areas of emerging cinematic technologies.

The 2024 median pay for film and video editors and camera operators, as reported by the Bureau of Labor Statistics (BLS), was $70,570 per year or $33.93 per hour, with the typical entry-level education being a bachelor's degree. In 2023, the BLS reported 85,400 jobs in this field, and the projected growth rate for employment from 2023 to 2033 is around the average for all occupations at 3%.

In addition to meeting industry demands, an MFA in Virtual Production and Cinematic Innovation program can also be a lucrative offering for the film school. According to a report by IBISWorld, the film and video production industry in the US is expected to generate $38.9 billion in revenue in 2025. Offering a unique and specialized program that prepares students for careers in virtual production, the film school can increase enrollment and generate revenue for the university. Furthermore, a more flexible and accessible program allows students to continue working while pursuing their degree and can attract students who may not have been able to otherwise participate in a traditional graduate degree program.

Similar Programs Offered at Arizona Public Universities:

There are no comparable virtual production programs available in Arizona, but these programs at ASU are related as they deal with immersive media and extended reality technologies:

- BA in Live and Immersive Arts - UA

ASU will also offer the MAS in Virtual Production. The MAS is ideal for career professionals and industry skill seekers seeking knowledge and skills exclusive to the area of virtual production (i.e., technological aptitudes), whereas the MFA balances breadth and depth, technological and creative skills, through the combination of virtual production and cinematic innovation.

No other related programs have been found at Arizona schools.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

Faculty associate support will be needed to run courses necessary for this certificate, which will be supported by the proposed program fee and internal resources. No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $71.43 per semester, or $500 for the entire degree program (We estimate this program would take students 6 semesters and a summer.)

Fee Justification: This program fee will be used to support necessary technological updates, bringing in industry expert guest speakers, tech, production on applied projects and student enrichment grants. This fee is necessary for the launch of the program.
Specialized Accreditation? YES **NO** **Accreditor:** Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MM in Music Education
Academic Department: Herberger Institute for Design and the Arts *School of Music, Dance and Theatre*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 32
Proposed Inception Term: 2026
Brief Program Description: The Master of Music in Music Education program is designed for K–12 music educators who want to deepen their understanding of how people learn music and broaden their approaches to music teaching in varied settings. Students in K–12 settings bring an array of increasingly diverse interests and needs as learners. As such, this program is designed for music educators seeking to hone their teaching skills, which makes them better equipped to successfully teach music students in contemporary K–12 contexts. The proposed degree is designed for teachers who seek a streamlined path towards completing an MM degree. The proposed degree prioritizes a practical focus on broadening, deepening and strengthening teaching skills. Through courses, including, but not limited to, Foundations in Music Education, Psychology of Music, and Culturally Relevant Pedagogy, graduate students will gain relevant skills and understanding related to learning theories, pedagogical principles, aspects of curriculum development; strategies for facilitating music engagement and learning; and the ability to think reflectively and critically about their practice. Additionally, the MM in Music Education degree program will support students in developing as musicians by providing experience with diverse musical cultures, musical practices, and ways of understanding music through courses in music theory and musicology. Numerous states and many K–12 schools expect that music educators will engage in continuing education that aligns with this proposed degree program to extend beyond the basic foundations of teaching music addressed in bachelor's programs or alternative certification routes. This degree program addresses ASU's design aspirations of "Transforming

Society" by contributing directly to education in creativity and expression through the arts, "Principled Innovation" through its emphasis on reflection and ethical decision making in education, and to "Engage Globally" by extending access to high-quality continuing education and career development.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will facilitate appropriate instructional activities for varied music education contexts.

- **Concepts:** direct instruction, scaffolding, guided inquiry, techniques for timing and sequencing instruction, differentiation, culturally relevant pedagogy, assessment strategies, learning theories and related pedagogies for varied educational settings
- **Competencies:** Students will be able to identify and synthesize appropriate foundational pedagogies for supporting youth and adult music engagement and learning in varied contexts; articulate strategies to design, adapt and modify instruction and curriculum to support all students and their varied needs; demonstrate how learning theories inform instructional decisions before, during and after teaching episodes; and plan and integrate assessment of learning, for learning, and as learning to communicate students' growth and progress and to inform teaching.
- **Assessment Process and Measure Summary:** The MM in Music Education program curriculum is streamlined with a set of common courses designed to support students in developing strong foundations of music teaching while also deepening and broadening their pedagogical and curricular understanding. A standardized course rotation combined with intentional course design allows students to enter into the program with any course that is offered that semester and gain foundational skills and understandings, reinforce prior learning, and expand in new directions. Each course provides opportunities for students to customize their learning in relation to their experience and career goals while meeting standards for the curriculum and program. Students develop and apply initial competencies in facilitating music engagement and learning in three courses with an emphasis on pedagogical foundations. In these courses, students will articulate multiple approaches to support K-12 learners in developing musicianship and musical understanding. Each course introduces new pedagogical skills and concepts related to the course focus. Students will complete and present the final project to demonstrate their ability to apply relevant pedagogies in a music education setting. Projects will be assessed using a faculty-developed rubric. All music learning and teaching master's-level courses include one or more practical application projects, where students are individually assessed, receiving both formative and summative feedback from faculty and peers. Music Learning and Teaching faculty will use the data collected during the current assessment period to adjust the curriculum as needed for improvement in overall student success. The program head and area coordinators for music learning and teaching will specifically look at average rubric scores compared to historical data. Sustained dips in scores will prompt faculty to examine teaching methods, course activity and project options related to student experience and career goals, the relevancy or design of class assignments, or course structure and content.

Learning Outcome 2: Students will integrate flexible musicianship skills in analysis and interpretation that informs their teaching.

- **Concepts:** meaning making and sense making through musicological and music theory analysis and scholarly thinking; expanded concepts and vocabulary for understanding and discussing music

- **Competencies:** Students will be able to evaluate music with appropriate concepts and vocabulary; explain similarities and differences among varied music analytical traditions and approaches; respond critically to scholarship or musical creations; exercise ability to develop logical arguments, making connections between historical detail and broader concepts and trends; investigate appropriate use of others' scholarly or creative work for aesthetic and scholarly argumentation, reasoning, and creation; and employ music theory and musicological thinking to music education contexts.
- **Assessment Process and Measure Summary:** All students in the MM in Music Education program select three courses in musicianship (musicology, music theory), where their abilities to analyze, interpret and make connections to music are assessed on written assignments, discussions or projects. Analytical skills in theory and musicological thinking are assessed using projects in music theory courses. Since available offerings from this menu will vary from semester to semester, leadership will gather data from all courses on the menu offered during the current assessment period. They will also complete a musicianship course that will expand their current musical understanding and skillset, where their skills in doing music in an unfamiliar musical culture, musical practice, or musical style are assessed. The culminating experience for the MM program is a portfolio of work, prepared by the student with assistance from their faculty advisor, which is presented and assessed by a faculty panel. The portfolio contains a component where students share their understanding of flexible musicianship and expanded musical understanding through a chosen paper. This paper includes a discussion of how they can draw upon and apply their musical understanding to their teaching. Data will be collected and analyzed by the degree program head (currently the Assistant Director for graduate music). Faculty will use the data collected during the assessment period to adjust the curriculum as needed for improvement in overall student success. The program head and coordinators for the Music Learning and Teaching area will specifically look at average rubric scores compared to historical data. Sustained dips in scores will prompt faculty to examine teaching methods, course activity and project options related to student experience and career goals, the relevancy or design of class assignments, or course structure and content.

Learning Outcome 3: Students will synthesize their skills as reflective practitioners.

- **Concepts:** reflection in action; reflection on action, Schwab's commonplaces of education, analytical frameworks, identification of challenges in teaching, emerging issues in teaching, techniques for analyzing teaching, techniques for assessing teaching, lifelong learning
- **Competencies:** Students will be able to synthesize approaches and skills to analyze skills for self-analysis of one's own teaching and for students' engagement and learning; integrate and pursue wonderments and research questions related to learning and teaching; and employ different methods of scholarly inquiry and writing in original research.
- **Assessment Process and Measure Summary:** A core principle of the MM in Music Education program is for music educators to be inquisitive thinkers. The school's commitment to supporting students apply critical lenses and analysis to their teaching and the field is a foundation of the MM program and is distinct from numerous other MM in Music Education programs. The required course Introduction to Research in Music Education addresses approaches and skills in inquiry and scholarship to inform students' practice as reflective practitioners. A key project in this course requires students to identify issues or challenges they face in their teaching and to propose an action research study they could carry out to inform their own teaching. Students engage as reflective practitioners to observe their own teaching both in terms of reflection in

action and reflection on action. All Music Education master's-level courses include readings and projects that require students to engage in inquiry and to reflect on their practice in relation to theories and frameworks they encounter that can expand how they understand their own teaching through Schwab's commonplaces of education. Students also receive formative and summative feedback from faculty and peers in the course. As reflective practitioners, they also engage in self-assessment and metacognition to support their growth as educators. The culminating assessment for the MM program is a portfolio of work, which includes two teaching videos with self-critiques. The student prepares the culminating portfolio with assistance from their faculty advisor and presents and discusses their work in a meeting with a faculty panel. The faculty panel assesses the body of work using a rubric. Data will be collected and analyzed by the Assistant Director for graduate music. Music Learning and Teaching faculty will use the data collected during the current assessment period to adjust the curriculum as needed for improvement in overall student success in the outcome. The program head and area coordinators for music learning and teaching will specifically look at average rubric scores compared to historical data. Sustained dips in scores will prompt faculty to examine teaching methods, course activity and project options related to student experience and career goals, and the relevancy or design of class assignments.

Projected Enrollment for the First Three Years:

Year 1: 15
Year 2: 27
Year 3: 40

Evidence of Market Demand:

The promise of potential growth in arts education exceeds predictions for teaching. Compared to the arts education sector, the overall teaching profession, independent of content area specialization, is expected to remain stable over the next decade. According to the U.S. Bureau of Labor Statistics' Occupational Outlook Handbook, attrition to the profession counters the anticipated shrinkage in school-age populations. Nonetheless, schools still need high-quality educators. The National Center for Education Statistics noted in their 2023–2024 School Pulse Panel report, a study collecting data on the impact of the COVID-19 pandemic on schools every month over several years, that 45% of public school employees view their school as understaffed and 79% of schools reported difficulty in filling teaching positions with fully certified teachers. Overall, job postings directly related to education have increased and are projected to grow by 1.2%. According to Gray DI (https://www.graydi.us), data related to search volume demonstrates interest in MM in Music Education programs and online music education programs. Search volume for all relevant keywords related to Music Education amounts to approximately 123k searches per month, with a high degree of searches originating from New York, California, Texas and Florida. This reflects a high level of interest and is a substantial figure in the context of competitive keyword performance. The keyword "Online Music Education Degree" generated 13,000 searches in the past year, which further underscores the growing demand for online learning options in this field.

Given teacher shortages in numerous states, a subset of music educators are entering the profession through alternative routes (i.e. fast-tracked alternative certification after two years of teaching uncertified with a bachelor's degree) and are expected to or are seeking continuing education and career development in music education. An MM in Music Education degree program has potential to attract such educators. There is also anticipated interest from

international students based on a growing number of prospective students from China with a piano and/or voice background seeking graduate work in music education, particularly those with performance-focused backgrounds who are attracted to an asynchronous option. This program is designed for music educators seeking a flexible path towards continuing education and career development. The MM in Music Education degree program is expected to see enrollment primarily from out-of-state students and international students who seek such flexibility.

Similar Programs Offered at Arizona Public Universities:

Among Arizona Public Universities, ASU and the University of Arizona both have music education master's degree programs.

The MM in Music Education degree at the University of Arizona is primarily focused on developing best practices for music teachers: how to conduct ensembles, how to provide instrument or voice lessons, along with coursework in musicology, research and music theory. The proposed MM in Music Education degree instead focuses on educating teachers to be nimble in the classroom with a focus on the future, allowing them to leverage their practices as musicians and educators to better serve a range of musical interests in the classroom. For example, the inclusion of coursework in psychology of music, culturally relevant pedagogy, and the inclusion of popular music and technology throughout the courses challenge teachers to move beyond set curriculum and teaching approaches to become responsive and future-focused music educators.

ASU's current MM in Music Learning and Teaching is designed to support music educators in developing leadership capacity, providing the foundation for potential doctoral work if that is of interest. The Music Learning and Teaching master's degree is oriented to a much broader set of paths into and out of the program and includes a breadth of course options designed for music educators seeking in-depth coursework of a semester-length duration. Most music educators in the current degree program take fewer courses per semester to stretch out their engagement in the program over several years. The proposed MM in Music Education degree focuses on a more intense, streamlined, and accelerated path towards graduation and prioritizes teaching praxis. Therefore, the proposed MM in Music Education degree program differs substantially from the existing MM in Music Learning and Teaching program. The proposed program will likely attract a different set of students who currently do not apply for or enroll in the existing program.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO** **Estimated Amount:** **Fee Justification:**	
Specialized Accreditation? YES **NO** **Accreditor:** Not applicable.	

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MS in Game Design
Academic Department: Herberger Institute for Design and the Arts *The GAME School*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe, West Valley, and Los Angeles campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 33
Proposed Inception Term: 2026
Brief Program Description: The Master of Science in Game Design prepares students to become innovative game designers, developers and entrepreneurs. This program is designed to provide students with advanced knowledge, skills and expertise in the creation of engaging, interactive and immersive games for various platforms, including PCs, consoles, mobile devices and web-based technologies. The program contributes to ASU's design aspirations by embodying a forward-thinking approach to education. The MS in Game Design aligns with Arizona State University's mission to foster excellence, access and impact. ASU's charter, emphasizing inclusivity, global engagement and the advancement of research and discovery, is reflected in the program's commitment to diversity, collaboration and advancements in entertainment technology. By offering a curriculum that relates to the rapidly growing games industry, ASU would enhance its reputation as a leader in technological innovation, attracting a student body passionate about the intersection of technology and the arts. This program would prepare students to contribute to the rapidly evolving games industry, aligning with ASU's mission to produce graduates who are not only skilled but also ready to address complex global challenges. By fostering interdisciplinary collaboration, the program would further contribute to the university's goals of advancing research and discovery, driving economic development and promoting public value.

Students in the MS in Game Design will engage in a collaborative studio environment that emphasizes hands-on creation, critical thinking, and innovation. They will work closely with faculty, industry mentors, and peers from diverse disciplines to design and develop original projects. Through applied research, team-based production, and entrepreneurial practice, students gain both the creative and professional skills needed to thrive in the global games industry.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will employ iterative design methods, including playtesting and user feedback, to refine gameplay experiences.

- **Concepts:** iterative design paradigm, playtesting methodologies, human-computer interaction, feedback analysis models, user-centered design
- **Competencies:** Students will have the ability to execute iterative cycles of prototyping, testing and refinement; evaluate player experience through usability testing, observation and interaction analysis; and integrate user insights into actionable design changes that improve gameplay.
- **Assessment Process and Measure Summary:** Student competency in the outcome will be assessed using a rubric evaluation from the final project of the Advanced Game Design course. The rubric will assess students' ability to employ appropriate design and playtesting methods. As an indirect measure, a survey will be distributed to students by all Applied Project instructors. The Education Coordinator will collect data from the course faculty on each measure and analyze it to identify trends or expected or unexpected results. The results will be shared with program faculty, and the findings will be used to support continuous improvement of the curriculum, teaching methodology and delivery methods.

Learning Outcome 2: Students will develop playable prototypes using contemporary game engines and tools.

- **Concepts:** game engine architecture, prototyping theory, software development paradigms.
- **Competencies:** Students will be able to manipulate core engine systems to build functional prototypes; design low- and high-fidelity prototypes that effectively test gameplay concepts; iteratively refine prototypes based on testing, feedback and design goals; and integrate modular and reusable code components within a game engine to support scalable prototype development.
- **Assessment Process and Measure Summary:** Student competency in the outcome will be assessed using a rubric evaluation from the final culminating project in the Applied Project course. As an indirect measure, a survey will be distributed to students by all Applied Project instructors. The Education Coordinator will collect data from the course faculty on each measure and analyze it to identify trends or expected or unexpected results. The results will be shared with program faculty, and the findings will be used to support continuous improvement of the curriculum, teaching methodology and delivery methods.

Learning Outcome 3: Students will integrate project management and agile development practices in team-based projects.

- **Concepts:** production pipelines in games, team dynamics and collaboration models, agile development paradigms, project management theories

- **Competencies:** Students will have the ability to plan, manage and execute the integration of assets, code and other components within a structured game production pipeline; communicate effectively and collaborate within interdisciplinary teams to achieve project goals; prioritize tasks, manage sprints, and adapt project plans based on feedback and evolving requirements; evaluate project outcomes against goals, constraints and stakeholder expectations to inform future improvements.
- **Assessment Process and Measure Summary:** Student competency in the outcome will be assessed using a rubric evaluation from the final culminating project. As an indirect measure, the Graduate and Law Student Report Card will be used, looking at the questions about "integrating project management and agile development practices". The Education Coordinator will collect data from the course faculty on each measure and analyze it to identify trends or expected or unexpected results. The results will be shared with program faculty, and the findings will be used to support continuous improvement of the curriculum, teaching methodology and delivery methods.

Projected Enrollment for the First Three Years:

Year 1: 10
Year 2: 20
Year 3: 40

Evidence of Market Demand:

Based on the Bureau of Labor Statistics' (BLS) employment outlook and Lightcast's industry trends, it appears that there is a growing market demand for professionals with advanced degrees in game design. A Master of Science degree in this field can provide a competitive edge in the job market by showcasing specialized knowledge and skills. Lightcast's insights on the video game industry reveal a few key trends that support the demand for MS degree holders in game design and show an expected change in workforce from 2022 to 2027 of +19%. While BLS does not list game designer as an occupation, it is comparable with software developers, quality assurance analysts and testers with an annual wage of $132,270 in May 2023 and expected market growth of 25% from 2022 to 2032.

Similar Programs Offered at Arizona Public Universities:

There are no graduate-level game design programs at the University of Arizona or Northern Arizona University.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $1000 per semester

Fee Justification: Estimated timeframe for completion is two years (4 semesters). The program fee will be used for the following:

1. Upgrading equipment, software, and infrastructure to provide students with hands-on learning experiences that mirror real-world industries.
2. Obtaining licenses for specialized software needed to teach specific courses, ensuring students have access to the same tools used in professional settings.
3. Attracting experienced instructors who can share their expertise and provide students with valuable insights into their respective fields.

By investing in these areas, the program will be well-equipped to deliver engaging, relevant and effective learning experiences that prepare students for success.

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: PhD in Art History
Academic Department: Herberger Institute for Design and the Arts *School of Art*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 84
Proposed Inception Term: 2026
Brief Program Description: The Doctor of Philosophy in Art History is an interdisciplinary research degree program that fosters critical understanding of aesthetics, production, patronage and consumption of art. The PhD will offer students a tailored experience to develop critical and creative thinking around subjects and communities that have been underrepresented in the field of art history. Internationally recognized faculty will train students in the fields of Modern and Contemporary Art in Global Contexts, Art of the Americas (including the U.S.), and Asian Art, among others. Small seminars and lecture courses will help students gain expertise in a broad range of methodologies, critical theory, and contemporary debates in the field, as well as explore ways to bring change to the field. The art history faculty will mentor students in the application of theoretical and methodological approaches to conduct original research on national and international topics, resulting in a dissertation with lasting benefits to the field. The degree will prepare students for a range of professions from academia to the museum world to publishing. In addition to art history courses, the program includes coursework in other disciplines across the university, such as museum and curatorial practices. The program is further augmented by internships offered by a wide variety of arts organizations, visiting artist and scholar lectures and public exhibitions supported by the School of Art galleries, the ASU Art Museum, the Ceramics Research Center, and Archive and Pyracantha Press. These events and activities offer students

the opportunity to develop their knowledge and appreciation of contemporary art and culture while building a professional network. The program is enriched by close proximity to cultural institutions in the Phoenix metropolitan area and nearby regions such as the Phoenix Art Museum, the Scottsdale Museum of Contemporary Art and the Heard Museum.

This program directly aligns with the ASU charter by advancing research, as students will engage directly in research about art throughout history, advancing our understanding of historical and current cultures and societies. The program also advances ASU's design aspirations, as students in this program will engage globally through faculty connections, coursework, and research currently happening across the Southwest United States, South America, Asia and the Middle East. The program will also enable student success by creating a more direct and consequential relationship between PhD students and the faculty with whom they are working.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will communicate effectively, both orally and in writing, about conceptual frameworks within the field of Art History.

- **Concepts:** concise writing, communication, application of theory to practice, oral communication, public speaking, tone, purpose
- **Competencies:** Students will have the ability to orally present research findings to faculty committees and outside observers, clearly communicate their research findings through clear and concise writing, demonstrate mastery of academic tone in writing, and demonstrate public speaking skills.
- **Assessment Process and Measures Summary:** The outcome will be measured using a final research paper as assessed by a 5-point rubric developed by faculty from the School of Art. In addition, the outcome will be measured using the oral defense of PhD candidates' dissertations as scored by a 5-point rubric developed by faculty from the School of Art. The rubric scores will measure the student's mastery of tone, analysis, verbal and written communication, application of theory, and other competencies. The data from rubric scores will be summarized and presented to faculty and leadership by School of Art curriculum staff. Staff and faculty will use the annual assessment data to look for ways to engage in continuous improvement to the curriculum, program delivery, and teaching methodologies.

Learning Outcome 2: Students will produce original research in the field of Art History within their focus area.

- **Concepts:** research methodology, literature review, rhetorical analysis, critical theory, research questions, data collection and analysis
- **Competencies:** Students will have the ability to develop a research question based on a focus area within the field of Art History. Students will also be able to identify relevant research resources, conduct literature reviews, and outline a research methodology.
- **Assessment Process and Measures Summary:** The outcome will be measured using PhD candidates' final written dissertations as assessed by a 5-point rubric developed by the School of Art faculty. This rubric will be used to assess the competencies of developing research questions, conducting research analysis and literature reviews, outlining methodology, and others. The outcome will be measured using student responses to the Graduate and Law Student Report Card question regarding "the program's contribution to research skills and methods." The data gathered from these measures will be summarized and presented to faculty and leadership by School of Art curriculum staff. Staff and faculty will use the annual assessment data to look for ways to

engage in continuous improvement to the curriculum, program delivery, and teaching methodologies.

Learning Outcome 3: Students will evaluate published research within the field of Art History.

- **Concepts:** research methodologies, summary writing, critical theory (postcolonial theory, queer theory, feminist theory, Marxist theory, pedagogical theory, etc.), literature review
- **Competencies:** Students will be able to read current and historical published research in Art History, summarize published research, and apply multiple critical lenses to published research.
- **Assessment Process and Measures Summary:** The outcome will be measured by a 5-point rubric developed by the School of Art faculty. In addition, the outcome will be measured using student responses to the Graduate and Law Student Report Card. Data gathered from these rubrics will be summarized and presented to faculty and leadership by School of Art curriculum staff. Staff and faculty will use the annual assessment data to look for ways to engage in continuous improvement of the curriculum, program delivery, and teaching methodologies.

Projected Enrollment for the First Three Years:

Year 1: 3
Year 2: 6
Year 3: 9

Evidence of Market Demand:

The need to create a standalone PhD in Art History springs from several needs and demands. Arizona State University currently offers a Design, Environment and the Arts (History, Theory and Criticism), PhD concentration. However, many classes in the core curriculum are not relevant for students specializing in art history. This is not conducive to the art history-focused PhD Candidates' progress and research. Additionally, there is a need for the title of the program to clearly state that it is Art History. While theory and criticism are important, it is important that students are able to clearly market themselves as Art Historians once they have completed the degree. Theory and Criticism are embedded in the study of Art History, and a more general approach to the name of our degree will help market it to a wide breadth of students, looking to study a wide array of specialties.

According to Lightcast, the western and southwestern region of the United States combined had 38 PhD (Art History, Criticism and Conservation) completions in 2023 from 14 institutions. This represents an 8.6% increase. Many students who complete a PhD will also go on to teach in a post-secondary institution such as a University or Community College. Also, according to Lightcast, the occupation of Postsecondary Teachers is expected to grow 7.12% in the next 4 years.

Students completing a PhD program in Art History have a range of career options. They can work as archivists, curators, or other museum employees. According to the Bureau of Labor Statistics (BLS.gov), this field will grow 11% over the next 10 years. This is faster than the forecasted 4% growth across the United States. They could also work professionally as historians for archives, historical societies, foundations or government agencies. This area will grow 6% over the next year, according to BLS.gov. Lastly, BLS.gov predicts the area of Postsecondary Teachers will grow 8% over the next 10 years.

Similar Programs Offered at Arizona Public Universities:

Northern Arizona University has no graduate programs in Art History.

The University of Arizona has two similar PhD programs. Both programs are concentrations of the PhD in Art History and Education. The concentration in Art and Visual Culture Education is focused on contemporary intersections of art, visual culture and education. Graduates contribute to the research, knowledge, theory and practice of art and visual culture education in arts leadership positions in universities, schools, museums and community organizations. The concentration in Art History is a more traditional PhD Art History program.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program Fee/Differentiated Tuition? YES **NO**

Estimated Amount:

Program Fee Justification:

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: AS in Computer Science and Artificial Intelligence
Academic Department: Ira A. Fulton Schools of Engineering *School of Computing and Augmented Intelligence*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 60
Proposed Inception Term: 2025
Brief Program Description: The Associate of Science program in Computer Science and Artificial Intelligence offers a comprehensive curriculum designed to equip students with foundational and advanced skills in programming, data analysis, artificial intelligence and ethical reasoning. Designed for a partnership with the U.S. Naval Community College, the program provides training to enlisted personnel (Navy, Marines and Coast Guard). Students in this program complete courses that foster critical thinking, communication and civic engagement, including composition, ethics, history and political science. These are complemented by technical courses in programming, mathematics, and artificial intelligence and machine learning concepts. This program directly supports Arizona State University's charter, which commits to being "measured not by whom it excludes, but by whom it includes and how they succeed." By integrating general education with technical and industry-relevant coursework, the program is accessible to a broad student population and prepares them for success in a rapidly evolving digital economy. The AS in Computer Science and AI will map directly into several relevant baccalaureate degrees at ASU, including the BA in Computer Science, the BS in Informatics, and may even work towards

the BS in Computer Science or Software Engineering if students opt to do the calc course in the AS. These programs are available at multiple ASU campuses including online. These direct pathways within ASU allow students to transition from completion of the associate degree directly into a 4-year degree without any loss of credit and without changing institutions.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will be able to develop AI-related applications and tools.

- **Concepts:** computer programming, AI literacy, AI tools
- **Competencies:** Students will develop computer programming skills, recognize and model computing problems; explain foundational AI concepts in computer science; and apply computer science knowledge and programming skills to solve computing problems.
- **Assessment Process and Measures Summary:** Students will be assessed on this learning outcome using a standardized rubric with assignments in foundational courses in coding and AI literacy. Staff and faculty will use the annual assessment data to look for ways to engage in continuous improvement to the curriculum, program delivery, and teaching methodologies.

Learning Outcome 2: Students will adopt an ethical decision-making framework in the context of the application of AI.

- **Concepts:** ethical decision making, AI literacy, AI tools
- **Competencies:** Students will be able to **e**xpress in written or oral form the ethical dilemmas in the application of AI in workplace-relevant scenarios, and apply frameworks for ethical decision making.
- **Assessment Process and Measures Summary:** This outcome will be assessed via two distinct measures. Students will apply an ethical decision-making framework to a case study and be assessed using a standardized rubric. The outcome will also be assessed via a standardized test of understanding of ethics concepts.

Learning Outcome 3: Students will perform tasks as a collaborative team.

- **Concepts:** leadership, teamwork, collaboration, communication, task management
- **Competencies:** Students will be able to promote leadership by organizing team communication, activities and goal setting; effectively communicate in written and verbal form; and demonstrate effective collaboration on a complex team task for completing a deliverable.
- **Assessment Process and Measures Summary:** This outcome will be assessed via two distinct measures. Students will complete a capstone team project where the student works within the team to lead and support high-quality project plans, and effectively tracks progress according to such plans, making revisions as necessary. The outcome will also be assessed via a course survey that asks the students to evaluate themselves and the capstone team. Data will be reviewed for trends, strengths and weaknesses and will be used for the continuous improvement of the program.

Projected Enrollment for the First Three Years:

Year 1: 100
Year 2: 150
Year 3: 200

Evidence of Market Demand:

The market demand for this degree has been determined via a partnership with the US Navy. According to the Bureau of Labor Statistics, "Employment in computer and information technology occupations is projected to grow much faster than average from 2023 to 2033, with 356,700 openings annually due to growth and retirements." https://www.bls.gov/ooh/Computer-and-Information-Technology/

Similar Programs Offered at Arizona Public Universities:

There are no similar programs at Arizona public universities as this is designed specifically for the US Naval Community College.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount:

Fee Justification:

Specialized Accreditation? YES **NO**

Accreditor: None

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MS in Space Mission Design and Engineering
Academic Department: Ira A. Fulton Schools of Engineering & The College of Liberal Arts and Sciences *School for Engineering of Matter, Transport and Energy / School of Earth and Space Exploration*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: 2027
Brief Program Description: This master's degree allows students to develop expertise in both aerospace engineering and space mission design and planning, providing students with the opportunity to have a multidisciplinary background in the areas of aerospace engineering as well as satellite design and space missions. Specifically, in the latter area, the students will be taught the conceptual design and planning of missions, including their scientific and economic objectives, instrumentation design and sensor architecture. The program will also include aerospace engineering topics such as vehicle design, propulsion systems, structural design to resist the thermal effects, as well as launch forces and the navigation system. ASU has a long history of designing very successful missions, e.g., for NASA, and a key observation from these successful past activities is that close collaboration between mission specialists and engineers is necessary to achieve success. Such a collaboration can be challenging because it requires people from different backgrounds to understand each other's concerns and issues. This new MS degree will target students with undergraduate degrees in either aerospace engineering, space exploration, or closely related fields interested in joining the rapidly expanding space exploration industry. The program will prepare them strongly for those opportunities by providing them with an education that includes both engineering and mission

aspects, so they can interface with space mission specialists as well as aerospace engineers. Such an education will be especially important as the space industry shifts from scientific observation missions to space mining, the establishment of colonies with space structures, rovers, etc. Students in the program will obtain specific skills in mission design, instrumentation design, propulsion, structural mechanics, heat transfer, and control and navigation.

This program aligns with several of the University's design aspirations by enabling student success, fusing intellectual disciplines, and will practice principled innovation by encouraging students to use good character and values for decisions and actions.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will employ control theory methodologies in space mission planning.

- **Concepts:** control theory, vehicle dynamics, guidance and navigation, orbit transfers and assists, data analysis
- **Competencies:** Students will have the ability to explain control theory methodologies; evaluate and compare different controller designs such as for space robotics applications; evaluate and compare different space trajectories for technologically and scientifically relevant missions.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed using a direct student artifact and student survey responses. In the applied project from the culminating experience course, students will plan a specific mission where they will employ control theory methodologies. The culminating experience will be assessed via a faculty-developed rubric to evaluate students on their core knowledge of aerospace engineering and space exploration concepts. These principles are crucial for all industries that focus on satellite and space missions. In addition, upon graduation, a self-evaluation will be performed on each student. Students are asked, "Have you successfully learned and applied concepts of control theory methodologies in your MS degree?". This self-evaluation will be used to measure proficiency in aerospace engineering and space mission design and planning knowledge indirectly. The Graduate Program Chair, in consultation with the Graduate Program Committee, will specifically look at average rubric scores and survey results compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Assessment data will be used for continuous improvement of the curriculum.

Learning Outcome 2: Students will evaluate critical performance parameters in a specific technology using the fundamental principles for aerospace engineering.

- **Concepts:** mechanics of materials and structures, deformations, strains, stresses. Vibration and structural dynamics, heat transfer, heat conduction, rocket propulsion
- **Competencies:** Students will have the ability to explain principles of aerospace engineering; determine and assess critical performance parameters for different applications; apply their assessment methodology to different technologically relevant applications.
- **Assessment Process and Measure Summary:** The outcome will be assessed using a direct and indirect measure to gauge students' knowledge of the fundamental principles for aerospace engineering. These principles are crucial for both a fundamental understanding of aerospace engineering and for evaluating critical performance parameters in technological applications. In the culminating event (research paper or presentation), students will evaluate critical performance parameters in a specific technology. This measure will be assessed via a 5-scale rubric focusing on the student's

"Fundamental principles of aerospace engineering". Indirectly, student data via a self-evaluation will be distributed to each student upon graduation. Students are asked, "Have you successfully learned and applied concepts for aerospace engineering in your degree?". Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Assessment data will be used for continuous improvement of the curriculum.

Learning Outcome 3: Students will effectively communicate concepts in aerospace engineering and space mission design and planning through written and oral presentations.

- **Concepts:** communication skills (organization, clarity, tone, audience, public speaking skills), data presentation, application to technology
- **Competencies:** Students will be able to demonstrate public speaking skills, write documents considering organization, clarity and audience, clearly explain aerospace engineering and space mission design and planning concepts
- **Assessment Process and Measure Summary:** The outcome will be assessed using a direct and indirect measure to gauge students' knowledge of how to effectively communicate aerospace engineering and space mission design and planning concepts. These skills are crucial for successful integration in industrial teams that are essential for technological progress. Term papers and presentations prepared in one of two required courses, depending on the student's pathway, will be used to directly assess the outcome. It is expected at this point that almost all students in the program will take either or both classes. Moreover, both involve significant projects and presentations, making them ideal for the assessment purpose. A 5-scale rubric will be developed in conjunction with the instructors to assess the student's "Effective communication of concepts in aerospace engineering and space mission design and planning." In addition, indirect student data will be collected via a self-evaluation distributed to each student upon graduation. Students are asked, "Have you successfully learned how to effectively communicate concepts in aerospace engineering and space mission design and planning through written and oral presentations?" Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Assessment data will be used for continuous improvement of the curriculum.

Projected Enrollment for the First Three Years:

Year 1: 10
Year 2: 20
Year 3: 30

Evidence of Market Demand:

The U.S. Department of Labor predicts that the economy will add an additional 63,000 jobs in engineering fields related to space mission design and engineering MS degrees (electrical and electronics, aerospace, mechanical and computer engineering). This is in addition to the already existing 900,000 jobs in the economy in these fields.
(https://www.bls.gov/careeroutlook/2018/article/engineers.htm)

The state of Arizona has a considerable presence of aerospace and other technology companies with high demand for skilled labor. Local aerospace companies have a high demand for students with direct experience and training in the space sector. The School of Engineering for Matter, Transport and Energy (SEMTE), the School of Earth and Space Exploration (SESE), and the proposed MS degree are uniquely positioned to provide this training.

A Lightcast analysis for the Southwestern region and Arizona shows significant potential for growth for jobs in engineering fields related to space mission design and engineering, with an MS degree. Existing jobs are 17–18% above the national average for both the southwest region and Arizona, with 7–8% job growth predicted from 2019–2024.

Similar Programs Offered at Arizona Public Universities:

There is no similar program in Arizona. The MS programs at ASU and the MS and ME programs at U of A are all disciplinary programs in either aerospace engineering or space mission and systems design. The proposed MS in Space Mission Design and Engineering will be cross-disciplinary, with the courses divided equally between advanced topics in space mission design and aerospace engineering. This cross-disciplinary knowledge is necessary for many of the forthcoming space applications in which mission design and engineering are closely linked and necessary for success.

