# Application for T-STEM Designation - New/Provisional

## 2017-2018

## Contents

# Texas Education Agency
# Application for T-STEM Designation
**Statutory Authority: Texas Education Code §39.235**

## Overview of Designation

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In order to operate as a Texas Education Agency (TEA)-approved Texas - Science, Technology, Engineering, and Math (T-STEM) Academy, a district must seek and receive T-STEM designation from TEA. In order to receive the T-STEM designation, a school must exhibit key traits from the T-STEM Academy Design Blueprint included in this application. The intent of this designation is to ensure that districts operating T-STEM Academies: integrate all the key characteristics of well-researched and well-designed STEM education while serving students who may not have otherwise considered the fields of science, technology, engineering, and math.

## Benefits of Designation

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**Recognition as an Approved T-STEM Academy:**
Schools designated by TEA as state-approved T-STEM Academies will receive various forms of media recognition including, but not limited to: identification on TEA's website as a state-approved T-STEM Academy and recognition in press releases.

**Participation in T-STEM Convenings:**
Special events hosted by TEA for T-STEM Academy administrators and principals to provide input on policies and procedures that impact T-STEM Academies.

**Membership in the T-STEM Network:**
Frequently opportunities are provided for principals, teachers, and students in designated T-STEM Academies through the T-STEM network to share best practices through conferences and technical assistance sessions. Membership in the T-STEM Network allows T-STEM Academies to access online exemplars, professional development, and webinars.

**Access to Professional Development and Technical Assistance:**
Designated T-STEM academies will have access to high-quality technical assistance which includes advice and information from a Leadership Coach who has successfully facilitated the design and implementation of the majority of T-STEM Academies operating in Texas.

**Strength of T-STEM Model:**

- Through the designation process, TEA will recognize those T-STEM Academies that effectively incorporate T-STEM Design Blueprint elements. The designation process will enable districts and their partners to engage in the research and planning necessary to ensure that their T-STEM Academies are set up in the most effective way possible.
- The T-STEM Blueprint provides a framework for T-STEM Academies to access college and career opportunities that support post-secondary success.

# Questions about Completing the Application

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**Who can fill out a T-STEM Academy designation application?**

Any district or charter school campus may apply to be designated as a T-STEM Academy. Potential applicants are encouraged to carefully review the T-STEM Design Blueprint to determine readiness for implementation of the model.

Any district or charter school campus that is utilizing 2016-2017 as a planning year, and if designated will beginning implementation at the beginning of the 2017-2018 school year.

**Will have to fill out the same application each year?**

No. New designation applicants and those T-STEM Academies that are provisionally designated will complete the comprehensive form. T-STEM Academies that are fully designated must complete the abbreviated T-STEM designation application yearly. The abbreviated renewal application will require a designated T-STEM Academy to provide updates regarding changes in the design and operation of the Academy. However, the primary focus of the annual renewal will be to gather evidence on the Academy's progress along the T-STEM Academy Design Blueprint continuum.

**Will this application be required for T-STEM Academy grantees in the future?**

Yes. In future funding cycles, completion of this application will be a program requirement for T-STEM Academy grant recipients.

**Who can I contact for help filling out this application?**

- **New applicants** may contact the T-STEM Program Manager at tstem@tea.state.tx.us.
- **2016-2017 designated T-STEM Academies** may contact their current T-STEM coach.

# Application Information

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**General Information:**

- A district or charter must submit a separate application with the required attachments on behalf of each proposed T-STEM Academy.
- The application must be submitted via the online system by **5:00pm, March 31st, 2017**
- A campus must be designated prior to the beginning of the school year in order to operate as a T-STEM Academy for that year. T-STEM Academy approval is valid for a maximum of one year. T-STEM Academy designated must be applied for each year via the TEA T-STEM designation process.

**Timeline & Process:**

- March 31st, 2017: Applications are due to TEA in order to open a campus as a designated T-STEM Academy during the 2017-2018 school year.
- June 2017: Districts submitting applications by March 31st, 2017 will be notified of the selection or non-selection of the campus as a designated T-STEM Academy on or about June 2017. Applications submitted prior to the March 31st, 2017 deadline may be approved prior to June 2017.
- The district will receive a notification letter of selection or non-selection for each campus it proposes to operate as a T-STEM Academy.

**Required Attachments:**

- **Official signature:** Official signature of a district or charter official authorized by the local board to bind the applicant organization in a legally binding contractual agreement.

**Required Supporting Documents:**

- The Academy must have current versions of the following documents on file.
- Each applicant is required to provide an assurance that each of the supporting documents is current for the 2017-2018 school year, signed by all parties, and provides detailed information regarding the specific assurance.
  - **Dual Credit MOU**
  - **Professional Development Plan**
  - **Business/Industry Agreement**
  - **2017-2018 Master Schedule**

**Questions:**

T-STEM Program Manager
tstem@tea.state.tx.us

# Required T-STEM Academy Design Program Elements

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**The following design elements are the minimum required components that must be demonstrated through this application in order to be designated as a T-STEM Academy:**

- A campus must be designated prior to the beginning of the school year to operate as a TEA designated T-STEM Academy for that year. T-STEM Academy designation is valid for a maximum of one year school year. Any campus wishing to be a designated T-STEM Academy must apply each year via the TEA T-STEM designation process.
- The T-STEM Academy must serve grades 9 through 12 and may serve grades 6, 7, and 8.
  - If an academy implements a 9-12 model, it must at least serve students in 9th grade.
  - If an academy implements a 6-12 model, it must, at a minimum, serve students in 9th grade and a middle school grade.
- A campus will select their campus model from one of the options below:
  - Stand-Alone Academy Single Campus: All students are enrolled in the T-STEM Academy.
  - Stand-Alone Academy Multiple campuses: All students on each campus are enrolled in the T-STEM Academy. This model typically spans a middle school and a high school for those academies that are serving students in grades 6-12.
  - School-within-School: A subset of student enrolled in grades 9-12 are enrolled in the T-STEM Academy.
  - School-within-School Multiple Campuses: a subset of students in grades 6-12 are enrolled in the T-STEM Academy; this model typically spans a middle school and a high school
  - School-within-School Other Grade Levels: all students enrolled in grades 6-12 or 9-12 are enrolled in the T-STEM Academy but other grade levels exist on the campus (such as grades K-5).
  - Other: Applicant must describe their model in detail.
- All designated T-STEM Academies are required to report student enrollment on the PEIMS Indicator during submission 1 (Fall Snapshot), 3, and 4. Submission data must be in alignment with the model selected above.
- A campus must implement during the initial designation year. Campuses that intend to enter a planning year should not apply for designation until they are ready to begin implementation.

**I. Mission Driven Leadership:**

- The Academy's mission statement and planned advisory board must reflect the mission and vision of the T STEM Initiative.
- The Academy must use program review and formative evaluation to achieve its mission and goals.
- The Academy must promote leadership development and collaboration within the Academy and T-STEM Network.
- For Academies that include 6th, 7th, and 8th grades, leadership teams from the middle school and high school must collaborate on a regular basis.

**II. Academy Culture and Design:**

- The T-STEM culture must foster positive student identities through meaningful adult and peer relationships.
- All students graduating from the Academy must be prepared for postsecondary coursework and careers in the STEM fields through the integration of the Governor's economic workforce clusters and AchieveTexas STEM cluster into the curriculum.
- The Academy must support all students to graduate high school with four years of math, four years of science, four years of STEM electives, an Endorsement (with a primary focus on STEM endorsements), and a Performance Acknowledgement for a Distinguished Level of Achievement.

**III. Student Access, Success, and Persistence:**

- The Academy must have a clear plan for student support and success to achieve persistence rates above 70%.
- The Academy must instill the expectation that students expand their participation and leadership in STEM activities outside the classroom and provide the opportunity to do so.

**IV. Teacher Selection, Development, and Retention:**

- The Academy faculty must possess extensive subject knowledge and integrate project based learning (PBL) and STEM pedagogy into the classroom.
- The Academy must adopt and implement a plan for sustained professional development.

**V. Curriculum, Instruction, and Assessment:**

- The Academy must align curriculum, instruction, and assessment to provide students with rigorous STEM focused instruction.
- The Academy must deliver Innovative STEM programs that are well-defined, embed critical thinking and problem solving, foster innovation and invention, and are aligned to state and/or national standards, and industry expectations.
- The Academy must integrate science, technology, engineering, and mathematics throughout the curriculum.
- The Academy must continually monitor student progress through assessments and data collection.
- The Academy must promote STEM literacy and prepare students with 21st Century skills.
- The Academy must support three years of STEM electives at middle school and four years of STEM electives at high school.

**VI. Strategic Alliances:**

- The Academy must promote family involvement in student success.
- The Academy must integrate business partnerships into the curriculum and student learning experience.
- The Academy must partner with IHEs and college/career-preparation entities to ensure that students graduate with college credits and prepared for postsecondary success.

**VII. Sustainability and Advancement:**

- The Academy must have a plan for continuous improvement and growth.
- The Academy must adopt and implement a plan for sustained professional development.

## Scoring of the Application

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- Each applicant will be reviewed by T-STEM subject-matter experts from across the state.
- New applicants will be reviewed based on the proposed plan and a follow up with the applicant, if necessary.
- Each applicant will receive a notification letter from TEA indicating which designation category it has been assigned: Designated, Provisionally Designated, or Denied.
- The T-STEM Academy Design Blueprint has been consolidated in the application to highlight priorities for the planning period of designation. Applicants should focus on the benchmarks presented in answering the questions.

