Tentative Syllabus – Subject to change according to circumstances

Table of Contents
Course Description ........................................................................................................................................ 2
Course Prerequisites ..................................................................................................................................... 2
Class Schedule ............................................................................................................................................... 2
Instructor ...................................................................................................................................................... 2
Course Structure ........................................................................................................................................... 3
Assessments and Grading ............................................................................................................................. 3
Schedules of exams ....................................................................................................................................... 3
Textbooks ...................................................................................................................................................... 3
Class Evaluation by Students ........................................................................................................................ 4
Course Learning Outcomes and ABET surveys .............................................................................................. 4
Required Technology and Skills .................................................................................................................... 4
  Minimum Technology Requirements ....................................................................................................... 4
  Computer Skills and Digital Literacy ......................................................................................................... 5
  Software .................................................................................................................................................... 5
  Tools and instruments .............................................................................................................................. 5
  Technical Assistance ................................................................................................................................. 5
Course Topics ................................................................................................................................................ 6
Tentative Course Calendar (may be adjusted according to circumstances) ............................................... 7
Course Policies .............................................................................................................................................. 8
  Syllabus Change Policy ........................................................................................................................... 8
  Grades ....................................................................................................................................................... 8
  Attendance ................................................................................................................................................ 8
  COVID-19 Impact on Attendance ........................................................................................................... 8
  Class Participation .................................................................................................................................. 8
  Late Work .................................................................................................................................................. 8
  Examination Policy .................................................................................................................................. 8
  Assignment Policy .................................................................................................................................... 8
  Instructor Responsibilities and Feedback .................................................................................................. 8
UNT policies .................................................................................................................................................. 9
Rules of Engagement ................................................................................................................................... 9
Course Description
This is a fundamental course on sensors, instruments, and real-time systems to monitor environmental systems. We cover various aspects of sensors including technology, operation principles, calibration, and maintenance. From sensors we progress to data acquisition systems and telemetry to cover data loggers, sensor networks, wireless communications, and networks. We cover remote sensing of the environment from spaceborne platforms. We learn aspects of informatics to integrate acquired data into databases, metadata, standards, data sharing, and preservation. Statistics and data analysis are used to process monitoring data, including remote sensing image processing, and machine learning. The course includes applications to atmospheric and radiation processes, weather, air quality, hydrological, water quality, terrestrial ecosystems, and aquatic ecosystems. In particular, we examine the application of monitoring to understand resource availability for renewable power systems, such as hydroelectric, solar, and wind. We cover how to integrate all these concepts to form environmental observatories.
Three credit hours.

Course Prerequisites
Senior standing or Master standing. Students are expected to have a basic knowledge of circuits, electronics, physics, chemistry, and mathematics. In addition, students are expected to have basic skills using computers (such as managing files, using spreadsheets, bibliography search, and elements of programming), and basic laboratory skills (using electronic instruments, wiring on breadboards, reading datasheets).

Class Schedule
Lectures: Monday 10:00-11:20 each week in B227. Occasionally, as needed, lectures will be delivered remotely by Zoom. Labs are conducted by students on their own schedule using a lab kit provided by the EE department and returned at the end of the semester.

Instructor
- Miguel F. Acevedo, Regents Professor Electrical Engineering (EE), and Advanced Environmental Research Institute (AERI). Office Discovery Park B-260, or Lab Discovery Park E-245M. Phone
940-891-6701, acevedo@unt.edu. Office hours: Monday and Wednesday 9-10 AM, and 11:30-12:00 or by appointment.

Course Structure
- Online resources: Canvas [https://unt.instructure.com/] and Zoom [http://zoom.us]
- Resources: presentations, readings, lab guides, videos, provided via Canvas
- Attendance is required. Lecture time will include taking examinations (quizzes and exams), examples of problem solving, lab exercises, demonstrations, going over answers to questions in problem sets and quizzes, and reviews prior to quizzes and exams.
- Problem sets (include lab reports) are to be developed individually and submitted via Canvas per course calendar.
- Examinations (quizzes and exams) taken individually online via Canvas at fixed times per schedule and using Respondus LockDown Browser. Examinations will be on a timer.
- Labs: computer-based and hands-on
  - Hands-on: Students will conduct the labs individually using a kit for sensors and instruments and their own computer/network resources or using the EE department labs.
  - The kit will be checked out and returned at the EE Department, UNT DP campus. Student ID must be presented to check out the kit.
- Computer-based: using software listed below
- There may be remote field webinars at fixed times per schedule.