University of Arizona
MS in Aerospace Engineering
ME in Aerospace Systems

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount:

Fee Justification:

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MS in Sustainable Chemical Processes
Academic Department: Ira A. Fulton Schools of Engineering *School for Engineering of Matter, Transport, and Energy*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: 2027
Brief Program Description: The Master of Science in Sustainable Chemical Processes program prepares students in sustainable process design, management and assessment across a broad range of industrial, commercial, academic and government organizations. Not only will students deepen their knowledge of the fundamental chemistry and physics of the core concepts of chemical engineering (i.e. chemical thermodynamics, reaction kinetics and transport phenomena), but also gain key skills in sustainability (i.e. the technical, social, political, and economic aspects of sustainable design including life cycle analysis, green chemistry, environmental justice and the economics of sustainable solutions). Career opportunities lie in the chemical, biotechnology, semiconductor, fuel and food industries, making decisions for effective processes that will yield economic and sustainable outcomes. While chemical engineers develop feasible chemical processes of important use to society, a graduate from the Sustainable Chemical Processes program will help analyze and optimize these processes to minimize their impact to human health, the environment and long-term economic costs. This reflects ASU's charter of assuming social responsibility for the technologies and processes we develop. The MS in Sustainable Chemical Processes degree will appeal to two major groups of students: first, chemical engineering graduates who want to expand their knowledge of management and

sustainable design, allowing them to be leaders in major chemical industries; second, chemists and other scientists who are interested in learning aspects of engineering design, which provides an opportunity for careers in the engineering aspects of the chemical industry.

While there are several sustainability-oriented MS programs, these do not address the complexity of designing sustainable chemical industries. Designing sustainable chemical industries requires background knowledge of chemical engineering and sustainability, which very few programs across the U.S. can provide. For this reason, this program is most useful to candidates interested in sustainable chemical industries.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will evaluate data using key concepts of chemistry and chemical engineering.

- **Concepts:** thermodynamic equilibrium, reaction kinetics, transport and chemical processes
- **Competencies:** Students will have the ability to explain thermodynamic, kinetic and transport calculations and use them within their work and be able to apply those concepts to perform useful calculations in the culminating experience.
- **Assessment Process and Measure Summary:** Students will be assessed using a direct measure and an indirect measure. The direct measure is the student's portfolio that will be assessed using a faculty-designed rubric that will consider "principles of thermodynamics, kinetics and transport". Faculty will evaluate students based on their core knowledge as it relates to thermodynamic concepts in chemical engineering. The indirect measure comes from a student self-evaluation question upon graduation. The question on the self-evaluation used is "Have you successfully learned and applied concepts of thermodynamics, kinetics and transport in your M.S. degree?" The program director will oversee and coordinate the assessment process. Faculty teaching the course will provide data on the results of the students portfolios, while the academic advising office will send and collect the evaluation question results. The data will be sent to the program director for analysis, reviewed and compared to past data to identify trends or changes in performance, and will be shared with faculty and used to make decisions regarding changes in the curriculum, teaching methodology or delivery methods to support continuous improvement of the program.

Learning Outcome 2: Students will communicate technical data orally and in writing.

- **Concepts:** communication skills (clarity, conciseness, organization, audience, tone, purpose), data interpretation, data presentation in written form
- **Competencies:** Students will be able to demonstrate the principles of communication, interpret data and correctly explain findings.
- **Assessment Process and Measure Summary:** Students will have several courses in which written and oral technical or reviews are expected. These documents are used by the student to generate a portfolio as a culminating event. Students will be assessed through two direct measures of technical writing. The first is the portfolio, in which faculty evaluators will evaluate the student's proficiency in technical writing and data analysis. A faculty-designed rubric developed for these culminating events specifically asks the committee to evaluate proficiency to communicate results. The second will be related to the student's ability to give a technical oral presentation. Faculty evaluating their presentation of their culminating event will evaluate the student's proficiency in oral communication of technical content. The results will be sent to the program director for analysis and compared to past data to identify trends or changes in performance. The

results will be shared with faculty and used to make decisions regarding changes in the curriculum, teaching methodology or delivery methods to support continuous improvement of the program.

Learning Outcome 3: Students will synthesize key concepts of sustainability in chemical processing.

- **Concepts:** sustainability assessment in a chemical process, environmental, economic and social impacts, life cycle assessment, green metrics, qualitative performance indicators
- **Competencies:** Students will have the ability to outline the stages of chemical processing assessments; define environment, economic and social impacts; explain life cycle assessment; and perform calculations using sustainability concepts.
- **Assessment Process and Measure Summary:** This learning outcome will be assessed by collecting data from a direct and indirect measure. The direct measure is a sustainability project in the Circular Chemical Processes and Design course. Faculty will evaluate the artifact with a rubric to determine the student's ability to implement sustainability assessments in chemical processes. The indirect measure is self-performed using the University Office of Evaluation and Educational Effectiveness Graduate Student Report Card. Students are asked “Rating of preparation for a job in the field”. This self-evaluation question will be used as an indirect measure of proficiency in sustainable chemical processes. The results will be sent to the program director for analysis and compared to past data to identify trends or changes in performance. The results will be shared with faculty and used to make decisions regarding changes in the curriculum that relates to teaching sustainability practices.

Projected Enrollment for the First Three Years:

Year 1: 10
Year 2: 25
Year 3: 40

Evidence of Market Demand:

This is an emerging field of study and there is limited data on market demand. To our knowledge, there is only one existing program that has a similar offering at the University of Oklahoma, led by the chemical engineering faculty and titled MS in Sustainability: Energy and Materials Management. This program currently has ~75 students in just ~4 years since its inception. No similar programs are offered in person to our knowledge.

While there are limited programs on sustainable chemical processes in the U.S., the degree is closely associated with chemical engineering. According to the Bureau of Labor Statistics (BLS), chemical engineers earned an average of $121,860, making it one of the highest-paying engineering jobs in the U.S. market. There is a 3% increase in employment outlook for chemical engineers in the next 10 years. The program is also associated with careers in environmental engineering, in which sustainable engineering is a sub-discipline taught in those programs. There is a 4% increase in employment outlook for environmental engineers in the next 10 years, according to BLS.

According to the U.S. Energy Information Administration, the chemical industry constitutes 29% of the manufacturing industry in the U.S., an industry of about $500 billion annually, including organic chemicals, plastics, agricultural chemicals among others. There are over 1 million

workers in this industry, and the goal of the proposed MS program is to train experts in the optimization of chemical processes to achieve a sustainable and efficient chemical industry. Given the large industrial need for this expertise and the limited number of programs available in the U.S., this program will provide a competitive advantage to the U.S. chemical industry by creating a skillset that analyzes and optimizes chemical processes within the industry.

Similar Programs Offered at Arizona Public Universities:

None of the AZ public or private universities include a program specific to sustainability in chemical processes. NAU has a PhD in Engineering Sustainable Systems with a general focus on environmental sustainability, while our program will focus on chemical process sustainability. Both ASU and UA have chemical engineering programs that have a close relationship to the proposed program. The proposed program is intended for chemical engineers, but does not cover the same content or scope of a chemical engineering M.S.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program Fee/Differentiated Tuition? YES **NO**

Estimated Amount:

Program Fee Justification:

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: PhD in Environmental Engineering
Academic Department: Ira A. Fulton Schools of Engineering *School of Sustainable Engineering and Built Environment*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 84
Proposed Inception Term: 2026
Brief Program Description: Environmental engineers address grand challenges facing society, including supplying clean water and safe food, designing a future without pollution, recovering valuable resources from waste, maintaining and restoring ecosystems, and creating healthy and resilient cities. The proposed Doctor of Philosophy program in Environmental Engineering is intended for students with a background in engineering (e.g., agricultural, biological, chemical, civil, environmental) or natural sciences (e.g., Earth science, ecology, biochemistry, geology). The proposed program will provide specialized technical knowledge of environmental engineering, including water and wastewater treatment technologies, air quality management and pollution control, hazardous waste management and remediation, complex system modeling and sustainable infrastructure. PhD students will have opportunities to conduct research on critical environmental challenges such as emerging contaminants, advanced water treatment systems, environmental monitoring technologies, resource recovery and the water-energy-food nexus. All students will be required to complete advanced graduate coursework and conduct original research that contributes to the field of environmental engineering. Research may be conducted in collaboration with local communities, government agencies and interdisciplinary research centers. In addition to specialized technical knowledge, the PhD program in Environmental Engineering will provide advanced skills—developed through both coursework and research—in experimentation, data analysis and interpretation, environmental modeling, process operation and system design. The

specialized technical knowledge and advanced skills are complemented by developing the ability for effective communication and interdisciplinary collaboration.
The PhD in Environmental Engineering curriculum includes advanced coursework in environmental chemistry, environmental health microbiology, microbial ecology, process engineering, water resources, data analysis and risk assessment. It also emphasizes original, use-inspired research that addresses the grand challenges at the intersection of the natural and built environments. Faculty members in Environmental Engineering will work closely with PhD students, serving as chairs, co-chairs and members of their doctoral dissertation committees. PhD students in Environmental Engineering will have the opportunity to interact with fellow graduate students, faculty and industry experts through a weekly graduate seminar series and an annual research symposium. Within the program and across the university, students will benefit from interdisciplinary collaboration, along with access to cutting-edge laboratory and research facilities. Students will be supported with clearly structured guidance materials that outline expectations and best practices for each stage of the PhD process. The program fosters a collegial research environment that prepares graduates for leadership roles in academia, industry, and public service.

Research in environmental engineering that addresses the grand challenges facing society is directly aligned with the ASU charter. For example, environmental engineering research on supplying clean water and creating a future without pollution reinforces the ASU charter of "advancing research and discovery of public value."

The PhD program in Environmental Engineering will provide the opportunity for students to become an expert in a sub-discipline of environmental engineering such as water treatment, soil remediation or air pollution control. The expertise that comes from specialized technical knowledge, advanced skills and original research is needed to address the most challenging environmental problems facing society. Graduates with a PhD degree in Environmental Engineering are employed in engineering consulting in private industry; local, state and federal government; nongovernmental organizations and academia.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will evaluate solutions to complex environmental problems presented in academic, white and gray literature through a written critical analysis or scholarly presentation.

- **Concepts:** environmental systems, resource management, pollution control and mitigation, environmental assessment and impact, engineering design and technology, and policy and regulations
- **Competencies:** Students will be able to critically analyze readings and evaluate sources, provide a comparative analysis and synthesis of literature, review structured academic writing using discipline-appropriate conventions, provide oral or visual presentation of critical arguments and provide professional engagement in academic discussions and seminars.
- **Assessment Process and Measure Summary:** The outcome will be assessed using the comprehensive qualifying exam and dissertation proposal or prospectus, which are taken by all PhD graduates. Both activities (comprehensive qualifying exam and dissertation proposal or prospectus) include a written report and oral presentation that will be collectively assessed. The student work will be assessed using faculty- developed rubrics for the competencies that support the learning outcome. The data gathered from these rubrics and survey responses will be summarized and presented to faculty and leadership by program curriculum staff. Staff and faculty will use the annual assessment

data to look for ways to engage in continuous improvement to the curriculum, program delivery and teaching methodologies.

Learning Outcome 2: Students will design experiments and analytical approaches to address complex environmental engineering problems, as demonstrated through a research proposal or dissertation.

- **Concepts:** experimental design principles, environmental chemistry and transport phenomena, environmental microbiology and microbial methods, systems modeling, hypothesis testing and uncertainty analysis
- **Competencies:** Students will be able to define complex environmental engineering problems and research objectives, design and implement experimental methodologies, select and apply appropriate analytical and statistical tools, assess feasibility and demonstrate innovation in research design and structure logical, evidence-based scientific arguments in written form.
- **Assessment Process and Measure Summary:** The outcome will be assessed using the dissertation proposal/prospectus and final doctoral dissertation, which are completed by all PhD graduates. For both activities, the written document will be used for assessment. The student work will be assessed using faculty-developed rubrics for the competencies that support the learning outcome. Indirect data from the Graduate and Law Student Report Card will also be used to support the outcome. The data gathered from these rubrics and survey responses will be summarized and presented to faculty and leadership by program curriculum staff. Staff and faculty will use the annual assessment data to look for ways to engage in continuous improvement to the curriculum, program delivery and teaching methodologies.

Learning Outcome 3: Students will effectively present their research findings in written reports, oral presentations and visual formats such as posters or data visualizations.

- **Concepts:** scientific communication theory, audience-specific framing, visual literacy, data analysis and ethical considerations in data representation and publication
- **Competencies:** Students will be able to organize and structure written and oral communications for clarity and logic, design and interpret visual representations of data, including graphs and posters, deliver engaging oral presentations tailored to technical and interdisciplinary audiences, produce writing with correct grammar, style, and formatting appropriate for scholarly work and frame messages appropriately based on audience and context.
- **Assessment Process and Measure Summary:** The outcome will be assessed using final doctoral dissertation and final oral defense (of doctoral dissertation), which are taken by all PhD graduates. The final doctoral dissertation will be used to assess written communication and data visualization, and the final oral defense will be used to assess oral communication and data visualization. The student work will be assessed using faculty-developed rubrics for the competencies that support the learning outcome. Indirect data from the Graduate and Law Student Report Card will also be used to support the outcome. The data gathered from these rubrics and survey responses will be summarized and presented to faculty and leadership by program curriculum staff. Staff and faculty will use the annual assessment data to look for ways to engage in continuous improvement to the curriculum, program delivery and teaching methodologies.

Projected Enrollment for the First Three Years:

Year 1: 20
Year 2: 40

Year 3: 60

Evidence of Market Demand:

Environmental engineers produce potable water and treat wastewater, plan and design water reuse systems, remediate contaminated soil and sediment, manage solid and hazardous waste, monitor air quality and implement air quality control devices. Graduates with a PhD degree in Environmental Engineering pursue careers in engineering consulting, including project management, senior environmental engineer within industry, water project manager and environmental health and safety director, as well as private industry, government and academia. The U.S. Bureau of Labor Statistics projects a 4% increase in employment of environmental engineers from 39,400 in 2024 to 41,000 in 2034 (https://www.bls.gov/ooh/architecture-and-engineering/environmental-engineers.htm). The job growth in environmental engineering is projected to be faster than the national average for all occupations. The U.S. Bureau of Labor Statistics reports that the median salary for environmental engineers was $104,170 in 2024. Data USA (https://datausa.io/profile/soc/environmental-engineers), which compiles all US government data, projects a 7.02% rate of job growth for environmental engineering over the next 10 years, compared to the average growth rate of 4.02% for all US occupations. US News ranks environmental engineering #6 in engineering jobs (https://money.usnews.com/careers/best-jobs/environmental-engineer). Finally, Recruiter.com (https://www.recruiter.com/careers/environmental-engineers/outlook/) notes that the overall job outlook for environmental engineering careers has been positive since 2004, and the State of Arizona has the third highest job growth rate for environmental engineers in the US.

The PhD degree in Environmental Engineering will complement the Bachelor of Science in Engineering (BSE) degree in Environmental Engineering and the Master of Science degree in Environmental Engineering. The BSE and MS degrees are highly sought after by students and employers. The BSE in Environmental Engineering has strong enrollment trends with over 200 students enrolled in the program as of August 2025. The MS degree in Environmental Engineering also has strong enrollment trends with 15 students enrolled in the program as of August 2025. Both BSE and MS students in Environmental Engineering, as well as employers, have expressed interest in a PhD degree; hence, the proposal for the PhD in Environmental Engineering. In addition, the PhD degree in Environmental Engineering will appeal to students from other engineering degree holders such as agricultural, biological, civil and chemical engineering, where their engineering background can be applied to environmental problems. Furthermore, the PhD degree in Environmental Engineering will appeal to students with science degrees such as chemistry and microbiology, where their science background can be augmented with engineering principles.

Similar Programs Offered at Arizona Public Universities:

Northern Arizona University offers a PhD in Civil and Environmental Engineering, and the University of Arizona offers a PhD in Environmental Engineering through the Chemical and Environmental Engineering program. The proposed PhD in Environmental Engineering at ASU complements existing programs at Northern Arizona University and the University of Arizona by offering a distinct focus on use-inspired, interdisciplinary research that integrates environmental engineering with environmental science, systems thinking and sustainability. ASU's location in the Phoenix metro area enables emphasis on urban environmental challenges, such as building water quality, heat mitigation, air quality and sustainable infrastructure. The program leverages ASU's transdisciplinary research infrastructure, including the Global Futures Laboratory and Biodesign Institute, to support collaboration across climate science, public health, policy and

engineering. By creating a clear and specialized identity for students and employers, the PhD in Environmental Engineering at ASU will expand Arizona's capacity to train environmental leaders and support workforce development across the state.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program Fee/Differentiated Tuition? YES **NO**

Estimated Amount:

Program Fee Justification:

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: Bachelor of Education
Academic Department: Mary Lou Fulton College for Teaching and Learning Innovation *Division for Advancing Educator Preparation*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 90
Proposed Inception Term: 2026
Brief Program Description: To address the teacher shortage in Arizona and nationally, a new model is necessary that reduces the time-to-degree while ensuring rigorous training standards. This innovative 90-credit Bachelor of Education offers an accelerated path to teaching, reducing both time and cost compared to traditional 120-credit programs while maintaining rigorous preparation standards. The streamlined program prepares educators who want to shape how learning happens across communities, workplaces, organizations, and in classrooms. The program emphasizes applied learning and the design of meaningful educational experiences that engage all populations. Students gain education workforce-relevant skills, such as learning experience design and engagement strategies for effective classroom management. Additionally, students develop a deep understanding of child development, learning theories, and evidence-based teaching practices, while cultivating their skills in collaboration, critical thinking, and innovation, competencies essential to professionals who support learning in classrooms and beyond. By completing this 90-credit program, future educators are prepared to plan and deliver effective instruction, manage classroom environments, differentiate teaching for diverse and exceptional learners, and meaningfully integrate technology into their practice. They will understand how to assess student learning, provide constructive feedback, and adjust instruction based on

students' needs. Graduates emerge ready to create supportive learning environments that promote student success and foster a love of learning, entering the field of education sooner while saving both time and tuition costs.

In addition to the Bachelor of Education, students can also choose an option that leads to teacher licensure in Arizona, the Bachelor of Education with a concentration in elementary education or special education.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Graduates design, implement, and assess effective learning environments for all learners.

- **Concepts:** instructional cycle, research-based pedagogical practices, high leverage practices, outcomes, learner abilities, analysis of learning environments, inclusive practices, equitable learning, data, monitor student progress, engage with learners, informal/formal assessment, summative/formative assessment, co-analyzing data
- **Competencies:** Students will be able to execute an instructional cycle using methods, strategies, high-leverage practices, technologies, and interventions appropriate for a range of learner abilities, differences, cultural and linguistic assets, and needs supported by research-based pedagogical practices and theories. Students will be able to create and maintain inclusive, equitable learning environments that support individual and collaborative learning experiences, utilize high-leverage practices, and foster critical thinking, active engagement, and well-being for all learners. Students will be able to se multiple methods of assessment and data to evaluate learner strengths and needs, determine eligibility for services, monitor progress, guide educator decision making, and actively engage with learners and stakeholders.
- **Assessment Process and Measures Summary:** Students will be assessed in assignments in courses on a lesson plan analysis and re-design, the planning and delivery of an inclusion workshop focused on accommodations and modifications of learning and assessments, and a professional learning project on learning theories. Students will also complete a self-rating of their mastery of each of the three education design and decision-making competencies on the end-of-program survey. The assignments will be assessed via a faculty-developed rubric; the results will be used for continuous improvement of the program.

Learning Outcome 2: Graduates demonstrate responsibility for ongoing development as professional educators by contributing to the improvement of themselves and the profession and advocating for all learners, families, and communities.

- **Concepts:** self-reflection, school and organization culture, support for stakeholders, school mission support, positive environment, environment of trust, professionalism, knowledge of laws and policies, historical and contemporary ethical issues in education, ethical perspectives related to social and cultural problems
- **Competencies:** Students will be able to self-reflect and assess personal contributions for shaping and supporting the mission of their school or organization's goals, positive school climate, and environment of trust. Students will be able to apply expectations of the profession including applicable codes of ethics, professional standards of practice, and relevant law and policy.
- **Assessment Process and Measures Summary:** Students will be assessed in assignments in courses on laws that direct services for individuals with disabilities, a professional project on the purpose of education, and an analysis of the codes of ethics and professional standards of practice that govern educators. Students will also

complete a self-rating of their mastery of each of the two Professional Growth, Leadership Advocacy, and Ethics competencies on the end-of-program survey. The assignments will be assessed via a faculty-developed rubric; the results will be used for continuous improvement of the program.

Learning Outcome 3: Graduates demonstrate the capacity to apply possibility thinking to practical challenges by imagining new solutions and creating positive change for all learners, families, or communities.

- **Concepts:** inquiry cycle; continuous improvement; collaborative educational systems; positive change guided by research and principles, evidence-based practices; competing perspective; synthesis of local and global contexts
- **Competencies:** Students will be able to evaluate competing perspectives on a problem of practice within an educational context and present a reasoned analysis of the issue informed by major theories and evidence-based practices.
- **Assessment Process and Measures Summary:** Students will be assessed in assignments in courses via self-selected professional learning projects on design thinking using learning technology solutions, applying culturally relevant pedagogy to learning outcomes, and investigating how stakeholder voices impact local contexts. Students will also complete a self-rating of their mastery of one Educator Scholar competency on the end-of-program survey. The assignments will be assessed via a faculty-developed rubric; the results will be used for continuous improvement of the program.

Projected Enrollment for the First Three Years:

Year 1: 100
Year 2: 200
Year 3: 300

Evidence of Market Demand:

The demand for qualified educators remains strong both nationally and in Arizona, driven by factors such as teacher retirements, increasing student enrollment in certain regions, and persistent teacher shortages. According to the U.S. Bureau of Labor Statistics, employment of kindergarten and elementary school teachers is projected to grow 4% nationally from 2022 to 2032, about as fast as the average for all occupations. This translates to approximately 109,000 job openings per year on average, driven by the need to replace teachers who transfer to different occupations, retire, or leave the workforce for other reasons (U.S. Bureau of Labor Statistics, Occupational Outlook Handbook, 2023).

In Arizona specifically, the need for teachers is critical. The Arizona School Personnel Administrators Association reported in 2023 that nearly 30% of teacher vacancies remained unfilled four weeks into the school year, with over 50% filled by teachers who did not meet standard certification requirements. This shortage has been persistent for years, signaling a critical and ongoing need for well-prepared educators statewide.

According to Lightcast, from 2023 to 2032, there's a projected 6% growth in job postings for elementary educators across Arizona, with consistent demand across urban, suburban, and rural districts. The average advertised salary for elementary school teachers in the U.S. is $63,000, with Arizona pay being below the national average, at about $50,000, depending on location and experience level.

The proposed accelerated degree program directly responds to this labor market need by preparing job-ready graduates more efficiently. By entering the workforce sooner and with strong practical training, graduates are well-positioned to fill persistent vacancies in K–8 classrooms. This pathway especially benefits high-need schools that face ongoing recruitment challenges, while also offering a cost-effective route for individuals seeking meaningful, stable employment in education.

Similar Programs Offered at Arizona Public Universities:

No other public or private universities in Arizona offer a 90-credit bachelor's degree program in teacher preparation that leads to an undergraduate degree and an institutional recommendation for Arizona teacher certification.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e., faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required, as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount: N/A

Fee Justification: N/A

Specialized Accreditation? YES **NO**

Accreditor: Students may opt for one of the Bachelor of Education concentration areas or may add an ASU certificate in an area that leads to Arizona State Board of Education certification, including Secondary Education, Elementary Education and others.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: BS in Behavior Analysis
Academic Department: Mary Lou Fulton College for Teaching and Learning Innovation *Division for Advancing Education Policy, Practice and Leadership*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: 2026
Brief Program Description: The BS in Behavior Analysis will provide students with comprehensive academic and practical training in the principles, methods and ethical practices central to applied behavior analysis. Students will develop foundational knowledge in the scientific study of behavior, including behavior measurement, data analysis, research methodologies, and intervention strategies designed to enhance socially significant behaviors. The program will integrate rigorous coursework with experiential learning opportunities, equipping graduates to immediately contribute to various professional environments, including health care, education, social services and organizational management. Additionally, successful completion of the program will meet the academic content requirements to qualify to sit for the Board-Certified Assistant Behavior Analyst examination, further enhancing students' professional credentials. This innovative degree aligns closely with ASU's charter and institutional mission, specifically addressing key design aspirations such as enabling student success through personalized learning experiences and leveraging ASU's unique position to meet regional and community-specific behavioral health needs. The program emphasizes transformative education by preparing graduates to engage meaningfully with contemporary societal challenges, including mental health crises, educational equity, and community wellness initiatives. By promoting use-inspired research, this program will encourage students to apply behavior analytic principles to

real-world issues, fostering a culture of entrepreneurship and innovation consistent with ASU's values.
The BS program in Behavior Analysis complements existing undergraduate and graduate programs at ASU in areas such as psychology, special education, social work, and health sciences, enhancing interdisciplinary collaboration and expanding academic pathways. ASU's proven record in online education and its substantial infrastructure, demonstrated by the successful MA in Special Education (Applied Behavior Analysis) program that has graduated over 11,000 students in the past 14 years, positions this new undergraduate program uniquely to deliver exceptional educational experiences and career readiness.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will implement functional behavior assessments based on target behavior.

- **Concepts:** functional behavior assessment, behavioral observation, operational definitions, social validity
- **Competencies:** Students will collect functional behavior assessment data effectively, interpret assessment data accurately, develop operational definitions of target behaviors, and integrate social validity into assessment and intervention planning.
- **Assessment Process and Measures Summary:** The learning outcome will be assessed via the operationalizing of a target behavior assignment and the ABC data collection and analysis assignment in the 400-level course on assessing and improving challenging behavior in schools and clinics. In addition, at the conclusion of each course in the program, each student completes a self-assessment exercise evaluating competence and confidence with each of 104 knowledge and skills outlined in the Behavior Analyst Certification Board Test Content Outline (6th edition). This self-assessment includes content areas which are comprehensively addressed throughout the ABA program curriculum. These areas represent the essential knowledge and skills required for competent practice as a behavior analyst. Assessment findings will be reviewed by program faculty, who will implement evidence-based curricular and instructional improvements based on these data.

Learning Outcome 2: Students will implement effective behavior analytic interventions for client skill development.

- **Concepts:** behavior measurement, visual data analysis, single-subject experimental designs
- **Competencies:** Students will select appropriate measurement systems based on behavioral objectives, graphically display behavioral data using standard conventions, analyze behavioral data visually to evaluate intervention effectiveness, and utilize single-subject experimental designs to demonstrate functional relationships.
- **Assessment Process and Measures Summary:** The learning outcome will be assessed in assignments in the 300-level course on concepts, principles and philosophical foundations of behavioral analysis, as well as in the course on assessment and program planning for diverse learning needs. At the conclusion of each course in the program, each student completes a self-assessment exercise evaluating competence and confidence with each of the 104 knowledge and skills outlined in the Behavior Analyst Certification Board Test Content Outline (6th edition). This self-assessment includes content areas that are comprehensively addressed throughout the ABA program curriculum. These areas represent the essential knowledge and skills required for competent practice as a behavior analyst. Assessment findings will be reviewed by

program faculty, who will implement evidence-based curricular and instructional improvements based on these data.

Learning Outcome 3: Students will analyze behavior measurement methods to inform decision-making in behavior analysis.

- **Concepts:** behavior skills training, feedback, monitoring, fidelity, ethical supervision
- **Competencies:** Students will design a behavior skills training workshop, develop a fidelity checklist, implement effective feedback to trainees, evaluate monitoring
    - techniques and synthesize ethical practices in supervision.
- **Assessment Process and Measures Summary:** The learning outcome will be assessed in the data collection and the single-subject design assignments in the measurement and experimental analysis of behavior course. At the conclusion of each course in the program, each student completes a self-assessment exercise evaluating competence and confidence with each of 104 knowledge and skills outlined in the Behavior Analyst Certification Board Test Content Outline (6th edition). This self-assessment includes content areas which are comprehensively addressed throughout the ABA program curriculum. These areas represent the essential knowledge and skills required for competent practice as a behavior analyst. Assessment findings will be reviewed by program faculty, who will implement evidence-based curricular and instructional improvements based on these data.

Projected Enrollment for the First Three Years:

Year 1: 50
Year 2: 100
Year 3: 200

Evidence of Market Demand:

The demand for professionals trained in applied behavior analysis is robust, both nationally and statewide, driven by the increasing recognition of behavioral interventions' effectiveness in health care, educational and social service contexts. According to the United States Bureau of Labor Statistics, employment opportunities for behavioral disorder, substance abuse, and mental health counselors are projected to grow by 18% from 2022 to 2032, a rate much faster than the average for all occupations. This significant increase reflects ongoing societal needs related to mental health and behavioral services, signaling strong career prospects for program graduates.

The Bureau of Labor Statistics forecasts an 8% growth in employment opportunities for special education teachers within the same timeframe, further demonstrating consistent demand for individuals skilled in behavior analysis and educational interventions. Additionally, workforce data from Lightcast supports these projections, indicating substantial growth in job postings for behavior technicians, behavioral specialists, and assistant behavior analysts over recent years. Specifically, the number of job postings for behavior technician roles increased approximately 30% nationally between 2020 and 2023, highlighting the urgent and growing need for behavior analytic services.

Graduates of the proposed BS in Behavior Analysis program will be prepared for diverse professional roles, including behavioral health specialists, special education support professionals, registered behavior technicians, assistant behavior analysts, and social services coordinators. These roles are increasingly vital as schools, health care providers, and

community-based organizations seek skilled professionals capable of delivering evidence-based behavior analytic services. Thus, market demand strongly supports the establishment and projected success of this program at ASU.

Similar Programs Offered at Arizona Public Universities:

Northern Arizona University offers a BS in Psychological Sciences, which includes foundational coursework in behavior analysis principles and related psychological theory, although it is not specifically focused on applied behavior analysis certification.

The University of Arizona offers a BS in Psychology, incorporating coursework in learning theory, behavioral neuroscience, and general psychological principles. However, UA does not currently provide a specialized undergraduate degree explicitly dedicated to applied behavior analysis or directly aligned with Behavior Analyst Certification Board credentials. UA Global Campus offers a BA degree in Applied Behavioral Science. This degree does not meet the requirements to sit for the BCBA credential exam.

The proposed BS in Behavior Analysis at ASU uniquely fills a critical gap in undergraduate education across Arizona public universities. It offers a specialized, focused curriculum that aligns explicitly with accreditation standards and certification requirements, preparing students directly for credentialing and professional roles in behavior analytic practice.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required, as existing Mary Lou Fulton College for Teaching and Learning Innovation resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount:

Fee Justification:

Specialized Accreditation? **YES** NO

Accreditor: The BS in Behavior Analysis program will be designed and implemented in alignment with accreditation standards established by the Association for Behavior Analysis International. Specifically, the program will meet ABAI's rigorous substantive standards, encompassing key curricular components such as principles of behavior, research methods, conceptual analysis, applied behavior analysis, ethics, and supervised experiential learning. By adhering to accreditation guidelines, the program ensures comprehensive coverage of the required 315

contact hours across these essential content areas. Curriculum will align directly with the Behavior Analyst Certification Board standards, equipping graduates to sit for the Board-Certified Assistant Behavior Analyst examination.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: PhD in Education
Academic Department: Mary Lou Fulton College for Teaching and Learning Innovation *Division for Advancing Education Policy, Practice and Leadership*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 85
Proposed Inception Term: 2026
Brief Program Description: The complexity of modern educational challenges requires collaborative, interdisciplinary approaches. The proposed Doctor of Philosophy in Education program builds on the strengths and expertise of faculty from a variety of scientific fields to prepare scholars who will advance the field conceptually and empirically. The program is designed to provide students with a rigorous theoretical and methodological preparation in educational research, policy analysis and instructional innovation. Through an interdisciplinary framework, students will develop the collaborative skills needed to generate innovative solutions to pressing educational issues. The program is structured around a set of core courses that provide a strong foundation in the scholarship of education sciences, including the philosophy, sociology, history and politics of education. The program will allow the graduates to learn and simultaneously apply their knowledge in the changing environment of both K–12 and higher education through partnership with other colleges' units that are conducting practical work in the field. This way, the program will prepare educational researchers to solve the complex interdisciplinary challenges that require more systemic approaches and solutions. Students will acquire advanced skills in qualitative and quantitative research methodologies, data analysis and policy evaluation, along with expertise in ethical, equity-driven inquiry and the leadership skills necessary to influence policy, improve teaching and learning and drive

educational transformation at all levels. They will gain practical experience in translating research into action, designing inclusive learning environments and leading collaborative, cross-sector initiatives. The program also emphasizes scholarly communication for academic and practitioner audiences and the strategic use of technology to support learning and systems change. These skills will prepare graduates to lead transformative research, shape educational policy and drive institutional innovation across K–12, higher education and community settings. By integrating expertise across educational disciplines, the PhD in Education creates a more flexible and responsive program that prepares future scholars, policymakers and educators to lead transformative change in education.

Aligned with Arizona State University's charter and design aspirations, the PhD in Education program is committed to inclusive excellence, social embeddedness and advancing research with real-world impact. The program prioritizes accessibility and innovation, equipping graduates to lead in educational research, policymaking and practice. The program complements existing ASU initiatives by fostering partnerships with K–12 schools, community organizations and policymakers, ensuring that research is both rigorous and socially embedded.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will synthesize theoretical perspectives and literature related to an area of educational research.

- **Concepts:** theoretical paradigms in education (e.g., constructivism, critical theory, sociocultural theory, systems theory); disciplinary vs. interdisciplinary perspectives in educational research key scholars, seminal works, and landmark studies in the chosen area; current debates, gaps and trends in the field; conventions of academic writing and argumentation; citation practices and synthesis strategies (e.g., thematic mapping, concept matrices); literature management tools: reference managers (e.g., Zotero, EndNote, Mendeley) and annotation and note-taking platforms (e.g., Hypothes.is, Notion, Obsidian); and AI- and database-assisted search and synthesis tools (e.g., Elicit, Connected Papers)
- **Competencies:** Students will able to identify, evaluate and compare theoretical frameworks; distinguish between seminal vs. peripheral contributions in the literature; develop annotated bibliographies or synthesis tables to track themes and theoretical connections; identify patterns, tensions and intersections across bodies of literature; identify gaps for future inquiry and propose innovative directions; produce literature reviews with clarity, coherence and depth; use disciplinary conventions for citation and scholarly discourse; use reference management systems to organize, tag and retrieve sources efficiently; employ digital or AI tools to identify citation networks, influential works and knowledge gaps; and maintain a personal knowledge management system.
- **Assessment Process and Measure Summary:** The formative measure for this outcome will take place during one of the core courses in the PhD program. For this measure, students will create an annotated bibliography centered on an area of educational research. This cumulative assignment integrates previous skills learned in the program, including adopting and using a reference management software, identifying, evaluating and comparing theoretical frameworks; distinguishing between seminal vs. peripheral contributions in the literature; and developing synthesis tables to track themes and theoretical connections. Students will have to create an annotated bibliography. Along with annotating the literature, students will also identify patterns, tensions and intersections across bodies of literature, identify gaps for future inquiry and propose innovative directions. The assignment will conclude with a short literature review that synthesizes the annotated literature and be scored based on a faculty-generated rubric.