# CONTACTS

## 1.1 T-STEM Academy

| | |
|---|---|
| **T-STEM Academy Name** | Edinburg Collegiate T-STEM Early College High School |
| **Mailing Address - Line 1** | 2600 E. Wisconsin Rd. |
| **Mailing Address - Line 2** | |
| **Mailing City** | Edinburg |
| **Mailing Zip Code** | 78542 |

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## 1.2 School District

| | |
|---|---|
| **School District name** | Edinburg Consolidated Independent School District |
| **Mailing Address - Line 1** | 411 North 8th Ave. |
| **Mailing Address - Line 2** | |
| **Mailing City** | Edinburg |
| **Mailing Zip Code** | 78541 |

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## 1.3 Education Service Center Region

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## 1.4 Person Completing this Application

| | |
|---|---|
| **Name Prefix** | Mr. |
| **First Name** | Louis |
| **Last Name** | Pena |
| **Job Title** | T-STEM/ECHS Director/Assistant Principal |
| **Phone** | (956) 289-2400 |
| **Email** | dom.pena@ecisd.us |

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## 1.5 Academy Principal/Director

| | |
|---|---|
| **Name Prefix** | Mr. |
| **First Name** | Louis |
| **Last Name** | Pena |
| **Job Title** | T-STEM/ECHS Director/Assistant Principal |
| **Phone** | (956) 289-2400 |
| **Email** | dom.pena@ecisd.us |

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## 1.6 Superintendent

| | |
|---|---|
| **Name Prefix** | Dr. |

| | |
|---|---|
| **First Name** | Rene |
| **Last Name** | Gutierrez |
| **Phone** | (956) 289-2300 |
| **Email** | rene.gutierrez@ecisd.us |

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## 1.7 T-STEM Academy Partner Information

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|---|---|
| **Institute of Higher Education Partner (dual credit provider)** | South Texas College |
| **STEM Business Community Industry Partner** | Doctors Hospital at Renaissance |

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## 1.8 Authorized School District or Charter Official

| | |
|---|---|
| **Name Prefix** | Dr. |
| **First Name** | Rene |
| **Last Name** | Gutierrez |
| **Job Title** | Superintendent |
| **Phone** | (956) 289-2300 |
| **Email** | rene.gutierrez@ecisd.us |
| **Uploaded Signature** | View Uploaded Document |

# Provisions and Assurances Agreement

**If designated, the T-STEM Academy assures the following the minimum required components will be implemented in the2017 school year.**

- A campus must be designated prior to the beginning of the school year to operate as a TEA designated T-STEM Academy for that year. T-STEM Academy designation is valid for a maximum of one year school year. Any campus wishing to be a designated T-STEM Academy must apply each year via the TEA T-STEM designation process.
- The T-STEM Academy must serve grades 9 through 12 and may serve grades 6, 7, and 8.
  - If an academy implements a 9-12 model, it must at least serve students in 9th grade.
  - If an academy implements a 6-12 model, it must, at a minimum, serve students in 9th grade and a middle school grade.
- A campus will select their campus model from one of the options below:
  - Stand-Alone Academy Single Campus: All students are enrolled in the T-STEM Academy.
  - Stand-Alone Academy Multiple campuses: All students on each campus are enrolled in the T-STEM Academy. This model typically spans a middle school and a high school for those academies that are serving students in grades 6-12.
  - School-within-School: A subset of student enrolled in grades 9-12 are enrolled in the T-STEM Academy.
  - School-within-School Multiple Campuses: a subset of students in grades 6-12 are enrolled in the T-STEM Academy; this model typically spans a middle school and a high school
  - School-within-School Other Grade Levels: all students enrolled in grades 6-12 or 9-12 are enrolled in the T-STEM Academy but other grade levels exist on the campus (such as grades K-5).
  - Other: Applicant must describe their model in detail.
- All designated T-STEM Academies are required to report student enrollment on the PEIMS Indicator during submission 1 (Fall Snapshot), 3, and 4. Submission data must be in alignment with the model selected above.
- A campus must implement during the initial designation year. Campuses that intend to enter a planning year should not apply for designation until they are ready to begin implementation.

1. Mission Driven Leadership:
   - The Academy's mission statement and planned advisory board must reflect the mission and vision of the T STEM Initiative.
   - The Academy must use program review and formative evaluation to achieve its mission and goals.
   - The Academy must promote leadership development and collaboration within the Academy and T-STEM Network.
   - For Academies that include 6th, 7th, and 8th grades, leadership teams from the middle school and high school must collaborate on a regular basis.
3. Academy Culture and Design:
   - The T-STEM culture must foster positive student identities through meaningful adult and peer relationships.
   - All students graduating from the Academy must be prepared for postsecondary coursework and careers in the STEM fields through the integration of the Governor’s economic workforce clusters and AchieveTexas STEM cluster into the curriculum.
   - The Academy must support all students to graduate high school with four years of math, four years of science, four years of STEM electives, an Endorsement (with a primary focus on STEM endorsements), and a Performance Acknowledgement for a Distinguished Level of Achievement.
   - The T-STEM Academy must cohort T-STEM students in core classes.
5. Student Access, Success, and Persistence:
   - The Academy must have a clear plan for student support and success to achieve persistence rates above 70%.
   - The Academy must instill the expectation that students expand their participation and leadership in STEM activities outside the classroom and provide the opportunity to do so.
7. Teacher Selection, Development, and Retention:
   - The Academy faculty must possess extensive subject knowledge and integrate project based learning (PBL) and STEM pedagogy into the classroom.
   - The Academy must adopt and implement a plan for sustained professional development.

☑ the applicant assures that the above minimum required T-STEM Designation components will be implemented in the 2017-2018 school year.

# BACKGROUND

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|---|---|
| **2.0 Is your campus currently designated as an Early College High School (ECHS) through the TEA ECHS designation process?** | Yes |
| **2.1 First year of T-STEM Academy Operation** | 2016 |

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|---|---|
| **2.2 Academy Model:<br>What is the design of the T-STEM Academy requesting designation?** | School-within-School: A subset of student enrolled in grades 9-12 are enrolled in the T-STEM Academy. |

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## 2.3 Target Population

| | |
|---|---|
| **What is the grade level range of students your academy will serve?** | 9th-12th |

**The T-STEM academy must serve grades 9-12 and may serve grades 6,7, and 8.**
**If an academy implements a 9-12 model, it must serve at a minimum grade 9 during the initial designation school year.**
**If an academy implements a 6-12 model, it must serve at a minimum grade 9 and one middle school grade during the initial designation school year.**

| Current (if applicable) and projected student enrollment: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Grades of students to be served** | **6th** | **7th** | **8th** | **9th** | **10th** | **11th** | **12th** | **Total Enrollment** |
| **2017-2018 projected enrollment** | n/a | n/a | n/a | 175 | 175 | 0 | 0 | 350 |
| **2016-2017 enrollment (if designated in the 2016-2017 school year)** | n/a | n/a | n/a | 175 | 0 | 0 | 0 | 175 |

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| County-District-Campus numbers where students from each grade level are enrolled: | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Grades of students to be served** | **6th** | **7th** | **8th** | **9th** | **10th** | **11th** | **12th** |
| **9-Digit CDC #:** | n/a | n/a | n/a | 108904001 | 108904001 | | |

# BENCHMARKS

## T-STEM Blueprint Instructions

The T-STEM Academy Design Blueprint consists of seven benchmarks that drive the success of an Academy. Each benchmark highlights program requirements and offers a rubric score of developing, implementing, mature, or role model. T-STEM Academies use this tool to measure growth and progress along the continuum.

All seven benchmarks are included in the application. However, applicants may notice the program requirements are not numbered sequentially. This is because not all program requirements are included in the Designation Application. Applicants are not expected to meet or even consider all program requirements at this stage in the process. Instead, those program requirements that form the building blocks of a successful designated Academy are included in the Designation Application. Focused consideration of those particular program requirements will mean a successful applicant will have a strong foundation as a designated T-STEM Academy. The technical assistance that comes as a result of designation will allow the designated Academy to implement the Blueprint Benchmarks' full program requirements over time.

**Benchmarks 1-4, 6 & 7**
Applicants should first review the program requirements for each benchmark presented in the body of the application. The questions that follow pertain to those specific requirements (i.e. Benchmark 1 questions pertain to Benchmark 1 program requirements). Applicant responses should reflect a close consideration of the highlighted rubric areas in the context of what the campus has in place currently and could feasibly implement during the first designated year. Applications will be scored on the response's evident understanding of the continuum of growth along the rubric, evidence of existing programs, and feasible plan to move forward for each requirement.

**Benchmark 5: Curriculum, Instruction, and Assessment**
Applicants should review the program requirements presented in each section and rate the campus's existing system in the rubric's check boxes. Applicants are then asked to justify the ratings with evidence, reflection, and a plan to move forward, bearing in mind that with designation comes the tools and assistance necessary to progress along the continuum. Successful applicants will reflect an understanding of Benchmark 5 and are not necessarily expected to have all elements in place before designation.

# Benchmark 1: Mission-Driven Leadership

**Program Requirements**

| | |
|---|---|
| 1.2.C. | Develops and demonstrates support from an advisory board (AB) consisting of representatives from the Academy, school board, district, community, higher education, and STEM businesses to support and guide facility requirements, resource acquisition, curriculum development, internship, externships, and student/community outreach to ensure a successful 6-20 STEM academic and career pipeline. |
| 1.3.A. | Integrates and assesses the level of mission-driven and data-driven decision making evident in the daily work of the Academy. |
| 1.4.A. | For 6-12 campuses, middle school and high school leadership teams regularly collaborate to advance 6-12 alignment and student retention in STEM. |

**Key Elements for Success**

- Job descriptions and roles for design team, leadership team, and advisory board
- Mission is posted and can be articulated by teachers, staff, students, key stakeholders, etc.
- MOUs with T-STEM Centers

| | Developing | Implementing | Mature | Role Model |
|---|---|---|---|---|
| 1.2.C. | Advisory Board (AB) established. | AB positions and subcommittees are identified. | AB develops innovative and creative approaches to support Academy mission and vision. | AB addresses major shifts in STEM, educational standards, industry expectations, and analyzes SWOT of Academy, resulting in measurable action items. |
| 1.3.A. | Little or no evidence of data-driven and mission-driven decision making. | Data is used to design student interventions, Annual Action Plan (AAP), and to inform teaching and learning aligned to the mission. | Teachers work interdependently as teams to review data across content areas, develop targeted interventions, and develop common formative assessments. | The Academy's continual analysis of results for improvement is critical to the school's system of interventions and culture of celebration. |
| 1.4.A. | Academy leadership occasionally collaborates with each other (6th - 12th), with T-STEM centers, and T-STEM Coaches. | Academy leaders and staff collaborate with each other (6th - 12th), and with T-STEM Centers and Coaches to integrate STEM teacher preparation, teaching, and learning.<br><br>*And meets criteria from Developing* | Academy plans with regional T-STEM Center, vertical alignment teams 6th - 12th (at least quarterly), and meets with their T-STEM Coach, virtually or Face-to-Face (at least monthly).<br><br>*And meets criteria from Developing and Implementing* | Academy dialogues on a regular, ongoing basis in vertical alignment teams (6th - 12th), with T-STEM Centers and Coaches, and utilizes available T-STEM resources to improve student achievement and teacher preparation.<br><br>*And meets criteria from Developing, Implementing, and Mature* |

# Benchmark 1: Mission-Driven Leadership

- Program Requirement 1.3.A. addresses the use of data to drive design, decision making, and program review in a T-STEM Academy.
- Designated campuses will be expected to meet or exceed “Implementing” on the rubric above (Data is used to design student interventions, Annual Action Plan, and to inform teaching and learning aligned to the mission) by the end of the first designated year.

*Describe below how the campus will meet or exceed this expectation.*

Edinburg Collegiate T-STEM Early College High School will utilize student data to monitor student progress and to provide support to all T-STEM ECHS students to ensure their success by providing instructional support. Edinburg Collegiate T-STEM ECHS will , through academic and curriculum development, employee instructional strategies within the delivery of the lessons as indicated from progress reports, assessments and benchmarks. Edinburg Collegiate T-STEM ECHS will disaggregate data extracted from Euphoria/DMAC software. Edinburg Collegiate T-STEM ECHS teachers will, through planning, administering and interpreting appropriate curriculum and assessments and consistently in every grading cycle, identify the students strengths and develop a plan of action to address the areas in need of improvement. The counselor and Edinburg Collegiate ECHS/T-STEM Director will periodically meet with students, parents and the teachers to address any areas of need. Edinburg Collegiate T-STEM ECHS teachers will receive professional development to help better understand the student needs and improve their instructional delivery through the utilization of STEM strategies.