The summative measure for this outcome will take place after students have completed their coursework (outside of research and dissertation hours) and are engaging in their comprehensive exams. The written comprehensive exams require students to answer three to five questions related to their area of education research, posed by their committee. One of the comprehensive exams will explicitly ask students to conduct a literature review on a topic related to their area of interest. All other questions will necessitate students engaging with literature and synthesizing aspects of the literature related to issues such as methods, epistemology, etc. Students' written oral comprehensive exam questions will be evaluated by their dissertation committee using a program-created rubric for evaluating the comprehensive exam expectations that attends to the following areas: scope and coverage, theoretical and conceptual framing, critical analysis and framing, synthesis and integration, scholarly voice and organization and coherence. Data will be gathered by the Office of Data Strategy and analyzed by program faculty and the Associate Director of Doctoral Programs once a year to evaluate students' growth toward programmatic outcomes. Faculty will use the assessment data to adjust necessary to courses, assignments and programmatic experiences.

Learning Outcome 2: Students will design independent research in education.

- **Concepts**: research paradigms and philosophical foundations; ontology, epistemology and axiology in educational research; paradigms: positivist, interpretivist, critical, pragmatic, post-qualitative, etc.; research design principles; alignment of problem, purpose, research questions and methodology; distinction between exploratory, explanatory, descriptive and evaluative designs; methodologies and methods; qualitative, quantitative and mixed-methods traditions; sampling strategies, data collection techniques and analytic approaches; ethics and equity, human subjects research (IRB, informed consent, confidentiality); scholarly positioning; the role of the researcher (reflexivity, positionality); relationship of study design to existing theories and literature; and project planning, timelines and feasibility considerations
- **Competencies:** Students will be able to identify a significant, researchable problem in education; generate precise and theoretically grounded research questions; select and justify a research methodology aligned with the problem and questions; demonstrate methodological rigor and internal coherence across all design elements; anticipate and address ethical considerations in design; justify design choices with evidence from literature and methodological texts; demonstrate originality in adapting or extending methodological approaches; develop protocols for data collection and analysis; create realistic research timelines and project management plans; anticipate and mitigate potential limitations or obstacles; produce a coherent, persuasive research proposal; and defend methodological choices orally and in writing to scholarly audiences.
- **Assessment Process and Measure Summary:** The formative measure for this outcome will take place during one of the core courses in the program. For this measure, students will create a research proposal for a mixed-methods research design, centered on an area of educational research. This cumulative assignment integrates previous skills learned in the program, including identifying significant, researchable problems in education, generating precise and theoretically grounded research questions, and justifying a research methodology aligned with a problem and questions. Students will create a mixed-methods research design that demonstrates methodological rigor and internal coherence across all design elements, anticipates and addresses ethical considerations in design, justifies design choices with evidence from literature and methodological texts, and includes a realistic research timeline. The assignment will be scored based on a faculty-generated rubric. The student's dissertation research proposal will serve as the summative measure for this outcome. It will take place after students

have completed their coursework and comprehensive exams. The dissertation research proposal will require students to create a research plan that addresses the following: a significant, researchable problem in education; precise and theoretically grounded research questions; a research methodology aligned with the problem and questions; methodological rigor and internal coherence across all design elements; considerations for ethical concerns; literature to support methodological and design choices; protocols for data collection and analysis; and a realistic research timelines and project management plans. Students will produce a coherent, persuasive research proposal in writing and orally present it. The dissertation committees will evaluate students' research proposals using a program-created rubric that attends to the following areas: problem identification and significance; theoretical and conceptual framing, research questions and alignment, methodological rigor, ethics and equity considerations; feasibility and planning, use of tools; and technical competence and scholarly communication. The data will be gathered by the Office of Data Strategy and analyzed by program faculty and the Associate Director of Doctoral Programs once a year to evaluate students' growth toward programmatic outcomes. Faculty will use the assessment data to adjust necessary to courses, assignments, and programmatic experiences.

Learning Outcome 3: Students will conduct an educational research study.

- **Concepts:** research protocols and procedures: practical steps for carrying out qualitative, quantitative or mixed-method studies; standards for rigor in execution (credibility, reliability, validity, trustworthiness); ethics in practice: processes for informed consent, confidentiality and data protection; ethical dilemmas during fieldwork (power dynamics, unexpected participant needs); principles of equity and cultural responsiveness in implementation; data collection and management: sampling and recruitment strategies in practice; techniques for interviews, surveys, observations, experiments and archival work; data storage, organization and security protocols (compliance with IRB, FERPA and GDPR); analytic approaches in practice: application of analytic frameworks (statistical, thematic, narrative, critical); strategies for coding, categorization and interpretation of findings. Use of software and tools for data analysis and visualization; reflexivity and researcher role: influence of researcher presence, bias and subjectivity in fieldwork and analysis; transparent documentation of decisions and reflections; reporting and dissemination: scholarly writing conventions for presenting findings; standards for structuring reports, dissertations and journal articles; interpretation of findings in relation to theory, literature, practice and policy; frameworks for knowledge mobilization and translation to diverse audiences; ethics of dissemination and engagement, responsible reporting (confidentiality, authorship, attribution); pathways for sharing results with stakeholders, practitioners and participants; and principles of reciprocal, community-engaged dissemination
- **Competencies:** Students will have the ability to recruit and engage participants ethically; collect high-quality data systematically and consistently; use digital tools for secure data storage and organization; apply analytic procedures (coding, statistical analysis, interpretation) with rigor; maintain detailed records of analytic decisions (audit trail, codebook, memos). Anticipate and address ethical issues as they arise in practice; protect participant rights and ensure well-being during the study; adjust data collection procedures or protocols when facing unanticipated challenges; balance fidelity to the research plan with flexibility in execution; critically examine and document the researcher's influence on implementation and analysis; make explicit how positionality affects the interpretation of findings; present results clearly and effectively using appropriate visuals and formats; situate findings within theoretical and empirical contexts; draw out implications for educational practice, policy, and further research;

communicate findings in accessible formats (policy briefs, reports, presentations); share results with research participants and communities in reciprocal ways; and engage in critical scholarly dialogue about findings and implications.

- **Assessment Process and Measure Summary:** The dissertation defense will serve as the summative measure for this outcome. Students will produce a written dissertation and participate in an oral defense of the dissertation. The area of the dissertation that will be of focus for this outcome is sections related to methodology, findings, and discussion. The dissertation is the culmination of the doctoral program, integrating previous skills learned across the program (coursework, comprehensive exam, and dissertation proposal). For this measure, as part of their dissertation defense, students will be evaluated on their ability to implement research. Program expectations for 'passing' the dissertation defense are central to research implementation that will be considered, including ethical research practice in action; data collection and field work execution; data management and analysis; reflexivity and researcher role; adaptability and problem solving; findings presentation and interpretation; dissertation and stakeholder engagement; and scholarly contribution. The indirect measure for this outcome will be from the University Office of Evaluation and Educational Effectiveness' Graduate and Law Student Report Card survey, administered to graduates of the PhD in Education program, specifically the question related to the program's contribution to their research skills and methods. Data will be gathered by the Office of Data Strategy and analyzed by program faculty and the Associate Director of Doctoral Programs once a year to evaluate students' growth toward programmatic outcomes. Faculty will use the assessment data to adjust necessary to courses, assignments and programmatic experiences.

Projected Enrollment for the First Three Years:

Year 1: 8
Year 2: 15
Year 3: 22

Evidence of Market Demand:

There is a national and state-level demand for highly trained educational researchers, policy analysts and instructional leaders capable of addressing complex educational challenges. According to the U.S. Bureau of Labor Statistics, employment of postsecondary education administrators is projected to grow 3% from 2023 to 2033. The job outlook for postsecondary teachers in education, a primary career path for PhD graduates, is projected to grow 8% during the same period, faster than the average for all occupations. This reflects a national trend toward expanding higher education programs and an increasing need for qualified faculty and academic leaders with advanced research expertise.

According to Lightcast, the demand for professionals in education with experience in program evaluation, data collection, data analysis, statistics, project management, quantitative research and data management has continued to rapidly grow, with a projected skill growth ranging from 19–30%.

The program's interdisciplinary and research-intensive design directly aligns with the evolving nature of education careers, where cross-sector collaboration and methodological rigor are increasingly valued. Graduates will be prepared for roles such as university faculty, educational researchers, curriculum specialists and policy advisors. They will also be equipped to serve in

leadership positions within school systems, education-focused nonprofits and research divisions of public agencies.

These labor projections are based on continued investment in education reform, growing interest in data-informed policy and increased emphasis on equity and innovation in both K–12 and higher education. The rise in educational technology, special education services and community-engaged research supports demand for scholars who can work across disciplines and institutions.

The proposed PhD in Education is well-positioned to meet these demands by producing adaptable, equity-minded researchers and leaders who will drive systemic educational change.

Similar Programs Offered at Arizona Public Universities:

The University of Arizona offers the following programs: PhD in Educational Leadership and Policy; PhD in Educational Psychology; PhD in Higher Education; PhD in Special Education; PhD in Teaching, Learning, and Sociocultural Studies. While all programs taken together will overlap with the newly proposed program, none of the existing programs have the overarching umbrella of content knowledge that is proposed in the PhD in Education at ASU. Unlike the five separate programs at U of A, the proposed program will provide broader foundations for future educational researchers who could later specialize in individual sub-fields. The program's overarching curriculum will prepare students to work on solving the systemic issues in education. It will provide content knowledge that covers most aspects of the U of A programs, but at a different scale. In addition, the proposed program will include opportunities for students to have extensive research training in the fields that the U of A programs do not offer, including sustainable education, sociology of education and others. ASU's curriculum would allow for combining the foundational courses with courses across disciplines to provide a unique set of experiences and skills to each student.

Northern Arizona University offers the following programs: PhD in Curriculum and Instruction; PhD in Combined Counseling/School Psychology (122 credit hours). Out of these two, the latter does not have any overlap with the proposed PhD in Education. The NAU programs are highly specialized in narrower sub-fields of educational research. The proposed program is a more general degree that combines an interdisciplinary and collaborative approach to education and focuses on education systems. The NAU's PhD in Curriculum and Instruction is the most closely related to the proposed program, but unlike this program, ASU's PhD in Education will offer content knowledge on curriculum and instruction in combination with policy and evaluation of instructional and curriculum intervention, as well as opportunities to investigate and research these topics in practical settings. The PhD in Combined Counseling/School Psychology at NAU complements the proposed degree and competes more with the doctoral programs offered at the ASU School of Counseling and Counseling Psychology.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.): No additional state resources will be required as existing resources will be reallocated to support this program.
Plan to Request Program/College Fee? YES **NO** **Estimated Amount:** **Fee Justification:**
Specialized Accreditation? YES **NO** **Accreditor:** Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: PSM in Mathematical Modeling
Academic Department: New College of Interdisciplinary Arts and Sciences *School of Mathematical and Natural Sciences*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 33
Proposed Inception Term: 2027
Brief Program Description: The Professional Science Master's in Mathematical Modeling program will prepare students to apply mathematical reasoning and computational techniques to pressing challenges in science, engineering, business and policy. Students will develop expertise in designing, analyzing and interpreting models. Graduates will be equipped to enhance decision-making, optimize complex systems and drive innovation in their fields. Mathematical modeling plays a crucial role in addressing real-world problems: predicting the spread of infectious diseases, designing resilient infrastructure, managing natural resources and improving supply chain logistics. This program emphasizes the theoretical foundations and the practical implementation of models, ensuring that graduates can bridge the gap between abstract mathematics and impactful solutions. Students will learn to construct, test and evaluate models; understand their limitations; and effectively communicate their findings to diverse audiences. Designed for professionals seeking to expand their skill sets and advance their careers, this program provides a strong foundation in deterministic and stochastic modeling, numerical methods and simulation techniques. It cultivates problem-solving and critical-thinking skills that empower graduates to improve the effectiveness of their organizations, influence strategic decisions and contribute to the broader public good.

The PSM program in Mathematical Modeling will increase the accessibility of mathematical tools that can be applied to improve the economic and social health of the communities ASU serves. Students will focus on socially embedded, use-inspired research with the potential to drive entrepreneurship not only within the institution, but also in local and regional organizations beyond ASU.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will translate real-world, interdisciplinary problems into mathematical models.

- **Concepts:** problem identification, assumptions, simplification, model formulation, dimensional analysis, integration of knowledge across disciplines
- **Competencies:** Students will have the ability to create mathematical models based on real-world interdisciplinary problems by identifying relevant variables, making reasonable assumptions and selecting models that appropriately integrate knowledge from a variety of disciplines, including biology, physics and social sciences.
- **Assessment Process and Measure Summary:** The learning outcome will be assessed using direct student artifacts from required modeling courses and the applied project, along with an indirect measure via student survey. Instructors will use faculty-developed rubrics to evaluate how effectively students frame problems, articulate assumptions and build mathematically sound models in written assignments, projects, and presentations. The Graduating Student Report Card Survey question regarding the program's contribution to problem solving will be used as an indirect measure. Annually, rubric data will be collected and analyzed by the Program Director. The program's curriculum committee, consisting of the Program Director and faculty, will review the findings throughout the academic year to inform curriculum updates and continuous program improvements.

Learning Outcome 2: Students will analyze mathematical models.

- **Concepts:** analytical methods, numerical methods, sensitivity analysis, parameter estimation, stability analysis, model validation
- **Competencies:** Students will be able to apply analytical and computational tools to study mathematical models, evaluate sensitivity to assumptions, assess stability and robustness and interpret results in the context of real-world problems. They will also be able to compare results with empirical data to validate models.
- **Assessment Process and Measure Summary:** The outcome will be assessed using direct student artifacts from modeling analysis assignments, assessments and research-based projects, evaluated by faculty-developed rubrics. Students will be evaluated on their ability to apply methods, justify analytical choices and draw meaningful conclusions from model outputs. The GSRC Survey question regarding the program's contribution to critical and analytical thinking will be used as an indirect measure. Annually, rubric data will be collected and analyzed by the program director. The program's curriculum committee, consisting of the program director and faculty, will review the findings throughout the academic year to inform curriculum updates and continuous program improvements.

Learning Outcome 3: Students will effectively communicate all stages of the modeling process to a variety of stakeholders, including technical and non-technical audiences.

- **Concepts:** clarity and precision, audience awareness, organization, use of visuals, storytelling with data, oral and written communication, feedback management

- **Competencies:** Students will have the ability to use clear language to explain the modeling process—including model formulation, analysis, results and limitations; and identify the needs of the audience and adapt their communication (pace, tone, and organization) accordingly in both written and oral communications.
- **Assessment Process and Measure Summary:** The outcome will be assessed directly using oral presentations and written reports across required courses and the applied project, evaluated with faculty-developed rubrics. Students will be measured on their ability to clearly explain models, justify assumptions and present findings to technical and non-technical audiences. The GSRC Survey question regarding the program's contribution to communication skills will be used as an indirect measure. Annually, rubric data will be collected and analyzed by the program director. The program's curriculum committee, consisting of the program director and faculty, will review the findings throughout the academic year to inform curriculum updates and continuous program improvements.

Projected Enrollment for the First Three Years:

Year 1: 12
Year 2: 24
Year 3: 36

Evidence of Market Demand:

According to the Integrated Postsecondary Education Data System (IPEDS) database published by the U.S. Department of Education's National Center for Education Statistics, there were 6534 completions of master's degrees in applied mathematics across 168 institutions in 2024. This represents 33% growth over four years (2019–2023) in the number of completions. It is worth noting that 80% of these completions were from on-campus programs. Master's degrees in applied mathematics and computer science are offered at only 13 institutions and saw 61% growth in completions (to 266) between 2019 and 2023. Again, most of these completions are from in-person programs.

The US Bureau of Labor Statistics lists the median pay for mathematicians as $121,680 with 37,1000 jobs open over the coming decade (https://www.bls.gov/emp/tables/occupational-projections-and-characteristics.htm). Salary.com reports that the median annual salary for a mathematician I in the Phoenix area is $117,886 (https://www.salary.com/research/salary/benchmark/mathematician-ii-salary/phoenix-az). The job outlook for the next decade (2023–2033) is positive, with a projected 28.4% increase in jobs across all mathematical science occupations, including a 6.9% increase in mathematical science occupations that are not specifically actuaries, statisticians, operations research analysts or data scientists, and with particularly strong growth in areas such as utilities (+10.3%), information (+16.8%), health and medical insurance carriers (+8.7%), finance and insurance (+6.6%) and computer systems design and related services (+17.8%). Accounting for 36.3% of employment in mathematical sciences, professional, scientific and technical services are also expected to increase by 13%. (https://data.bls.gov/projections/nationalMatrix?queryParams=15-2099&ioType=o and https://www.bls.gov/emp/tables/occupational-projections-and-characteristics.htm).

Similar Programs Offered at Arizona Public Universities:
There are no other master's degrees in mathematical modeling, nor a professional master's degree in mathematics or applied mathematics offered at public universities in Arizona.

There are several types of activities called modeling that each require different quantities (and even types) of data. Some models are predictive while others are descriptive. The proposed program focuses on creating descriptive models that help to not only predict outcomes but also illuminate basic underlying principles with explicable relationships. Machine learning techniques provide predictions and labels that can be highly accurate; they do not explain relationships among data. This is not a machine learning degree. The focus of the degree program is on developing and analyzing mathematical models useful across a wide range of disciplines and communicating the results.

The most similar degrees are the following:

- Graduate Interdisciplinary Program in Applied Mathematics (MS) at the University of Arizona
    - Includes modeling as part of the curriculum (https://gidp.arizona.edu/academic-programs/applied-mathematics)

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: 240/credit hour (Approximately $2160 per semester)

Fee Justification: Learning mathematical modeling requires significant guidance from mentors, small class sizes, and individual attention for culminating experiences. The program fee is needed to cover costs associated with the program, such as course assistants, software licenses, financial aid, student research and travel grants, publication fees for students and faculty working on projects related to the program, professional development for participating faculty, workshops, guest speaker talks and honorariums.

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MLS in Health Care Compliance and Administration
Academic Department: Sandra Day O'Connor College of Law *Dean's Office*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: 2026
Brief Program Description: The Master of Legal Studies (MLS) in Healthcare Compliance and Administration is geared toward entry-level and established non-lawyer compliance and health care administration professionals and will provide a higher understanding of the legal and regulatory framework that governs establishing and maintaining compliance with rules and regulations in health care and related fields. The MLS in Healthcare Compliance and Administration degree will develop graduates who can identify legal issues and analyze and solve critical compliance and health care administration problems facing medical and related organizations. A significant aspect of any health care administration job involves compliance with laws and local, state and federal regulations. Graduates will demonstrate an understanding of U.S. law, legal structures and legal reasoning when making informed decisions regarding complex compliance and health care administration problems. This one-year, thirty-credit program is aimed at those medical practitioners or administrators who would like to understand the legal framework in which medical organizations operate without intent to practice law. The Healthcare Law and Administration Program is designed for those who currently work in or have the desire to work in the healthcare sector, whether as a physician, nurse or administrator. Examples of the target audience include:

- Physicians
- Residency Chiefs
- Nurse Practitioners
- Physician Assistants
- Medical School Faculty
- Residents
- Nurses
- Medical Practice Administrators
- Clinic Administrators
- Hospital Administrators
- Chief Medical/Nursing Officers
- VP Medical Operations

The Sandra Day O'Connor College of Law identified a need for a non-Juris Doctor graduate program that trains professionals in the legal and regulatory framework of corporate and health care law and compliance. The degree speaks to ASU's design aspirations to fuse intellectual disciplines and undertake use-inspired research, while also fulfilling the mission of its charter by making legal education available to cohorts that do not have the time or the means to pursue a three-year Juris Doctor program.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will compose informative and persuasive legal documents applicable to healthcare law and compliance.

- **Concepts:** rule synthesis, audience, tone, issue identification, analytical reasoning, legal writing style, citation format and objective and persuasive legal writing
- **Competencies:** Students will be able to understand the importance of using precise language to prevent misinterpretation, maintain a professional and respectful tone, create documents with logical structure and flow, craft a compelling argument (persuasive) and clearly outline the legal issue and applicable law.
- **Assessment Process and Measures Summary:** The faculty will administer various formative assessment essay exercises throughout the required foundation course. Data will be collected and summarized and reported to the program faculty and administration for review and analysis of program outcomes. An indirect measurement survey of students' perception of their writing skill development will be administered annually. Data will be collected and summarized by the Director of Institutional Reporting and Assessment and forwarded to program faculty and administration for review and analysis of program outcomes.

Learning Outcome 2: Students will analyze legal and regulatory issues impacting the healthcare industry.

- **Concepts:** legal and regulatory issues in the healthcare industry, including, but not limited to, insurance law, employment and labor law, contract law, torts, liability, privacy, fraud and abuse, data management and compliance
- **Competencies:** Students will be able to identify legal issues relevant to the health care industry, research applicable statutes, precedents and regulations and apply appropriate law to legal reasoning exercises that simulate circumstances common to health industry professionals.
- **Assessment Process and Measures Summary:** A summative assessment of students' legal analysis skills will be administered at the completion of required courses. Specific

questions from the final exam will be tagged to assess a student's ability to identify and analyze various legal issues. The exam will include relevant fact patterns where students will be assessed on their ability to identify and analyze legal and regulatory issues through brief IRAC (Issue, Rule, Analysis, Conclusion) essays. Examination results will be collected, summarized and reported to the program faculty and administration for review and analysis of program outcomes. An indirect measurement survey of students' perception of their critical thinking skill development will be administered annually. Data will be collected and summarized by the Director of Institutional Reporting and Assessment and forwarded to program faculty and administration for review and analysis of program outcomes.

Learning Outcome 3: Students will apply legal research to practical health industry-specific corporate compliance issues.

- **Concepts:** compliance program administration; screening and evaluation of employees, physicians, vendors, and other agents of a healthcare organization; monitoring, auditing, and internal and external reporting systems; discipline for non-compliance; investigations and remedial measures
- **Competencies:** Students will have the ability to objectively evaluate and analyze the policies, governance, communication, education, auditing, investigation and risk assessment of corporate compliance programs in healthcare organizations.
- **Assessment Process and Measures Summary:** A faculty-developed rubric for assessing capstone exams and projects will be created that identifies attributes matching Compliance Certification Board corporate compliance industry core competencies and standards. The instructor will rate each project in terms of attributes on a scale of one to four, providing a direct measure for assessing program outcomes. Results will be tabulated and analyzed to identify satisfactory areas and areas needing improvement. Data will be shared each semester with program faculty and administration for review. An indirect measurement survey of students' perception of their professional skill development will be administered annually. Data will be collected and summarized by the Director of Institutional Reporting and Assessment and forwarded to program faculty and administration for review.

Projected Enrollment for the First Three Years:

Year 1: 40
Year 2: 60
Year 3: 80

Evidence of Market Demand:

The College of Law developed the Corporate and Health Care Compliance, Health Law, and most recently (in 2024), the Health Care Law and Administration emphases within the Master of Legal Studies (MLS) degree. According to student orientation survey data, these Master of Legal Studies emphases have yielded 348 students since 2019. From 2019 to date, this program has yielded 902 applications and an average of 17 newly enrolled students for each term (Summer/Spring/Fall).

ASU Career Services has compiled data indicating an increase in demand for health care-related professional services. Its sources include reports from Lightcast, staffing patterns and federal data, and indicate that offering a master's degree in Health Care Compliance and Administration will support industries, indicating a 9.77% increase in demand for compliance managers by

2033. Their data shows regional (19%) and national (4.28%) job growth over the next five years. The Bureau of Labor Statistics' 10-year (2023-2033) occupational labor projections for compliance officers show a 5% increase in jobs and a median annual wage of $75,670. Research on educational levels in the corporate and health care compliance industries has shown that 14.4% of professionals hold master's degrees. The job-posting site CareerBuilder lists 36,303 health care administration jobs nationwide and 38,203 compliance officer jobs nationwide. Indeed lists 86,000 health care administration jobs and 700 compliance officer jobs (Lightcast, Bureau of Labor Statistics, Northeastern University Graduate Programs, CareerBuilder, Indeed).

The Law School Admissions Council database identifies law schools that offer health law-related programs. Only a few law schools offer similar degrees, such as:

- Master of Jurisprudence in Healthcare Compliance from Stetson University
- Master of Laws in Health Law and Healthcare Compliance from Albany Law School
- Master of Legal Studies in Health Care Compliance from the University of Pittsburgh
- Master of Legal Studies in Healthcare Compliance Law from Drexel
- Master of Legal Studies in Health Law Policy & Management from Texas A&M

This demonstrates an opportunity for working professionals to pursue a degree from a law school with a #45 national ranking from U.S. News & World Report.

Similar Programs Offered at Arizona Public Universities:

The MLS in Healthcare Compliance and Administration degree is distinct from other academic programs currently offered within the state university system, which generally focus on the hard science, social science or policy-oriented underpinnings of the health care system. Health care administration and compliance law encompasses the legal framework governing health care operations, policies and patient care. Specialized knowledge of health care administration law equips non-lawyer professionals with a solid understanding of health care regulations, compliance management, medical ethics and patient rights. This expertise allows graduates to navigate the health care industry's legal issues and regulatory requirements, promoting ethical and responsible practices in patient care and organizational operations. With an awareness of medical malpractice laws, risk management and health care policy, these professionals can contribute to health care organizations' effective and lawful administration while advocating for patient welfare and rights. Although distinct, this law-forward degree would complement virtually any other health care-related degree program.

NAU

- Community Health, minor
- Physician Assistant Studies - Health Equity, certificate
- Public Health - Health Promotion, MPH
- Interdisciplinary Health, PhD
- Public Health - Health Promotion, Indigenous Health emphasis, MPH
- Health Sciences - Public Health, BS (ground and online)
- Public Health, graduate certificate

U of A

- Applied Humanities: Public Health Emphasis, BA
- Care, Health and Society, BS
- College of Medicine – Phoenix MD program

- College of Medicine – Tucson MD program
- Compliance and Legal Risk Management Concentration, MLS
- Global Health and Development, graduate certificate
- Global Studies: Global Health and Development Emphasis, BA
- Health Behavior Health Promotion, MPH
- Health Behavior Health Promotion, PhD
- Health Administration, graduate certificate
- Health Information Privacy, Compliance, and Data Security, graduate certificate
- Health Law for Health Professionals, graduate certificate
- Indigenous Health, graduate certificate
- Interdisciplinary Studies: Science, Technology, Health & Society Emphasis, BA
- Healthcare Management, MHM
- Master of Medical Studies (MMS)
- Master of Public Health (MPH)
- Medical and Community Health Information, graduate certificate
- Doctor of Public Health (DrPH) in Public Health Policy and Management
- Public Health, graduate certificate
- Public Health: Global Health Emphasis, BS
- Public Health: Health Promotion Emphasis, BS
- Public Health: Public Health Practice Emphasis, BS

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources and tuition/fees from the new degree will be allocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: The fee will be $698 per credit hour or $10,470/semester (assuming 15 credits)

Fee Justification: All degree programs at the College of Law have program fees to ensure the world-class student experience expected from an elite law school. The $698/credit hour for the online program will be used to fund delivery (curriculum creation and redevelopment, additional course offerings, faculty, teaching assistants), student services, marketing, recruitment, etc., in lockstep with anticipated growth. Additionally, the fee structure would allow the College of Law to provide more funding for need and merit-based financial aid.

Generally, fee revenue will support curriculum development and course delivery, student support and services and operating costs. The program fee that will be requested for the MLS in

Healthcare Compliance and Administration, and existing resources are sufficient to enable the law school to tailor and allocate curricular, advising, and career services resources to the program's new degree students, leading to more efficient college administration and improved student outcomes. A large portion of the projected student body, as current MLS in Legal Studies digital immersion students, is already being served by current faculty, staff and college services. Generally, the program fee will help expand existing infrastructure, faculty and staff services to meet the needs of the program cohorts as well as expansion.

Specialized Accreditation? **YES** NO

Accreditor: This program will need acquiescence from the American Bar Association, which accredits law schools. Additionally, the law school plans to pursue Corporate Compliance Board (CCB) certification for the new degree program. This certification provides students who graduate from our program eligibility for various CCB certification exams (Certified in Healthcare Compliance [CHC], Certified in Healthcare Privacy Compliance [CHPC], Certified in Healthcare Research Compliance [CHRC], Certified Compliance & Ethics Professional [CCEP], or Certified Compliance & Ethics Professional-International [CCEP-I]) or CCB continuing education credit within 2 years of graduation. The law school already has certification for its MLS Corporate and Health Care Compliance emphasis, and much of that coursework will also be included as part of the curricular requirements for the new MLS in Healthcare Compliance and Administration.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: BA in American Constitutionalism
Academic Department: The College of Liberal Arts and Sciences *School of Civic and Economic Thought and Leadership*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: 2027
Brief Program Description: The BA in American Constitutionalism will provide advanced specialization in the core debates, ideas, controversies, developments and methods of legal reasoning within the American constitutional tradition, at both the federal and state levels, since the founding of America. The goal is to prepare students with a deep understanding of the contours of American constitutionalism and constitutional thought. Law cases are an essential part of the curriculum, but how the School of Civic and Economic Thought and Leadership (like increasing numbers of legal scholars) understands constitutional thought and practices requires the incorporation of congressional debates, presidential actions and speeches, and materials from the states. Perhaps even more essential, and distinguishing this from conventional pre-law programs, the courses will include heavy use of the Federalist Papers and other contemporaneous founding sources such as anti-federalist skeptics of the Constitution and perspectives from the state governments as appropriate. American Constitutionalism has always been a core part of the School of Civic and Economic Thought and Leadership's existence, with a particular emphasis on engagement with primary sources and foundational texts, and the pedagogical approach to that subject matter. Building out degrees in cultivating skills and knowledge of the formative texts and ideas within the

American constitutional tradition supports ASU's charter commitment to the civic health of communities.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will identify constitutional rules and principles that influence the origin and development of American institutions and civic culture.

- **Concepts:** federalism, limited government, liberalism, commercialism, civil liberties, civil rights, separation of powers, checks and balances, theories of representation, republicanism, executive power, legislative power, judicial power, judicial review, hierarchy of federal court system, jurisdiction of various courts, self-government, use of precedent and caselaw, the Electoral College, legal doctrines, bureaucracy, the Declaration of Independence, and the commerce clause
- **Competencies:** Students will demonstrate knowledge of foundational principles of the American Constitution, relating knowledge of the intricacies of the separation of powers; distinguishing between the powers of state and federal governments (federalism) and recognizing grants and limits of power in the federal system; and recalling qualifications for holding governmental office.
- **Assessment Process and Measures Summary:** Students in the program will be assessed for this learning outcome in their course on great debates in American politics and their senior capstone course. A pre- and post-test treatment will be used in the administration of a "civic knowledge survey" that has been designed by faculty of the School of Civic and Economic Thought and Leadership for assessment. The survey is derived from questions included in the American citizenship exam. It asks students questions about specific provisions of the Constitution, such as what the power or responsibility of the Chief Justice of the Supreme Court is in the opinion stage of Supreme Court judgments, the scope of legislative authority, the number and content of constitutional amendments, the role of the cabinet in the exercise of executive authority, and the principles expressed in the Declaration of Independence. Students will be given the survey within the first few weeks of each class and, again, at the end of class to determine the extent to which they demonstrate recognition of constitutional rules and principles in foundational documents and political practice. Summative assessment data from the great debates course will be compiled in programmatic assessment reporting, which will then be evaluated through comparison to student performance in the capstone course taken in a student's final semester in the program.

Learning Outcome 2: Students will differentiate between the powers that are authorized by the Constitution to be exercised by state governments and the federal government.

- **Concepts:** federalism, state police power, enumerated powers, limited government, legislative delegation, executive authority, republicanism, local control, concurrent powers, constitutional theory, relationship between state and local governments, relationship between national and state governments, constitutional amendment, legislative process and outcomes, bureaucracy
- **Competencies:** Students will distinguish between powers that belong to the federal government from those that belong to state governments and debate the constitutionally proper exercise of a particular power.
- **Assessment Process and Measure Summary:** Students will take a civic knowledge survey at the beginning and the end of the senior capstone course. The post-test serves as a summative assessment of student knowledge acquisition in the program specific to the learning outcome. Students in the program will also be assessed in the 400-level American Constitutionalism course that focuses on structures and powers. Students will

write a moot court exercise where they will produce a legal brief or judicial opinion as part of an immersive simulation — a "moot court." The exercise simulates a constitutional controversy in practice by presenting a case that draws on the rich body of case law involving the constitutional balance of state and national power in the federal system. Program faculty will evaluate these moot court exercises using a faculty-designed rubric that will measure the level of mastery the student demonstrates with respect to an accurate and complete understanding of relevant precedents for the given legal question, and that provides evidence of the student's understanding of the historical and legal contexts. Results of these assessments will be used for continuous improvement.

Learning Outcome 3: Students will prepare political and legal arguments at the level of an adept practitioner or professional in the field.

- **Concepts:** federalism, legal process, legal reasoning, selective incorporation, bill of rights, civil rights, civil liberties, state reciprocity, equal protection, due process, interest group involvement in legal process, persuasive rhetoric, effective use of qualitative data, critical analysis, effective communication, anticipation and refutation of counterarguments, civil discourse, and deliberation
- **Competencies:** Students will convey a position in a political or legal debate, outline the possible positions in that debate, predict and refute counterarguments, and justify a position with the effective use of qualitative evidence.
- **Assessment Process and Measures Summary:** Students will complete a written moot court exercise in an American Constitutionalism course that focuses on civil liberties. This exercise requires that students produce a legal brief or judicial opinion as part of an immersive simulation — a "moot court." The exercise simulates a constitutional controversy in practice by presenting a case that draws on the rich body of case law involving civil rights and liberties found in — but not exclusively in — the Bill of Rights. Successful assignments identify relevant precedents for the moot court case and use information from past court cases effectively to argue their position while identifying and refuting counterarguments. Faculty will evaluate these moot court exercises using a faculty-designed rubric that will measure the level of mastery the student demonstrates with respect to an accurate and complete understanding of relevant precedents for the given legal question, and the student's skill in using qualitative evidence effectively to defend a position and refute counterarguments to that position. The ASU Graduating Senior Report Card will also be used to evaluate the program's performance in preparing students to exercise the skill of legal argumentation at the level of an adept practitioner. Results will be used to inform continuous improvement efforts.

Projected Enrollment for the First Three Years:

Year 1: 15
Year 2: 20
Year 3: 30

Evidence of Market Demand:
While government and law, both large and stable pools of employers, would likely draw most graduates of this program, there are two areas of growth where graduates would be in particularly high demand.

One would be educators in the classical, especially classical charter, school space. While some classical schools focus on "Great Books" rather than American constitutionalism (e.g., the Great Hearts Network), others, such as the almost equally extensive American Leadership Academy network here in Arizona, place a heavier emphasis on the American civic tradition, for which graduates with this degree would be well-placed. Classical school enrollment is expected to continue its rapid growth, and by some estimates, to even double within the next ten years (https://fordhaminstitute.org/national/commentary/classical-charter-school-enrollment-skyrockets-texas; https://arcadiaed.com/2024/02/market-analysis-of-u-s-classical-education-in-grades-pk-12/).
Another factor is the probability that continued policy changes will continue to make charter schools more feasible alternatives in states with few to no charters. This degree would be an ideal training for educators in precisely that sphere.

A significant source of growth will be among those who go on to graduate school in American constitutionalism. Especially as schools of civic thought proliferate among the most prestigious public universities in the United States, the demand for professors in this field will only grow. Within that field, there is, by far, the smallest proportion of job candidates versed in American constitutional and political development.

Similar Programs Offered at Arizona Public Universities:

The two other state universities have degrees in related disciplines. The University of Arizona has a bachelor's degree in law and a political science degree that focuses on American politics. NAU has a BA and BS degree in Philosophy, Politics and Law, but there are no similar programs at Arizona public universities that specifically focus on American constitutionalism and the foundational documents in the United States' system of government.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount: N/A

Fee Justification: N/A

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: BS in Philosophy, Politics and Economics
Academic Department: The College of Liberal Arts and Sciences *School of Civic and Economic Thought and Leadership*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: 2026
Brief Program Description: The BS in Philosophy, Politics and Economics program, housed within the School of Civic and Economic Thought and Leadership, will offer an interdisciplinary undergraduate degree integrating philosophical, political and economic analysis that equips students with a robust analytical framework to tackle the enduring questions of political, social, and ethical life. Modeled after esteemed programs like those at Oxford and Yale, the program will emphasize civic knowledge, ethical reasoning, and practical problem solving, aligning with the school's mission to cultivate informed and engaged citizens. The curriculum will feature core courses in philosophy, political theory, economic principles, ethics and public policy, moral philosophy and political economy. Students will hone analytical skills through the careful reading of canonical texts, the development of sophisticated economic and political science methods, and integrated projects in a capstone seminar, all of which will prepare them for leadership in law, policy, business, academia or politics. The program will attract ambitious students, boosting enrollment and elevating ASU's reputation as the national leader in civic education. By emphasizing civic engagement and interdisciplinary analysis, the program would empower graduates to contribute meaningfully to society, reinforcing ASU's commitment to the public good and positioning the school as a leader in shaping thoughtful, engaged citizens.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will comprehend core constitutional concepts that structure and guide political life.

- **Concepts:** federalism, limited government, liberalism, civil liberties, civil rights, separation of powers, checks and balances, theories of representation, republicanism, executive power, legislative power, judicial power, judicial review, hierarchy of federal court system, jurisdiction of various courts, self-government, the Electoral College, office-holding qualifications, bureaucracy, the Declaration of Independence, and the commerce clause
- **Competencies**: Students will identify core constitutional principles and connect principles to contemporary political scenarios.
- **Assessment Process and Measures Summary:** Students in the program will be assessed in the course on great debates in American politics and in their senior capstone course. A pre- and post-test treatment will be used in the administration of a "civic knowledge survey" that has been designed by faculty of the School of Civic and Economic Thought and Leadership for assessment. It asks students questions about specific provisions of the Constitution, such as what the power or responsibility of the Chief Justice of the Supreme Court is in the opinion stage of Supreme Court judgments, the scope of legislative authority, the number and content of constitutional amendments, the role of the cabinet in the exercise of executive authority, and the principles expressed in the Declaration of Independence. Students will be given the survey within the first few weeks of each class and, again, at the end of class to determine the extent to which they demonstrate recognition of constitutional rules and principles in foundational documents and political practice. The pre-test serves as a formative assessment for faculty leading these courses and for the program. The post-test serves as a summative assessment of student knowledge acquisition in the course and program. Student survey performance data will be used for decision-making related to continuous improvement of the program, which can be evaluated through comparison to student performance in the capstone which is usually taken in a student's final semester in the program.

Learning Outcome 2: Students will be able to analyze a contemporary problem using core theories or paradigms from philosophy, politics and economics.

- **Concepts:** economic rationality, justice, equity, property, liberalism, paternalism, market successes and failures, public goods, optimality, utilitarianism, regulation, laissez faire economics, epistemological limitations, supply-side economics, Keynesianism
- **Competencies:** Students will demonstrate a core concept from philosophy, politics and economics, and provide relevant historical and theoretical context in analyzing that problem according to an appropriate theory or paradigm.
- **Assessment Process and Measures Summary:** Student learning outcomes will be assessed via an assignment that asks students to apply a mode of reasoning from philosophy, politics or economics to a contemporary issue. Members of the undergraduate studies committee will evaluate the assignment using a faculty-designed rubric that will determine student achievement. The final paper will also be assessed wherein they must use a core concept to explain and resolve a problem relevant to philosophy, politics or economics, and defend the use of that concept by explaining its historical development and justifying its application to a contemporary issue. Assessment will allow the undergraduate studies committee to analyze results for continuous improvement.

Outcome #3: Students will apply modes of reasoning from philosophy, politics and economics to contemporary policy issues and debates at the level of an adept practitioner.

- **Concepts:** economic rationality, justice, property, liberalism, paternalism, market forces, public choice, collective action, rational choice, utilitarianism, supply and demand, rational choice, game theory
- **Competencies:** Students will research a contemporary problem in philosophy, politics or economics and employ a relevant mode of reasoning in the analysis of that problem at or above the level of an adept practitioner.
- **Assessment Process and Measures Summary:** The learning outcome will be assessed using two separate artifacts, one direct measure and one indirect measure. In the final project, students must make use of a mode of argumentation common in the field in defense of a position taken, using empirical evidence to support that position. As a capstone project, this artifact is the culmination of a student's learning in the program. Assessment of student performance on the culminating project of their undergraduate experience will be used to inform the undergraduate studies committee for purposes of continuous improvement in instruction. The undergraduate studies committee will also draw from the ASU Graduating Senior Report Card to gather student perception data regarding ASU's contribution to knowledge, skills and development in "acquiring job or work-related skills" and "incorporating multiple perspectives when solving problems." The undergraduate studies committee will use this data as a summative assessment of the outcomes of the program, using that data to modify instruction for the sake of continuous improvement.

Projected Enrollment for the First Three Years:

Year 1: 12
Year 2: 40
Year 3: 100

Evidence of Market Demand:

A Philosophy, Politics and Economics program is a powerful springboard into the job market, equipping graduates with critical thinking, quantitative reasoning, and policy expertise that employers actively seek. The Bureau of Labor Statistics (2023) projects an 8% growth in public policy analysis roles by 2032, offering a median salary of $125,350—positions ideally suited to the program's interdisciplinary strengths. The National Association of Colleges and Employers (NACE) 2024 survey reports philosophy, politics and economics graduates earning average starting salaries of $62,000, surpassing many humanities peers by 10-15%. This isn't speculative: elite consulting firms like McKinsey, PwC, and Deloitte aggressively recruit these degree holders, with 2022 hiring data showing 15% of their entry-level analyst roles filled by these graduates, prized for their ability to navigate complex, multifaceted challenges.

The financial sector also embraces philosophy, politics and economics talent, with firms like Goldman Sachs and J. P. Morgan valuing their economic modeling and political risk analysis skills. Journalism offers another avenue—outlets like The Economist and The Financial Times employ discipline alumni for their knack at crafting data-driven narratives. The Georgetown Center on Education and the Workforce (2023) ranks programs like this in the top 20% of degrees for mid-career earnings, with a median of $110,000, competitive with some STEM fields. Think tanks and nonprofits further fuel demand: the Brookings Institution noted a 10% uptick in these

hires since 2020, drawn to their capacity to address intricate issues like climate policy or social equity.

Similar Programs Offered at Arizona Public Universities:

Similar programs include:

University of Arizona - Philosophy, Politics, Economics and Law BA
Northern Arizona University - Philosophy, Politics, and Law, BA

ASU's degree will have a different scope, offered out of the School of Civic and Economic Thought and Leadership, and focused specifically on interdisciplinary civics education and creating an informed, thoughtful citizenry.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount:

Fee Justification:

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MS in Applied Statistics and Data Science
Academic Department: The College of Liberal Arts and Sciences *School of Mathematical and Statistical Sciences*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: 2026
Brief Program Description: Modern business, science and technology approaches are creating high demand for data scientists and statisticians who can analyze and visualize data for well-informed, efficient decision-making. Data science is a broad field, covering areas that traditionally have been part of mathematics, statistics or computer science. This Applied Statistics and Data Science degree includes training in machine learning approaches but also provides a strong foundation in applied statistics. The rigorous background this degree provides will ensure that graduates are prepared for further developments in this evolving field as new algorithms and technologies arise. At the same time, courses and assignments based on hands-on training will provide the pragmatic and practical experience needed for career readiness. Courses will include content on statistical theory, applied linear models, statistical computing with R and Python, machine learning, data visualization, optimization and deep neural networks, as well as specific areas of applied statistics such as applied time series and applied Bayesian statistics. In keeping with ASU's mission and goals, the applied nature of the proposed Master of Science program in Applied Statistics and Data Science will be essential for workforce development while being accessible to students from a wide range of science, technology, engineering and mathematics fields. Providing a flexible learning program will improve geographical accessibility to this content and continue ASU's global leadership in interdisciplinary training. This aligns with the design aspirations to fuse intellectual disciplines and engage globally.

Finally, data-driven decision making is fundamental to developing solutions to the critical social, technical, cultural and environmental issues facing Arizona and the world. The skills developed through this program will meet the needs of a broad range of learners, contributing to their abilities for innovation and adaptability, and aligning with further design aspirations for conducting use-inspired research and valuing entrepreneurship.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will create advanced statistical analysis workflows.

- **Concepts:** advanced statistics concepts and methods including statistical inference, hypothesis testing, ANOVA, linear regression, and mixed models; applications of methods and associated techniques; use of statistical software R and Python
- **Competencies:** Students will have the ability to choose correct methods for a given dataset, implement analysis methods and apply to data, apply specific methods such as statistical inference, hypothesis testing, ANOVA, linear regression, and mixed models, use R and Python to implement application of methods, evaluate and interpret results of data analysis and communicate results.
- **Assessment Process and Measure Summary:** Students in the Applied Statistics and Data Science MS program complete required core courses Mathematical Statistics and Applied Linear Models. In these courses, all students complete a final course project requiring application of analysis methods from the course to existing publicly available datasets. This outcome will be assessed through rubrics for evaluating course projects that focus on competencies listed here. Rubric data will be summarized across sections by the Associate Director of Graduate Programs. Results will be shared anonymously with faculty yearly for continuous improvement of the program through information about which rubric areas require improvement.

Learning Outcome 2: Students will create an advanced machine learning workflow.

- **Concepts:** advanced machine learning concepts and methods including classification, clustering analysis, dimension reduction, and reinforcement learning; applications of machine learning methods and associated techniques; use software R and Python
- **Competencies:** Students will have the ability to choose correct methods for a given dataset, organize and access data in databases, apply machine learning to data, apply specific methods for classification, clustering analysis, dimension reduction, and reinforcement learning, use Python and R to implement application of methods, evaluate and interpret results of data analysis, and communicate results.
- **Assessment Process and Measure Summary:** Students in the Applied Statistics and Data Science MS program will complete core courses Machine Learning and Industry Tools for Data Science. In these courses, all students complete a final course project requiring application of analysis methods from the course to existing publicly available datasets. This outcome will be assessed through rubrics for evaluating course projects that focus on competencies listed here. Rubric data will be summarized across sections by the Associate Director of Graduate Programs. Results will be shared anonymously with faculty yearly for continuous improvement of the program through information about which rubric areas require improvement.

Learning Outcome 3: Students will create solutions for real-world problems using advanced statistical and machine learning skills.

- **Concepts:** statistics skills, techniques, and concepts including statistical inference, hypothesis testing, ANOVA, linear regression, and mixed models; machine learning skills techniques and concepts such as classification, cluster analysis, dimension reduction,

and reinforcement learning; ability to combine and apply skills, techniques, and concepts to solve real world problems; ability to evaluate and communicate results

- **Competencies:** Students will be able to build statistical and machine learning models for real world problems, choose correct methods from statistical and machine learning models such as ANOVA, linear regression, mixed models, classification, cluster analysis, dimension reduction and reinforcement learning for real world problems, evaluate and interpret results for real world problems, effectively communicate results in written and oral form.
- **Assessment Process and Measure Summary:** Upon graduation, students in the Applied Statistics and Data Science, MS program will complete the University Office of Evaluation and Educational Effectiveness Graduate and Law Student Report Card Survey. Indirect measures for this outcome will include the university student exit survey Graduate and Law Student Report Card question: graduate training in "practical skills needed in your field". In consultation with the Graduate Committee, the Associate Director for Graduate Programs will examine survey results and compare them to historical data as part of the program review. All students in the program complete a culminating experience, consisting of a capstone course project or applied project. In all cases, the culminating experience will be evaluated by an appointed committee of program faculty using a faculty-developed rubric designed to evaluate the competencies for this outcome. The Associate Director of Graduate Programs will obtain culminating experience rubric data from all students. Data will be compared to data from previous years and shared with program faculty annually to improve courses and course delivery.

Projected Enrollment for the First Three Years:

Year 1: 70
Year 2: 140
Year 3: 140

Evidence of Market Demand:

This degree will prepare students for a broad range of careers in data science, as well as for jobs in this area that specifically require statistics skills. Many data scientists and applied statisticians have careers in the business, science and technology sectors, including biomedical fields. Typically, their role is to integrate and analyze relevant data to develop predictive models and actionable strategies in business, biomedicine, science or technology.

According to the Bureau of Labor Statistics, employment of data scientists is projected to grow 36%, much faster than the average for all occupations, with a median salary of around $112,590. This area is listed by the Bureau of Labor Statistics as the job area with the fourth-highest growth rate, where the large growth in this area is "expected to stem from an increased demand for data-driven decisions" (https://www.bls.gov/ooh/math/data-scientists.htm). BLS states that although these jobs require at least a bachelor's degree in mathematics, statistics, computer science or a related field, some employers require or prefer that applicants have a master's degree (https://www.bls.gov/ooh/math/data-scientists.htm#tab-4).

U.S. News and World Report lists data scientist as #4 in Best Technology Jobs and #8 in 100 Best Jobs in the US (https://money.usnews.com/careers/best-jobs/data-scientist). Their career website mentions the wide variety of skills needed across these jobs, with the most common denominators being courses in statistics and areas like machine learning, but with a very strong focus on pragmatic, hands-on and practical approaches. The World Economic Forum's Future of

Jobs 2023 report estimates that by 2027, the demand for AI and machine learning specialists will increase by 40%, and the demand for data analysts and other big data professionals will grow by 30-35% (https://www.weforum.org/publications/the-future-of-jobs-report-2023/).

Glassdoor lists the mean data scientist salary nationwide as $150,000 (https://www.glassdoor.com/Salaries/data-scientist-salary-SRCH_KO0,14.htm). Some of the top skills mentioned in data science job descriptions are general skills such as data visualization and statistical analysis, while more specific skills may include Python, R, machine learning, deep learning and optimization (https://365datascience.com/career-advice/data-scientist-job-market/), which are skills that will be provided through this MS degree.

Similar Programs Offered at Arizona Public Universities:

University of Arizona
There is a new Professional Master in Data Science and Applied Statistics at the University of Arizona, launched in Fall 2025. The proposed MS program in Applied Statistics and Data Science would have similar prerequisites to the University of Arizona Professional Master in Data Science and Applied Statistics, and a few courses would be somewhat similar. However, the emphasis is quite different. The required core statistics courses for the University of Arizona program only include statistics content that is specifically needed for data science. The proposed degree would have a different emphasis, where several core courses will consist of applied statistics content (comprehensive statistics content and its applications). Other courses will focus on machine learning skills that build on the core knowledge from statistics.

There is a graduate certificate in Statistics and Data Science offered at the University of Arizona and a graduate certificate in Applied Statistics at Northern Arizona University. These certificates do not fulfill the same educational needs as an MS program.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $200 per credit hour

Fee Justification: Program fees will be used to support degree administration and course instruction for the program. Administration will be conducted by the graduate staff and will involve organizing applications and evaluating whether applicants meet the prerequisites for the degree. Graduate coordinator staff will also perform student advising. Courses will be at the

graduate level and highly technical, requiring instructors with PhDs and expertise in statistics and data science. Although the School of Mathematical and Statistical Sciences has teaching professors, clinical professors, and tenure-track faculty who are well-suited to develop and teach these courses, additional instructors will be needed in order to cover the teaching needs for the new courses required for this degree due to ongoing responsibilities within other degree programs. Program fees will be critical to the funding needed to cover instructional costs.

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MA in War and Strategy
Academic Department: The College of Liberal Arts and Sciences *School of Civic & Economic Thought and Leadership*
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses; and ASU at Washington, D.C.
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: 2026
Brief Program Description: The War and Strategy master's degree is designed for senior military leadership as part of a Department of Defense contract. The Master of Arts in War and Strategy, offered in the School of Civic and Economic Thought and Leadership, provides a rigorous curriculum to prepare students for leadership in national security, military strategy, and global policy. Core courses explore strategic planning, cybersecurity, conflict dynamics and policy development, emphasizing critical thinking and ethical decision-making. Students analyze topics such as asymmetric warfare, economic statecraft and military innovation through simulations and case studies. Electives allow focus on areas like counterterrorism or energy security. The program builds skills in data analysis, risk assessment, policy writing and strategic communication, enabling graduates to tackle complex global challenges. Students in the program will synthesize theoretical and practical insights, along with fostering innovative approaches to real-world strategic issues. The program aligns with ASU's charter to promote inclusive education, social impact and innovation. The program encourages interdisciplinary inquiry and practical application, equipping students to shape global security policy. Its emphasis on ethical leadership and evidence-based strategy reflects ASU's design aspirations, which prioritize transformative learning and global engagement. By preparing senior military officers to become more effective strategic leaders, the

program advances a more secure and just world, which embodies the university's commitment to addressing critical social issues through research and education.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will evaluate complex theories of war and strategy, incorporating both traditional and innovative methodologies.

- **Concepts:** nature and character of war, political objectives, strategic and military culture, unity of effort, emerging security challenges, innovation in strategic thought, and future methods
- **Competencies:** Students will be able to describe major theories of war and strategy; explain the relationship between war, politics and society; analyze primary and secondary sources on strategic theory; critically assess competing perspectives on the nature and character of war; and generate innovative, evidence-based assessments of conflict and strategy.
- **Assessment Process and Measure Summary:** All students in core theory courses will be assessed on written and oral assignments. Faculty will apply standardized rubrics aligned with Bloom's taxonomy (analyze, evaluate, create). Results will be stored in compliance with university policy and additional U.S. Department of Defense-aligned security protocols. Data will be compiled and analyzed annually by the program assessment committee, which includes program faculty, the director of the School of Civic and Economic Thought and Leadership, the director of ASU's Future Security Initiative, and select members of ASU's General Officer Advisory Council. Findings will be shared with program faculty and university leadership, with specific recommendations for curriculum adjustments, reading lists, and integration of new case studies or war game scenarios and methodological integration (e.g., futures modeling, digital wargaming). This cycle ensures that assessment results immediately inform continuous program improvement.

Learning Outcome 2: Students will design strategic assessments and operational concepts aligned with national and coalition objectives.

- **Concepts:** joint, combined and coalition military operations, national policy objectives, resourcing and sustainment, operational environment and geography, command and leadership, digital simulation, scenario modeling and AI-enhanced analysis
- **Competencies:** Students will be able to outline principles of coalition and joint operations; explain geographic and resource constraints in strategy design; apply operational design frameworks to historical or hypothetical cases; develop strategic assessments that integrate coalition perspectives; integrate innovative methodologies and technologies; and apply futures methods and simulation tools to evaluate strategic options.
- **Assessment Process and Measure Summary**: All students in operational design courses and war game exercises will be assessed individually through policy writing and simulation performance. Faculty-developed rubrics will measure feasibility, clarity, innovation and adaptability. Data will be collected through written submissions and structured observation of student decisions during simulations. Results will be archived securely and reviewed annually by the assessment committee. Findings will inform adjustments to war game scenarios, staff-ride experience, policy exercise design, and faculty emphasis on emerging threats such as gray-zone tactics, cyber and hybrid warfare. Continuous improvement will thus be built into both course design and experiential modules. Continuous improvement will also extend to refining simulation platforms and methodological tools to ensure relevance to contemporary security challenges.

Learning Outcome 3: Students will effectively communicate with civilian and military leaders on the development and execution of strategy.

- **Concepts:** civil-military relations; unity of effort; command and leadership; learning and adaptation; persuasive communication; technological integration in professional contexts; history, technology and innovative methodologies
- **Competencies:** Students will be able to identify communication challenges in civil-military contexts, demonstrate clarity in oral briefings, adapt argumentation style to diverse audiences, reflect on leadership and communication experiences, evaluate the implications of technological innovation for strategic communication, and synthesize insights from history, technology, and innovative methodologies.
- **Assessment Process and Measure Summary:** All students in staff rides and capstone exercises will be evaluated on oral and written communication. Faculty rubrics will measure clarity, persuasiveness and adaptability. Reflective writing will capture self-assessment and adaptive reasoning. Results will be collected by course faculty, stored securely under university and DoD-compliant systems, and shared with the assessment committee during the annual review. Continuous improvement will include refining oral communication modules, strengthen civilian-military scenario integration, and enhancing cross-disciplinary collaboration with ASU communication experts. Annual review by the assessment committee will ensure results guide immediate refinement of communication training, leadership development, and the integration of technology-enhanced presentation methods.

Projected Enrollment for the First Three Years:

Year 1: 15
Year 2: 30
Year 3: 60

Evidence of Market Demand:

This is a Department of Defense contract for which the Pentagon will send select officers to participate. Students are already employed and are assigned to participate in this program by the command structure of the US Military. This program will not be available to the general public.

Similar Programs Offered at Arizona Public Universities:

The MA in War and Strategy is specifically designed for senior military leadership on a Department of Defense military contract. The proposed program will be the only program eligible for enrollment through this contract. This contract is unique to ASU, and there are no other programs under DoD contracts at other AZ universities.

The proposed Master of Arts in War and Strategy is designed to serve a highly specialized student population—primarily senior professionals from the U.S. Department of Defense and interagency community. As such, the program does not compete with existing ASU graduate programs for enrollment. Its prospective students are distinct from those pursuing discipline-adjacent programs, and therefore, the implementation of this degree will not draw away potential applicants from other ASU offerings.

On the contrary, the War and Strategy program will complement existing programs by fostering cross-pollination between professional practitioners and traditional graduate students. Students enrolled in the program will be required to take electives offered through The College, which

creates natural points of synergy with programs such as the Master of Arts in Global Security (MAGS) and the Master of Arts in International Affairs and Leadership (MA IAL). The inclusion of senior military officers and interagency professionals in these electives will enrich the classroom experience, bringing real-world strategic insights into dialogue with academic theory and research. This exchange will strengthen ASU's broader graduate learning environment by enhancing discussions, case studies, and collaborative projects across disciplines.

No comparable program currently exists at ASU. The War and Strategy degree is unique in its direct alignment with the needs of the U.S. national security community and in its integration of warfighting, strategy, and futures methodologies into a rigorous academic framework. Its design reflects ASU's commitment to innovation, interdisciplinarity, and societal impact while filling a vital niche for government and defense partners.

Similar programs include:

University of Arizona
- MA in International Security Studies

Northern Arizona University
- No similar programs

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount:

Fee Justification:

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: BA in Science Communication
Academic Department: Walter Cronkite School of Journalism and Mass Communication
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: 2026
Brief Program Description: The Bachelor of Arts program in Science Communication empowers students to translate complex scientific concepts into accessible content for mass audiences, advancing knowledge of public value by engaging audiences around it. Students will partner with researchers and institutions within and beyond ASU to translate scientific discovery and thought leadership into fact-based multimedia, preparing them for careers as media creators, strategists, and analysts in news organizations, universities and research institutions, government agencies, museums, nonprofit organizations, corporations (especially in fields like biotech and pharmaceuticals), and educational institutions. The degree promotes transforming society through increased scientific literacy. The program is rooted in conducting use-inspired research, preparing students to engage with research that addresses real-world needs. By fostering collaboration across disciplines, the program reflects the fusion of intellectual disciplines and provides graduates with the tools to bridge the gap between science and society. Students are ready for careers in media, education and public outreach.
Learning Outcomes and Assessment Plan: **Learning Outcome 1:** Students will apply the values, principles, ethics and legal standards of science communication in media work.

- **Concepts:** principles of science communication (truth, accuracy, fairness, timeliness, privacy, accountability, clarity); ethics of communicating scientific information (transparency, avoiding hype, conflicts of interest in funding or advocacy; legal standards (copyright, intellectual property, privacy in research subjects); responsibility to promote public understanding of science; addressing uncertainty and complexity honestly
- **Competencies:** Students will be able to apply ethical principles to explain scientific topics accurately and accessibly; identify conflicts of interest in representing scientific organizations or research; demonstrate understanding of legal rights and constraints in science communication; review messages for clarity, fairness and accountability; and reflect on the communicator's role in shaping public understanding.
- **Assessment Process and Measures Summary**: Instructors will use rubrics to assess student artifacts from the media ethics course and media law course assignments. In the media ethics course, students' two case studies will be assessed. In these case studies, students explore concepts in foundational ethics and learn the values, principles and ethical standards across mass communications professions. In the media law course, students' two case studies will be assessed. In these case studies, students explore landmark media law cases, concepts in press freedom and the First Amendment, and learn the legal standards across mass communications professions. Data collected will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success.

Learning Outcome 2: Students will create science content and campaigns using professional tools, technology and techniques.

- **Concepts:** translating technical language into accessible messages; visual communication (data visualization, infographics, multimedia storytelling); audience adaptation (tailoring messages for lay, expert, and policymaker audiences); content creation tools (video, audio, social media, web platforms); campaign planning (public engagement, science literacy goals)
- **Competencies:** Students will be able to produce clear, accurate and audience-appropriate science communication materials; apply storytelling and visual design to explain complex topics; use industry-standard tools to create multimedia science content; adapt messages for different platforms and audience needs; and plan basic outreach campaigns to improve science understanding.
- **Assessment Process and Measures Summary:** Students will be assessed on assignments using faculty-developed rubrics, an evaluation form, and indirect feedback via a student exit survey. Instructors will use rubrics to assess student artifacts from the capstone course and professional development course, and a supervisor evaluation form to evaluate learning in the internship course. The ASU Undergraduate Alumni Survey will also be used. In the capstone course assignment, students must produce science communication work to professional standards. In the professional development course, students' professional portfolios will be assessed by faculty with a rubric. In a required internship course, students gain real-world experience directed by an internship supervisor while simultaneously guided in their professional development and reflection by an instructor. At the conclusion of the internship, supervisors evaluate students on their use of professional tools, technology and techniques in a form submitted to the instructor. The program will also use survey results from the ASU Undergraduate Alumni Survey. The survey questions, "During your undergraduate studies, how effectively do you think ASU prepared you for: 1) a job; or 2) graduate or professional study in your field?" will be used to assess students. Data collected will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success.

Learning Outcome 3: Students will critically evaluate information, content and research in professional contexts.

- **Concepts**: evaluating scientific sources for credibility and accuracy; understanding peer review and scientific consensus; identifying misinformation and pseudoscience; researching audience knowledge, beliefs and misconceptions; ethical considerations in simplifying complex science
- **Competencies:** Students will be able to critically assess the reliability of scientific sources; apply verification techniques to ensure accuracy; research audience needs to inform communication strategy; identify and address misinformation in public communication; and make ethical decisions about framing, simplification and risk communication.
- **Assessment Process and Measures Summary:** Students will critically evaluate information, content and research in professional contexts through required coursework, and will be assessed on various assignments using a faculty-developed rubric and an evaluation form. Instructors will use rubrics to assess student artifacts from the capstone course and a supervisor evaluation form to evaluate learning in the internship course. Instructors will use a critical thinking and problem-solving rubric to assess student artifacts from the capstone course. In the capstone course assignment, students must produce science communication work to professional standards. In a required internship course, students gain real-world experience directed by an internship supervisor while simultaneously guided in their professional development and reflection by an instructor. At the conclusion of the internship, supervisors evaluate students on their critical thinking and problem-solving in a form submitted to the instructor. Data collected will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success.

Learning Outcome 4: Students will produce clear, accurate and engaging written content that meets professional standards.

- **Concepts:** science writing genres (explainer articles, press releases, social posts, policy briefs); narrative storytelling techniques in science contexts; use of evidence, data, and expert quotes; editing for clarity, accessibility, and correctness; ethical representation of scientific findings
- **Competencies:** Students will be able to write clear, engaging and accessible science content for diverse audiences; adapt style and format for different media and platforms; accurately represent scientific evidence and expert perspectives; edit content for clarity, accuracy, and appropriateness; and ensure writing avoids exaggeration and maintains ethical standards.
- **Assessment Process and Measures Summary:** Instructors will use a rubric to assess students' short writing assessment from the media writing course. In this writing assessment, students must apply their understanding of the foundations of media writing, including structural elements (such as ledes and nut graphs), information synthesis (such as data synthesis and quote usage), formats (including news writing, press releases and profiles), and professional standards (including attribution and deadlines). In the advanced media writing course, students advance their writing skills with specialized approaches, format and style. Students complete a short writing assessment, assessed with a rubric by a panel of faculty and professionals. In the capstone course, students produce science communication work to professional standards. Faculty evaluate students' writing skills at the end of the course using a rubric. Data collected will be used to examine and adjust the curriculum, teaching

methodologies and delivery methods as needed for continuous improvement in overall student success.

Projected Enrollment for the First Three Years:

Year 1: 25
Year 2: 53
Year 3: 115

Evidence of Market Demand:

The Cronkite School conducted a job market demand study using three key sources: institutional data from IPEDS of the US Department of Education, education and occupation relationships calculated from the American Community Survey (2022, 5 Year Sample) from the U.S. Census Bureau, and occupational employment forecasts from the Bureau of Labor Statistics.

People who hold journalism and mass communication degrees tend to work in a concentrated set of occupations: The top thirty most common occupations for these workers account for 48.8% of total employment of people with degrees in the field. Despite this concentration, these occupations are diverse and include many occupations traditionally associated with journalism and mass communication, including marketing managers, public relations specialists, market research analysts, and producers and directors.

The Bureau of Labor Statistics projects growth for careers across the field, both in Arizona and nationwide. The top thirty occupations among workers with a degree in a journalism and mass communication-related field employ 34.7 million people in the U.S. and pay an average wage of $84,884. The BLS projects these occupations will increase employment by 396,000 between 2022-2032. The labor market trends for these occupations in Arizona match the national-level trends: These occupations employ 574,557 people in Arizona and pay an average of $82,282. In Arizona, marketing managers earned the most (mean annual wage of $155,110).

Opportunities to activate these careers in the science and health industry are also on the rise: According to the Biotechnology Innovation Organization and the Council of State Bioscience Associations, the nation's bioscience industry employed nearly 2.3 million Americans across almost 150,000 U.S. business establishments and in every state in 2023, increasing by nearly 15 percent since 2019 (growth that outpaces the nation's private job sector). Arizona's health innovation ecosystem generated $43.64 billion in economic impact in 2023 (up 13 percent from $38.54 billion in 2021), and the state is home to fast-growing IT, semiconductor and energy sectors. Data indicates robust growth in Arizona's health and science industries, with communication roles poised to follow suit.

Similar Programs Offered at Arizona Public Universities:

The University of Arizona offers a Bachelor of Science in Journalism and a BS in Strategic Communication, which advance professional media skills. A BA in Communication Studies equips students with "advanced knowledge of relational, group and public communication through analysis of communication models and theories."

Northern Arizona University offers a non-ACEJMC-accredited BA in Journalism. Related degrees that do not include mass communication or media production are the BA in Communication (in which students examine the processes and effects of communication) and the BA in Global

Media Studies (an interdisciplinary online degree that prepares students to gather and analyze information in various contexts).

No Arizona public university offers an undergraduate degree in science communication. Arizona State University remains the nation's largest producer of journalism and mass communication-related bachelor's degrees.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing college resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount:

Fee Justification:

Specialized Accreditation? **YES** NO

Accreditor: The program is designed to comply with the requirements of the Cronkite School's specialized accreditor, the Accrediting Council on Education in Journalism and Mass Communication. The Council evaluates programs against the objectives that units and institutions set for themselves, and against eight standards that prepare students for professional careers in mass communication — among them, curriculum and instruction, facilities and equipment, and public service. Accredited programs feature coursework in professional media skills; internships in the field; involvement by professionals in instruction and assessment; modern media equipment; and instruction in nine core values and competencies (including media law, ethics, writing, numeracy and statistics, and accuracy).

The program is also designed to meet the requirements for the Certification in Education for Academic Programs in Public Relations, designed by the Public Relations Society of America as a complement to accreditation by the Accrediting Council on Education in Journalism and Mass Communication. CEPR-certified programs demonstrate effectiveness in preparing students for professional careers in strategic communication, and include required coursework in core principles, ethics, writing and content creation, research and campaigns.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: BA in Content Creation
Academic Department: Walter Cronkite School of Journalism and Mass Communication
Geographic Site: Downtown Phoenix, Polytechnic, Tempe, West Valley campuses, Los Angeles
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: 2026
Brief Program Description: The Bachelor of Arts in Content Creation develops versatile storytellers skilled in multimedia creation, social media strategy and integrated communication. Graduates are prepared to operate entrepreneurially as influencers and content creators, and move fluidly across projects and clients, advancing storytelling in livestreaming, podcasting, videography, immersive media, writing, graphics and emerging mediums. Currently, the Cronkite School offers a semester experience in the Los Angeles Content Studio at the ASU California Center that advances student careers as data-driven content creators and influencers. The proposed program answers creator and influencer job market demand with dedicated learning. By embracing the design aspiration to "leverage our place," students create content inspired by the culture and communities around them — particularly in top media markets in Phoenix and Los Angeles. The program "values entrepreneurship," training students to become leaders in the rapidly changing media industry. Hands-on content creation opportunities with local organizations and international experiences reflect the aspiration to "be socially embedded," preparing graduates for flexible media careers in global and local contexts.
Learning Outcomes and Assessment Plan: **Learning Outcome 1:** Students will apply the values, principles, ethics and legal standards of content creation in media work.

- **Concepts:** core content principles (truth, accuracy, fairness, timeliness, privacy, accountability, authenticity); professional ethics for creators (transparency with audiences, disclosure of sponsorships, avoiding misinformation); legal considerations (copyright, intellectual property, privacy rights, platform guidelines); responsibility to represent diverse perspectives respectfully; audience trust and creator credibility
- **Competencies:** Students will be able to apply ethical principles to create authentic, transparent content; recognize and navigate disclosure and sponsorship requirements; demonstrate understanding of legal rights and responsibilities in content creation; review content for fairness, accuracy and respectful representation; and reflect on the creator's role in shaping public opinion and culture.
- **Assessment Process and Measures Summary:** Students will apply the values, principles, ethics and legal standards of content creation in media work that they learn in the BA in Content Creation program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student assignment artifacts from courses in media ethics and in media law. In the media ethics course, students' two case studies will be assessed. In these case studies, students explore concepts in foundational ethics and learn the values, principles and ethical standards across mass communications professions. In the media law course, students' two case studies will be assessed. In these case studies, students explore landmark media law cases, concepts in press freedom and the First Amendment, and learn the legal standards across mass communications professions. Data collected will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success.