- Program Requirement 1.2.C. details the requirements for an Academy's advisory board (AB).

*List the planned AB members and their job title (example: John Smith, School Board Member; Jan Smith, STEM Business Leader, etc.). Detail how this board will support the Academy work.*

Advisory Board
Dr. Rene Gutierrez, Superintendent of Schools
Eva Torres, Assistant Superintendent for Curriculum and Instruction
Dr. Shirley Reed, South Texas College President
Dr. Rebecca Morrison, Assistant Superintendent for Finance and Operations
Carlos Guzman, Area Director for Secondary Schools
Arminda Lozano, Career and Technical Education Director
Ma. Angelica Perez, Advanced Academics and Guidance Services Director
Carmen Esquivel, College Readiness Supervisor
Louis Dominic Pena, Academy Director
Doctors Hospital at Renaissance Edinburg

The role of the Superintendent of Schools, Dr. Rene Gutierrez is to provide guidance in all aspects of the schools programs such as curriculum, personnel, budgeting and ultimately having the authority to approve the set initiatives. The Assistant Superintendent of Curriculum and Instruction, Eva Torres, will counsel, advise and provide guidance in the areas of Curriculum and Instruction. Her extensive experience and knowledge will be a great asset to Edinburg Collegiate Prep T-STEM Early College High School program. Dr. Shirley Reed, South Texas College President, has final authority over the institute of higher education college programs and availability. Ma. Angelica Perez, Advance Academics and Guidance Services Director, will provide support, updates and recommendations on College Boards Advanced Placement program requirements to include compliance with course audits, dual enrollment and professional development focused on STEM. Carlos Guzman, Area Director for Secondary Schools, will assist and support facilitating the use of instructional facilities from the high school campus. Arminda Lozano, Career and Technical Education Director, will share her expertise in educational programs and provide support through the use of instructional strategies in regards to the CTE instructional programs and facilities. Carmen Esquivel, College Readiness Supervisor, will meet on a monthly basis with the academy staff to provide guidance, pedagogical resources to ensure the fidelity of the STEM blueprint takes place through systematic and strategic audits. Louis Dominic Pena, Academy Director, will administer facilities and personnel, guide and implement instructional programs and build positive rapport with the IHE and the Edinburg Collegiate Prep T-STEM Early College High School. The role of the board is to ensure the fidelity of the T-STEM academy model is being implemented; to ensure high quality instruction; to provide adequate training and professional development to staff and to ensure the students are enrolled in a coherent course sequence. The board will also periodically review the memorandum of understanding, discuss budget and cost arrangements and address any issue of design. The board has and will continue to address budgetary issues and concerns, staffing of Edinburg Collegiate T-STEM Early College secondary education, and demonstrate the creation of a sustainable plan to support for the successful implementation of the academy. The accomplishment that the board is most proud of is obtaining the support from district personnel, Board of Trustees and the community at large.

*Program Requirement 1.1.A: Provide the Academy mission statement below.*

The mission of Edinburg Collegiate T-STEM Early College High School is to foster a partnership with families, community and public education agencies to continue the tradition of excellence by creating a whole school environment that provides resources, opportunities, positive reinforcement and diversified instruction for every student to achieve academic excellence through rigorous instruction with a focus and interest in a STEM field.

- Program Requirement 1.4.A details the requirements for 6th-12th campuses to collaborate on a regular basis to advance 6th-12th alignment and student retention in STEM.

*Describe below how the campus will meet or exceed this expectation. If Academy is 9th-12th write, "Not Applicable".*

| |
|---|
| Not Applicable |

# Benchmark 2: T-STEM Academy Culture and Design - Blueprint

Texas Science, Technology Engineering and Mathematics

**Benchmark 2: T-STEM Academy Culture and Design**
**Program Requirement: 2.1 Personalization**

**2.1.A** Addresses in AAP and strategic plan the details for remaining small, allowing for personalization and maintaining collaborative learning communities of students.
**2.1.B** Plans and implements a non-graded student advisory program that is regularly scheduled, noted in the master calendar/schedule, and focuses on personalizing the student experience, (builds relationships with students and parents, develops character, and fosters global literacy).
**2.1.C** Develops a process for hearing and responding to student voice.

| Key Elements for Success | Example Artifacts |
|---|---|
| • Student IGPs w/ CCRS, Endorsements, and Performance Acknowledgement plans<br>• Master schedule for advisory<br>• Student enrollment | • Opportunities for orientation sharing and team building activities both on- and off-site<br>• Advisory class curriculum<br>• Student goal setting and reflection logs<br>• Teacher mentors assigned to students<br>• Pre- and post-assessments of advisory class goal<br>• Students sit on advisory board and/or have voice in student work products, clubs, competitions, governance, and course offerings<br>• School wide activities to build/share culture<br>• Student ambassadors serving as classroom greeters and/or guide tour groups<br>• Teacher/student ratios, actual class sizes<br>• Surveys documenting students' elective requests |

| Developing | Implementing | Mature | Role Model |
|---|---|---|---|
| 1. District and Academy resources are allocated to ensure teaching staff and facilities remain small. | 1. Annual Action Plan and Academy handbook address plan for maintaining personalized, small, learning communities. | 1. Students are regularly afforded multiple opportunities to build relationships with staff and peers such as working in academic and/or competitive teams horizontally and vertically. | 1. Protocols are developed to ensure students have a clear and documented voice in the Academy (student council, advisory committee to the director, suggestion box, etc. |
| 2. Student advisory is regularly scheduled and focuses on relationships, building school capital, developing and fostering global literacy. | 2. Advisory class has written curriculum with goals, expectations, scope, sequence, and pacing guides. | 2. Teachers work in teams to develop systemic advisory programs with horizontally and vertically aligned student outcomes. | 2. Annual resources are allocated to develop, revise, and sustain advisory program with input from students, teachers, parents, and external partners. |
| | *And meets criteria from Developing* | *And meets criteria from Developing and Implementing* | *And meets criteria from Developing, Implementing, and Mature* |

**Benchmark 2: T-STEM Academy Culture and Design**

**Program Requirement: 2.1 Personalization**

**2.1.D** Arranges for a flexible school day with blocks of time that support student learning (tutorials, collaboration, meetings).

**2.1.E** Celebrates high quality student work through student exhibits on-site, web-based, and/or in state and national forums.

**2.1.F** Provides every 6th – 12th student with an individualized STEM-focused high school graduation plan that addresses: four years of math and science; an Endorsement in STEM, Business and Industry, Public Service, or Arts and Humanities; identifies target areas for Performance Acknowledgements; and is at least annually reviewed and revised with the counselor, student, and family.

**Example Artifacts**

- Honor roll, grade level/school-wide celebrations
- Classroom and building displays
- Number of students participating in student exhibits
- Agendas/signatures for IGP meetings with students and family
- IGP, record folder/portfolio, 6th -16th course plan
- Master schedule, tutoring schedule
- Minutes/action items from site based committees, etc.
- Website showcasing student work
- Documentation of at least annual 6th – 12th IGP meetings with parents and students

| Developing | Implementing | Mature | Role Model |
|---|---|---|---|
| 1. Academy develops a flexible schedule that supports student success. | 1. Schedule is developed with input from teachers, counselors, content coaches, extracurricular and internship/capstone requirements. | 1. Teachers work in teams to adjust daily schedule to facilitate interdisciplinary PBL. | 1. Schedule is adjusted to meet student needs according to data, student, teacher, and parent voice; intervention and extension plans. |
| 2. Academy regularly schedules for students to share their knowledge and work products. | 2. Students participate in panel presentations, debates, academic fairs, webinars, online challenges, competitions, design challenges, etc. | 2. Resources are allocated to provide students with opportunities to participate in state and national forums, conferences, and competitions (financial, facilities, staffing, transportation, etc.). | 2. Academy establishes protocols with input from key stakeholders to gauge the effectiveness of student participation in competitions, challenges, etc. towards promoting college and career readiness as well as Academy goals. |
| 3. Academy develops IGP for each 6th – 12th student that addresses STEM pathways, THECB College and Career Readiness Standards. | 3. Student, counselor, and family regularly review and revise the IGP to address student goals for courses, grades, Endorsements, Performance Acknowledgements, college entrance exams, PSAT/ACT/SAT, career aspirations, etc.<br>*And meets criteria from Developing* | 3. Annually reviews and revises IGP according to previously established protocols and timelines.<br>*And meets criteria from Developing and Implementing* | 3. Mentors are assigned to students to develop intervention contracts to address deficiencies or acceleration opportunities in IGP.<br>*And meets criteria from Developing, Implementing, and Mature* |

Texas Science, Technology Engineering and Mathematics

**Benchmark 2: T-STEM Academy Culture and Design**
**Program Requirement: 2.2 Culture**

**2.2.A** Collaborates with stakeholders to develop a new handbook or modify the existing handbook with clear procedures, policies, and consequences that support the development of a strong T-STEM culture.

**2.2.B** Involves all stakeholders in developing a culture of respect, responsibility, trust, and meaningful adult and peer relationships throughout the Academy in order to foster positive student identities.

**2.2.C** Creates a professional learning community environment of collaboration, teaming, and high expectations among administrators, teachers, and stakeholders, with a focus on and a commitment to the learning of each student.

**Example Artifacts**

- Handbook, attendance/discipline goals/data
- Customs and celebrations, modeling lessons for respect, responsibility, trust
- Student, teacher, parent surveys address culture
- Sharing of ideas and strategies and joint problem-solving are widespread.
- School developed common vocabulary for evidence of "good teaching"
- PLC protocols and expectations (meeting times, book studies, goals, results based on interventions, reflections on results – new actions, etc.)
- Collaborative planning of learning and teaching activities
- Widespread teamwork involving teachers and support staff
- Peer walkthroughs, lesson evaluations, and critical friends reflections

| Developing | Implementing | Mature | Role Model |
|---|---|---|---|
| 1. Handbook is developed to address student, parent expectations and a culture of respect, responsibility and trust. | 1. Handbook addresses key tenets of cultural beliefs of Academy (student ability and achievement, efficacy and effort, power, distributed leadership, cultural sensitivity, proactive and reflective practice, etc.). | 1. Handbook is developed with input from key stakeholders with clear policies, procedures, and consequences (attendance, discipline, student contracts, teacher extended days, etc.). | 1. There is a high degree of commitment to school-wide professional values and a strong sense of cohesion and consistency of approach, with protocols to analyze, build, and assess effectiveness of culture. |
| 2. Professional Learning Community (PLC) is developed which supports staff devoting effort, energy, time, and resources into incorporating valuable new strategies into their practice. | 2. An inquiry-based continuous improvement orientation to practice is pervasive, with data informing practice and learning widely shared. | 2. Staff regularly and consistently plans together, collaborates and shares ideas through meetings, website resources, teaming, team teaching etc., and garners input from external experts. | 2. A desire to do the best for *all* students pervades the school as evidenced by protocols for regular and deep school-wide dialogue about good teaching, assessment, learning, projects, and successes of individual students. |
| | *And meets criteria from Developing* | *And meets criteria from Developing and Implementing* | *And meets criteria from Developing, Implementing, and Mature* |

# Benchmark 2: T-STEM Academy Culture and Design - Responses

- Applicants should consider the program requirements listed above as they pertain to a student's individualized learning experience.