Learning Outcome 2: Students will create content for mass audiences using professional tools, technology and techniques.

- **Concepts:** platform strategies (YouTube, TikTok, Instagram, podcast platforms); multimedia production (video, audio, graphic design, editing); branding (personal voice, visual identity, audience alignment); engagement techniques (calls to action, comments, community building); analytics tools (audience insights, performance measurement)
- **Competencies:** Students will be able to produce engaging, high-quality content for chosen platforms; use industry-standard tools for video, audio and graphics production; develop a consistent personal brand and voice; strategically engage with audiences to build loyalty and growth; and analyze performance data to improve content and strategy.
- **Assessment Process and Measures Summary**: Students will be evaluated in the capstone course, the professional development course and their internship. In the capstone course assignment, students must produce content work to professional standards. In the professional development course, students create professional portfolios that are a curation of the professional-level work they have created throughout their undergraduate careers, and within this course, they are evaluated on whether they have refined their portfolios to represent their skills, competencies and passions for their job searches. In a required internship course, students gain real-world experience directed by an internship supervisor while simultaneously guided in their professional development and reflection by an instructor. At the conclusion of the internship, supervisors evaluate students on their use of professional tools, technology and techniques in a form submitted to the instructor. The program will also use survey results from the ASU Undergraduate Alumni Survey, which is administered by the ASU University Office of Evaluation and Educational Effectiveness. The survey questions, "During your undergraduate studies, how effectively do you think ASU prepared you for: 1) a job; or 2) graduate or professional study in your field?" will be used to assess students. Data

collected will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success.

Learning Outcome 3: Students will critically evaluate information, content and research in professional contexts.

- **Concepts:** researching audience interests, needs and behaviors; identifying reliable sources and avoiding misinformation; evaluating platform algorithms and monetization models; ethical considerations in targeting and messaging; adapting strategies to trends and audience feedback.
- **Competencies:** Students analyze audience data to guide content decisions; apply research methods to develop relevant, meaningful content; critically evaluate platform choices and monetization strategies; identify and address ethical challenges in engagement and influence; and make strategic decisions about content direction and partnerships.
- **Assessment Process and Measures Summary:** Students will be evaluated on assignments using a faculty-developed rubric and an evaluation form in the capstone and internship courses. Instructors will use rubrics to assess student artifacts from the capstone course, and a supervisor evaluation form to evaluate learning in the internship course. In the capstone course assignment, students must produce content work to professional standards, and instructors will use a critical thinking and problem-solving rubric to assess student artifacts. In a required internship course, students gain real-world experience directed by an internship supervisor while simultaneously guided in their professional development and reflection by an instructor. At the conclusion of the internship, supervisors evaluate students on their critical thinking and problem solving in a form submitted to the instructor. Data collected will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success.

Projected Enrollment for the First Three Years:

Year 1: 50
Year 2: 116
Year 3: 202

Evidence of Market Demand:

A 2023 study revealed 27 million paid content creators in the U.S. alone, with nearly 12 million doing so full-time (Keller Advisory Group, 2023). Plus, the 2024 Digital Teen Earnings report not only highlights Phoenix as one of the nation's leading cities for digital earnings among teens, but also reports that YouTubers, TikTok creators and online streamers are three of the top 10 most-desired jobs among Generation Alpha. Successful influencers blend strong content strategy with effective content production; these competencies are often developed in separate programs. Graduates of the proposed program would emerge prepared for careers in content strategy, influencing, brand development, social media management, audience engagement and more.

To inform its comprehensive curriculum revision, the Cronkite School conducted a job market demand study using three key sources: institutional data from IPEDS of the US Department of Education, education and occupation relationships calculated from the American Community Survey (2022, 5 Year Sample) from the U.S. Census Bureau, and occupational employment forecasts from the Bureau of Labor Statistics. People who hold journalism and mass communication degrees tend to work in a concentrated set of occupations: The top thirty most

common occupations for these workers account for 48.8% of total employment of people with degrees in the field. Despite this concentration, these occupations are diverse and include many occupations traditionally associated with journalism and mass communication, including marketing managers and public relations specialists.

The Bureau of Labor Statistics projects growth for careers across the field, both in Arizona and nationwide. The top thirty occupations among workers with a degree in a journalism and mass communication-related field employ 34.7 million people in the U.S. and pay an average wage of $84,884. The median annual wage for media and communication workers was $66,320 in May 2023, higher than the median annual wage for all occupations ($48,060). The labor market trends for these occupations in Arizona match the national-level trends, with marketing roles capturing the highest salaries.

Similar Programs Offered at Arizona Public Universities:

Neither the University of Arizona nor Northern Arizona University offers a degree that blends content and strategy. The University of Arizona offers a BA and a Bachelor of Science in Marketing, a BS in Strategic Communication, a BS in Creative Media and Film as well as journalism degrees. Northern Arizona University offers a BS in Business Administration with a concentration in Marketing, a non-ACEJMC-accredited BA in Journalism, as well as a BA in Live and Immersive Arts and a BFA and BA in Fine Arts in Film and Television, which advances immersive and cinematic storytelling.

Arizona State University remains the nation's largest producer of journalism and mass communication-related bachelor's degrees.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing college resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount:
Fee Justification:

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: BA in Sports Strategic Communication
Academic Department: Walter Cronkite School of Journalism and Mass Communication
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: 2026
Brief Program Description: The Bachelor of Arts in Sports Strategic Communication prepares students to thrive in the fast-paced sports media industry by blending strategic media, public relations, marketing and storytelling with sports expertise. The proposed program offers specialized knowledge and experience in sports communication, preparing students for careers in team and league communications, media relations, athlete and brand storytelling and integrated communications for sports clients. Aligned with ASU's commitment to enable student success, the program equips students with practical skills in media relations, marketing and digital storytelling. Students engage in community partnerships with sports organizations, reflecting the design aspiration to "be socially embedded," while leveraging ASU's unique location in a sports-centric market as part of "leverage our place." Graduates are prepared to contribute to the economic and cultural health of local and global sports industries.
Learning Outcomes and Assessment Plan: **Learning Outcome 1:** Students will apply the values, principles, ethics and legal standards of sports strategic communication in media work. • **Concepts:** principles of strategic communication (truth, accuracy, fairness, timeliness, privacy, accountability, advocacy); ethics specific to sports communication

(transparency with fans, avoiding conflicts with teams/leagues, accurate representation); legal standards (First Amendment, intellectual property, publicity rights of athletes, privacy laws); inclusivity and equitable representation in sports messaging; the cultural role of sports communication in communities

- **Competencies:** Students will be able to apply ethical principles in creating sports-focused strategic content and campaigns; recognize and navigate potential conflicts of interest with teams, leagues and sponsors; demonstrate understanding of legal issues in sports communication (e.g., image rights); review messages for fairness, accuracy and respectful representation; and reflect on sports communication's impact on fans, communities and public discourse
- **Assessment Process and Measures Summary:** Instructors will use rubrics to assess student assignment artifacts from the media ethics course and the media law course. In the media ethics course, students will be assessed via two case studies where students explore concepts in foundational ethics and learn the values, principles and ethical standards across mass communications professions. In the media law course, students will produce two case studies where students explore landmark media law cases, concepts in press freedom and the First Amendment, and learn the legal standards across mass communications professions. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success.

Learning Outcome 2: Students will create sports content and campaigns using professional tools, technology and techniques.

- **Concepts:** sports-focused storytelling (engaging fans, building narratives, athlete branding); content creation (multimedia production (video highlights, social media graphics, podcasts); campaign planning (fan engagement strategies, event promotion, sponsorship integration); tools and platforms (social media management, content scheduling, analytics dashboards); project and client management in a sports context
- **Competencies:** Students will be able to develop fan-centered content and campaigns that resonate with sports audiences; apply persuasive storytelling tailored to sports contexts and platforms; plan and execute sports communication campaigns using industry-standard tools; produce multimedia content (e.g., highlight reels, social graphics) with professional tools; and manage timelines, events, as well as sponsor and client expectations.
- **Assessment Process and Measures Summary:** Instructors will use rubrics to assess student assignment artifacts from the capstone course and professional development course and a supervisor evaluation form to evaluate learning in the internship course. The ASU Undergraduate Alumni Survey will also be used. In the capstone course assignment, students must produce strategic sports communication work to professional standards. In the professional development course, students' professional portfolios will be assessed by faculty with a rubric. Students' portfolios are a curation of the professional-level work they have created throughout their undergraduate careers, and within this course, they are evaluated on whether they have refined their portfolios to represent their skills, competencies and passions for their job searches. In a required internship course, students gain real-world experience directed by an internship supervisor while simultaneously guided in their professional development and reflection by an instructor. At the conclusion of the internship, supervisors evaluate students on the learning outcomes. The program will also use survey results from the ASU Undergraduate Alumni Survey, which is administered by the ASU University Office of Evaluation and Educational Effectiveness. The survey question, "During your

undergraduate studies, how effectively do you think ASU prepared you for: 1) a job; or 2) graduate or professional study in your field?" will be used to assess students. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success.

Learning Outcome 3: Students will critically evaluate information, content and research in professional contexts.

- **Concepts:** audience segmentation in sports (fan demographics, loyalty tiers, engagement patterns); research methods for fan sentiment, brand perception, and sponsorship effectiveness; evaluating media channels and platforms for sports messaging; ethical challenges in representing teams, athletes, and fan communities; decision-making frameworks for high-pressure event or crisis scenarios
- **Competencies:** Students will be able to analyze sports audiences to guide communication strategy; evaluate messaging and channel choices for fan engagement; apply research insights to plan effective, ethical campaigns; identify potential ethical conflicts (e.g., sensationalism, athlete privacy); and make strategic decisions under deadlines and public scrutiny.
- **Assessment Process and Measures Summary:** Instructors will use rubrics to assess student artifacts from the capstone course and a supervisor evaluation form to evaluate learning in the internship course. In the capstone course assignment, students must produce strategic sports communication work to professional standards. In a required internship course, students gain real-world experience directed by an internship supervisor while simultaneously guided in their professional development and reflection by an instructor. At the conclusion of the internship, supervisors evaluate students on their critical thinking and problem solving in a form submitted to the instructor. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success.

Learning Outcome 4: Students will produce clear, accurate and engaging written content that meets professional standards.

- **Concepts**: writing formats in sports communication (press releases, social posts, marketing copy, event scripts); audience adaptation (fan bases, team cultures, sponsorship messaging); persuasive writing techniques for sports contexts; grammar, AP style, sourcing and attribution in sports media; ethical considerations (respecting athletes' privacy, avoiding sensationalism)
- **Competencies:** Students write clear, persuasive copy for sports marketing and communication contexts; adapt style and tone for fan bases, teams, sponsors and platforms; apply best practices for sourcing, attribution and ethical storytelling; edit for clarity, correctness and audience impact; and produce writing that supports campaign goals and fan engagement strategies.
- **Assessment Process and Measures Summary:** Instructors will use rubrics to assess student artifacts from media writing, advanced media writing, and the capstone course. Instructors will use a rubric to assess students' short writing assessment from the media writing course. In this writing assessment, students must apply their understanding of the foundations of media writing, including structural elements (such as ledes and nut graphs), information synthesis (such as data synthesis and quote usage), formats (including news writing, press releases and profiles), and professional standards (including attribution and deadlines). In the advanced media writing course, students advance their writing skills with specialized approaches, format and style. Students

complete a short writing assessment, assessed with a rubric by a panel of faculty and professionals. In the capstone course, students produce strategic sports communication work to professional standards. Faculty evaluate students' writing skills at the end of the course using a rubric. Data collected will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success.

Projected Enrollment for the First Three Years:

Year 1: 30
Year 2: 64
Year 3: 138

Evidence of Market Demand:

The Cronkite School conducted a job market demand study using three key sources: institutional data from IPEDS of the US Department of Education, education and occupation relationships calculated from the American Community Survey (2022, 5 Year Sample) from the U.S. Census Bureau, and occupational employment forecasts from the Bureau of Labor Statistics.

People who hold journalism and mass communication degrees tend to work in a concentrated set of occupations: The top thirty most common occupations for these workers account for 48.8% of total employment of people with degrees in the field. Despite this concentration, these occupations are diverse and include many occupations traditionally associated with journalism and mass communication, including marketing managers, public relations specialists, market research analysts, and producers and directors.

The Bureau of Labor Statistics projects growth for careers across the field, both in Arizona and nationwide. The top thirty occupations among workers with a degree in a journalism and mass communication-related field employ 34.7 million people in the U.S. and pay an average wage of $84,884. The BLS projects these occupations will increase employment by 396,000 between 2022–2032. The labor market trends for these occupations in Arizona match the national-level trends: These occupations employ 574,557 people in Arizona and pay an average of $82,282. In Arizona, marketing managers earned the most (mean annual wage of $155,110).

Opportunities to activate these careers in the sports industry are also on the rise: According to a 2024 report, Sports Market Opportunities and Strategies to 2033, the global sport industry will surpass $862 billion by 2033, fueled by increases in sports tourism, e-commerce and globalization.

Similar Programs Offered at Arizona Public Universities:

The University of Arizona offers a Bachelor of Science in Journalism and a BS in Strategic Communication, which advance professional media skills. A BA in Communication Studies program equips students with "advanced knowledge of relational, group, and public communication through analysis of communication models and theories."

Northern Arizona University offers a non-ACEJMC-accredited BA in Journalism. Related degrees that do not include mass communication or media production are the BA in Communication (in which students examine the processes and effects of communication) and the BA in Global

Media Studies (an interdisciplinary online degree that prepares students to gather and analyze information in various contexts).

There are no programs that focus specifically on sports communication.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing college resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount:

Fee Justification:

Specialized Accreditation? **YES** NO

Accreditor: The program is designed to comply with the requirements of the Cronkite School's specialized accreditor, the Accrediting Council on Education in Journalism and Mass Communication. The Council evaluates programs against the objectives that units and institutions set for themselves, and against eight standards that prepare students for professional careers in mass communication — among them, curriculum and instruction, facilities and equipment, and public service. Accredited programs feature coursework in professional media skills; internships in the field; involvement by professionals in instruction and assessment; modern media equipment; and instruction in nine core values and competencies (including media law, ethics, writing, numeracy and statistics, and accuracy).

The program is also designed to meet the requirements for the Certification in Education for Academic Programs in Public Relations, designed by the Public Relations Society of America as a complement to accreditation by the Accrediting Council on Education in Journalism and Mass Communication. CEPR-certified programs demonstrate effectiveness in preparing students for professional careers in strategic communication, and include required coursework in core principles, ethics, writing and content creation, research and campaigns.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: BS in Media Production
Academic Department: Walter Cronkite School of Journalism and Mass Communication
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses, and Los Angeles
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: 2026
Brief Program Description: The Bachelor of Science in Media Production trains students in the technical and creative aspects of multimedia content creation, from video production to digital storytelling. Students focus on creating live productions (news, sports and events); studio operations and control-room technology; and real-time communication for TV, radio and digital platforms. Students develop skills in broadcasting technology and workflows, studio production, on-air presentation, audio production, media writing and content performance analysis. Graduates are prepared for careers as a producer; studio director; news, sports or live event director or producer; videographer; podcaster, and may also consider technical roles including camera operator, sound engineer and technical director. This program formalizes the Cronkite School's media production pathways within its existing accredited journalism degree programs (currently ranked No. 1 in the nation by the Broadcast Education Association based on student media work) and seeks to leverage new opportunities in ASU's geographic locations, media markets and athletic conference. "Valuing entrepreneurship" is central to the program as students are encouraged to create innovative work that meets the demands of the evolving media landscape. Students engage with the community through local partnerships (emphasizing "being socially embedded") and produce projects that reflect the culture and stories of the region ("leverage our place"). Arizona State University remains the nation's largest producer of journalism and mass

communication-related bachelor's degrees. The proposed degree will insert ASU into this space. The Cronkite School has long offered media production as an option within its accredited journalism degrees, with elective and capstone-level courses in media production. As a result, the school's "Cronkite News" show has many times been recognized as the No. 1 student-produced newscast in the country, and the school has, for three consecutive years (the only years the Broadcast Education Association has ever ranked schools) been named the No. 1 journalism school based solely on student work.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will apply the values, principles, ethics and legal standards of media production in media work.

- **Concepts:** core production principles (truth, accuracy, fairness, timeliness, privacy, accountability); professional ethics in production (authenticity, representation, avoiding exploitation); legal standards (copyright, intellectual property, release forms, privacy laws); responsible storytelling (cultural sensitivity, avoiding stereotypes); the role of media producers in shaping public discourse
- **Competencies**: Students will be able to apply ethical principles in planning and creating media content; recognize and address issues of fairness, representation and authenticity; demonstrate understanding of legal rights and responsibilities in production; review content for ethical implications and audience impact; and reflect on the producer's responsibility to serve the public interest.
- **Assessment Process and Measures Summary:** Instructors will use faculty-developed rubrics to assess student case study assignment artifacts from the media ethics course and media law course. In the media ethics course, students explore concepts in foundational ethics and learn the values, principles and ethical standards across mass communications professions. In the media law course, students explore landmark media law cases, concepts in press freedom and the First Amendment, and learn the legal standards across mass communications professions. Data collected will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success.

Learning Outcome 2: Students will create media productions for mass audiences using professional tools, technology and techniques.

- **Concepts:** production planning (scripting, storyboarding, budgeting); technical skills (camera operation, lighting, sound recording, editing); digital post-production (color correction, audio mixing, visual effects); platform adaptation (web video, social clips, podcasts, broadcast formats); project management (scheduling, team collaboration, client relations)
- **Competencies:** Students will be able to plan and organize production projects effectively; use industry-standard tools and techniques to create high-quality content; operate cameras, lighting and audio equipment professionally; edit and post-produce content to meet technical and aesthetic standards; and deliver content optimized for chosen platforms and audiences.
- **Assessment Process and Measures Summary:** Instructors will use faculty-developed rubrics to assess student artifacts from the capstone course and professional development course. In the capstone course assignment, students must produce media production work to professional standards. In the professional development course, students' professional portfolios will be assessed by faculty with a rubric. Students' portfolios are a curation of the professional-level work they have created throughout their undergraduate careers; and within this course they are evaluated on whether they have

refined their portfolios to represent their skills, competencies and passions for their job searches. In a required internship course, students gain real-world experience directed by an internship supervisor. At the conclusion of the internship, supervisors evaluate students on their use of professional tools, technology and techniques in a form submitted to the instructor. The program will also use survey results from the ASU Undergraduate Alumni Survey, which is administered by the ASU University Office of Evaluation and Educational Effectiveness. The survey questions, "During your undergraduate studies, how effectively do you think ASU prepared you for: 1) a job; or 2) graduate or professional study in your field?" will be used to assess students. Data will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success.

Learning Outcome 3: Students will critically evaluate information, content and research in professional contexts.

- **Concepts:** research for production (audience analysis, market trends, story development); evaluating sources and permissions (archives, music, footage); audience targeting (understanding viewing habits and expectations); ethical decision-making in representing subjects and stories; budgeting and resource allocation strategies
- **Competencies:** Students will be able to research and develop ideas that resonate with target audiences; evaluate sources and materials for accuracy, permissions and suitability; analyze audience data to inform production strategies; make ethical decisions about content choices and representations; and balance creative goals with practical production constraints.
- **Assessment Process and Measures Summary:** Instructors will use faculty-developed rubrics to assess student artifacts from the capstone course, and a supervisor evaluation form will be used to evaluate learning in the internship course. Instructors will use a critical thinking and problem-solving rubric to assess the capstone course assignment, wherein students must produce media production work to professional standards. In the internship course, students gain real-world experience directed by an internship supervisor while simultaneously guided in their professional development and reflection by an instructor. At the conclusion of the internship, supervisors evaluate students on their critical thinking and problem solving in a form submitted to the instructor. Data will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success.

Learning Outcome 4: Students will produce clear, accurate and engaging written content that meets professional standards.

- **Concepts**: production writing formats (scripts, outlines, shot lists, treatments); narrative structure (beginnings, conflict, resolution); visual storytelling principles; dialogue writing and voiceover scripts; and ethical considerations in storytelling
- **Competencies:** Students will be able to write clear, structured scripts for various production formats; develop compelling narratives tailored to medium and audience; incorporate visual storytelling techniques effectively; adapt writing style for genre, platform and audience expectations; and edit scripts for clarity, accuracy and impact.
- **Assessment Process and Measures Summary:** Instructors will use rubrics to assess student artifacts from media writing, advanced media writing, and the capstone course. Instructors will use a rubric to assess students' short writing assessment from the media writing course. In this writing assessment, students must apply their understanding of the foundations of media writing, including structural elements (such as ledes and nut graphs), information synthesis (such as data synthesis and quote usage), formats

(including news writing, press releases and profiles), and professional standards (including attribution and deadlines). In the advanced media writing course, students complete a short writing assessment, assessed with a rubric by a panel of faculty and professionals. In the capstone course, students produce media production work to professional standards. Faculty evaluate students' writing skills at the end of the course using a rubric. Data collected will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success.

Projected Enrollment for the First Three Years:

Year 1: 30
Year 2: 64
Year 3: 138

Evidence of Market Demand:

The Cronkite School conducted a job market demand study using three key sources: institutional data from IPEDS of the US Department of Education, education and occupation relationships calculated from the American Community Survey (2022, 5 Year Sample) from the U.S. Census Bureau, and occupational employment forecasts from the Bureau of Labor Statistics.

People who hold journalism and mass communication degrees tend to work in a concentrated set of occupations: The top thirty most common occupations for these workers account for 48.8% of total employment of people with degrees in the field. Despite this concentration, these occupations are diverse and include many occupations traditionally associated with journalism and mass communication, including broadcast announcers and radio disc jockeys; television, video and film camera operators and editors; and producers and directors.

The Bureau of Labor Statistics projects growth for careers across the field, both in Arizona and nationwide. The top thirty occupations among workers with a degree in a journalism and mass communication-related field employ 34.7 million people in the U.S. and pay an average wage of $84,884. The BLS projects these occupations will increase employment by 396,000 between 2022 and 2032. Notably, employment of producers and directors is projected to grow 8 percent from 2023 to 2033, faster than the average for all occupations.
The labor market trends for these occupations in Arizona match the national-level trends: These occupations employ 574,557 people in Arizona and pay an average of $82,282.

Similar Programs Offered at Arizona Public Universities:

The University of Arizona offers a BS in Journalism, a BS in Creative Media and Film, and a BS in Immersive Media and Games, which all advance professional media skills but do not focus specifically on live production and studio operations.

Northern Arizona University offers a non-ACEJMC-accredited BA in Journalism, as well as a BA in Live and Immersive Arts and a BFA and BA in Fine Arts in Film and Television, which advances immersive and cinematic storytelling.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing college resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount:

Fee Justification:

Specialized Accreditation? **YES** NO

Accreditor: The program is designed to comply with the requirements of the Cronkite School's specialized accreditor, the Accrediting Council on Education in Journalism and Mass Communication. The Council evaluates programs against the objectives that units and institutions set for themselves, and against eight standards that prepare students for professional careers in mass communication — among them, curriculum and instruction, facilities and equipment and public service. Accredited programs feature coursework in professional media skills; internships in the field; involvement by professionals in instruction and assessment; modern media equipment; and instruction in nine core values and competencies (including media law, ethics, writing, numeracy and statistics, and accuracy).

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MA in Journalism
Academic Department: Walter Cronkite School of Journalism and Mass Communication
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 33
Proposed Inception Term: 2026
Brief Program Description: The Master of Arts in Journalism prepares students to become ethical, innovative and globally engaged journalists who inform and empower communities. While the Cronkite School has delivered its top-ranked journalism content within the Master of Mass Communication for many years, elevating it as a standalone MA in Journalism more accurately reflects the changing media marketplace. Students will acquire advanced skills in reporting, writing and multimedia storytelling; apply standards of media law and ethics in professional settings; create professional-level (and often award-winning) news content that reaches millions of viewers/readers; and develop leadership capacity that positions graduates to strategize sustainable newsrooms and steer the industry forward. Graduates emerge ready to create news content in any medium (video, audio, digital), for any media market (local, national, international), covering breaking news, features, enterprise stories and more. Offering the No. 1 journalism program in news, ranked four years in a row by the Broadcast Education Association, the Cronkite School is a premier destination for graduate education in journalism. Arizona State University is the ideal home for an MA in Journalism. Combining its status as the nation's top-ranked journalism school with a dynamic media market, including its own media properties like Cronkite News, Arizona PBS, Newswell and others, an MA in Journalism housed within the Cronkite School would offer unmatched real-world experience. Cronkite students consistently produce award-winning work across news platforms, including a story named a 2025 Pulitzer Prize finalist, demonstrating the school's leadership in journalistic

excellence and innovation. By expanding its graduate offerings, ASU can elevate advanced journalistic approaches for the next generation of reporters, editors, and media leaders in Arizona and beyond.

By rooting itself in "conducting use-inspired research" and "engaging globally," the program equips students to report on complex global stories with cultural sensitivity and accuracy while "practicing principled innovation" to ensure that their work upholds the highest ethical standards, analytical and multimedia skills to address pressing social issues. By embracing the design aspiration to "be socially embedded," students collaborate with local, national and international media organizations to support a democratic society and produce journalism that makes a tangible impact in Arizona communities and beyond.

Backed by the Cronkite School's reputation for excellence in journalism education, the program provides students with the tools, approaches and networks to become leaders in the evolving media landscape.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will apply the values, principles, ethics and legal standards of journalism in media work.

- **Concepts:** principles of journalism (truth, accuracy, fairness, timeliness, privacy, accountability); advanced ethical challenges (conflicts of interest, independence, transparency, source protection); legal considerations (First Amendment, libel, privacy, access laws, shield laws); diversity of perspectives and equitable sourcing; and journalism's role in democratic societies and public accountability
- **Competencies:** Students will be able to apply professional ethical principles in complex reporting contexts; navigate advanced ethical dilemmas (e.g., protecting sources vs. public interest); demonstrate mastery of legal rights and constraints in journalism practice; critically evaluate reporting for fairness, accuracy and representation; and reflect on journalism's mission to serve the public good.
- **Assessment Process and Measure Summary:** Students will apply the values, principles, ethics and legal standards of journalism in media work that they learn in the MA in Journalism program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Ethics and Leadership course and Law course. Students' two case studies from the Ethics and Leadership course will be assessed. In these assignments, students must explore concepts in foundational ethics and learn the values, principles and ethical standards across mass communications professions, examining media ethics through the lens of leadership roles and decision making across the industry. Students' two case studies from their Law course will be assessed. In these case studies, students explore landmark media law cases, concepts in press freedom and the First Amendment, and learn the legal standards across mass communications professions. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 2: Students will create clear, accurate and compelling journalism for mass audiences using professional tools, technology and techniques.

- **Concepts:** advanced reporting (investigative techniques, source development, Freedom of Information Act requests); multimedia storytelling (video, audio, data visualization, interactive design); platform adaptation (long-form writing, podcasts, social media, newsletters); content production on tight deadlines; and leadership in newsroom workflows and project management
- **Competencies:** Students will be able to report, write and produce complex, in-depth stories using professional standards; apply investigative techniques to uncover important stories; use advanced multimedia tools to deliver compelling narratives; adapt content for diverse platforms and audience needs; and lead projects effectively to meet editorial and ethical goals.
- **Assessment Process and Measure Summary:** Students will create clear, accurate and compelling journalism for mass audiences using professional tools, technology, and techniques in the MA in Journalism program through required coursework and will be assessed on various assignments using faculty-developed rubrics and indirect feedback via a student exit survey. Instructors will use rubrics to assess student artifacts from the capstone course. The University Office of Evaluation and Educational Effectiveness Graduate & Law Student Report Card will also be used for indirect feedback. Students must produce journalism work to professional standards in the capstone course. Faculty evaluate students' use of professional tools, technology and techniques at the end of the course using a rubric. Throughout their graduate study, students create professional-level work that they curate in a portfolio. As their study concludes, students refine their portfolios to represent their skills, competencies and passions during their job searches; these portfolios are evaluated in the capstone course. The program will use survey results from UOEEE's Graduate & Law Student Report Card. The survey question on professional skill readiness will be used to assess students. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 3: Students will critically evaluate information, content and research in professional contexts.

- **Concepts:** advanced verification and fact-checking methods; data analysis for reporting and storytelling; audience research (engagement analytics, feedback loops); evaluating sources for bias and credibility; and ethical decision-making frameworks in high-stakes coverage
- **Competencies:** Students will be able to critically assess the credibility and accuracy of complex information; apply research and data analysis to enhance reporting; evaluate audience needs and responses to inform editorial decisions; make sound ethical decisions in coverage planning; and incorporate audience feedback to improve practice.
- **Assessment Process and Measure Summary:** Students will critically evaluate information, content and research in professional contexts in the MA in Journalism program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Media Models, Organizations and Leadership course and capstone course. Students' organizational analysis demonstrating data synthesis and strategic recommendations will be assessed in the Media Models, Organizations and Leadership

course. In this course students explore the frameworks, revenue models and leadership structures and styles of media businesses. Students will produce journalism work to professional standards in their capstone course. Faculty will evaluate students' critical thinking and problem-solving skills at the end of the course using a rubric. Data will be collected by the curriculum and assessment analyst and analyzed by the analyst and senior associate dean. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 4: Students will produce clear, accurate and engaging written content that meets professional standards.

- **Concepts:** advanced news and feature writing structures; investigative and narrative storytelling techniques; incorporating data, quotes and supporting evidence; editing for accuracy, clarity and style; and adapting voice and tone for platform and audience
- **Competencies:** Students will be able to write sophisticated, clear and engaging stories across formats; incorporate thorough sourcing, attribution and supporting data; edit for professional accuracy and style; adapt content for varied audiences and media channels; and maintain ethical standards in all writing.
- **Assessment Process and Measure Summary:** Students will produce clear, accurate and engaging written content that meets professional standards in the MA in Journalism program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Multimedia Storytelling course and the capstone course. Students' benchmark writing exercise will be assessed in the Multimedia Storytelling course. In this assignment, students advance their writing skills with specialized approaches, formats, styles and standards of media professions. Students' journalism work in the capstone course will be assessed with a writing rubric. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 5: Students will evaluate leadership approaches across professional media contexts.

- **Concepts:** leadership roles in newsroom settings (mentoring, managing teams); project management (planning, scheduling, meeting deadlines); innovation in journalism (new formats, audience engagement, sustainability models); collaborative workflows (cross-functional teams, community partnerships); and ethical leadership (transparency, accountability, fostering inclusion)
- **Competencies:** Students will have the ability to lead reporting projects and collaborative editorial teams; manage time, resources and priorities to achieve journalistic goals; innovate in storytelling techniques and audience engagement strategies; build and maintain collaborative partnerships inside and outside newsrooms; and model ethical leadership and inclusive practices.

- **Assessment Process and Measure Summary:** Students will evaluate leadership approaches across professional media contexts in the MA in Journalism program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Media Ethics and Leadership course; Media Models, Organizations and Leadership course; and capstone course. Students' two case studies demonstrating ethical leadership approaches in response to real-world media dilemmas will be assessed in the Media Ethics and Leadership course. In this course, students explore concepts in foundational ethics and learn the values, principles and ethical standards across mass communications professions, examining media ethics through the lens of leadership roles and decision making across the industry. Students' organizational analysis demonstrating their understanding of leadership models and structural dynamics in media organizations will be assessed in the Media Models, Organizations and Leadership course. In this course, students explore the frameworks, revenue models and leadership structures and styles of media businesses. Students' thought leadership work will be assessed in the capstone course. In the capstone course, students produce a media research project and engage audiences around their research. Data will be collected by the curriculum and assessment analyst and analyzed by the analyst and senior associate dean. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Projected Enrollment for the First Three Years:

Year 1: 20
Year 2: 25
Year 3: 31

Evidence of Market Demand:

The Cronkite School conducted a job market demand study using three key sources: institutional data from IPEDS of the US Department of Education, education and occupation relationships calculated from the American Community Survey (2022, 5 Year Sample) from the U.S. Census Bureau and occupational employment forecasts from the Bureau of Labor Statistics.

People who hold journalism and mass communication degrees tend to work in a concentrated set of occupations. The top thirty most common occupations for these workers account for 48.8% of the total employment of people with degrees in the field. Despite this concentration, these occupations are diverse and consist of many occupations traditionally associated with journalism and mass communication, including news analysts, reporters and journalists; broadcast announcers and radio disc jockeys; public relations specialists; television, video and film camera operators and editors; and producers and directors.

The Bureau of Labor Statistics projects growth for careers across the field, both in Arizona and nationwide. The top thirty occupations among workers with a degree in a journalism and mass communication-related field employ 34.7 million people in the U.S. and pay an average wage of $84,884. The BLS projects that the field overall will increase employment by 396,000 jobs

between 2022 and 2032. While news analysts, reporters and journalists project slight declines, producers and directors project strong increases. The occupation projected to experience the greatest growth between 2022 and 2032 is general and operations manager, with an anticipated increase of 4.2% or 147,300 jobs. The program's emphasis on media leadership prepares graduates for these roles. The labor market trends for occupations in journalism and mass communication in Arizona match the national-level trends: These occupations employ 574,557 people in Arizona and pay an average of $82,282.

Cronkite master's students studying journalism go on to lead major newsrooms in reporting, editing and producing in on-air and administrative roles. Specific examples include leading streaming content at The Hill, leading digital strategy at McClatchy, editing Fortune magazine and reporting for the Associated Press, NPR, NBC and numerous other newsrooms.

Media careers have always been competitive, and audiences are increasingly discerning. Yet, employers consistently turn to the Cronkite School and its dedicated media careers team for top talent. In its 2024 reaccreditation report, the site team (composed of academic leaders and media professionals) praised the program's "extraordinary experiential-learning opportunities, both co-curricular and extracurricular; myriad partnerships with industry and nonprofits; strong academic and career advising, evidenced by graduation rates and outstanding job placement; [and] a large and loyal alumni base," and noted, "Cronkite is considered a global leader in hands-on learning and known for its 'teaching hospital approach' to professional preparation of journalists and media practitioners."

Similar Programs Offered at Arizona Public Universities:

The University of Arizona offers an MA in Journalism and an MA in Bilingual Journalism; both programs focus on journalism research and traditional reporting.

Northern Arizona University does not offer graduate degrees in journalism.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $1,000 per semester

Fee Justification: Students in this program will use professional-grade equipment, software and digital storage, and access specialized services and subscriptions.

Specialized Accreditation? **YES** NO

Accreditor: The program complies with the requirements of the Cronkite School's specialized accreditor, the Accrediting Council on Education in Journalism and Mass Communication; the program was last accredited in spring 2024. The Council evaluates programs against the objectives that units and institutions set for themselves, and against eight standards that prepare students for professional careers in mass communication — among them, curriculum and instruction, facilities and equipment, and public service. Accredited programs feature coursework in professional media skills; internships in the field; involvement by professionals in instruction and assessment; modern media equipment; and instruction in nine core values and competencies (including media law, ethics, writing, numeracy and statistics, and accuracy).

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MA in Science Communication
Academic Department: Walter Cronkite School of Journalism and Mass Communication
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 33
Proposed Inception Term: 2026
Brief Program Description: The MA in Science Communication equips students to become expert communicators, translating scientific research into meaningful public engagement. Students will partner with researchers and institutions within and beyond ASU as clients to translate scientific discovery and thought leadership into fact-based multimedia, preparing them for careers as media creators, strategists and analysts in news organizations, universities and research institutions, government agencies, museums, non-profit organizations, corporations (in fields like biotech and pharmaceuticals) and educational institutions. Students in the MA program in Science Communication will gain skills in translating complex scientific research into compelling stories that resonate with broad audiences. They will learn how to use multimedia techniques — video and audio, science storytelling and social campaigns — to communicate science clearly and creatively. Students will also be trained to position researchers as credible public experts and build community trust through accurate, engaging and inclusive communication strategies. Offering this program is critical in an age of misinformation, content fatigue and literacy challenges, as it empowers students to bring critical research to the public in ways that inform, inspire and elevate its impact on society. Rooted in "conducting use-inspired research," the program trains students to connect research with public value. Emphasizing "practicing principled innovation," students create communication strategies that are both impactful and ethical. Collaboration with scientists,

media professionals, and community organizations reflects the design aspiration of "fusing intellectual disciplines" and ensures real-world impact.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will apply the values, principles, ethics and legal standards of science communication in media work.

- **Concepts:** core science communication principles (truth, accuracy, fairness, timeliness, privacy, accountability, clarity); ethical challenges (avoiding hype, conflicts of interest e.g. funding, advocacy); legal considerations (intellectual property, privacy of research subjects, publication rights); transparency in communicating uncertainty and complexity; responsibility to foster public understanding of science
- **Competencies**: Students will be able to apply ethical principles to communicate scientific topics accurately; clearly identify conflicts of interest in representing research and organizations; outline legal rights and responsibilities in science communication; evaluate messages for clarity, fairness, and accuracy; and reflect on the communicator's responsibility to serve the public good.
- **Assessment Process and Measure Summary:** Students will apply the values, principles, ethics and legal standards of science communication in media work that they learn in the MA in Science Communication program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use the rubrics to assess student artifacts from the Ethics and Leadership course and Law course. Students' two case studies from the Ethics and Leadership course will be assessed. In these assignments, students must explore concepts in foundational ethics and learn the values, principles and ethical standards across mass communications professions, examining media ethics through the lens of leadership roles and decision making across the industry. Students' two case studies from their Law course will be assessed. In these case studies, students explore landmark media law cases, concepts in press freedom and the First Amendment and learn the legal standards across mass communications professions. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 2: Students will create science content and campaigns using professional tools, technology and techniques.

- **Concepts:** translating complex scientific language for lay audiences; visual communication (data visualization, infographics, multimedia storytelling); audience adaptation for public, policymakers and expert audiences; production tools (video, audio, social media, web platforms); strategic campaign planning for public engagement and science literacy
- **Competencies:** Students will be able to use storytelling and design to explain complex topics; apply professional tools to create high-quality multimedia content; adapt messages for various platforms and audience needs; and plan strategic outreach campaigns to improve public understanding.
- **Assessment Process and Measure Summary:** Students will create science content and campaigns using professional tools, technology and techniques in the MA in Science Communication program through required coursework and will be assessed on various

assignments using faculty-developed rubrics and indirect feedback via a student exit survey. Instructors will use rubrics to assess student artifacts from the capstone course. UOEEE's Graduate & Law Student Report Card will also be used for indirect feedback. Students must produce real news reporting, strategic communication, media production, research, etc. work to professional standards in the capstone course. Throughout their graduate study, students create professional-level work that they curate in a portfolio. As their study concludes, students refine their portfolios to represent their skills, competencies and passions during their job searches; these portfolios are evaluated in the capstone course. The program will use survey results from UOEEE's Graduate & Law Student Report Card. The survey question on professional skill readiness will be used to assess students. Data will be collected by the analyst and analyzed by the analyst and senior associate dean. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 3: Students will critically evaluate information, content and research in professional contexts.

- **Concepts:** evaluating scientific sources for credibility and accuracy; understanding peer review, consensus and uncertainty; identifying misinformation and pseudoscience; researching audience knowledge, beliefs and misconceptions; ethical simplification of complex science
- **Competencies**: Students will be able to critically assess scientific sources and claims for accuracy; apply verification methods to ensure clear, truthful communication; conduct audience research to inform communication strategies; identify and address misinformation in public contexts; and make ethical decisions about framing, simplification and risk communication.
- **Assessment Process and Measure Summary:** Students will critically evaluate information, content and research in professional contexts in the MA in Science Communication program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Media Models, Organizations and Leadership course and capstone course. Students' organizational analysis demonstrating data synthesis and strategic recommendations will be assessed in the Media Models, Organizations and Leadership course. In this course, students explore the frameworks, revenue models and leadership structures and styles of media businesses. Students will produce real news reporting, strategic communication, media production, research, etc. work to professional standards in their capstone course. Faculty will evaluate students' critical thinking and problem-solving skills at the end of the course using a rubric. Data will be collected by the analyst and analyzed by the analyst and senior associate dean. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 4: Students will produce clear, accurate and engaging written content that meets professional standards.

- **Concepts:** science writing formats: explainer articles, policy briefs, press releases, social posts; narrative storytelling for scientific topics; incorporating evidence, data and expert perspectives; editing for clarity, accessibility and correctness; ethical representation of scientific findings
- **Competencies:** Students will be able to write sophisticated, engaging science content for varied audiences; adapt writing style and format for different platforms and goals; incorporate expert perspectives and data clearly and accurately; edit content for professional clarity and ethical standards; and ensure writing avoids exaggeration and maintains public trust.
- **Assessment Process and Measure Summary:** Students will produce clear, accurate and engaging written content that meets professional standards in the MA in Science Communication program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Multimedia Storytelling course and capstone course. Students' benchmark writing exercise will be assessed in the Multimedia Storytelling course. In this assignment, students advance their writing skills with specialized approaches, formats, styles and standards of media professions. Students' science communication project in the capstone course will be assessed with a writing rubric. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 5: Students will evaluate leadership approaches across professional media contexts.

- **Concepts:** leadership in science communication teams and projects; advanced project management (planning, budgeting, scheduling); innovation in storytelling, technology and audience engagement; collaborative work with scientists, policymakers and media professionals; ethical leadership (transparency, inclusion, accountability)
- **Competencies:** Students will be able to lead science communication projects with strategic goals; manage complex projects on time and within budget; innovate in storytelling formats and engagement strategies; collaborate effectively with diverse partners and stakeholders; and model ethical leadership and inclusivity in science communication practice.
- **Assessment Process and Measure Summary:** Students will evaluate leadership approaches across professional media contexts in the MA in Science Communication program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Media Ethics and Leadership course; Media Models, Organizations and Leadership course; and capstone course. Students' two case studies demonstrating ethical leadership approaches in response to real-world media dilemmas will be assessed in the Media Ethics and Leadership course. In this course, students explore concepts in foundational ethics and learn the values, principles and ethical standards across mass communications professions, examining media ethics through the lens of leadership roles and decision making across the industry. Students' organizational analysis demonstrating their understanding of leadership models and structural dynamics in media organizations will be assessed in the Media Models, Organizations

and Leadership course. In this course, students explore the frameworks, revenue models and leadership structures and styles of media businesses. Students' thought leadership will be assessed in the capstone course. In the capstone course, students produce a science media project and engage audiences around their work; students will evaluate their ability to connect science to communities with thought leadership content. Data will be collected by the analyst and analyzed by the analyst and senior associate dean. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Projected Enrollment for the First Three Years:

Year 1: 16
Year 2: 19
Year 3: 22

Evidence of Market Demand:

Opportunities to activate communication careers in the science industry—from PR specialists and marketers to community educators and science storytellers—are on the rise. According to the Biotechnology Innovation Organization and the Council of State Bioscience Associations, the nation's bioscience industry employed nearly 2.3 million Americans across almost 150,000 U.S. business establishments in every state in 2023, increasing by nearly 15 percent since 2019. This growth outpaces the nation's private job sector. Arizona — home to fast-growing IT, semiconductor and energy sectors — is expected to see similar growth, and with it, an increase in roles that connect science with the communities these sectors serve.

The Cronkite School conducted a job market demand study using three key sources: institutional data from Integrated Postsecondary Education Data System (IPEDS) of the US Department of Education, education and occupation relationships calculated from the American Community Survey (2022, 5-Year Sample) from the U.S. Census Bureau, and occupational employment forecasts from the Bureau of Labor Statistics.

People who hold journalism/mass communication degrees tend to work in a concentrated set of occupations. The top thirty most-common occupations for these workers account for 48.8% of total employment of people with degrees in the field. Despite this concentration, these occupations are diverse and include many occupations traditionally associated with journalism and mass communication including marketing managers, public relations specialists, market research analysts and producers and directors.

The Bureau of Labor Statistics (BLS) projects growth for careers across the field, both in Arizona and nationwide. The top thirty occupations among workers with a degree in a journalism and mass communication-related field employ 34.7 million people in the U.S. and pay an average wage of $84,884. The BLS projects these occupations will increase employment by 396,000 between 2022–2032. The occupation, general and operations managers, is projected to experience the greatest growth between 2022-2032 at 4.2%, or 147,300 jobs. The labor market trends for these occupations in Arizona match the national-level trends. These occupations

employ 574,557 people in Arizona and pay an average of $82,282. In Arizona, marketing managers earn the most (mean annual wage of $155,110).

BLS data for communications specifically related to science shows a positive outlook across several dimensions. For example, advertising, marketing, promotions, public relations and sales managers within scientific and technical consulting fields are projected to grow by 9.6% in the next 10 years. Jobs at the intersection of scientific research and development and communications demonstrate strong earnings. Within Research and Development in the Social Sciences and Humanities, writers and editors earn a mean wage of $85,820, and marketing managers earn a mean wage of $163,240. These are careers in which the MA in Science Communication degree will prepare graduates to be leaders and innovators.

Similar Programs Offered at Arizona Public Universities:

No Arizona public university offers a graduate degree in Science Communication.

The University of Arizona offers an MA in Communication and an MA in Studies of Global Media, which explores theory, research and analysis across the communications fields, and a graduate certificate in Science Communication (intended for science professionals). Northern Arizona University offers an MA in Communication with an emphasis in Strategic Communication and a graduate certificate in Science Communication. The proposed degree emphasizes science communication's specialized skills and knowledge within a dedicated graduate degree.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $1,000 per semester, estimated completion in 12 months

Fee Justification: Students in this program will use professional-grade equipment, software and digital storage and access specialized services and subscriptions.

Specialized Accreditation? **YES** NO

Accreditor: The program is designed to comply with the requirements of the Cronkite School's specialized accreditor, the Accrediting Council on Education in Journalism and Mass Communication. The Council evaluates programs against the objectives that units and institutions set for themselves, and against eight standards that prepare students for

professional careers in mass communication — among them, curriculum and instruction, facilities and equipment and public service. Accredited programs feature coursework in professional media skills; internships in the field; involvement by professionals in instruction and assessment; modern media equipment; and instruction in nine core values and competencies (including media law, ethics, writing, numeracy and statistics, and accuracy). The program is also designed to meet the requirements for the Certification in Education for Academic Programs in Public Relations (CEPR), designed by the Public Relations Society of America as a complement to accreditation by the Accrediting Council on Education in Journalism and Mass Communication. CEPR-certified programs demonstrate effectiveness in preparing students for professional careers in strategic communication, and include required coursework in core principles, ethics, writing and content creation, research and campaigns.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MS in Media Production
Academic Department: Walter Cronkite School of Journalism and Mass Communication
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses, and Los Angeles
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 33
Proposed Inception Term: 2026
Brief Program Description: The Master of Science in Media Production offers advanced training in media technologies, creative storytelling and innovation. Students focus on producing live productions (news, sports and events); studio operations and control room technology; and real-time communication for TV, radio and digital platforms, nurturing skills in broadcasting technology and workflows, studio production and on-air presentation, audio production, media writing, and content performance analysis. Students learn all skills, roles and functions of production, including lighting and set management; direction, board operation and sound engineering; pre- and post-production; content strategy, budgeting and more. Graduates are prepared for careers as producers; studio directors; news, sports or live event directors or producers; videographers; and podcasters, and to perform technical roles including camera operator, sound engineer and technical director. This program formalizes the Cronkite School's media production focus within its existing accredited journalism degree programs and seeks to leverage new opportunities in our geographic locations, media markets and athletic conference. Arizona State University is uniquely positioned to lead as a national hub for media production, with its commitment to access and innovation aligning with industry demand for skilled, tech-savvy storytellers. Located in one of the fastest-growing media markets and competing in top athletic conferences, ASU offers unparalleled opportunities to produce live events, news and sports. Through its top-ranked mass communication school and strong ties to creative and technical communities, ASU can prepare graduates to shape the future of media across platforms and industries.

Students develop entrepreneurial skills through "valuing entrepreneurship," preparing them to lead in media production and technology innovation. By "fusing intellectual disciplines," the program encourages collaboration across creative and technical fields. Community-based projects and partnerships reflect the design aspiration to "be socially embedded," enabling students to create content that addresses social and cultural needs.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will apply the values, principles, ethics and legal standards of media production in media work.

- **Concepts:** core production principles (truth, accuracy, fairness, timeliness, privacy, accountability); advanced ethical challenges (representation, consent, authenticity, cultural sensitivity); legal considerations (copyright, intellectual property, licensing, privacy, release forms); responsibility of producers in shaping narratives and influencing audiences; and industry standards and professional codes of conduct
- **Competencies:** Students will have the ability to apply ethical principles in advanced production planning and execution; recognize and resolve ethical challenges in storytelling and representation; demonstrate understanding of legal rights and responsibilities in production contexts; evaluate content for fairness, accuracy, and cultural respect; and reflect on the producer's responsibility to inform and engage the public responsibly.
- **Assessment Process and Measure Summary:** Students will apply the values, principles, ethics, and legal standards of media production in media work that they learn in the MS in Media Production program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Ethics and Leadership course and Law course. Students' two case studies from the Ethics and Leadership course will be assessed. In these assignments, students must explore concepts in foundational ethics and learn the values, principles and ethical standards across mass communications professions, examining media ethics through the lens of leadership roles and decision making across the industry. Students' two case studies from their Law course will be assessed. In these case studies, students explore landmark media law cases, concepts in press freedom and the First Amendment, and learn the legal standards across mass communications professions. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 2: Students will create media productions for mass audiences using professional tools, technology, and techniques.

- **Concepts:** advanced production planning (budgeting, scheduling, crew management); Technical mastery (advanced camera work, lighting design, sound design); post-production workflows (editing, color grading, audio mixing, VFX); multi-platform adaptation (web video, streaming, social media, broadcast); and professional project management tools and techniques
- **Competencies:** Students have the ability to plan and manage complex production projects effectively; operate professional equipment at an advanced level; execute

sophisticated post-production processes; adapt content for diverse platforms and audiences; and lead production teams to deliver high-quality results on time.

- **Assessment Process and Measure Summary:** Students will create media productions for mass audiences using professional tools, technology, and techniques in the MS in Media Production program through required coursework and will be assessed on various assignments using faculty-developed rubrics and indirect feedback via a student exit survey. Instructors will use rubrics to assess student artifacts from the capstone course. The University Office of Evaluation and Educational Effectiveness (UOEEE) Graduate & Law Student Report Card (GLSRC) will also be used for indirect feedback. Students must produce media production work to meet professional standards in the capstone course. Throughout their graduate study, students create professional-level work that they curate in a portfolio assignment. As their study concludes, students refine their portfolios to represent their skills, competencies and passions during their job searches; the portfolio assignment is evaluated in the required capstone course. The program will use survey results from UOEEE's Graduate & Law Student Report Card (GLSRC). The survey question on professional skill readiness will be used to assess students. Data will be collected by the curriculum and assessment analyst and analyzed by the analyst and senior associate dean. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 3: Students will critically evaluate information, content, and research in professional contexts.

- **Concepts:** audience research methods (surveys, focus groups, analytics); evaluating scripts and concepts for feasibility and audience appeal; ethical representation and cultural consultation in pre-production; strategic decision-making in budgeting and resource allocation; and evaluating distribution channels and marketing strategies
- **Competencies:** Students will have the ability to conduct audience research to inform production choices; critically evaluate story ideas for audience engagement and feasibility; make strategic production decisions balancing creative vision and practical constraints; apply ethical frameworks to representation and storytelling choices; and plan distribution and marketing strategies to reach target audiences effectively.
- **Assessment Process and Measure Summary:** Students will critically evaluate information, content, and research in professional contexts in the MS in Media Production program through required coursework, and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Media Models, Organizations, and Leadership course and capstone course. Students' organizational analysis demonstrating data synthesis and strategic recommendations will be assessed in the Media Models, Organizations, and Leadership course. In this course, students explore the frameworks, revenue models and leadership structures and styles of media businesses. Students will produce media production work to professional standards in their capstone course. Faculty will evaluate students' critical thinking and problem-solving skills at the end of the course using a rubric. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in

scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 4: Students will produce clear, accurate, and engaging written content that meets professional standards.

- **Concepts:** advanced scriptwriting (structure, pacing, dialogue, visual storytelling); production documents (treatments, outlines, shot lists, budgets); writing for multi-platform delivery (web, social media, streaming, broadcast); ethical considerations in writing (authenticity, fairness, representation); and collaboration with directors, producers, and clients
- **Competencies:** Students will be able to write advanced, compelling scripts tailored to audience and platform; develop clear, detailed production documents to guide teams; adapt writing for various distribution formats and media contexts; edit written materials for clarity, accuracy, and audience impact; and incorporate feedback from collaborators to refine work.
- **Assessment Process and Measure Summary:** Students will produce clear, accurate, and engaging written content that meets professional standards in the MS in Media Production program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Multimedia Storytelling course and capstone course. Students' benchmark writing exercise will be assessed in the Multimedia Storytelling course. In this assignment, students advance their writing skills with specialized approaches, formats, styles and standards of media professions. Students' media production work in the capstone course will be assessed with a writing rubric. Data will be collected by the curriculum and assessment analyst and analyzed by the analyst and senior associate dean. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 5: Students will evaluate leadership approaches across professional media contexts.

- **Concepts:** leadership in production teams (delegation, motivation, conflict resolution); advanced project management (timelines, budgets, risk mitigation); innovation in storytelling techniques and production technology; collaborative production workflows (cross-disciplinary teams); and ethical leadership (fostering inclusion, transparency, accountability)
- **Competencies:** Students will be able to lead diverse production teams to achieve creative goals; manage complex production schedules and budgets effectively; innovate in storytelling formats and technical execution; build collaborative partnerships with clients, teams, and audiences; and model ethical, inclusive leadership practices throughout production.
- **Assessment Process and Measure Summary:** Students will evaluate leadership approaches across professional media contexts in the MS in Media Production program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Media Ethics and Leadership course, Media Models and Organizations, Leadership course, and

capstone course. Students' two case studies demonstrating ethical leadership approaches in response to real-world media dilemmas will be assessed in the Media Ethics and Leadership course. In this course, students explore concepts in foundational ethics and learn the values, principles and ethical standards across mass communications professions, examining media ethics through the lens of leadership roles and decision making across the industry. Students' organizational analysis demonstrating their understanding of leadership models and structural dynamics in media organizations will be assessed in the Media Models, Organizations and Leadership course. In this course, students explore the frameworks, revenue models and leadership structures and styles of media businesses. Students' thought leadership work will be assessed in the capstone course. In the capstone course, students produce a media research project and engage audiences around their research. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Projected Enrollment for the First Three Years:

Year 1: 22
Year 2: 26
Year 3: 30

Evidence of Market Demand:

The global media market is expected to reach $3.9 trillion by 2029, with the U.S. market (the world's largest) growing by 3.8%, according to PriceWaterhouseCoopers. Rising streaming and social media video growth fuels content demand, and thus, demand for skilled media production specialists. According to the BLS, the job market will keep pace, with the "video editors and camera operators" category expected to grow 3% over the next decade.
One example of strong growth and demand for skilled media production professionals is in sports media. The value of global sports media rights is now estimated at more than $60 billion, according to the SportsBusiness Global Media Report 2024 (https://www.sportbusiness.com/global-media-report-2024/). This represents a roughly 20% increase in the past five years and reflects the diversification of sports media and increasing demand for skill in media production. In its "2025 Global Sports Industry Outlook" report (https://www.deloitte.com/us/en/insights/industry/technology/technology-media-telecom-outlooks/sports-industry-outlook.html#future), analysts from Deloitte wrote, "As investors flock to the sports industry, athletes gain more agency, and the competition for fan attention intensifies, global sports are becoming even more professionalized…recent (and ongoing) shifts in the global sports industry have multiplied opportunities for talent…" including in media production and related fields. Deloitte projects job growth, increases in compensation and retention efforts for employees at sports organizations. Graduates from the MS in Media Production program will be well-positioned for these career opportunities.

The Cronkite School conducted a job market demand study using three key sources: institutional data from IPEDS of the US Department of Education, education and occupation relationships calculated from the American Community Survey (2022, 5 Year Sample) from the U.S. Census Bureau, and occupational employment forecasts from the Bureau of Labor Statistics.

People who hold degrees in the area of journalism and mass communication tend to work in a concentrated set of occupations. The top thirty most common occupations for these workers account for 48.8% of the total employment of people with degrees in the field. Despite this concentration, these occupations are diverse and consist of many occupations traditionally associated with journalism and mass communication, including broadcast announcers and radio disc jockeys; television, video, and film camera operators and editors; and producers and directors.

The Bureau of Labor Statistics projects growth for careers across the field in Arizona and nationwide. The top thirty occupations among workers with a degree in a journalism and mass communication-related field employ 34.7 million people in the U.S. and pay an average wage of $84,884. The BLS projects these occupations will increase employment by 396,000 jobs between 2022 and 2032. Notably, employment of producers and directors is projected to grow 8 percent from 2023 to 2033, faster than the average for all occupations.

The labor market trends for these occupations in Arizona match the national-level trends: These occupations employ 574,557 people in Arizona and pay an average of $82,282.

Similar Programs Offered at Arizona Public Universities:

The University of Arizona offers an MA in Journalism and an MA in Bilingual Journalism, but not non-news media production; it also offers a graduate certificate in Human Rights and Documentary Media (which provides training in documentary media to advance human rights). The institution does not offer programs in production.

Northern Arizona University does not offer graduate degrees in this space.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $1,000 per semester, with an estimated 12 months to completion

Fee Justification: Students in this program will use professional-grade equipment, software and digital storage, and access specialized services and subscriptions.

Specialized Accreditation? **YES** NO

Accreditor: The program is designed to comply with the requirements of the Cronkite School's specialized accreditor, the Accrediting Council on Education in Journalism and Mass Communication. The Council evaluates programs against the objectives that units and institutions set for themselves, and against eight standards that prepare students for professional careers in mass communication — among them, curriculum and instruction, facilities and equipment, and public service. Accredited programs feature coursework in professional media skills; internships in the field; involvement by professionals in instruction and assessment; modern media equipment; and instruction in nine core values and competencies (including media law, ethics, writing, numeracy and statistics, and accuracy).

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: MS in Media Research and Technology
Academic Department: Walter Cronkite School of Journalism and Mass Communication
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 33
Proposed Inception Term: 2026
Brief Program Description: The Master of Science in Media Research and Technology prepares students to analyze media audiences, content and connectivity, and harness innovative technologies to develop useful knowledge on media consumption and creation. Students will learn how to apply advanced technology including artificial intelligence, biometrics and real-time audience data in both quantitative and qualitative media research to understand the impact of media (and technology itself). The program also provides ethical, legal and theoretical frameworks that students will apply in developing and interpreting research in this complex and nuanced field. This program is designed for students who want to pursue doctoral studies or careers in industry research in public or private sectors. The program meaningfully activates students to advance their careers by focusing on media research of public value, notably on understanding how technology and behavior impact media and its audiences, and how together they transform our understanding of the world around us. Students will investigate disinformation and online speech; study how community journalism informs audiences; research audience reception of conspiracy theories; test campaign messaging and more using innovative methodologies. Students in the MS in Media Research and Technology program will develop advanced skills to analyze media audiences, content and platforms using cutting-edge techniques in artificial intelligence, biometrics and real-time data. They will learn to conduct both qualitative and

quantitative research, grounded in ethical, legal and theoretical frameworks, to better understand the evolving relationship between media, technology and society. Students will also explore how media consumption and creation shape public understanding, and how innovative research can directly inform industry and public-sector strategies. Offering this program is essential in a rapidly evolving media environment, where informed, ethical research is needed to counter misinformation, anticipate audience behavior, and amplify the university's impact through use-inspired, tech-forward discovery.

Aligned with "conducting use-inspired research," the program emphasizes the creation of knowledge with real-world impact. Harnessing "fusing intellectual disciplines," the program allows students to explore the intersection of media, data and technology while embracing "principled innovation," ensuring ethical and meaningful research. Graduates are equipped with advanced skills for research and development roles in the evolving media industry.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will apply the values, principles, ethics and legal standards of media in research.

- **Concepts:** core principles (truth, accuracy, fairness, timeliness, privacy, accountability); research ethics (informed consent, confidentiality, data protection); legal frameworks (privacy laws, intellectual property, terms of use for data sources); transparency in methodology and reporting; and responsibility to advance public understanding through research and technology
- **Competencies:** Students will be able to apply ethical principles in designing and conducting media research; recognize and navigate legal requirements in data use and protection; ensure transparency in reporting research methods and findings; review research practices for fairness, accuracy and accountability; and reflect on the role of media research in informing society.
- **Assessment Process and Measure Summary:** Students will apply the values, principles, ethics and legal standards of media in research that they learn in the MS in Media Research and Technology program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Ethics and Leadership course and Law course. Students' two case studies from the Ethics and Leadership course will be assessed. In these assignments, students must explore concepts in foundational ethics and learn the values, principles and ethical standards across mass communications professions, examining media ethics through the lens of leadership roles and decision making across the industry. Students' two case studies from their Law course will be assessed. In these case studies, students explore landmark media law cases, concepts in press freedom and the First Amendment, and learn the legal standards across mass communications professions. Data will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 2: Students will critically evaluate information, content and research in professional contexts.

- **Concepts:** advanced source evaluation and verification; assessing research methodologies for validity and reliability; audience analysis using qualitative and

quantitative methods; ethical considerations in data collection and interpretation; and strategic decision-making in media technology implementation

- **Competencies:** Students will be able to critically assess information sources and research designs; apply advanced evaluation methods to inform strategic decisions; analyze audience needs and behaviors using research data; identify and resolve ethical issues in research and technology use; and make evidence-based decisions about technology adoption and strategy.
- **Assessment Process and Measure Summary:** Students will critically evaluate information, content, and research in professional contexts in the MS in Media Research and Technology program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Media Models, Organizations, and Leadership course and the capstone course. Students' organizational analysis demonstrating data synthesis and strategic recommendations will be assessed in the Media Models, Organizations and Leadership course. In this course, students explore the frameworks, revenue models and leadership structures and styles of media businesses. Students will produce media research work to professional standards in their capstone course. Faculty will evaluate students' critical thinking and problem-solving skills at the end of the course using a rubric. Data will be collected by the curriculum and assessment analyst and analyzed by the analyst and senior associate dean and will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 3: Students will produce clear, accurate and engaging written content that meets professional standards.

- **Concepts:** academic and professional research writing formats; clarity, coherence and logical argumentation; data storytelling (integrating visuals and narrative); citation and ethical attribution; and adapting writing for technical and non-technical audiences
- **Competencies:** Students will have the ability to write clear, persuasive research papers and reports; integrate data and visuals effectively into written communication; adapt complex ideas for varied audiences and platforms; edit work for accuracy, clarity, and ethical standards; and attribute sources transparently and appropriately.
- **Assessment Process and Measure Summary:** Students will produce clear, accurate, and engaging written content that meets professional standards in the MS in Media Research and Technology program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Multimedia Storytelling course and capstone course. Students' benchmark writing exercise will be assessed in the Multimedia Storytelling course. In this assignment, students advance their writing skills with specialized approaches, formats, styles and standards of media professions. Students' media research work in the capstone course will be assessed with a writing rubric. Data will be collected by the curriculum and assessment analyst and analyzed by the analyst and senior associate dean and will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 4: Students will evaluate leadership approaches across professional media contexts.

- **Concepts:** leading research teams and interdisciplinary collaborations; advanced project management (scoping, scheduling, budgeting); innovation in media technology and research methods; collaborative workflows (tech developers, analysts, communicators); and ethical leadership (transparency, accountability, inclusion)
- **Competencies:** Students will be able to lead diverse research and technology teams effectively; manage complex projects to deliver on-time, high-quality results; foster innovation in research tools and methodologies; collaborate with varied stakeholders to achieve project goals; and model ethical and inclusive leadership practices.
- **Assessment Process and Measure Summary:** Students will evaluate leadership approaches across professional media contexts in the MS in Media Research and Technology program through required coursework and will be assessed on various assignments using faculty-developed rubrics. Instructors will use rubrics to assess student artifacts from the Media Ethics and Leadership course; Media Models, Organizations and Leadership course; and capstone course. Students' two case studies demonstrating ethical leadership approaches in response to real-world media dilemmas will be assessed in the Media Ethics and Leadership course. In this course, students explore concepts in foundational ethics and learn the values, principles and ethical standards across mass communications professions, examining media ethics through the lens of leadership roles and decision making across the industry. Students' organizational analysis demonstrating their understanding of leadership models and structural dynamics in media organizations will be assessed in the Media Models, Organizations and Leadership course. In this course, students explore the frameworks, revenue models and leadership structures and styles of media businesses. Students' thought leadership work will be assessed in the capstone course. In the capstone course, students produce a media research project and engage audiences around their research. Data will be collected by the curriculum and assessment analyst and analyzed by the analyst and senior associate dean and will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Learning Outcome 5: Students will create media research for mass audiences using professional tools, technology and techniques.

- **Concepts:** research design (experimental, survey, qualitative, mixed methods); advanced data collection tools (APIs, social media scraping, analytics platforms); data analysis techniques (statistical software, visualization libraries); emerging media technologies and their research applications; and dissemination strategies (publications, conferences, digital platforms)
- **Competencies:** Students will be able to conduct rigorous, ethical media research projects; use innovative tools and technologies for data collection and analysis; interpret complex data to draw meaningful conclusions; communicate research findings clearly to diverse audiences; and contribute new knowledge that informs media industry practices and understanding
- **Assessment Process and Measure Summary:** Students will create media research for mass audiences using professional tools, technology, and techniques in the MS in Media Research and Technology program through required coursework, and will be assessed

on various assignments using faculty-developed rubrics and the University Office of Evaluation and Educational Effectiveness Graduate and Law Student Report Card. Instructors will use rubrics to assess student artifacts from the capstone course and the Professional Development course. Students' research work will be assessed in their capstone course. In this course, students produce a media research project and engage audiences around their research. Students' portfolios will be assessed in the Professional Development course. Throughout their graduate study, students develop research and create professional-level work that they curate in a portfolio. As their study concludes, students refine their portfolios to represent their skills, competencies and passions during their job searches. Students will share their opinions on their research skill readiness acquired from their program using the GLSRC Alumni Survey. Data collected during the current assessment period will be used to examine and adjust the curriculum, teaching methodologies and delivery methods as needed for continuous improvement in overall student success. The analyst and leadership will specifically look at average rubric scores compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Each year, the analyst and leadership will use this evaluation to prepare an assessment report.

Projected Enrollment for the First Three Years:

Year 1: 22
Year 2: 25
Year 3: 29

Evidence of Market Demand:

The Cronkite School conducted a job market demand study using three key sources: institutional data from IPEDS of the US Department of Education, education and occupation relationships calculated from the American Community Survey (2022, 5-Year Sample) from the U.S. Census Bureau, and occupational employment forecasts from the Bureau of Labor Statistics. "Market Research Analyst" ranks among the top thirty most common occupations for people who hold journalism and mass communication-related degrees.

While overall employment in media and communication occupations is projected to grow at the average rate through 2032, jobs in audience research and data analysis are seeing above-average growth. The Bureau of Labor Statistics projects that jobs in market research analysts and marketing specialists will grow 19% by 2031 (over 2021 levels). Data-related occupations, including these, all have median wages above the median for all occupations.
In addition, there is broad recognition across media industries that employers seek the analytical skills the proposed degree advances. For example, a global study produced by Deloitte and the Google News Lab documented widespread efforts by news organizations around the world to use audience analytics to transform their products and their operations. "At the center of these efforts is a common goal — to translate a deep understanding of the reader into a competitive advantage in the digital news world," the report states. In addition, 76% of media companies in the study scored themselves as "nascent" or "developing" in reader experience, and only 47% scored themselves as "mature or leading" in audience-based advertising. It is clear these skills are in high demand, and media companies are prioritizing them as a result.

According to the Arizona Office of Economic Opportunity, the state is projected to add approximately 486,348 jobs from 2023 to 2033, reflecting an annual growth rate of 1.3%. The

information sector — which encompasses media-related occupations — is expected to grow by 0.7% annually during this period, and the professional and business services sector, which includes roles in market research and analysis, is projected to grow by 1.3% annually.

Similar Programs Offered at Arizona Public Universities:

No Arizona public university offers a degree in media research.

University of Arizona
Offers an MA in Communication and an MA in Studies of Global Media, which explores theory, research and analysis across the communications fields.

Northern Arizona University
Offers an MA in Communication, with emphases in Communication Studies, Documentary Studies and Strategic Communication, in which students explore communication theories and research. These programs do not convey media skills or focus on emerging technologies.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? **YES** NO

Estimated Amount: $1,000 per semester (immersion) / $100 per student credit hour (online) - Estimated timeframe for completion is three semesters.

Fee Justification: Students in this program will use professional-grade equipment, software and digital storage, and access specialized services and subscriptions.

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program: BS in Tourism, Hospitality and Event Management
Academic Department: Watts College of Public Service and Community Solutions
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West Valley Campuses
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: 2026
Brief Program Description: The Bachelor of Science in Tourism, Hospitality, and Event Management (Online) prepares students to design and manage experiences that connect people, places, and communities in today's global experience economy. Offered through ASU's School of Community Resources and Development, this fully online degree equips learners with the knowledge and applied skills to advance careers in tourism, hospitality, event enterprises, and destination development—fields central to community vitality, cultural exchange, and economic growth. Students gain a foundation in leadership, operations, marketing, finance, customer experience, and sustainability, emphasizing inclusive and community-based practices. The curriculum integrates tourism development, hospitality management, and event planning to help students understand how experience-based industries create value at local and global levels. Experiential learning is embedded through case studies, project-based courses, and an optional internship spanning sectors such as destination management, lodging, events, and cultural tourism. Designed for flexibility, the online format allows working professionals, transfer students, and out-of-state learners to earn an ASU degree that blends academic rigor with career relevance. Graduates will be prepared for roles such as destination marketing professional, tourism development coordinator, hospitality or event operations manager, and related leadership positions across the service economy.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will formulate a well-supported plan of action for a complex tourism issue by considering multiple viewpoints.

- **Concepts:** perspective taking, cultural diversity, cultural self-awareness, critical thinking, problem solving, cultural diversity
- **Competencies:** Students will be able to carefully evaluate the relevance of place-specific, cultural, and environmental contexts; defend positions on tourism issues; and adapt strategies to local stakeholder needs, governance structures and resource constraints.
- **Assessment Process and Measure Summary:** This outcome will be assessed using two measures: one direct and one indirect. Students will complete a management strategy plan that is a part of a required course, in which students demonstrate competence in incorporating multiple perspectives when solving problems and guiding continuous improvement of the program. The assignment will be scored using a faculty-developed rubric, and this information will be shared with the tourism faculty and curriculum committee to ensure that any weaknesses are addressed. Students will be surveyed at graduation regarding the extent that ASU contributed to their ability to incorporate multiple perspectives when solving problems. Data will be collected from the in-class assessments and graduate surveys, and results will be used to identify gaps or limitations in the program and develop approaches for continuous improvement.