*Describe the campus's efforts to support students to reach this goal. This description should include plans for: an advisory period, a positive school culture, enhanced relationships with parents, and responding to student voice.*

Edinburg Collegiate T-STEM Early College High School will provide academic support to the students by personalizing the learning environment through planning, administering, and interpreting appropriate curriculum and assessments consistently in every grading cycle. The administrative staff will be conferring with teachers and faculty about individual students, their assessment scores and interests as indicated in questionnaires by preparing and monitoring individual learning ensuring that it takes place. This will enable planning for career development, identify strategies to achieve college readiness, making future student career and academic success attainable. Planned academic guidance activities will foster and understanding of the relationship between personal qualities, education and the development of college goals by all students. As a result of the development, students will have a sense of urgency in becoming college ready. All students will meet with the counselor during pre-registration, at the beginning and throughout the school year and develop a comprehensive graduation plan focused within a STEM concentration. The personal graduation plan will include a career inventory, degree plan, course/credits completed and the layout for the students; academic goals for graduating include post-secondary plans. All teachers will receive training to develop, support and promote student success through differentiated and innovative STEM instruction. Teacher at Edinburg Collegiate T-STEM Early College High School will provide opportunities for remediation and/or acceleration. Acceleration and remediation activities will be made available before and after school, through differentiated instruction during planned Saturday Tutorials and summer bridge program. An advisory session will provide opportunities for both students and teachers to collaborate; students will work on project-based learning assignments (school and/or community projects). Edinburg Collegiate T-STEM Early College High School will demonstrate an understanding and appreciation of the life-long process of learning, growing, and changing by providing social and emotional assistance and support to all students. The counselor, a STEM advocate, will help students develop responsible social skills and develop an understanding and appreciation of being a contributing member of society meeting with them on a regular basis to provide guidance, counseling as well as address any other issue. As a result, students will demonstrate a positive attitude toward self as a unique and worthy person by gaining life-planning skills that are consistent with their needs, interests, and abilities. Social and emotional preparation and success will enable students to meet the challenges of academic college preparation. Edinburg Collegiate T-STEM Early College High School will develop structures and systems that ensure success in encouraging students to understand the relationship between school success, college preparation and life experiences by exposing students to career opportunities and college visits. Ultimately, Edinburg Collegiate T-STEM Early College High School will support the development of improved academic self-concept among all participants. A positive rapport among teachers, students, and parents will establish a productive venue of communication.

*Applicants should consider the program requirements listed in the "Benchmark 2 Program Requirements" link above as they pertain to postsecondary college and career success.*

- 6th-12th STEM-focused high school graduation plan: IGP with Endorsement, Performance Acknowledgement, and Distinguished Achievement.
- 6th-12th STEM career and college exploration, and college readiness preparation with students and parents to include college transition plan.
- Collaboration with IHE.
- All students should graduate with 12-30 hours college credit and be prepared for postsecondary coursework in STEM fields.

| |
|---|
| Not Applicable |

- Program requirement 2.2.C. highlights the importance of a strong Professional Learning Community for the success of all students.
- Review at the rubric continuum and tools in Example Artifacts from a successful Academy.

*Describe how the campus will use these tools to progress into a "Mature" campus over time. "Staff regularly and consistently plans together, collaborates and shares ideas through meetings, website resources, teaming, team teaching, etc., and garners input from external experts." This description may include inquiry-based approaches, data informed decision making, Professional Learning Communities, collaboration, and integration of technology.*

Edinburg Collegiate T-STEM Early College High School will supplement all instructional programs to meet the needs of all populations in order to narrow the achievement gap, meet AYP requirements and assure college-readiness for all students through a comprehensive professional development plan that focuses on STEM learning and STEM practices. Teachers will attend College Board Advanced Placement Institutes over the summer and will meet monthly throughout the school year to revisit, showcase and share the learned strategies. A turn around training will be conducted by those who attend workshops, in-services and/or conferences in weekly department meetings. Both horizontal and vertical alignment will take place through content area planning and collaboration among the academy staff. Staff development will be offered throughout the year targeting the collaboration and alignment of the Edinburg Collegiate T-STEM Early College High School curriculum and timeline, including differentiated instruction and project based learning workshops that increase the rigor of the curriculum. Teachers will also receive training on the enhanced incorporation of technology in their lessons. Teachers will be encouraged to peruse post graduate degrees by being provided with opportunities to apply for programs. The district will offer stipends to those teachers that acquire a master’s degree in their content or related field. The IHE personnel will be invited to participate in designated monthly professional development in-service where schedules will be developed for peer observations and all educators share and discuss their findings. In doing so, teachers will align goals and objectives to improve STEM instruction. Edinburg Collegiate T-STEM Early College High School students will be encouraged to participate in open dialogue with staff and administration during enrichment session and informational meetings. With the addition of subsequent cohorts, a tradition of high expectations and serious interest in STEM learning will be fostered by the staff creating a self-perpetuating interest on behalf of the student body. Through such rapport between staff, students and parents, we will nurture the STEM learning community.

Texas Science, Technology Engineering and Mathematics

**Benchmark 3: Student Outreach, Recruitment, and Retention**
**Program Requirement: 3.1 Recruitment and 3.2 Open Access**

**3.1.A** Develops structures and processes for marketing and recruitment to encourage participation from underserved students and families (transportation or plans for transportation to the school, child care for family events, and translation of all recruitment and marketing materials).
**3.1.B** Actively partners with feeder middle and/or elementary schools to develop student interest in STEM education and to increase advancement rates from middle school STEM to high school STEM.
**3.1.C** Develops a systemic recruitment plan that includes students, parents, counselors, teachers, district, and community.
**3.2.A** Develops an admission policy to include an open access, lottery-based selection process that encourages applications from all students. The application will not be based on state assessment scores, discipline history, teacher recommendation, minimum GPA, or other requirements that would be used to limit selection.
**3.2.B** Consists of a population that is 50% or greater economically disadvantaged and underrepresented students.

| Key Elements for Success | Example Artifacts |
|---|---|
| • Written admission policy and application with lottery explained | • Recruitment schedule and locations (schools, churches, community centers, etc.)<br>• Brochures and marketing items in English, Spanish, and/or relevant second language<br>• Survey data (community input, enrollment trends, etc.)<br>• STEM feeder school crosswalk recruiting curriculum<br>• Plan to recruit with feeder schools<br>• Documented support efforts (transportation, child care, etc.)<br>• Needs assessment<br>• Number and percentage of students matriculating from middle school STEM to high school STEM |

| Developing | Implementing | Mature | Role Model |
|---|---|---|---|
| 1. Academy details a plan and process for marketing to and recruiting from appropriate communities and feeder schools to reach high need and underrepresented students. | 1. Marketing and recruitment plan developed with input from key stakeholders, and targets feeder pattern, community needs, and cultural relevance. | 1. Marketing plan highlights Academy's STEM pathways and Endorsements; and industry and higher education partners. Recruitment efforts include Academy staff, students, and parents. At least 80% of 8th grade MS STEM students matriculate to HS STEM Academy. | 1. Students and staff from Academy collaborate with feeder schools to develop, deliver, and monitor recruitment results from STEM crosswalk engagement lessons conducted at the feeder middle schools. At least 90% of 8th grade MS STEM students matriculate to HS STEM Academy. |
| 2. Academy has at least 50% economically disadvantaged and underrepresented students, via an open, lottery based admission policy, where the application *does not* include requirements that might deter students such as STAAR, grades, teacher recommendation, discipline, or attendance. | 2. Clearly communicated admission policy that indicates target enrollment goals and implements support processes structures such as transportation, child care, etc. to meet goals.<br>*And meets criteria from Developing* | 2. Academy tracks enrollment data and indicates some increases in recruitment/enrollment rates.<br>*And meets criteria from Developing and Implementing* | 2. Academy employs a needs assessment to analyze demographic trends to ensure equitable access and recruitment of greater than 50% economically disadvantaged and underrepresented students and sustains a full complement of students at each grade level.<br>*And meets criteria from Developing, Implementing, and Mature* |

Texas Science, Technology Engineering and Mathematics

**Benchmark 3: Student Outreach, Recruitment, and Retention**

**Program Requirement: 3.3 Student Support and Retention**

**3.3.A** Develops and implements systemic, tiered strategies for student support and retention (outreach, early intervention strategies, mentoring, tutoring, counseling, and other supports for academic and socio-emotional growth).

**3.3.B** Hosts 5th – 6th and 8th – 9th orientation session(s) and summer bridge program(s) to facilitate successful student transitions and retention into a STEM-focused, college preparatory, project-based learning environment.

**3.3.C** Provides all students with opportunities and the expectation to assume roles of responsibility within the classroom, Academy, and community.

**3.3.D** Supports and monitors 6th – 12th student participation in STEM activities both within and outside the classroom to ensure that all students engage in STEM clubs, STEM competitions, and STEM field experiences.

**3.3.E** Hosts parent seminars to develop deep understanding and commitment to the rigor of college readiness and the high expectations of a STEM Academy.

**Example Artifacts**

- Student, parent, staff contracts
- Student retention and persistence plan
- Orientation and bridge agendas
- Exit interviews
- IGPs Minutes from persistence meetings, retention/attrition data
- Program adjustments due to student and community voice
- Copies of trainings and participation of parents/community
- Satisfaction/interest surveys from students, parents, community, staff, etc.
- Lists of clubs, service learning projects, STEM activities, STEM field experiences, and planned competitions

| Developing | Implementing | Mature | Role Model |
|---|---|---|---|
| 1. Academy develops a strategic plan for student retention and persistence, and maintains persistence rates above 70%. | 1. Student persistence rates range between between 70-80% and the strategic plan addresses research-based supports such as annual IGP review, parental involvement, tiered interventions, and cultural relevance. | 1. Student persistence rates range between 81-90%, and the strategic plan includes yearly metrics, analysis of why students leave, and a plan to identify and prevent at-risk students from leaving. | 1. Campus engages in ongoing dialogue to address persistence data (lack of course credit, leaving the Academy) and uses data to ensure persistence rates above 90%. |
| 2. Academy develops student orientation/summer bridge program(s), student clubs, and plans for external STEM activities and competitions. | 2. The orientation/summer bridge program sets priorities and includes a timeline with skills, tools, and resources for students to successfully transition to a STEM environment. | 2. The orientation/summer bridge program is implemented as planned and continually refined annually, with a complete scope and sequence and supporting materials. | 2. The orientation/summer bridge program monitors initial student success, identifies struggling students early on, and ensures those students have additional support. |
| 3. Students can select from a small number of leadership opportunities available. | 3. The staff encourages students to select leadership opportunities. | 3. The staff monitors student involvement in leadership and STEM activities, clubs, and competitions; and develops interventions for students who have minimally participated. | 3. Student leadership is evidenced in nearly every non-classroom related initiative or event and at least 90% of students participate in leadership and/or STEM activities, clubs and competitions. |
| 4. Academy creates STEM Academy orientation for parents and stakeholders. | 4. Opportunities exist for parents and stakeholders to participate in service learning, and/or attend student presentations. | 4. At least bi-annual opportunities exist for parents and stakeholders to participate in STEM activities. | 4. Annual parent and stakeholder participation goals are developed and monitored for continued improvement. |
| | *And meets criteria from Developing* | *And meets criteria from Developing and Implementing* | *And meets criteria from Developing, Implementing, and Mature* |

## Benchmark 3: Student Outreach, Recruitment, and Retention

- Review Program Requirement 3.1.A/B/C and 3.2.A/B.

*Describe the Academy's open-access admission policy, the marketing, and recruitment plan to parents, students, and the community; and partnering with feeder schools to increase advancement rates in STEM from elementary to middle to high school.*

Edinburg Collegiate T-STEM Early College High School will be targeting to serve students in grades 9 through 12 who may be at risk and might not otherwise go to college. These students may be historically underrepresented in college courses interests are in the areas of Science, Technology, Engineering or Mathematics. Edinburg Collegiate T-STEM Early College High School will serve a cohort of 175 ninth grade students. Edinburg Collegiate T-STEM/Early College High School will subsequently continue throughout the year to enroll cohort groups of 175 students per grade level. A written admission policy and enrollment application will be provided, shared and disseminated via publicity through media, district website, marquees, announcements, posters and scheduled parent meetings. The written recruitment plan includes a timeline of recruitment and enrollment events, recruitment materials for distribution at the feeder schools, and brochures for anyone who wishes to learn more about the program. Edinburg Collegiate T-STEM Early College High School recruitment, enrollment processes and requirements will provide an opportunity for all and any of those who wish to attend. Enrollment decisions will be based on student interest and targeted demographics. The Edinburg Collegiate T-Stem Early College High School will begin the recruitment process in the spring of 2017 with presentations at the corresponding middle schools that feed into the High School. The recruitment will consist of visits to the feeder school, presenting to rising 9th graders, announce, advertise and promote Edinburg Collegiate T-STEM ECHS. The Edinburg Collegiate T-STEM Early College High School will begin to document recruitment and enrollment policies and practices beginning with the presentations at the feeder schools via parent meetings. Before the end of the spring semester all applications for enrollment to Edinburg Collegiate T-STEM Early College High School must be submitted to the Counseling Center. On the first week of March 2017, Edinburg Collegiate T-STEM Early College High School will conduct its selection of students for the fall of 2017. All parents of the students who applied will be notified and/or invited to the announcement of the cohort selection at Edinburg Collegiate T-STEM Early College High School Lecture Hall on predetermined date. A subsequent parent meeting will take place to inform the parents of the selected students to inform them of expectations, summer programs, and planning for the fall of 2017.

- STEM Academies host orientation, summer bridge, and college preparatory seminars for parent and students; encourage student leadership, monitor student participation in STEM activities, clubs, competitions and field experiences; and develop intervention plans for students who minimally participate.
- STEM Academies maintain persistence rates above 70%, with a goal of at least 90%

*Describe the campus plan to progress to "Mature" on the continuum for Program Requirement 3.3 Student Support and Retention (review the "Benchmark 3 Program Requirements" link at the top of this page).*

Edinburg Collegiate T-STEM Early College High School will monitor student progress and use student data to support success through academic development such as employing best practices within the lesson delivery as indicated from disaggregated data extracted from the Euphoria/DMAC system. Through planning, administering, and interpreting appropriate curriculum and assessments consistently in every grading cycle; student's strengths will be highlighted and plans of action created to address the areas in need of improvement. The counselor will periodically meet with students involving parents and teachers to address areas of need. Teachers will receive professional development to help better understand student needs and improve instructional delivery. The Edinburg Collegiate T-STEM Early College High School leadership team will foster an environment conductive to developing and implementing a systemic plan for student support and retention by analyzing the needs and wants of students in order to in order to support their emotional and academic needs. Through the creation of a strong positive rapport with parents, students and staff, Edinburg Collegiate T-STEM Early College High School will facilitate and generate a great interest in addressing these needs. Early intervention strategies identified before the end of the grading cycles will include but not be limited to peer/staff mentoring, tutoring, counseling and other support services. Orientation sessions will be conducted by Edinburg Collegiate T-STEM Early College High School administrative staff, teachers and eventually students. The summer bridge programs will facilitate successful student transition and retention into a STEM-focused track. The summer bridge programs will be conducted with the assistance of partnering organizations. Students will eventually be identified to participate in such opportunities and be expected to assume roles of responsibility. Within the classroom, students will participate in project-based learning activities that will enable them to develop their academic, social and leadership skills. Within the Academy, students will be able to take ownership of their own learning and become their own advocate in their academic path and/or direction they select. Students will be provided with the opportunity to be a part of student government, clubs or extra-curricular activities. Within the community, students will be given the opportunity to have a positive impact on any organized endeavor by implementing what they have learned in the classroom through leadership opportunities. Edinburg Collegiate T-STEM Early College High School facility and staff will support and monitor activities both within and outside the classroom to ensure that all students are engaged in extra-curricular activities, STEM competitions, and STEM field experiences. Edinburg Collegiate T-STEM Early College High School faculty and staff will communicate and disseminate a clear and explicit vision, mission statement and goals through continuous and ongoing parental, student, and staff involvement.

# Benchmark 4: Teacher Selection, Development, and Retention

| | |
|---|---|
| 4.1.E. | Provides opportunities for ongoing professional development to improve teachers' content knowledge, technology embedded instruction, integrative STEM pedagogy, college and career readiness standards, instructional strategies for ensuring a successful P-20 pipeline, and leadership capacity. |
| 4.2.A. | Develops a Professional Development (PD) plan for a sustained professional development model of continuous learning based on student results, teacher development, and the short- and long-term goals of the Academy. |
| 4.2.B. | Adopts a systemic professional development model of continuous learning that addresses prioritized needs as informed and evaluated by multiple sets of quantitative and qualitative data (student assessment data, instructional/classroom evaluations, technological developments, workforce demands, demographic changes, and community/societal expectations and needs). |
| 4.2.C. | Sustains a PLC by instituting job-embedded ongoing opportunities for continuous learning, peer coaching/mentoring, STEM externships, and participation in STEM teacher and leader cadres for teachers and administrators (research-based practices, content competence, new instructional strategies, technology integration, reflective inquiry, and student artifact analysis). |
| 4.3.C. | Adopts and implements a plan for new teachers to include orientation, induction, acculturation, mentoring, professional development, and administrative support. |
| 4.3.D. | Designs or employs innovative programs to support the recruitment and selection of highly qualified STEM teachers. |

**Key Elements for Success**

- Master schedule with common planning time
- Teacher turnover rate
- Teacher mentoring program
- Written recruitment plan

| | Developing | Implementing | Mature | Role Model |
|---|---|---|---|---|
| 4.1.E | Academy has authority to hire "best" qualified for goals of the Academy and STEM blueprint requirements. | Develops a written plan for creative recruiting to ensure high qualified, effective teachers. | Develops annual needs assessment and actively implements a teacher recruitment and placement program. | Resources are allocated for recruitment of best qualified candidates, with the Academy partnering with teacher preparation programs such as UTeach, to recruit highly qualified teachers for Academy needs. |
| 4.2.A.<br>4.2.B. | Develops PD plan with clear pedagogy expectations, aligned with mission goals, teacher needs, and student needs | Academy regularly uses diverse assessment tools/processes, enhanced media, adult learning theories, professional reflection time, problem-solving protocols, and self-paced learning with computer and human interaction for support, coaching, mentoring, and collegial interaction. | Needs assessment and PD plan address teacher and student retention to include teacher, student, and parent voice in decision-making process. | Meaningful partnerships with external organizations ensure progressive expectations for educators' application of content knowledge, curriculum design, and delivery. |
| 4.2.C. | Develops a PLC plan that identifies ways in which teachers will work in collaborative teams to build shared knowledge and formative/summative data. | Teachers collaboratively develop 6th - 12th common essential student outcomes which reflect their efforts to build shared knowledge regarding best practice, (STEM integration, college and career readiness, 21st century skills,). | Teachers collaboratively clarify the criteria they use to judge quality of student work and criteria is consistently applied horizontally and vertically. | Teachers participate in externships and mentorships with higher education and industry. PLC plan is annually monitored, evaluated, and revised for effective practice. |
| 4.3.C | Develops an Orientation plan aligned to Academy mission and vision, and teacher enculturation. | Induction plan addresses Academy expectations for instructional skills; interactions with students, parents, and community; classroom management; assessment of learning; technology; professional development; and mentoring. | Induction process is clearly enunciated, consistently practiced, and evaluated and revised for effectiveness. | Each new teacher participates in the induction process, is assigned a mentor teacher, understands the strategic goals of the Academy, and completes a Needs Assessment that identifies areas for individual professional development. |
| 4.3.D. | Common planning time within the school day focuses on PLC collaboration. | Teams develop team-time norms, set goals, and evaluate effective use of team-time for curriculum development, student artifact reflection, parental involvement, etc.<br><br>*And meets criteria from Developing* | Teams develop common metrics to measure and inform, in order to identify strengths and weakness in their individual practice, and to collaboratively improve their individual and collective efforts to help all students learn.<br><br>*And meets criteria from Developing and Implementing* | Collaborative school-level planning is judged effective as evidenced by student learning outcomes.<br><br>*And meets criteria from Developing, Implementing and Mature* |

## Benchmark 4: Teacher Selection, Development, and Retention

- Review program requirements for benchmark 4 in the link above.

*Describe how the Academy will recruit, support, and retain highly qualified teachers. This should include plans for:*

- Teacher recruitment and retention plan
- Sustained professional development (PD) plan which incorporates project-based learning and an integrated STEM curriculum into instructional practices based on qualitative and quantitative student data. (A timeline of planned PD will be uploaded in Benchmark 7.)
- A job-embedded Professional Learning Community with common planning times for collaboration.
- New teacher support (new to Academy and/or teaching profession).