Learning Outcome 2: Students will produce clear, well-structured written materials that convey complex tourism concepts to diverse audiences.

- **Concepts:** context and purpose for writing, content development, sources and evidence, syntax and mechanics, clarity, conciseness, audience, tone, appropriate language, diverse audiences (e.g., policymakers, community members, and industry professionals).
- **Competencies:** Students will be able to explain context, audience, and purpose of task; use appropriate, relevant, and compelling content to illustrate mastery of the subject; convey their understanding of concepts; and use of high-quality, credible, relevant sources to develop ideas.
- **Assessment Process and Measure Summary:** This outcome will be assessed using two measures: one direct and one indirect. Students will complete a final paper from the leadership and professional development required core course that will assess student competence in writing clearly and effectively. Students will also be surveyed via a question from ASU's Graduating Student Report Card, asking students to indicate the extent that ASU contributed to their ability to write clearly and effectively. Data will be collected from the in-class assessment and graduate survey, and results will be used to identify gaps or limitations in the program and develop approaches for continuous improvement.

Learning Outcome 3: Students will develop comprehensive strategies to address challenges faced by tourism organizations.

- **Concepts:** tourism planning and policy development, organizational strategy and competitiveness, innovation in tourism, tourism leadership (impact, collaboration, innovation), management principles, human resources, marketing, risk management, finances
- **Competencies:** Students will be able to apply tourism theory and concepts to a given set of information; identify and collect relevant source material; describe the principles of

effective tourism leadership, including leadership for impact, collaboration, and innovation; identify best management principles, including effective direction of human resources; marketing, risk management, and financial information.

- **Assessment Process and Measure Summary:** This outcome will be assessed using two measures: one direct and one indirect. Students will complete a management strategy plan from the required course in managing tourism and leisure experiences. It will be used to assess students' acquisition of job and work-related skills. Results of the faculty-developed rubric will be shared with the tourism faculty and curriculum committee to ensure that any weaknesses are addressed in courses leading up to the final assessments. Students will also be surveyed at graduation via a question that asks students to indicate the extent that ASU contributed to their ability to acquire job and work-related knowledge and skills. Data will be collected from the in-class assessment, and the graduate survey will be used to identify gaps or limitations in the program and develop approaches for continuous improvement.

Projected Enrollment for the First Three Years:

Year 1: 50
Year 2: 80
Year 3: 160

Evidence of Market Demand:

The U.S. Leisure and Hospitality sector remains among the fastest-growing industries, projected to add nearly 1.9 million jobs (23% of total national growth) from 2021–2031 (BLS, 2024). Meeting, convention, and event planner positions are expected to grow 5% from 2024–2034, with 15,500 openings annually, while lodging managers show steady 3% growth and median wages above $68,000. The hospitality industry overall is forecast to grow 50% faster than the national average, fueled by post-pandemic recovery and rising demand for travel, events, and cultural tourism.

In Arizona, the 2024 tourism industry generated $29.7 billion in direct spending, supported 193,856 jobs (324,136 including indirect effects), and produced $4.3 billion in tax revenue (Arizona Office of Tourism, 2024). Event-based tourism—such as the Tucson Gem & Mineral Show, continues to drive significant regional impact.

Online undergraduate enrollment has grown 110% since 2012, with strong demand from adult and professional learners seeking flexible, applied degrees.

This program uniquely integrates tourism, hospitality, and events through a community-centered, sustainability-driven lens, distinct from business-oriented hospitality degrees. SCRD's expertise in tourism, recreation, and event leadership positions ASU to meet workforce needs for adaptable, service-oriented professionals while advancing the university's mission of academic innovation, social embeddedness, and global engagement.

Similar Programs Offered at Arizona Public Universities:

Northern Arizona University has a Bachelor of Science in Hotel and Restaurant Management. There are no other related programs at Arizona public universities.

Objection(s) Raised by Another Arizona Public University? YES **NO**
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:
Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program/College Fee? YES **NO**

Estimated Amount: N/A

Fee Justification: N/A

Specialized Accreditation? YES **NO**

Accreditor: Not applicable.

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ITEM 7.19: Request to Repeal Technology and Research Initiative Fund (TRIF) Guidelines

Requested Action: The board office asks the board to repeal the Technology and Research Initiative Fund (TRIF) Guidelines, as described in this executive summary and supporting document/s.

Background

- The board approved the new TRIF Policy 3-412 at the September 25-26, 2025, board meeting.
- The TRIF Guidelines are no longer needed and conflict with the new policy.

Discussion

With the approval of the new Technology and Research Initiative Fund (TRIF) Policy 3-412 at the September 2025 board meeting, the supplemental TRIF Guidelines are no longer needed and should be repealed.

- The TRIF Guidelines were adopted by the Board in March 2001.
- The guidelines were used as a supplemental document to TRIF policy.
- A new TRIF policy was approved in September 2025, eliminating the need for the guidelines.

Supporting Document/s

TRIF Guidelines

Statutory/Policy Requirements

A.R.S. §15-1626(A) General Administrative powers and duties of board.

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ARIZONA BOARD OF REGENTS
ASU ◆ NAU ◆ UA

GUIDELINES

~~TRIF Budget~~

~~The recommended process for Board approval and review of TRIF funding for initiatives includes the following elements:~~

1. ~~Board approval is requested for five years of funding, subject to review as specified below, with summary lower-level budgets included in the attached materials and detailed lower-level budgets on file with the ABOR staff and available on request.~~

2. ~~A table describing lower and upper levels on the budget totals for each initiative is included with this item as Appendix 13. Revised budgets, reflecting an interpolation between the lower and upper levels that is based upon the revenues available in the fund, will be submitted each year when the actual amount of those revenues is known. Budget totals for Capital Projects will be broken out separately, as in Appendix 14, to ensure that requests are in compliance with the statutory provision that the Board may allocate up to twenty percent of the monies in the Technology and Research Initiative Fund for this purpose.~~

3. ~~Annual progress reports with performance measures, deliverables, and timelines will be submitted for each of the five years to the Regents on dates specified in the annual calendar prescribed by proposed Board Policy 3-412 and consistent with the requirement in ARS 15-1648 that ABOR submit a report on September 1 of each year on the technology and research award program.~~

4. ~~Each university will also provide a year-end financial report of budget and expenditures for each initiative.~~

5. ~~Consistent with common practices in federally funded research, there will be both flexibility and constraints in reallocating budgets among categories within each of the project areas. (A) Any proposed reallocation for capital facilities projects must receive Board approval. (B) Operations dollars may not be used for personnel expenses without Board approval, though it is permissible to reallocate personnel dollars for operations. (C) Board approval is not required for reallocating budgeted capital equipment dollars for operations, but it would be required for reallocating operations dollars for capital equipment.~~

6. ~~Budget adjustments between or among initiatives that exceed five percent (plus or minus) of the approved budget for any of the initiatives require prior approval by the Board or its designee.~~

7. ~~Funds budgeted for a given fiscal year must be fully expended within six months after the end of that fiscal year.~~

ARIZONA BOARD OF REGENTS
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GUIDELINES

~~TRIF Budget~~

~~8. The third year report will be a more detailed report, with performance measures and deliverables from which reallocation decisions may be made and applied to the final two years of the projects.~~

~~9. During the fifth year, requests for the next five years of funding will be due to the Regents, along with final progress and budget reports.~~

~~10. The enabling legislation for Proposition 301, SB 1007, also contains a $2.5 million appropriation in FY 2001-02 from the Technology and Research Initiative Fund for lease-purchase of buildings and associates infrastructure at ASU West and ASU East campuses. The requests for these funds, which are separate from those that are to be allocated by the Board, are included here as Appendices 15 and 16.~~

Adopted by ABOR March 2, 2001. All references to appendices refer to Agenda Item #1 for the March 2, 2001 ABOR meeting.

ITEM 7.20 Request to Approve the Health and Dependent Care Cafeteria Plan Amendment

Requested Action: The board office asks the board to approve the Amendment to the Health and Dependent Care Plan, as described in this executive summary and supporting document/s.

Background
On April 1, 1991, the board approved the Arizona Board of Regents Health Care and Dependent Care Cafeteria Plan, a benefit program that allows participants to contribute to the plan on a pre-tax basis and use those funds to pay for medical and dependent care expenses.

The plan was most recently restated in 2013.

The board office contracts with ASIFlex to administer the plan.

Discussion
The Board has consulted with ASIFlex, regarding this proposed amendment. ASIFlex legal counsel prepared the proposed amendment.

The effective date of the proposed amendment is January 1, 2026.

The proposed amendment limits the carry forward for the Health Flexible Spending Account to one year except for those participants that re-enroll in the plan the following year.

The proposed amendment increases the maximum dollar limit of the Dependent Care FSA (DCAP) to align with the federally allowed maximum as provided in Code §129. The Plan maximum will always be the lesser of the IRS maximum or the maximum communicated during open enrollment.

Supporting Documents
2026 Plan Amendment (Carryover and DCAP)

Statutory/Policy Requirements
Internal Revenue Code of 1986 (the Code)

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AMENDMENT
OF
ARIZONA BOARD OF REGENTS HEALTH AND DEPENDENT CARE CAFETERIA PLAN

ARTICLE I
PREAMBLE

1.1 **Adoption and effective date of amendment.** The Employer adopts this Amendment to Arizona Board of Regents Health and Dependent Care Cafeteria Plan (the "**Plan**"). The sponsor intends this Amendment to comply with the requirements of these provisions. This Amendment shall be effective on or after the date the Employer elects in Section 2.1 below.

1.2 **Supersession of inconsistent provisions.** This Amendment shall supersede the provisions of the Plan to the extent those provisions are inconsistent with the provisions of this Amendment.

1.3 **Construction.** Except as otherwise provided in this Amendment, any reference to "Section" in this Amendment refers only to sections within this Amendment and is not a reference to the Plan. The Article and Section numbering in this Amendment is solely for purposes of this Amendment, and does not relate to any Plan article, section, or other numbering designations.

ARTICLE II
ELECTIONS

2.1 **Effective Date.** The provisions of this Amendment, unless otherwise indicated, are effective as of January 1, 2026.

2.2 **Plan Amendment—Change in Carryover.** The Employer amends the Plan to delete the first bullet point of **Section B.6** titled, "**Use It or Lose It Rule**," and insert the following language:

- **Use It or Lose It Rule.** If any balance over the Carryover Amount remains in the Participant's Health FSA for a Period of Coverage after all reimbursements have been made for the Period of Coverage, then such balance shall not be carried over to reimburse the Participant for Health Care Expenses incurred during a subsequent Plan Year. The Participant shall forfeit all rights to such balance over the Carryover Amount.

  If any balance less than the Carryover Amount remains in the Participant's Health FSA for a Period of Coverage after all reimbursements have been made for the Period of Coverage, then that balance shall be carried over to reimburse the Participant for Health Care Expenses incurred during a subsequent Plan Year, subject to the following conditions:
  - **Re-enrollment required for Continued Carryover**. If a Participant with a Carryover Amount does not make a new Salary Reduction Agreement for the subsequent Plan Year, the Carryover Amount shall be available for reimbursement during that subsequent Plan Year only. Any unused portion of the Carryover Amount remaining at the end of that subsequent Plan Year shall be forfeited.
  - **Indefinite Carryover with Re-enrollment**. If a Participant with a Carryover Amount makes a new Salary Reduction Agreement for the subsequent Plan Year, the Carryover Amount shall continue to be available for reimbursement in subsequent Plan Years until the balance is exhausted or the Participant ceases to be an Employee or the Plan terminates, whichever occurs first.
  - **Eligibility**. Carryover is available only if the Participant remains eligible to participate in the Plan and meets any minimum balance requirements established by the Plan Administrator.

2.3 **Plan Amendment—Change in Dependent Care Assistance Program Maximum Dollar Limits.** The Employer amends the Plan to delete the bullet point titled "**Maximum Dollar Limits**" in **Schedule D, Section D.4**, and insert the following language:

- **Maximum Dollar Limits.** The maximum dollar limit for a Participant is the smallest of the following amounts:
  - The Participant's Earned Income for the calendar year;
  - The Earned Income for the calendar year of the Participant's Spouse who:
    - Is not employed during a month in which the Participant incurs a Dependent Care Expense; and
    - Is either physically or mentally incapable of self-care, or a full-time Student shall be deemed to have Earned Income in the amount of $250 per month per Qualifying Individual for whom the Participant incurs Dependent Care Expenses, up to a maximum amount of $500 per month; or
  - The federally allowed maximum as provided in Code §129, as adjusted by the Internal Revenue Service from time to time, or the maximum annual benefit amount set by the Employer and communicated to the employees through the use of the enrollment system or enrollment election form, whichever is less, if:
    - The Participant is married and files a joint federal income tax return; or
    - The Participant is married, files a separate federal income tax return, and meets the following conditions:
      - The Participant maintains as their home a household that constitutes, for more than half of the taxable year, the principal abode of a Qualifying Individual;
      - The Participant furnishes over half of the cost of maintaining such household during the taxable year; and
      - During the last six months of the taxable year, the Participant's Spouse is not a member of such household; or
    - The Participant is single or is the head of the household for federal income tax purposes.
  - One-half of the federally allowed maximum as provided in Code §129, as adjusted by the Internal Revenue Service from time to time, or one-half of the maximum annual benefit amount set by the Employer and communicated to the employees through the use of the enrollment system or enrollment election forms, whichever is less, if the Participant is married and resides with the Spouse, but files a separate federal income tax return.

ARIZONA BOARD OF REGENTS

By: _____

Name & Title: _____

SUMMARY OF MATERIAL MODIFICATIONS FOR THE ARIZONA BOARD OF REGENTS HEALTH AND DEPENDENT CARE CAFETERIA PLAN

I INTRODUCTION

This is a Summary of Material Modifications regarding the Arizona Board of Regents Health and Dependent Care Cafeteria Plan (the "**Plan**"). This is merely a summary of the most important changes to the Plan and information contained in the Summary Plan Description ("**SPD**") previously provided to you. It supplements and amends that SPD, so you should retain a copy of this document with your copy of the SPD. If you have any questions, contact the Administrator. If there is any discrepancy between the terms of the Plan, as modified, and this Summary of Material Modifications, the provisions of the Plan will control.

II SUMMARY OF CHANGES

A. Effective Date. The provisions of this Amendment, unless otherwise indicated, are effective as of January 1, 2026.

B. Plan Amendment – Change in Carryover

The Employer amends the Plan to change how you may use carryover funds. Beginning on the Effective Date, if you re-enroll in the Plan, carryover funds will roll forward indefinitely until used. If you do not re-enroll, carryover funds will expire after one year.

C. Plan Amendment – Change in Dependent Care Assistance Program Maximum Dollar Limit

The Employer amends the Plan to change the Dependent Care FSA (DCAP) maximum dollar limit to align with the federally allowed maximum as provided in Code §129. The maximum DCAP benefit you may elect depends on IRS limits and your family's situation (such as married vs. single, and earned income). The Plan maximum will always be the lesser of the IRS maximum or the maximum communicated during enrollment.

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ITEM 7.21: Request to Approve the Cash Balance Pension Plan Amendment

Requested Action: The board office asks the board to approve the Amendment to the Cash Balance Pension Plan, as described in this executive summary and supporting document/s.

Background

In 1997, Congress enacted changes to the Internal Revenue Code of 1986 (the "Code") which would allow the Board to create a qualified Cash Balance Pension Plan ("Plan").

In June 1998, the Board replaced the Deferred Compensation Agreements with the Plan for the benefit of the University Presidents and the Board President. This new plan had an effective date of July 1, 1998.

The Board received a favorable letter of determination from the IRS for the Plan in October 2016.

Presidents Crow, Cruz Rivera, and Garimella and president emeritus Robbins and executive director Sampson currently participate in the Plan.

The Board has received legal advice regarding this Cash Balance Pension Plan from its tax counsel, Mr. Charles Whetstine, who has prepared the proposed amendment.

Discussion

The proposed amendment is required to conform with recent changes made to the University Presidents' contracts.

Supporting Document/s

Cash Balance Pension Plan Amendment

Statutory/Policy Requirements

Internal Revenue Code of 1986 (the Code)

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TWELFTH AMENDMENT
TO
ARIZONA BOARD OF REGENTS
CASH BALANCE PENSION PLAN
SECOND AMENDMENT AND RESTATEMENT

WHEREAS, the Arizona Board of Regents (the "Board"), a body corporate created by the Arizona Constitution with powers enumerated in Article 2, Chapter 13, Title 15, Arizona Revised Statutes (A.R.S. sections 15-1621, et seq.), adopted in amended and restated form the Arizona Board of Regents Cash Balance Pension Plan (Second Amendment and Restatement), effective July 1, 2015 (the "Plan"), to provide retirement benefits to certain employees of the Board and Universities; and

WHEREAS, the Board is authorized, pursuant to Section 12.01 of the Plan, to adopt amendments to the Plan; and

WHEREAS, the Board has previously adopted eleven amendments to the Plan subsequent to its second amendment and restatement; and

WHEREAS, the Board desires to adopt another amendment to the Plan to designate the Pay-Based Credit to be made on behalf of certain Participants in the Plan.

NOW, THEREFORE, pursuant to the authority granted in Section 12.01 of the Plan, the following amendment is adopted, effective as of July 1, 2025:

1. Section 1.25, "*Pay-Based Credit*," of SECTION 1, DEFINITIONS, is amended in its entirety to read as follows:

> "1.25 'Pay-Based Credit,' except as set forth below, for a Participant in a given Plan Year means 18% of Compensation for that Plan Year.
>
> (a) For the Participant who was the President of the University of Arizona as of October 1, 2024, "Pay-Based Credit" means, for the Plan Year beginning July 1, 2025, $145,800.

(b) For the Participant who was the President of Arizona State University as of July 1, 2024, "Pay-Based Credit" means, for the Plan Year beginning July 1, 2025, $187,432.

(c) For the Participant who was the President of Northern Arizona University as of July 1, 2024, "Pay-Based Credit" means, for the Plan Year beginning July 1, 2025, $133,756.

(d) For the Participant who was the President of the University of Arizona as of July 1, 2024, and became President Emeritus of the University of Arizona on October 1, 2024, "Pay-Based Credit" means, for the Plan Year beginning July 1, 2025, $154,226.

(e) If a Participant is actively employed for less than a full Plan Year, the 'Pay-Based Credit' dollar amount set forth above shall be multiplied by a fraction where the numerator is the number of whole months during a Plan Year that the Participant was actively employed by the Employer and the denominator is twelve (12).

(f) For Participants over Normal Retirement Age, the 'Pay-Based Credit' for a Plan Year will be the greater of the credit defined above and the amount required to increase the Account Balance in an Actuarially Equivalent manner to the end of the Plan Year."

2. Nothing in this Twelfth Amendment shall be construed to adversely affect the rights of any Participant to any benefit provided under the Plan or to decrease any accrued benefit under the Plan, except to the extent permitted under the Code or necessary to maintain the Plan as one qualified under Section 401(a) of the Code.

IN WITNESS WHEREOF, the Board has caused this Twelfth Amendment to be executed by its duly authorized officer this _____ day of _____, 2025.

ARIZONA BOARD OF REGENTS

By:_____

Title:_____

ITEM 7.22: Request to Approve the 2025 Annual Report on Articulation and Transfer for Arizona Postsecondary Education

Requested Action: The board office asks the board to approve the annual report on articulation and transfer for Arizona Postsecondary Education, to be submitted to the Joint Legislative Budget Committee (JLBC) by December 15, 2025, as described in this executive summary and supporting documents.

Background

Each year, Arizona's public universities and community colleges report on the progress made towards students transferring from Arizona's public community colleges to Arizona's public universities.

Since 1996, the Arizona Board of Regents and the Arizona community colleges have reported to the Legislature on progress toward implementing a statewide model for transfer by students from community colleges to the universities, developed by the AZTransfer Steering Committee. The report is due to the Joint Legislative Budget Committee by December 15.

The report describes the activities and accomplishments for the 2024-2025 academic year.

Discussion

The report represents a continued collaboration between Arizona's public community colleges and universities to ensure a smooth transition for students who transfer from community colleges to universities. This collaboration is critical to Arizona's efforts to increase the number of individuals with baccalaureate degrees.

The report provides a snapshot of data related to student transfer among Arizona public community colleges and universities for the 2024-2025 academic year.

The report also provides information on the work performed by the AZTransfer Steering Committee.

AZTransfer develops and maintains web services and other resources related to operating the Arizona Transfer System and promoting transfer opportunities and programs. These tools and resources ensure that faculty, staff, and students have access to transfer information from anywhere in the state.

The AZTransfer Steering Committee comes together to help students plan a seamless transfer without loss of academic credit. It does this by focusing on the Arizona General Education Curriculum (AGEC), majors and degrees, common courses, and electives, and supplement this foundation with credits earned through dual enrollment and exams.

Contact Information:
Bradley Kendrex, ABOR bradley.kendrex@azregents.edu 602-229-2512

All this effort is intended to assist community college students to seamlessly transfer to ASU through a MAPP or TAG program, NAU through The Connect 2 NAU program, the U of A through the UA Bridge program, or other transfer options.

Supporting Document/s
2025 AZ Transfer Report

Statutory/Policy Requirements
A.R.S. §15-1824 Transfer Articulation, Common Numbering, Reports

azTransfer

COURSE BY COURSE

2025 Annual Report on Articulation and Transfer
for Arizona Postsecondary Education

2025

STEERING COMMITTEE

The AZTransfer Steering Committee serves as the coordinating body of the Arizona Transfer System (AZTransfer). The Steering Committee brings together Arizona's public and tribal community colleges and three state universities to align curriculum, strengthen transfer pathways, and ensure students have the preparation and support they need to successfully complete a degree.

With a central vision to ensure college degree pathways are accessible to all Arizonans, the Steering Committee works to support statewide degree attainment goals through collaboration and partnership among AZTransfer member institutions.

Established in response to the Transfer Articulation Task Force Report of 1996, the Committee oversees the people, processes, and infrastructure of the Arizona Transfer System. The Committee is dedicated to ensuring that community college students can transfer to Arizona public universities without losing credit toward their bachelor's degree (ARS 15-1824).

MARK DENKE*
ARIZONA BOARD OF REGENTS

TAMIKO AZUMA
ARIZONA STATE UNIVERSITY

BRYAN DOAK
ARIZONA WESTERN COLLEGE

MARY KAY GILLILAND*
CENTRAL ARIZONA COLLEGE

SHEENA BROWN
COCHISE COLLEGE

SANDRA HINSKI
COCONINO COMMUNITY COLLEGE

ALYSA LANDRY
DINÉ COLLEGE

SUSAN WOOD*
EASTERN ARIZONA COLLEGE

MEREDITH WARNER
MARICOPA COMMUNITY COLLEGES

LUCINDA LEUGERS
MOHAVE COLLEGE

YVONNE LUNA
NORTHERN ARIZONA UNIVERSITY

MICHAEL SOLOMONSON
NORTHLAND PIONEER COLLEGE

WENDY WEEKS
PIMA COMMUNITY COLLEGE

LAURA SUJO-MONTES
TOHONO O'ODHAM COMMUNITY COLLEGE

GREG HEILEMAN*
UNIVERSITY OF ARIZONA

DOUG BERRY
YAVAPAI COLLEGE

**Representative is also a member of the AZTransfer Executive Committee*

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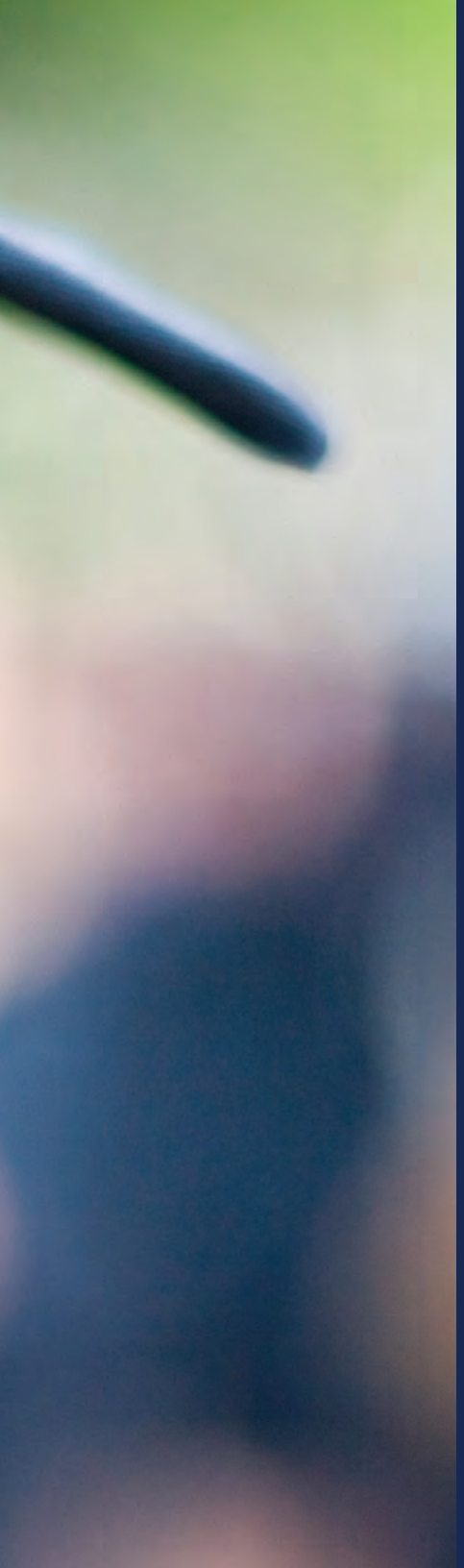
ABOUT THIS REPORT

FOR ALMOST 30 YEARS, Arizona's public and tribal community colleges and state universities have united as AZTransfer to champion transfer student success. Together, leaders from these institutions have collaborated to remove barriers, streamline pathways, and create clear, reliable routes for students moving from community colleges to universities across the state.

Established through 1996 legislation, AZTransfer continues to deliver on its promise: high-quality educational pathways that empower Arizonans to complete their bachelor's degrees.

This report spotlights the services, innovations, and results from the 2024–2025 academic year that make that promise a reality.





VISION

College degree pathways are accessible to all Arizonans.

MISSION

The AZTransfer Steering Committee, an organization of academic leaders, supports successful application of transfer credits leading to degree completion for students in all public and tribal higher education institutions in Arizona.

VALUES

The decisions and actions of the AZTransfer Steering Committee demonstrate our:

- Purpose is to promote and support student academic success;
- Leadership is transparent, collegial, collaborative, and proactive;
- Decision making is data-informed and outcome-focused;
- Fiscal stewardship is financially responsible and goal-oriented.



THE ARIZONA TRANSFER SYSTEM

The Arizona Transfer System is powered by collaboration. With the dedication of over 2,000 volunteers from AZTransfer member institutions—supported by a small but mighty statewide staff—this system ensures that every decision is captured, shared, and put into action to benefit Arizona students.

Together, these committed professionals are transforming opportunity into achievement.

PILLARS OF SERVICE

AZTransfer staff powers the Arizona Transfer System, ensuring that faculty, staff, and students statewide have the tools and support they need to succeed. Guided by four pillars of service—data reporting, systems development and administration, strategic communications, and learning and program development—AZTransfer drives collaboration, strengthens pathways, and empowers students on their journey to a degree.



DATA REPORTING

The Arizona State System for Information on Student Transfer (ASSIST) is a powerful relational database that tracks enrollment and degree progress for students across Arizona's public universities and community colleges. ASSIST data helps institutions strengthen transfer pathways and support student success statewide.



STRATEGIC COMMUNICATIONS

AZTransfer's strategic communications keep stakeholders connected and engaged with the data, services, tools, training, and events the system provides. With a strong emphasis on branding and user experience, the communications plan ensures information is clear, accessible, and impactful.



SYSTEMS DEVELOPMENT & ADMINISTRATION

AZTransfer creates powerful tools and resources that equip institutions to seamlessly manage the Arizona Transfer System and share its benefits with students. These resources make it easier than ever to guide learners on clear, confident pathways to a bachelor's degree.



LEARNING & PROGRAM DEVELOPMENT

AZTransfer empowers its user community with hands-on training and support. From dynamic workshops on AZTransfer tools to specialized ATF faculty and facilitator training, participants gain the knowledge and confidence to leverage AZTransfer to support transfer student success.

ARTICULATION TASK FORCES

AZTransfer is powered by a statewide network of more than 2,000 dedicated professionals. From faculty and academic advisors to registrars and graduation technicians, it takes collaboration across every corner of Arizona to sustain and strengthen the transfer system.

At the heart of this work are the Articulation Task Forces (ATFs), which bring together at least one representative from each member institution. Each institution also designates an AZTransfer Facilitator—a curriculum expert who guides catalog and course management while coordinating faculty engagement.



2,018

TOTAL MEMBERS

2023-24	2022-23	2021-22
1,977	1,975	1,914



1,476

FACULTY MEMBERS

2023-24	2022-23	2021-22
1,471	1,424	1,367



82

COMMUNITY OF INTEREST MEMBERS

2023-24	2022-23	2021-22
85	120	135



274

MEMBERS WITH 15+ YEARS OF SERVICE

2023-24	2022-23	2021-22
252	213	179



79

ACADEMIC ADVISING ATF MEMBERS

2023-24	2022-23	2021-22
75	72	81



77

ADMISSIONS & RECORDS ATF MEMBERS

2023-24	2022-23	2021-22
74	76	71



53

ASSIST USERS

2023-24	2022-23	2021-22
56	61	61



58

GENERAL EDUCATION ATF MEMBERS

2023-24	2022-23	2021-22
54	48	51

ATF FACULTY MEMBERSHIP BY INSTITUTION

Arizona State University ... **211**

2023-24	2022-23	2021-22
214	202	193

Arizona Western College ... **58**

2023-24	2022-23	2021-22
59	61	54

Central Arizona College ... **58**

2023-24	2022-23	2021-22
56	51	57

Cochise College ... **49**

2023-24	2022-23	2021-22
55	51	53

Coconino Community College ... **44**

2023-24	2022-23	2021-22
44	47	46

Diné College ... **45**

2023-24	2022-23	2021-22
48	60	39

Eastern Arizona College ... **57**

2023-24	2022-23	2021-22
57	52	42

Maricopa Community Colleges ... **482**

2023-24	2022-23	2021-22
479	448	465

Mohave College ... **51**

2023-24	2022-23	2021-22
47	45	41

Northern Arizona University ... **93**

2023-24	2022-23	2021-22
103	97	94

Northland Pioneer College ... **43**

2023-24	2022-23	2021-22
45	43	44

Pima Community College ... **99**

2023-24	2022-23	2021-22
97	94	94

Tohono O'odham Community College ... **28**

2023-24	2022-23	2021-22
26	24	19

University of Arizona ... **100**

2023-24	2022-23	2021-22
103	103	101

Yavapai College ... **54**

2023-24	2022-23	2021-22
45	41	41

ACADEMIC DISCIPLINES

Articulation Task Forces (ATFs) are the heart of AZTransfer's faculty-driven transfer model. Each fall, nearly 2,000 faculty in 44 academic disciplines convene to evaluate course transferability and discuss curricular alignment. The outcome of these meetings provides the content for the tools and resources on AZTransfer.com that students and advisors use to plan a seamless transfer.









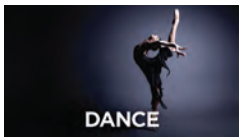








































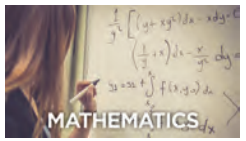








































TRANSFER SYSTEM COMPONENTS

Work performed through the Articulation Task Force network is the foundation of the Arizona Transfer System. The components of the system work together to help students plan a seamless transfer without loss of academic credit. Students build a transfer degree plan by completing the Arizona General Education Curriculum (AGEC), common courses, and electives, and supplement this with credits earned through dual enrollment and exams.

ARIZONA GENERAL EDUCATION CURRICULUM

The Arizona General Education Curriculum (AGEC) is a foundational block of coursework completed at an Arizona community college. Through Articulation Task Forces, faculty determine which courses fulfill the requirements at their respective institutions.

COMMON COURSES

Common courses are lower division courses that apply toward a mapped bachelor's degree program. These courses are reviewed annually at each Articulation Task Force meeting to verify equivalency and applicability.

MAJORS & DEGREES

Associate and bachelor's degrees are aligned within each ATF academic discipline. The transfer system maps these degrees for majors offered at two or more of Arizona's public institutions.



AGEC IMPLEMENTATION

Since late 2021, the AZTransfer Steering Committee has led an effort to re-imagine the structure and requirements of the Arizona General Education Curriculum (AGEC). The Steering Committee began this project in response to the Arizona Board of Regents' (ABOR) new policy regarding general education at ABOR institutions.

As of September 2025, five community colleges have implemented the new AGEC in advance of the Steering Committee deadline of the 2026-2027 catalog year. The Steering Committe continues to monitor the progress of the implementation and support member institutions in the process.

PROJECT MILESTONES



AZTRANSFER SUMMIT

The AZTransfer Summit is a statewide convening of all AZTransfer institutions and stakeholders. The Summit provides transfer professionals the opportunity to network, develop new skills, and share best practices in transfer and education attainment. Participants leave the Summit renewed and inspired to continue contributing to the success of the Arizona Transfer System.

The 2025 Summit "Course by Course" was held April 24-25 at the We-Ko-Pa Casino Resort and featured acclaimed food writer Ruth Reichl as the keynote speaker.

309
TOTAL REGISTRANTS

349	333	232
2024	2023	2022

15
AZTRANSFER INSTITUTIONS REPRESENTED

15	15	13
2024	2023	2022

11
EVENT SPONSORS

N/A	11	3
2024	2023	2022









TRANSFER DATA REPORTING

AZTransfer's robust databases and curricular tools provide insights on the transferability of Arizona community college courses to the three state universities.

In addition, the Arizona State System for Information on Student Transfer (ASSIST) is a relational database containing enrollment and degree information on students attending Arizona's public universities and community college districts. Using this data, AZTransfer provides a statewide snapshot of progress toward improving transfer and degree attainment in Arizona.

FAST FACTS

A snapshot of data related to student transfer among Arizona public community colleges and universities as reported in 2024-25.