Edinburg Collegiate T-STEM Early College High School formal process of hiring teachers is the same as the Edinburg Consolidated Independent School Districts hiring process for all secondary educators. There is a concerted effort to hire educators with a Master's Degree in the content area in which they are assigned to teach. Additionally, qualifications of the IHE partner must also be met. At the 9th and 10th grade levels, teaching staff that have a proven record of performance in meeting the academic, social and behavioral needs of Edinburg Collegiate T-STEM ECHS students will be assigned. Edinburg Collegiate T-STEM ECHS will ensure that its teachers are highly qualified by providing access to professional development opportunities such as Advanced Placement Institutes and trainings, mentor program, summer institutes, and advanced academics training. Edinburg Collegiate T-STEM Early College High School teachers will take part in regularly scheduled professional development provided by the partnering organizations. The institute of higher education will collaborate through an initial summer induction program that will emphasize instructional planning while providing the scheduling of team teaching opportunities and teacher mentoring. South Texas College is committed to providing adjunct and dual enrollment faculty training each academic semester as outlined in the Memorandum of Understanding. In addition, twice per semester, Edinburg Collegiate T-STEM ECHS faculty and staff are scheduled to supervise students in a South Texas College Day college visitation in which Edinburg Collegiate T-STEM ECHS teachers will have further opportunities to interact with STC full time faculty and mentors. Edinburg Collegiate T-STEM ECHS staff members will be highly encouraged to attend the South Texas College Distinguished Lecture Series with students and collaborate with STC faculty. Edinburg Collegiate T-STEM ECHS teachers will meet regularly with their assigned mentors who will provide guidance, support, and feedback on classroom observations, instruction and development of course syllabi and timelines. Edinburg Collegiate T-STEM Early College High School teaches will meet with South Texas College personnel at the beginning of each semester to receive orientation and training to better align their course instruction. Edinburg Collegiate T-STEM Early College High School planning of instructional activities, materials and assessments. Edinburg Collegiate T-STEM Early college High School teachers will provide feedback to one another from planned classroom observations through the mentoring program throughout the school year. Edinburg Collegiate T-STEM Early College High School will provide ongoing professional development opportunities to teaches to improve their skills and knowledge in their content area, as well as, best instructional practices that promote critical thinking and problem solving skills in the STEM field.

# Benchmark 5: Curriculum, Instruction, and Assessment

**Example Artifacts: 5.1**

- Course syllabi, lesson plans, unit lessons, PBL, scope, sequence, pacing guides
- Lessons include STEM standards, state standards, national standards, college and career readiness standards, 21st century skills
- Benchmark schedule, course passing rates, retention rates
- Student portfolios, IGPs, counseling, advising, college crosswalk, and feedback loop
- Plans for PSAT, Accuplacer, TSI, CTE, interventions, etc.
- Horizontal and vertical alignment of curriculum
- Students graduate with Endorsements & Performance Acknowledgements

| **In Benchmark 5, all program requirements are scored individually. There are no separate metrics. Assess the level of implementation for the program requirements below according to the standards to the right.** | | **Developing** Investigate, Research, and Create | **Implementing** Formalize, Revise, and Publish | **Mature** Data-driven evaluation of effectiveness of program requirements | **Role Model** Continually assesses to document successes and challenges with action plans implemented to correct deficiencies in performance |
|---|---|---|---|---|---|
| **5.1.A.** | Aligns curriculum, instruction, and assessment (such as, but not limited to, Texas CCRS, national and state standards, content, context, culture, cognitive level, competencies, skills, processes, 21st century skills, and STEM synthesis). | *Implementing* | | | |
| **5.1.B.** | Develops a scope, sequence, and pacing guide for a vertically and horizontally aligned curriculum centered on state standards, career and college readiness standards, STEM integration, and industry expectations. | *Implementing* | | | |
| **5.1.C.** | Develops an assessment and intervention plan to address gaps in student achievement and areas for extension. | *Implementing* | | | |
| **5.1.D.** | Supports and encourages all students to successfully complete four years of mathematics, four years of science, four years of STEM electives, and at least one Endorsement in STEM, Business and Industry, Public Services, or Arts and Humanities, with a primary focus on a STEM Endorsement; and earn a Distinguished Level of Achievement as well as a Performance Acknowledgement in order to graduate college ready. | *Implementing* | | | |
| **5.1.E.** | Offers dual credit, articulated concurrent enrollment, AP or IB courses that all students will graduate with 12-30 college credit hours. | *Implementing* | | | |
| **5.1.F.** | Establishes curriculum expectations, monitoring, and accountability mechanisms that are reflectively revised to ensure a constancy of mission purpose (aligned resource allocation, integrated STEM curriculum development, teacher professional growth, and student results). | *Implementing* | | | |

## 5.1 Rigor

- Review the program requirements for Benchmark 5.1 Rigor on the previous page.

*Describe how the Academy will progress along the continuum. This should include plans for:*

- Alignment of curriculum and instruction as supported by assessment
- Assessment/intervention or acceleration plans for students
- Plan for four tears of math, science, and 12-30 college credit hours (dual credit/AP/IB)
- HS Endorsements available to Academy students

Edinburg Collegiate T-STEM Early College High School will align its curriculum, instruction, and assessment with the Texas
College and Career Readiness Standards and will provide a culture of learning at the highest standards. Edinburg Collegiate
T-STEM Early College High School teachers will meet and develop a course syllabi with emphasis on Science, Technology, Engineering, and Math. Lesson plans and activities will be aligned to the districts scope and sequence. Edinburg Collegiate T-STEM Early High School will develop a benchmark schedule to consistently assess and monitor students' progress in order to cultivate, support and retain students in the academy. Through weekly communication, counseling, advising and parental/student informative meetings, Edinburg Collegiate T-STEM Early College High School faculty and staff will support and encourage both students and parents to be an active part of the school vision. Edinburg Collegiate T-STEM ECHS students will be highly encouraged to complete their track and acquire their credit hours as designated by their tailored academic plan. Teachers and students will meet and discuss students' progress to ensure instructional adjustments and in order to provide timely support. Edinburg Collegiate T-STEM Early College High School students will be provided with the opportunity to enroll in dual credit courses, Advanced Placement, and Career and Technical Education courses in order to graduate with college credit hours. A rigorous plan of study will be followed for Edinburg Collegiate T-STEM ECHS students. Edinburg Collegiate T-STEM Early College High School administration and staff will communicate its mission continuously through parent and student meetings to ensure that a clear vision of the expectations of acquiring college hours and becomes a reality for both the student and the parent.

Identify the endorsement areas that the T-STEM Academy will be offering to students in the 2017-2018 school year by checking each individual endorsement area.

☑STEM (All designated T-STEM academies are required to offer the STEM endorsement)
☑Business and Industry
☑Public Service
☑Arts and Humanities
☑Multidisciplinary Studies

# Benchmark 5: Curriculum, Instruction, and Assessment

## Example Artifacts: 5.2

- Defined engineering coursework (Infinity Project, Project Lead the Way)
- Student journals, student presentations, peer performance assessment rubrics, and peer mentors
- Self-paced learning, student contracts, progress reports, exit interviews, parent/teacher/student conferences
- Lessons include work force clusters, expert practitioners, field-based learning, research of current issues, PBLs, guest speakers, differentiation, intervention and acceleration plans, student choice
- Number of offerings and number of students participating in co-curricular activities, clubs, academic teams, and competitions (UIL, Brain Bowl, Science Olympiad, Model UN, FIRST, BEST, Vex etc.)
- Design conceptual internships, identify STEM opportunities, business partners, scientific organizations, and universities
- IGP w/capstone project (research, annual review, and analysis)

| **In Benchmark 5, all program requirements are scored individually. There are no separate metrics. Assess the level of implementation for the program requirements below according to the standards to the right.** | | **Developing** Investigate, Research, and Create | **Implementing** Formalize, Revise, and Publish | **Mature** Data-driven evaluation of effectiveness of program requirements | **Role Model** Continually assesses to document successes and challenges with action plans implemented to correct deficiencies in performance |
|---|---|---|---|---|---|
| **5.2.A.** | Delivers innovative STEM programs that are well-defined, embed critical thinking and problem solving, innovation and invention, and are aligned to state and/or national standards and industry expectations. | *Implementing* | | | |
| **5.2.B.** | Supports and encourages students to complete three years of STEM electives at middle school and four years of STEM electives at high school. | *Implementing* | | | |
| **5.2.C.** | Develops performance-based and project-based assessments aligned to these innovative programs and state/national/industry standards. | *Implementing* | | | |
| **5.2.D.** | Develops and implements a plan for supporting accelerated student achievement for students with demonstrated deficiencies or proficiencies in mathematics and science, to promote all students graduating ready for enrollment in credit-bearing postsecondary courses (e.g. Algebra I enrollment by 8th grade). | *Implementing* | | | |
| **5.2.E.** | Incorporates into the curriculum work-based contextual learning with a global perspective. | *Implementing* | | | |
| **5.2.F.** | Participates in extra-curricular academic activities centered on science, technology, engineering, and mathematics; i.e. STEM field experiences, clubs, and competitions. | *Implementing* | | | |
| **5.2.G.** | Develops 6th-12th students' portfolios of interest in: STEM capstone projects, STEM internship opportunities, and global STEM college, degree, and career explorations. Requires all high school students to complete an internship, and/or a STEM-related capstone project, presentation, and defense; primarily focused in the state's STEM-related economic development clusters (information and computer technology, energy, petroleum refining and chemical products, advanced technologies and manufacturing, aerospace and defense, biotechnology and life sciences.). | *Implementing* | | | |

## 5.2 STEM-Focused Curriculum

- Review program requirements for Benchmark 5.2 STEM-Focused Curriculum on the previous page.

*Describe how the Academy will progress along the continuum. This should include plans for:*

- Well-defined STEM programs that are aligned with state, college and career readiness, and industry standards and embed critical thinking and problem solving, and foster innovation and invention
- Three years of STEM electives at middle school and four years of STEM electives at high school. For high schools, list the CATE elective pathways and courses that support each Endorsement offered by the Academy
- Performance and project-based assessments aligned to state, college and career readiness, and industry standards
- Work-based and contextual learning in the curriculum
- STEM-focused extracurricular activities (field experiences, clubs, and competitions)
- STEM-related internships and/or senior capstone projects, presentation, and defense
- Plan for 6th-12th student STEM portfolios

Edinburg Collegiate STEM Early College High Schools goal is to graduate students from high school in four years with an associate degree with a focus on STEM. The academic improvement and preparedness for students who are in need of academic acceleration at Edinburg Collegiate T-STEM Early College High School will be addressed through individualized plans and strategic campus planning that includes the following components but not limited to: 4 year academic graduation plans, personal student portfolios to address/reflect on personal growth and goal setting, behavior and intervention plans to address/monitor appropriate conduct, STEM focused tutorials, summer school enrichment programs focusing on STEM field experiences, and STEM competitions to expose and provide learning opportunities for students. Edinburg Collegiate T-STEM Early College High School ensures that students will meet the State of Texas high school graduation requirements as well as the IHEs associates' degree plan with a focus on STEM. Edinburg Collegiate Early College High School will utilize best instructional practices via project-based learning to provide students with the opportunity to enhance their presentational and communicative skills. Activities will include study group presentations/participation, social connection, goal setting, competitive extra-curricular activities, clubs, and potential capstone mentorships. Edinburg Collegiate Early College High School students will be provided an opportunity to select Career and Technical Education elective pathways and courses to support their STEM selections such as but not limited to: Animal Science, Oil & Gas Production Construction, Animation, AV Production, Commercial Photography, Graphic Design and illustration, Business Information, Emergency Medical Technician, Pharmacy Technician, Pre-Medical, Engineering Drafting, Engineering Electronics, and others. The Edinburg Collegiate T-STEM Early College High School will provide college and career readiness opportunities to foster a community of STEM scholars.

*Describe the current STEM pathways available at the academy and list all industry certifications that students have the opportunity to earn by graduation.*

Endorsments: Health Science STEM Mathematics Science AV Technology Information Technology Certifications: EMT (Emergancy Medical Tech) CNA (Certified Nursing Assistant) Pharmacy Tech Computer Applications Computer Maintenance Associates Degrees: Mathematics Chemistry Biology Engineering Edinburg Collegiate T-STEM/ECHS offer STEM pathways such as Health Science, STEM(science technology engineering and mathematics) Mathematics, Science. We are also including computer AV Technology and, Information Technology. Their are opportunities for our students to receive a certification in the Health Sciences such as EMT, CNA, Pharmacy Tech and certifications in Computer Applications and Computer Maintenance. Edinburg Collegiate T-STEM/ECHS students will be able to receive an associates in math, biology, chemistry and engineering.

# Benchmark 5: Curriculum, Instruction, and Assessment

**Example Artifacts: 5.3**

- Peer observations, mentors, cross-curricular teams
- Walkthroughs, observations, model lessons
- Data informs scaffolding, re-teaching, and extension
- Team planning that defines student products, assessments, rubrics, and standards for cross-curricular and other PBLs, teacher research on STEM field expectations, current issues, and technology.
- Student presentations include digital materials, peer and internal/external expert evaluation
- Academy teachers have mentors at university and industry level that provide input to curriculum development
- Year-at-a-glance checklist documenting course coverage of state standards, 21st century skills, college readiness standards throughout grading period

| **In Benchmark 5, all program requirements are scored individually. There are no separate metrics. Assess the level of implementation for the program requirements below according to the standards to the right.** | | **Developing** Investigate, Research, and Create | **Implementing** Formalize, Revise, and Publish | **Mature** Data-driven evaluation of effectiveness of program requirements | **Role Model** Continually assesses to document successes and challenges with action plans implemented to correct deficiencies in performance |
|---|---|---|---|---|---|
| **5.3.A.** | Incorporates data-driven instruction. | *Implementing* | | | |
| **5.3.B.** | Creates an environment for shared teacher responsibility and accountability for student learning across programs, content areas, and classrooms. | *Implementing* | | | |
| **5.3.C.** | Organizes instructional expectations around problem-based and project-based learning with clearly defined learning outcomes for students and teachers that address state and national performance standards, college and career readiness standards, and industry expectations. | *Implementing* | | | |
| **5.3.D.** | Ensures teachers' use of the aligned scope and sequence and integration across the disciplines. | *Implementing* | | | |
| **5.3.E.** | Ensures teachers' use of high-quality curricular materials aligned with state and national standards, college and career readiness standards, and industry standards. | *Implementing* | | | |
| **5.3.F.** | Provides opportunities for students to exercise choice and voice within a relevant and rigorous context. | *Implementing* | | | |

## 5.3 Instructional Practices

- Review the program requirements for Benchmark 5.3 Instructional Practices on the previous page.

*Describe how the academy will progress along the continuum. This should include plans for:*

- Data driven instruction
- Shared teacher responsibility and accountability (PLC)
- Project Based Learning (PBL)
- Alignment of scope and sequence with state, CCRS, and industry standards
- Students exercise choice/voice within relevant and rigorous curriculum

Edinburg Collegiate T-STEM Early College High School teachers will meet regularly with their mentors/mentees and will provide guidance, support, and feedback through a specified design to afford them with the opportunity to make informed educational decisions that are based on data, student assessments, and student standards. Edinburg Collegiate T-STEM Early College High School will provide their teachers with the opportunity to have a similar time to meet and model lessons that are aligned to the college and career readiness standards with the emphasis on STEM. The administrative team will ensure that teachers use the district aligned scope and sequence to enhance their student's learning through the best instructional practices and activities. Edinburg Collegiate T-STEM Early College High School administrative team will conduct walkthroughs and observations, meet with teachers to collaborate, share, discuss and provide educational support to enhance lesson planning and delivery. Edinburg Collegiate T-STEM Early College High School will provide, on a monthly basis, an opportunity for staff development and training through planned professional learning. Edinburg Collegiate T-STEM Early College High School will provide individualized learning to students so they can have the opportunity to explore real-world problems and challenges within their classrooms and content areas that are outlined by STEM. Edinburg Collegiate T-STEM Early College High School will support an enriched learning environment where students will utilize their presentational skills to expand their knowledge in technology as well as participate in webinars, web exes, and others. Edinburg Collgiate T-STEM teachers will be afforded the opportunity to meet with STC personnel throughout the year to orient, train, meet and discuss curriculum and instruction. IHE personnel and teachers will align their curriculum to develop a rigorous course of study to ensure that Edinburg Collegiate T-STEM Early College High School students graduate with 21st Century skills with a focus on STEM.

# Benchmark 5: Curriculum, Instruction, and Assessment

**Example Artifacts: 5.4**

- Project Based Learning (PBL)
- Systemic expectations for number of presentations per class, documentation of students presenting to internal and external panels
- Design teams, group projects, multiage projects, simulations, robotics teams, green teams
- Project scenarios based on real-world issues (Future City, FIRST, Odyssey of the Mind, etc.)

| **In Benchmark 5, all program requirements are scored individually. There are no separate metrics. Assess the level of implementation for the program requirements below according to the standards to the right.** | | **Developing** Investigate, Research, and Create | **Implementing** Formalize, Revise, and Publish | **Mature** Data-driven evaluation of effectiveness of program requirements | **Role Model** Continually assesses to document successes and challenges with action plans implemented to correct deficiencies in performance |
|---|---|---|---|---|---|
| **5.4.A.** | Promotes instructional strategies that challenge students to think critically, innovate and invent to solve real-world, contextual problems. | *Implementing* | | | |
| **5.4.B.** | Exposes students to critical readings in STEM-related fields and requires students to demonstrate their understanding of STEM disciplines in a work-based, contextual environment. | *Implementing* | | | |
| **5.4.C.** | Offers standards-based STEM programs that incorporate integrative STEM literacy and innovative instructional tools. | *Implementing* | | | |
| **5.4.D.** | Promotes applied and collaborative learning, and provides students with opportunities to present/defend their work to peers, community, industry, and university leaders. | *Implementing* | | | |
| **5.4.E.** | Promotes a rich culture that incorporates a natural use of current technologies to enhance instruction, curriculum, teaching, and learning, and STEM literacy. | *Implementing* | | | |

## 5.4. STEM Education Integration

- Review the program requirements for Benchmark 5.4. STEM Integration on the previous page.

*Describe how the Academy will progress along the continuum. This should include plans for:*

- Students apply critical thinking, innovation and invention, to problem-solve real-world scenarios.
- Student exposure to STEM related fields and understanding of STEM disciplines in a work-based, contextual environment
- Students present/defend their learning (PBLs and capstone projects) to external experts
- Use of current technologies to enhance instruction, curriculum, teaching and learning, and STEM literacy

A program requirement for graduation at Edinburg Collegiate T-STEM Early College High School is that all T-STEM ECHS students participate in a STEM related project. T-STEM ECHS students will develop their projects and final presentation will be heard, reviewed, and critiqued by business STEM partners/professionals. Edinburg Collegiate T-STEM Early College High School students will be guided in developing their own design, simulate, and be part of the numerous opportunities that will be made readily available to them for teams/group projects. Edinburg Collegiate T-STEM Early College High School students will develop and maintain a portfolio/running record of their presentations, studies, seminars, research and mentorships. The Edinburg Collegiate T-STEM Early College High school students will have the opportunity for project based learning as well as to do community service. T-STEM Early College High School students will be afforded the opportunity to become members of the National Honors Society that engages in the restoration efforts, recycling, supporting and cleaning historical buildings and areas, and other activities that involve an extensive community effort. T-STEM ECHS students will also participate and lead the annual Career and Technical Education Career Fairs as well as participate in parent and students sessions throughout to promote STEM careers. Edinburg Collegiate T-STEM Early College High School students will be provided with the opportunity to be able to participate and be part of ongoing STEM literacy events through on-site presentations. Edinburg Collegiate T-STEM Early College High School will be inviting business and community mentors to share and discuss graduation and career pathways with all T-STEM ECHS students, Edinburg Collegiate T-STEM Early College High School administration and staff will recruit mentors to provide their expertise and guidance to enhance the development of the students' knowledge and skills.

# Benchmark 5: Curriculum, Instruction, and Assessment

**Example Artifacts: 5.5**

- Academy-developed process in place to identify STEM and content relevant vocabulary and just-in-time literature
- Plan for vertical and horizontal expectations, per grade level, of STEM vocabulary and relevant literature
- Literature- and language-rich environment which includes technical language journals, articles, periodicals, current events newspapers, online resources, webinars, and texts
- STEM-focused strategies and activities such as word walls, student journals, literature circles, mock trials, student forums, debates
- Stakeholder input into selection of STEM instructional materials student goals and reflections (literacy in STEM, 21st century skills, technology, etc.)
- Integrative instruction and instructional materials

| **In Benchmark 5, all program requirements are scored individually. There are no separate metrics. Assess the level of implementation for the program requirements below according to the standards to the right.** | | **Developing** Investigate, Research, and Create | **Implementing** Formalize, Revise, and Publish | **Mature** Data-driven evaluation of effectiveness of program requirements | **Role Model** Continually assesses to document successes and challenges with action plans implemented to correct deficiencies in performance |
|---|---|---|---|---|---|
| **5.5.A.** | Promotes technologically proficient and scientifically literate students with highly developed academic vocabulary and STEM technical vocabulary. | *Implementing* | | | |
| **5.5.B.** | Graduates 21st century literate students proficient in: English, reading, speaking, writing, numeracy, arts, health, sciences, and world languages; government, civics, history, and geography; environmental science; global awareness; information, communications, and media technology; and financial, economic, business, and entrepreneurship. | *Implementing* | | | |
| **5.5.C.** | Selects appropriate STEM curriculum and culturally relevant instructional materials that foster widespread use of literacy strategies within the STEM curriculum. | *Implementing* | | | |
| **5.5.D.** | Provides opportunities for students to demonstrate the relevancy of the content through reading, writing, speaking, and presenting. | *Implementing* | | | |

## 5.5. Literacy

- Review the program requirements for Benchmark 5.5 Literacy on the previous page.