50.7%

of new transfer students entered with 60 or more credits

2023-24	2022-23	2021-22
50%	**49.6%**	**50.7%**



5,525

university new freshmen entered with Arizona community college credits

2023-24	2022-23	2021-22
5,904	**5,810**	**6,208**

7,163

total number of new transfer students from Arizona community colleges to ASU, NAU, and UA

2023-24	2022-23	2021-22
7,396	**7,926**	**9,217**



71.8%

four-year university graduation rate of new transfer students from Arizona community colleges to ASU, NAU, and UA

2023-24	2022-23	2021-22
71.2%	**71.3%**	**71.6%**

41.3%

of university graduates had credit from an Arizona community college (2023-2024)

2022-23	2021-22	2020-21
43.4%	**46.3%**	**49.4%**



57.2%

of new transfers from Arizona community colleges to ASU, NAU, and UA were minority students

2023-24	2022-23	2021-22
51.4%	**49.8%**	**47.9%**

FAST FACT DATA DEFINITIONS

FAST FACT	DEFINITION
New transfer students who entered with 60 or more credits	Students who transferred from an Arizona Community College to an Arizona public university with 60 or more credit hours.
University new freshmen who entered with Arizona community college credits	Students with any Arizona community college credits who entered an Arizona public university as new freshmen in a fall or spring semester.
New transfer students from Arizona community colleges to ASU, NAU, or UA	Students with 12 or more Arizona community college credits who entered an Arizona public university as new transfers in a fall or spring semester. Students may have additional transfer hours from other 2-year or 4-year postsecondary institutions.
Four-year university graduation rate of new transfer students from Arizona community colleges to ASU, NAU, and UA	This report provides the number and percentage of full time Arizona community college transfer students that graduated with a baccalaureate degree from the university within four years of transfer (through the summer semester of the fourth year). Full time means enrolled in at least 12 hours in Fall entry semester.
University graduates with credit from an Arizona community college (2023-2024)	Baccalaureate degree recipients at an Arizona public university with 12 or more credits from an Arizona community college who entered as new transfers in a fall or spring semester. Students may have additional transfer hours from other 2-year or 4-year postsecondary institutions.
New transfers from Arizona community colleges to ASU, NAU, and UA who were racial/ethnic minority students	Students with 12 or more Arizona community college credits who entered an Arizona university as new transfers in a fall or spring semester. The percentage of minority students is derived from students who reported themselves as one of the following: African American, American Indian, Asian, Pacific Islander, or Hispanic.

SOURCE: ASSIST Data Warehouse

COURSE COUNTS

Course evaluation and alignment is the cornerstone of AZTransfer's work. The Arizona Course Equivalency Tracking System (ACETS) is AZTransfer's internal system to aid faculty in determining course transferability. Using ACETS, community college faculty can submit information about their courses and route it to university faculty for evaluation. This report provides a quick overview of the transferability of Arizona community college courses to ASU, NAU, and UA as reported in 2024-25.



98%

of Arizona community college courses are transferable to at least one Arizona university

98%	98%	98%
2023-24	2022-23	2021-22

14,764

COURSE EVALUATIONS

Arizona public universities evaluated 14,764 Arizona community college courses.

15,065	15,639	16,444
2023-24	2022-23	2021-22

1,262

DIRECT EQUIVALENCIES

There are 1,262 Arizona community college courses that have direct equivalency to all three Arizona public universities.

1,251	1,233	1,228
2023-24	2022-23	2021-22

224

NOT TRANSFERABLE

224 courses were not transferable to any Arizona public universities.

219	174	105
2023-24	2022-23	2021-22

COURSE EQUIVALENCY REPORT

Arizona community college courses can be submitted for evaluation at any time throughout the year to determine their transferability to ASU, NAU, and UA. Course equivalencies are categorized as direct equivalencies, electives, and not transferable.

Arizona State University

2,949

2023-24	2022-23	2021-22
2,946	2,969	2,940

Arizona community college courses with direct equivalency to ASU

NAU Northern Arizona University

3,160

2023-24	2022-23	2021-22
3,132	3,101	3,006

Arizona community college courses with direct equivalency to NAU

Arizona

2,328

2023-24	2022-23	2021-22
2,276	2,235	2,247

Arizona community college courses with direct equivalency to UA

Arizona State University

	AWC	CAC	CC	CCC	DINÉ	EAC	MCCD	MC	NPC	PIMA	TOCC	YC	TOTAL
DIRECT EQUIVALENCY	255	206	206	158	88	348	793	130	160	302	104	199	2,949
ELECTIVE	641	368	381	249	157	642	2,731	148	294	673	190	476	6,950
NOT TRANSFERABLE	201	254	205	123	8	342	2,003	176	233	408	20	236	4,209
PENDING	24	41	24	37	65	31	309	3	12	17	30	57	650
TOTAL	1,121	869	816	567	318	1,363	5,836	457	699	1,400	344	968	14,764

NAU Northern Arizona University

	AWC	CAC	CC	CCC	DINÉ	EAC	MCCD	MC	NPC	PIMA	TOCC	YC	TOTAL
DIRECT EQUIVALENCY	272	200	168	235	102	437	729	127	186	365	98	241	3,160
ELECTIVE	817	587	608	311	178	884	4,856	313	499	1,000	206	658	10,917
NOT TRANSFERABLE	11	39	20	1	3	15	94	7	5	7	1	21	224
PENDING	21	43	20	20	35	27	157	10	9	28	39	48	457
TOTAL	1,121	869	816	567	318	1,363	5,836	457	699	1,400	344	968	14,764

Arizona

	AWC	CAC	CC	CCC	DINÉ	EAC	MCCD	MC	NPC	PIMA	TOCC	YC	TOTAL
DIRECT EQUIVALENCY	198	144	175	144	72	220	546	101	124	331	85	188	2,328
ELECTIVE	803	549	500	312	171	814	2,719	251	472	911	193	417	8,112
NOT TRANSFERABLE	98	130	120	72	18	292	2,340	93	94	138	58	302	3,755
PENDING	22	46	21	39	57	37	231	12	9	20	8	61	563
TOTAL	1,121	869	816	567	318	1,363	5,836	457	699	1,400	344	968	14,764

DUAL ENROLLMENT REPORT

This report summarizes dual enrollment student activity from the period 2023-24 unless otherwise noted.

43,532

Number of dual enrollment students served by Arizona community colleges.

2022-23	2021-22	2020-21
40,926	**36,342**	**30,802**

95.2%

Percent of dual enrollment students who receive a grade of C or better.

2022-23	2021-22	2020-21
95.4%	**94.9%**	**94.5%**

44.1% *2024-25 ACADEMIC YEAR*

Of dual enrollment students, 44.1% subsequently enrolled at ASU, NAU, or UA.

2023-24	2022-23	2021-22
41.4%	**38.5%**	**35.9%**

BUSINESS

The top major for dual enrollment students who earned a bachelor's degree.

2022-23	2021-22	2020-21
BUSINESS	**BUSINESS**	**BUSINESS**

372

Number of Arizona high schools offering dual enrollment courses.

2022-23	2021-22	2020-21
302	**298**	**192**

100,750

Total number of course enrollments.

2022-23	2021-22	2020-21
95,839	**84,793**	**73,469**

CREDIT BY EXAM

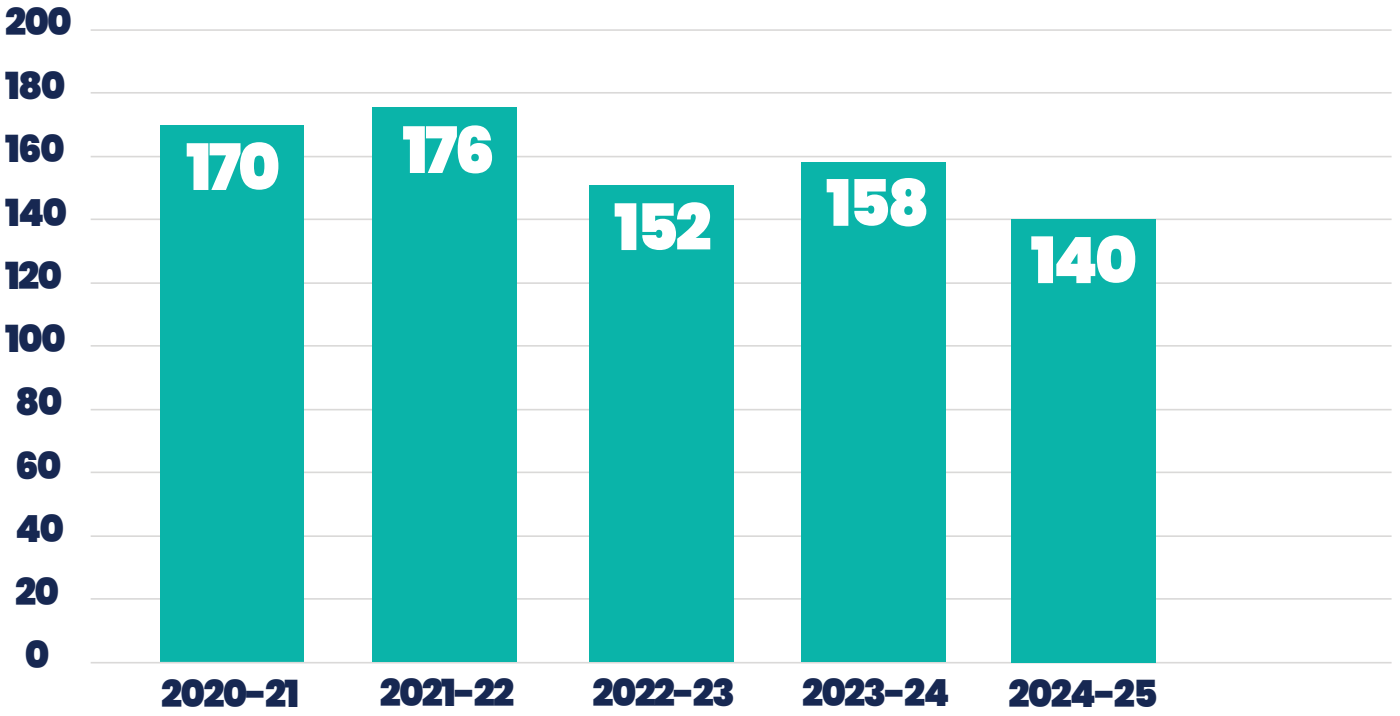
This report summarizes the number of Arizona high schools offering exams available in five testing programs– Advanced Placement (AP), Cambridge International Exams (CIE), College Level Examination Program (CLEP), International Baccalaureate (IB), and DANTES Subject Standardized Tests (DSST). AZTransfer's network of faculty evaluate these exams and determine scores needed to obtain credit at their institution. AZTransfer publishes this information in the Exam Equivalency Guide on AZTransfer.com.

	ADVANCED PLACEMENT (AP)	CAMBRIDGE INTERNATIONAL EXAMS (CIE)	COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)	DANTES SUBJECT STANDARDIZED TESTS (DSST)	INTERNATIONAL BACCALAUREATE (IB)
TOTAL EXAMS	38	75	34	71	37
ARIZONA HIGH SCHOOLS OFFERING EXAMS	272	13	0*	0*	23

**Curriculum and exam is administered independently and not in conjunction with high school districts.*

NEW FRESHMEN WITH ASSOCIATE DEGREE

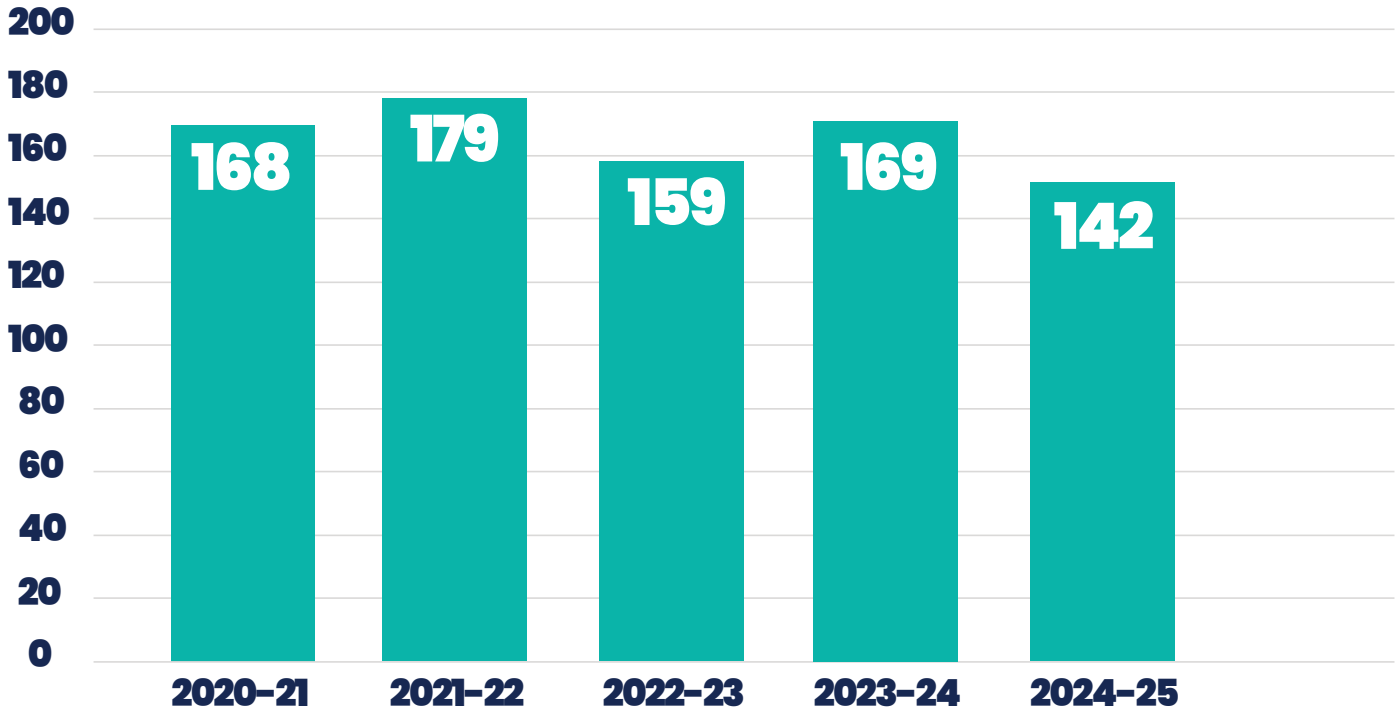
This graph shows the numbers of new university freshmen at ASU, NAU, and UA who received an associate degree from an Arizona Community College prior to entry.



NOTE: Some degrees are still being conferred.

NEW FRESHMEN WITH AGEC

This graph shows the numbers of new university freshmen at ASU, NAU, and UA who received an AGEC from an Arizona Community College prior to entry.



NOTE: Some degrees are still being conferred.

NEW FRESHMEN WITH ARIZONA COMMUNITY COLLEGE CREDIT

Arizona's community colleges are contributing to university degree attainment in more ways than one. This data indicates the total number of students who entered ASU, NAU, and UA with credits from an Arizona community college. It is broken down by how many students were traditional transfer students entering with 12 or more community college credits and how many were new freshmen with any amount of community college credit.

**Data is unavailable for Diné College and Tohono O'odham Community College. These institutions currently do not send data to ASSIST.*


209 new transfers
131 new freshmen
340
Coconino Community College
Diné College*
MOHAVE COLLEGE
210
96 new transfers
114 new freshmen
304
Yavapai COLLEGE
192 new transfers
112 new freshmen
Northland Pioneer College
139
66 new transfers
73 new freshmen
9,694
MARICOPA COMMUNITY COLLEGES
5,109 new transfers
4,585 new freshmen
ARIZONA WESTERN COLLEGE
641
492 new transfers
149 new freshmen
332
Central Arizona College
210 new transfers
122 new freshmen
157
EASTERN ARIZONA COLLEGE
110 new transfers
47 new freshmen
Tohono O'odham Community College*
PimaCommunityCollege
808
589 new transfers
219 new freshmen
191 new transfers
42 new freshmen
233
COCHISE COLLEGE

COMMUNITY COLLEGE CREDITS TRANSFERRED

This table shows the number of Arizona community college credits transferred to ASU, NAU, and UA by new transfer students.

	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25
12–23 HOURS	7.1%	7.6%	8.0%	10.6%	10.8%	10.5%
24–34 HOURS	8.3%	8.3%	9.2%	10.0%	10.1%	10.2%
35–59 HOURS	29.9%	30.2%	32.1%	29.8%	29.0%	28.6%
60+ HOURS	54.7%	53.9%	50.7%	49.6%	50.0%	50.7%
ASSOCIATE DEGREE	58.4%	57.2%	56.1%	56.9%	57.9%	N/A
AGEC ONLY	4.6%	5.3%	4.3%	4.0%	4.4%	N/A

NEW TRANSFER GRADUATION RATE

This page shows the four-year graduation rate of new transfer students in the fall 2021 cohort statewide and to ASU, NAU, and UA from Arizona Community Colleges. Four-year graduation rates from earlier cohorts are also included.



71.8%

71.2%	71.3%	71.6%
2020	2019	2018

Arizona State University

74%

72.2%	72.8%	72.5%
2020	2019	2018

NAU NORTHERN ARIZONA UNIVERSITY

71.6%

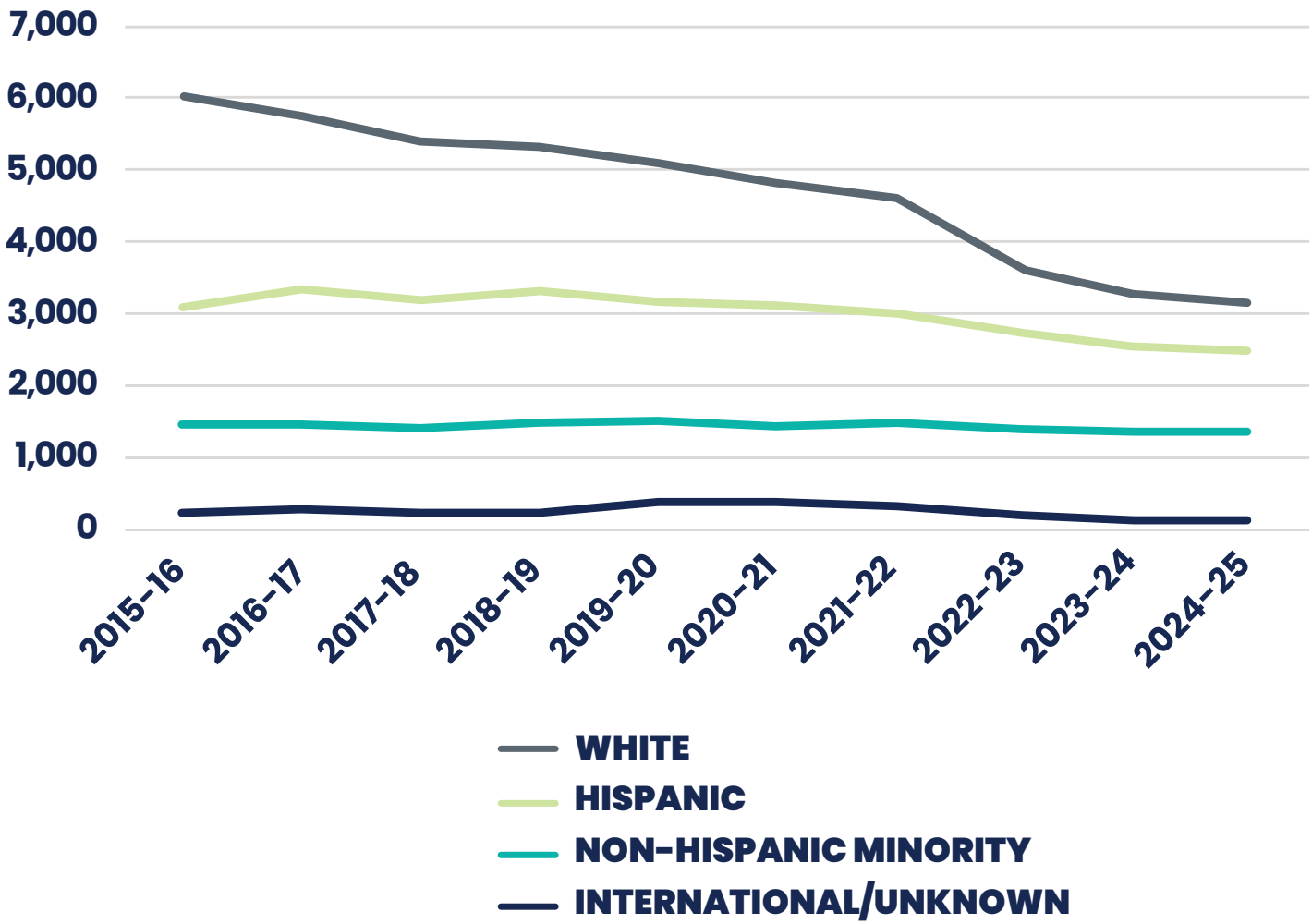
71.5%	71.1%	72.9%
2020	2019	2018

ARIZONA

64.2%

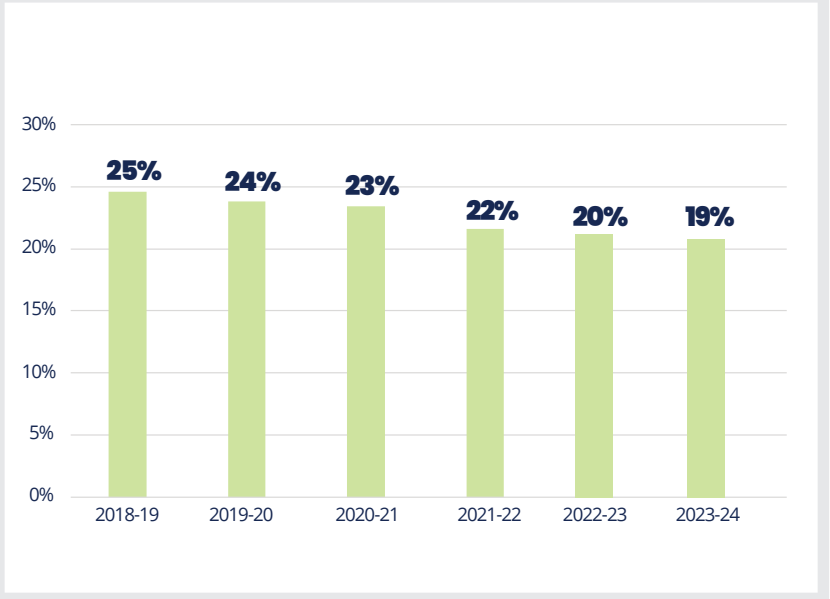
67.8%	66.6%	67.8%
2020	2019	2018

NEW TRANSFERS BY RACE/ETHNICITY

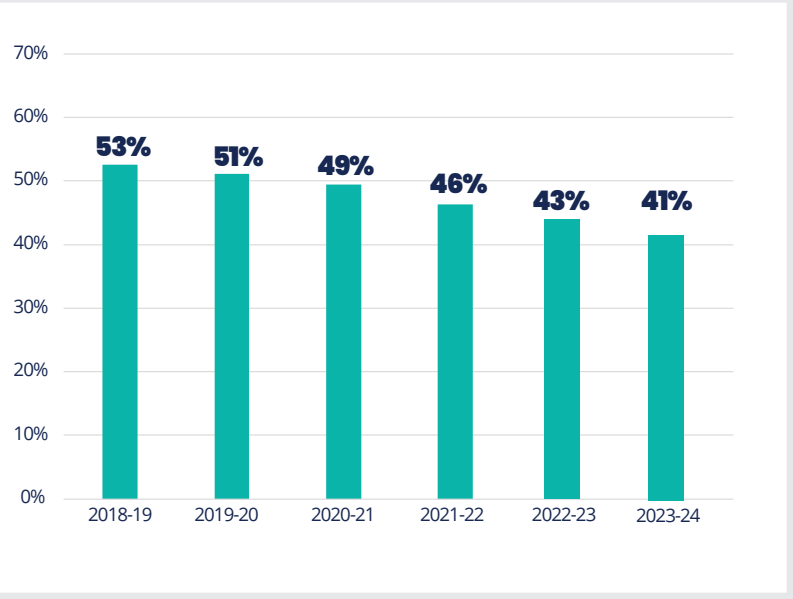


BACCALAUREATE DEGREE RECIPIENTS WITH ARIZONA COMMUNITY COLLEGE CREDIT

Percent of baccalaureate degree recipients at ASU, NAU, and UA who entered as new transfers from Arizona community colleges



Percent of baccalaureate degree recipients at ASU, NAU, and UA who had any number of Arizona community college credits



THE NEXT COURSE

A glimpse at AZTransfer's focus and goals for the 2025-26 academic year.



IMPLEMENT THE RE-IMAGINED ARIZONA GENERAL EDUCATION CURRICULUM

AZTransfer leaders will continue to implement the re-imagined AGEC statewide.



EXPLORE MICROCREDENTIALING

AZTransfer will explore opportunities to collaborate with partners on statewide initiatives on microcredentialing.



FOCUS ON DEGREE REQUIREMENTS

Through ATF meetings, AZTransfer will review and confirm that students are directed to courses that are both transferable and applicable to their degree program.



aztransfer

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MAKE EVERY CREDIT COUNT

ITEM 7.23: Request for Authorization to Initiate Lawsuit Against DBNCH Circle, LLC and Finding of Necessity, for Arizona State University

Requested Action: Pursuant to ABOR Policy 1-109.B, Arizona State University requests that the Board authorize Arizona State University to initiate litigation as described in this executive summary and approve the attached finding of necessity.

Background

- Pursuant to ABOR Policy 1-109.B, Arizona State University ("ASU") seeks approval to file a lawsuit against DBNCH Circle, LLC, a Delaware limited liability company (the "Defendant") to condemn the real property located at 602 N. 1st Avenue, Phoenix, AZ, as depicted on the attached Exhibit B (the "Property").

- The Property is located adjacent to other property owned or controlled by ASU and ASU desires to establish an innovation and creativity center at its downtown Phoenix campus.

Discussion

- Upon receiving this authorization from ABOR and so long as final efforts to acquire the Property without condemnation do not resolve the matter, ASU intends to file the lawsuit against the Defendant (the "Litigation").

- ASU requests that the Board authorize it to initiate the Litigation and to continue to pursue this Litigation on behalf of the Board.

- ASU requests that the Board find that the condemnation of the Property is required and necessary for the innovation and creativity center at its downtown Phoenix campus, as outlined in the Finding of Necessity attached hereto as Exhibit A.

Supporting Document/s

Exhibit A & B

Statutory/Policy Requirements

ABOR Policy 1-109.B requires that litigation initiated in the name of the Arizona Board of Regents must be authorized as outlined in the policy.

Contact Information:

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Exhibit A

Finding of Necessity

WHEREAS, ASU will be constructing certain improvements for the innovation and creativity center at its downtown Phoenix campus (the "Project").

WHEREAS, before the improvements for the Project can be constructed, it is necessary that fee simple title to certain real property be vested in ASU, as generally identified in the attached Exhibit B (the "Property") and Section One of this Resolution.

WHEREAS, the Property is located adjacent to other property owned or controlled by ASU and is required for the Project.

WHEREAS, to ensure that the necessary real and other property rights for the Project are acquired, to expedite the construction of the Project and to avoid unnecessary expense and delay, ASU seeks ABOR authorization to acquire the property rights specified in this Exhibit A through eminent domain.

WHEREAS, ASU has considered available alternatives, balanced the public good and the private injury resulting from the acquisition of the Property, and determined that locating the public improvements for the Project on the real property generally depicted on the attached Exhibit B results in the greatest public good and the least private injury.

NOW THEREFORE, BE IT RESOLVED BY THE ARIZONA BOARD OF REGENTS, AS FOLLOWS:

Section 1: That it is deemed necessary and essential that in order to construct the improvements for the Project referenced in this Exhibit A, it is necessary for ASU to acquire fee simple title to the portions of the real property identified and depicted on the attached Exhibit B.

Section 2: That ASU is hereby authorized and directed to: (i) acquire title in fee simple to the Property generally identified and depicted in Exhibit B in the name of the Arizona Board of Regents under the power of eminent domain; and (ii) do and perform all acts necessary to acquire title and interests in and to the necessary real property in

the name of the Arizona Board of Regents for and on behalf of Arizona State University for said public purposes.

Section 3: That ASU is directed to negotiate, even after the filing of an eminent domain action, to attempt to reach a negotiated value for the Property described on Exhibit B, with the goal of reaching a mutual agreement as to the just compensation for those property rights necessary for the Project.

AUTHORIZED BY THE ARIZONA BOARD OF REGENTS, this ____ day of November, 2025.

Exhibit B

Depiction of the Property



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ITEM 7.24: Request for Authorization to Initiate Lawsuit Against Robert Young and Finding of Necessity, for Arizona State University

Requested Action: Pursuant to ABOR Policy 1-109.B, Arizona State University requests that the Board authorize Arizona State University to initiate litigation as described in this executive summary and approve the attached finding of necessity.

Background

- Pursuant to ABOR Policy 1-109.B, Arizona State University ("ASU") seeks approval to file a lawsuit against Robert Young (the "Defendant") to condemn the real property located at 623 N. 4th St., Phoenix, AZ, as depicted on the attached Exhibit B (the "Property").

- The Property is located adjacent to other property owned or controlled by ASU and is the last parcel of land required for the proposed ASU Health facility.

Discussion

- Upon receiving this authorization from ABOR and so long as final efforts to acquire the Property without condemnation do not resolve the matter, ASU intends to file the lawsuit against the Defendant (the "Litigation").

- ASU requests that the Board authorize it to initiate the Litigation and to continue to pursue this Litigation on behalf of the Board.

- ASU requests that the Board find that the condemnation of the Property is required and necessary for the completion of the ASU Health facility, as outlined in the Finding of Necessity attached hereto as Exhibit A.

Supporting Document/s

Exhibit A & B

Statutory/Policy Requirements

ABOR Policy 1-109.B requires that litigation initiated in the name of the Arizona Board of Regents must be authorized as outlined in the policy.

Contact Information:

Lisa Loo, ASU	lisaloo@asu.edu	480-965-4550
Ben Mitsuda, ASU	bmitsuda@asu.edu	480-965-4550

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Exhibit A

Finding of Necessity

WHEREAS, ASU will be constructing certain improvements for the proposed ASU Health facility located in downtown Phoenix (the "Project").

WHEREAS, before the improvements for the Project can be constructed, it is necessary that fee simple title to certain real property be vested in ASU, as generally identified in the attached Exhibit B (the "Property") and Section One of this Resolution.

WHEREAS, the Property is located adjacent to other property owned or controlled by ASU and is the last parcel of land required for the proposed ASU Health facility.

WHEREAS, to ensure that the necessary real and other property rights for the Project are acquired, to expedite the construction of the Project and to avoid unnecessary expense and delay, ASU seeks ABOR authorization to acquire the property rights specified in this Exhibit A through eminent domain.

WHEREAS, ASU has considered available alternatives, balanced the public good and the private injury resulting from the acquisition of the Property, and determined that locating the public improvements for the Project on the real property generally depicted on the attached Exhibit B results in the greatest public good and the least private injury.

NOW THEREFORE, BE IT RESOLVED BY THE ARIZONA BOARD OF REGENTS, AS FOLLOWS:

Section 1: That it is deemed necessary and essential that in order to construct the improvements for the Project referenced in this Exhibit A, it is necessary for ASU to acquire fee simple title to the portions of the real property identified and depicted on the attached Exhibit B.

Section 2: That ASU is hereby authorized and directed to: (i) acquire title in fee simple to the Property generally identified and depicted in Exhibit B in the name of the Arizona Board of Regents under the power of eminent domain; and (ii) do and perform all acts necessary to acquire title and interests in and to the necessary real property in

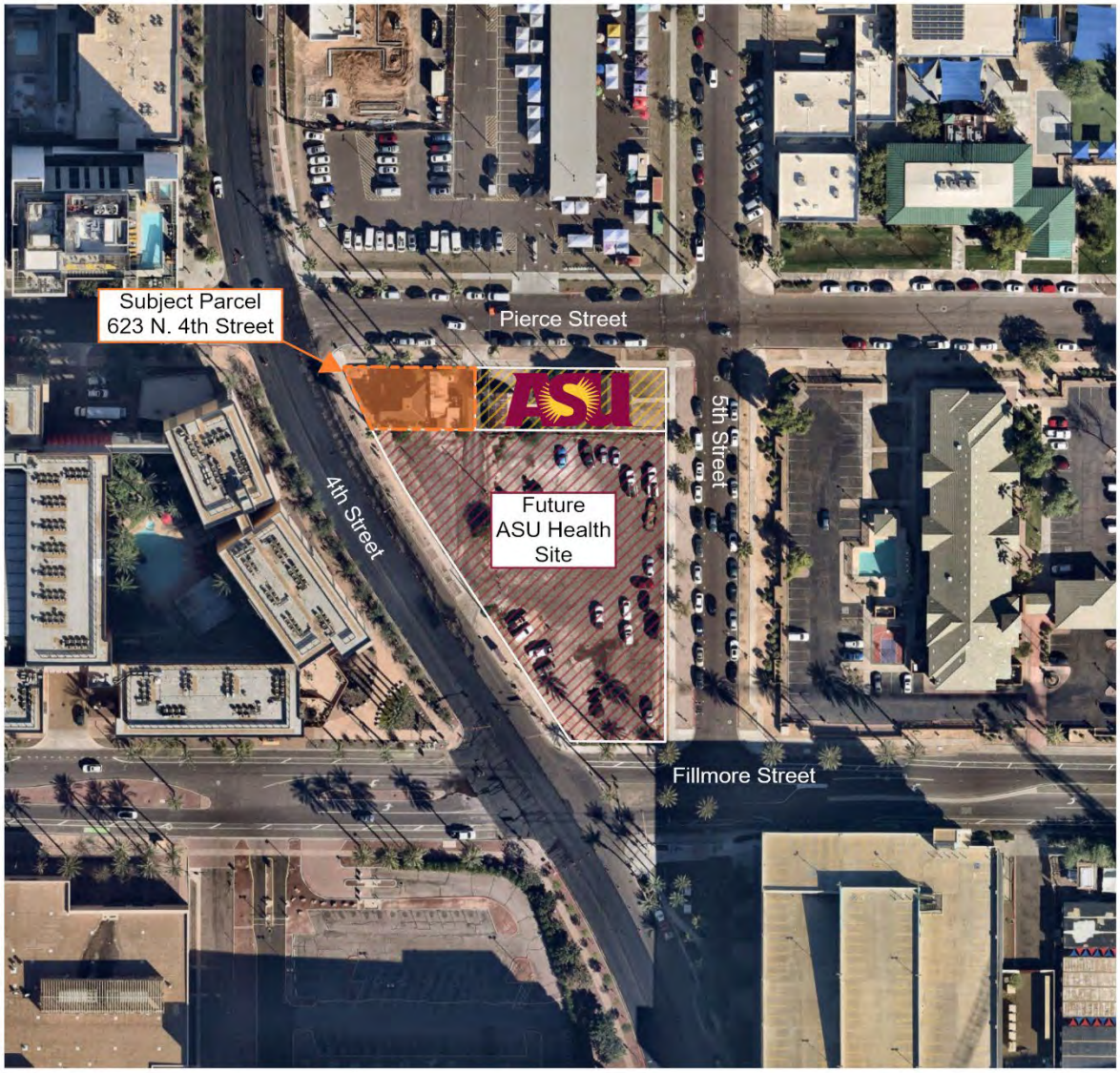
the name of the Arizona Board of Regents for and on behalf of Arizona State University for said public purposes.

Section 3: That ASU is directed to negotiate, even after the filing of an eminent domain action, to attempt to reach a negotiated value for the Property described on Exhibit B, with the goal of reaching a mutual agreement as to the just compensation for those property rights necessary for the Project.

AUTHORIZED BY THE ARIZONA BOARD OF REGENTS, this ____ day of November, 2025.

Exhibit B

Depiction of the Property



10/30/2025
U-0516 DPHX Acq

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