*Describe how the Academy will progress along the continuum. This should include plans for:*

- Technologically and scientifically literate students
- 21st Century skills-literate students
- STEM curriculum and culturally relevant instructional materials
- Academy literacy plan

Edinburg Collegiate T-STEM Early College High School will develop and promote reading and writing across the curriculum,
Including the STEM fields to strengthen literacy, inquiry, and problem-solving skills. Edinburg Collegiate T-STEM Early College High School will connect all T-STEM ECHS students with high-quality non-fiction educational books to enhance their STEM vocabulary as well as their exposure to relevant literature in the designated STEM field they have opted to follow. The Edinburg Collegiate T-STEM Early College High School will provide and environment rich in language journals, articles, periodicals, online resources, webinars, webexes, and books. This tools will enable Edinburg Collegiate T-STEM ECHS students to research and increase their knowledge in their STEM field of choice. Edinburg Collegiate T-STEM Early College High School staff and administrative teams will work collaboratively to provide all T-STEM ECHS students a curriculum aligned to the districts scope and sequences. All T-STEM ECHS teachers will utilize instructional best practices that will enhance their lesson delivery and that will enrich their classroom environment. These practices will include word walls, student’s journals, student debates, socratic seminars, and others. Edinburg Collegiate T-STEM Early College High School faculty will collaboratively develop a Literacy Plan that will focus on STEM to ensure its fidelity.

# Benchmark 5: Curriculum, Instruction, and Assessment

**Example Artifacts: 5.6**

- Data informs instruction, plan for gaps and extension
- Curriculum aligned with standards, STEM, industry, and higher education
- Formative, diagnostic, and summative assessments, lesson redesign
- Student artifact reflection is used to inform diagnostic tools and processes
- Pre/post tests, cumulative folders, parent conferences, parent portal, student learning logs
- Pre-assessments/ post-assessments, course offerings for interventions, grades, end of course exams, student presentations, narrative assessments, oral assessments, product based assessment
- IGPs, progress reports, student information sheets, home visits, parent conferences, PEIMS info, call logs, counseling schedule/visits
- Student designed projects, project rubrics, peer reviews, panel reviews, adult/expert reviews
- Project lists knowledge and skills, 21st century skills and levels of skill mastery; course syllabus provides list of performance-based assessments; PD for teachers on developing PBLs

| **In Benchmark 5, all program requirements are scored individually. There are no separate metrics. Assess the level of implementation for the program requirements below according to the standards to the right.** | | **Developing** Investigate, Research, and Create | **Implementing** Formalize, Revise, and Publish | **Mature** Data-driven evaluation of effectiveness of program requirements | **Role Model** Continually assesses to document successes and challenges with action plans implemented to correct deficiencies in performance |
|---|---|---|---|---|---|
| **5.6.A.** | Uses diagnostic, ongoing, and vertically and horizontally aligned formative and summative assessments for all students to drive instructional decisions. | *Implementing* | | | |
| **5.6.B.** | Uses state and national standards, college and career readiness standards, industry standards, and STEM program requirements to develop common benchmark assessments. | *Implementing* | | | |
| **5.6.C.** | Employs student readiness assessments or diagnostics to identify and address gaps in learning. | *Implementing* | | | |
| **5.6.D.** | Tracks and reports student progress using student information systems. | *Implementing* | | | |
| **5.6.E.** | Uses performance-based assessments that allow students to demonstrate their understandings of STEM concepts. | *Implementing* | | | |

## 5.6 Assessments

- Review the program requirements for Benchmark 5.6 Assessments on the previous page.

*Describe how the Academy will progress along the continuum. This should include plans for:*

- diagnostic, ongoing and vertically and horizontally aligned formative and summative assessments;
- state, college and career readiness, and industry standards alongside STEM program requirements;
- student readiness assessment to address gaps;
- student information systems to track progress; and
- performance based assessments that demonstrate student understanding of STEM concepts

Edinburg Collegiate T-STEM Early College High School four year academic degree plan ensures that all cohort students will meet graduation requirements. Edinburg Collegiate T-STEM Early College High School will take proactive measures to maximize student achievement and will address specific deficiencies with students that enter below grade level or who encounter academic challenges through their course of study in order to ensure that all T-STEM ECHS students graduate within a four-year time frame. Edinburg Collegiate T-STEM Early College High School will administer the ACT Engage, a student readiness inventory that measures personal and academic skills that are critical to college-readiness and achievement. This inventory measures academic, discipline, general determination, goal striving, commitment to college, study skills, communication skills, social connection and other areas that are pertinent to student academic success. Academic success indices will provide data that will be used to increase GPA and that will facilitate the completion of college and graduation requirements. Edinburg Collegiate T-STEM Early College High School utilizes a systematic approach focused on progress-monitoring to ensure that students successfully complete the T-STEM curriculum. Through the use of formative and diagnostic assessments, Edinburg Collegiate T-STEM ECHS will be able to determine if adjustments to the curriculum need to be realigned. Student samples of work, assessments, and journals will provide the T-STEM ECHS instructor/teacher an opportunity to assess the students ability overall. The intervention strategies will include teacher and student mentoring, Saturday and afterschool tutorials, online interactive instructional modules structured to reinforce the college-readiness academic behaviors. Edinburg Collegiate T-STEM Early College High School will provide ongoing academic advisement between instructor, counselor, T-STEM ECHS Director, student, and parents to ensure that T-STEM ECHS students are provided with the opportunity and knowledge to perform to their maximum extent. Edinburg Collegiate T-STEM ECHS will ensure that teachers visit, review, and share their student progress reports, student information sheets with parents and/or make home visits to keep parents informed on their child's progress as well as communicating their expectations to facilitate student's success in the classroom. Edinburg Collegiate T-STEM Early College High School will provide teachers with best instructional practices training as well as project-based learning training to ensure that they are provided with the tools necessary to enhance their student learning and experience in their classrooms.

# Benchmark 6: Strategic Alliances

## Program Requirements

| | |
|---|---|
| 6.2.A. | Identifies and secures key business, industry, and community partners to support STEM Academy efforts (mentorships, service learning projects, etc.). |
| 6.2.C. | Identifies and secures key business and industry partners to provide STEM-related job shadowing, internships, and externships for students and teachers. |
| 6.3.A | Develops a Memorandum of Understanding (MOU) for dual credit. |
| 6.3.C | Develops partnerships to support a college going culture and to provide STEM graduates access to college support services (college trips, college entrance aid, GEAR UP and P-20 initiatives). |
| 6.1.B | Provides opportunities to educate students/parents on STEM Academy expectations such as parental engagement, college connections, scholarship opportunities, mentorships, etc. |

| | Developing | Implementing | Mature | Role Model |
|---|---|---|---|---|
| 6.2.A<br>6.2.C | Initiates a few partnerships with business, community, and industry. | Initial contact made and some support is provided by community business partners. Business and industry relationships are limited to onsite mentoring activities and some minor financial support. | Partnership with business and industry is formalized via established agreements. Outcomes and expectations are concrete and regularly reviewed. Partnership is evident by two-way communication of goals and vision as to what the STEM program provides. | Each major academic area is sponsored by corporate or community partners. Industry representation is a key component of the STEM strategic planning process. Integration of Academy students in business and community activities is visible. |
| 6.3.A<br>6.3.C | Initial contact made and some support is provided by higher education organizations. Some courses are available to enhance STEM curriculum integration. | Develops Higher Ed connections to facilitate MOUs, crosswalk plans, teacher mentors, and externships. | Partnerships and MOUs with higher education communities are an integral component of Academy delivery model. | College credit is given to STEM students upon completion of academic work sanctioned by accredited colleges. Admission rates for STEM students to IHE exceed the normalized rates for all students within the sponsor school system. |
| 6.1.B | Minimal strategic communications with parents and families. | Regularly scheduled distribution of communications is planned and presented to key stakeholder groups.<br><br>*And meets criteria from Developing.* | Strategic communications are timely and are developed ad hoc as conditions warrant. Key messages are presented by leadership emphasizing the importance of the communication to the intended audiences, via community town halls, PTO meetings, advisory board meetings, and school board presentations.<br><br>*And meets criteria from Developing and Implementing.* | Real time communications are evident via communications technologies such as websites, newsletter articles, and media presentations using the community's public service forums, (public television and radio). Leadership is easily accessible and continuously engages partnerships with stakeholders in community and student families.<br><br>*And meets criteria from Developing, Implementing, and Mature.* |

# Benchmark 6: Strategic Alliances

- Review the program requirements for Benchmark 6 above.

*Describe how these strategic alliances will support the Academy. The description should include details regarding the role of each IHE, business, and/or community partnership; along with parent/family partnerships and communication conventions with the Academy.*

Edinburg Collegiate T-STEM Early College High School, Doctors Hospital at Renaissance, and Region One Service Center will work together to provide and support both students and parents with access and services that will cultivate and engage them in the STEM fields. Edinburg Collegiate T-STEM Early College High School will provide internships that will become available for students during their course of study. Through the development of a Memorandum of Understanding, Edinburg Collegiate T-STEM Early College High School, Doctors Hospital at Renaissance, and Region One Service Center will support a college going culture through the by providing college trips, college financial awareness, and service learning. Edinburg Collegiate T-STEM Early College High School will inform students and parents of the opportunities available to them through parent sessions, workshops, and student mentorships. The academy will identifies and secures key business, industry, and community partners to support STEM efforts

## Benchmark 7: Assurances

***The following document must be attached in order for the T-STEM Designation application to be submitted.***

**Official signature:** OOfficial signature of a district or charter official authorized by the local board to bind the applicant organization in a legally binding contractual agreement. By signing the designation application, the district assures the minimum requirements for T-STEM Designation will be implemented in the designation year.

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**Dual Credit MOU:**The district or CMO provides assurance that a Memorandum of Understanding (MOU) with an Institution of Higher Education that defines the dual credit agreement is current (for the 2017-2018 school year). The MOU must be signed by all parties and ensure that sufficient detail are included and is on file at the T-STEM Academy. The executed IHE MOU for dual credit must be available for review by TEA upon request.

☑ Assurance Provided

If the T-STEM Academy is only providing AP coursework, list the AP courses that will be taught in the 2017-2018 school year.

**Professional Development Plan:** The T-STEM Academy applying for designation, provides assurance that a Professional Development Plan detailing the types, frequency, the provider of STEM professional development to be provided during the 2017-2018 school year, and is on file at the T-STEM Academy. The professional development plan must be available for review by TEA upon request.

☑ Assurance Provided

**Business Agreement:** The T-STEM Academy applying for designation, provides assurance that a minimum of one business agreement is current (for the 2017-2018 school year), signed by all parties, provides sufficient detail regarding the role of each party, (which allows students to participate in internship programs, capstone projects, or conduct field work) and is on file at the T-STEM Academy. The business agreement must be available for review by TEA upon request.

☑ Assurance Provided

**2017-2018 Master Schedule:** The T-STEM Academy applying for designation, provides assurance that the proposed master schedule, demonstrating a commitment to STEM education, rigorous coursework including Dual Credit, AP, or IB courses, and a vertically and horizontally aligned curriculum is on file at the T-STEM Academy. The 2017-2018 master schedule must be available for review by TEA upon request.

☑ Assurance Provided