Assessments and Grading

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Modality</th>
<th>Late/makeup policy</th>
<th>Points possible</th>
<th>Percent of final grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly problem sets (include lab reports)</td>
<td>Submitted via Canvas</td>
<td>No late submittal accepted</td>
<td>25</td>
<td>25%</td>
</tr>
<tr>
<td>Weekly quizzes</td>
<td>Taken online via Canvas</td>
<td>No makeup given</td>
<td>25</td>
<td>25%</td>
</tr>
<tr>
<td>Midterm exam</td>
<td>Taken online via Canvas</td>
<td>No makeup given</td>
<td>25</td>
<td>25%</td>
</tr>
<tr>
<td>Final exam (not comprehensive)</td>
<td>Taken online via Canvas</td>
<td>No makeup given</td>
<td>25</td>
<td>25%</td>
</tr>
<tr>
<td>Total possible</td>
<td></td>
<td></td>
<td>100</td>
<td>100%</td>
</tr>
</tbody>
</table>

Grading scale to obtain final letter grade from percentage
- A = 90-100
- B = 80-89.9
- C = 70-79.9
- D = 60-69.9
- F = 0-59.9

Schedules of exams
- Midterm: March 6, 2024, at class time 10:00 -11:20 AM.
- Final: According to UNT exam schedule: May 4, 2024 8:00-10:00 AM [https://registrar.unt.edu/exams/final-exam-schedule/spring]

Textbooks
Recommended:

Class Evaluation by Students
The SPOT (Student Perceptions of Teaching) evaluation is a requirement for all organized classes at UNT and is available for your input at the end of the semester.

Course Learning Outcomes and ABET surveys
The Course Learning Outcomes (CLOs) are listed below and are evaluated by surveys of self-assessment from students at the beginning and end of the semester. The results become part of ABET accreditation reports of the EE department.

[CLO-1] Grasp the motivation for monitoring environmental systems and ecosystems, along with their applications.

[CLO-2] Have working knowledge of how to design and use sensors, signal conditioning systems, and conversion from analog to digital.

[CLO-3] Have working knowledge of data acquisition systems, data loggers, and single board computers.

[CLO-4] Have working knowledge of wireless technology, wireless sensor networks, telemetry, and application to automated stations.

[CLO-5] Have working knowledge of remote sensing from airborne and spaceborne platforms, as well as ground-truth

[CLO-6] Have working knowledge of models, data analysis and software, informatics, databases, database management, and web services.

[CLO-7] Have a general concept of monitoring the atmosphere: weather, gases, solar radiation, and air quality.

[CLO-8] Have a general concept of monitoring the hydrosphere: streams, rivers, lakes, sea, and water quality.


Required Technology and Skills
Students will need access to a set of minimum technological resources and skills to succeed in this class. Information on how to be successful for remote learning activities can be found at https://online.unt.edu/learn.

Minimum Technology Requirements
The students are required to have:
• Computer, Windows or Linux, with WiFi and SD card reader/writer, as well admin rights to install software
• Reliable internet access and web browser
• Access to a small network (class C) provided by a wireless router or Hotspot
• Canvas Technical Requirements (https://clear.unt.edu/supported-technologies/canvas/requirements)
• Install Respondus LockDown Browser (available from Canvas)
Computer Skills and Digital Literacy

Course-specific technical skills learners must have to succeed in the course:

- Using Canvas for accessing materials and grades, as well as submitting files and taking examinations.
- Converting files to PDF
- Using UNT email with attachments
- Downloading and installing software
- Using spreadsheet programs
- Using presentation and graphics programs
- Performing online library searches

Software

Available free for download from the internet or from UNT

- Word (MS or equivalent) to write problem sets results
- Excel (MS or equivalent) for spreadsheets
- PDF maker and reader (Adobe or equivalent)
- Browser (Chrome or equivalent).
- R and IDE RStudio, as well as several packages
- Arduino, IDE, CLI, and libraries
- SQLiteStudio, Cool Term
- RadioMobile
- SD card formatter
- Advanced IP scanner (or equivalent to scan your network for IPs)
- PuTTY (or equivalent to establish SSH communications)
- Raspbian (Raspberry Pi operating system)
- Python Programming tool on the Raspberry Pi
- QGIS for remote sensing image processing, and geospatial databases

Tools and Instruments

Recommended for hands on exercises

- Long nose pliers
- Wire strippers and clippers
- Small Screwdriver
- Jumper wires

Technical Assistance

UNT has a Student Help Desk that you can contact for help with Canvas or other technology issues.
UIT Help Desk: [UIT Student Help Desk site](http://www.unt.edu/helpdesk/index.htm)
Email: helpdesk@unt.edu
Phone: 940-565-2324
In Person: Sage Hall, Room 130
Walk-In Availability: 8am-9pm
Telephone Availability:

- Sunday: noon-midnight
- Monday-Thursday: 8am-midnight
- Friday: 8am-8pm
- Saturday: 9am-5pm
Laptop Checkout: 8am-7pm
For additional support, visit Canvas Technical Help (https://community.canvaslms.com/docs/DOC-10554-4212710328)

Course Topics

1. Principles of Monitoring: definition and motivation, Earth systems, ecosystems, environmental systems, and applications.
2. Programming and single board computers
8. Remote sensing from airborne and spaceborne platforms, as well as ground-truth
9. Data analysis, image processing, machine learning.
10. Informatics: Database design and implementation, metadata, standards, web services
## Tentative Course Calendar (may be adjusted according to circumstances)

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Module</th>
<th>Lecture Topics - Activity</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1/15</td>
<td>No class</td>
<td>Survey ABET (non-graded) (Available online 1/17)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1/17</td>
<td>1</td>
<td>Ch 1, Principles of Monitoring Lab1 Intro to R, stats</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1/22</td>
<td>1</td>
<td>Ch 1 and Lab 1 continued Intro to R and stats</td>
<td>Submit PS</td>
</tr>
<tr>
<td>2</td>
<td>1/24</td>
<td>1</td>
<td>Ch1 and Lab 1 quiz 1 questions review</td>
<td>Quiz</td>
</tr>
<tr>
<td>3</td>
<td>1/29</td>
<td>2</td>
<td>Ch 2 Single board computers and microcontrollers</td>
<td>Submit PS</td>
</tr>
<tr>
<td>3</td>
<td>1/31</td>
<td>2</td>
<td>Lab 2 Arduino, RPI, and python</td>
<td>Quiz</td>
</tr>
<tr>
<td>4</td>
<td>2/5</td>
<td>3</td>
<td>Ch 3 Sensor and Transducers Voltage Dividers</td>
<td>Submit PS</td>
</tr>
<tr>
<td>4</td>
<td>2/7</td>
<td>3</td>
<td>Lab3 Sensor design</td>
<td>Quiz</td>
</tr>
<tr>
<td>5</td>
<td>2/12</td>
<td>4</td>
<td>Ch 4 Bridge Circuits, Signal Conditioning</td>
<td>Submit PS</td>
</tr>
<tr>
<td>5</td>
<td>2/14</td>
<td>4</td>
<td>Lab4 Bridge circuits, OpAmp</td>
<td>Quiz</td>
</tr>
<tr>
<td>6</td>
<td>2/19</td>
<td>5</td>
<td>Ch 5 Data acquisition systems and dataloggers</td>
<td>Submit PS</td>
</tr>
<tr>
<td>6</td>
<td>2/21</td>
<td>5</td>
<td>Lab 5 ADC, RTC, data loggers, 4-20 mA</td>
<td>Quiz</td>
</tr>
<tr>
<td>7</td>
<td>2/26</td>
<td>6</td>
<td>Ch6 Wireless, telemetry, and WSN</td>
<td>Submit PS</td>
</tr>
<tr>
<td>7</td>
<td>2/28</td>
<td>6</td>
<td>Lab 6 Radio link, Moteino and Gateway WSN</td>
<td>Quiz</td>
</tr>
<tr>
<td>8</td>
<td>3/4</td>
<td>7</td>
<td>Review for midterm exam Quiz (practice)</td>
<td>Submit PS</td>
</tr>
<tr>
<td>8</td>
<td>3/6</td>
<td>7</td>
<td>Midterm exam</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>3/18</td>
<td>7</td>
<td>Ch 7 Power sources and storage</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>3/20</td>
<td>7</td>
<td>Lab 7 Power &amp; Storage</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>3/25</td>
<td>8</td>
<td>Ch 8 Remote sensing</td>
<td>Submit PS</td>
</tr>
<tr>
<td>10</td>
<td>3/27</td>
<td>8</td>
<td>Lab 8 Remote sensing</td>
<td>Quiz</td>
</tr>
<tr>
<td>11</td>
<td>4/1</td>
<td>9</td>
<td>Ch 9 Data Analysis, Machine Learning</td>
<td>Submit PS</td>
</tr>
<tr>
<td>11</td>
<td>4/3</td>
<td>9</td>
<td>Lab 9 Data analysis, Machine Learning</td>
<td>Quiz</td>
</tr>
<tr>
<td>12</td>
<td>4/8</td>
<td>10</td>
<td>Ch10 Informatics, database management, GIS</td>
<td>Submit PS</td>
</tr>
<tr>
<td>12</td>
<td>4/10</td>
<td>10</td>
<td>Lab 10 Database management, GIS</td>
<td>Quiz</td>
</tr>
<tr>
<td>13</td>
<td>4/15</td>
<td>11</td>
<td>Ch 11 Atmospheric monitoring</td>
<td>Submit PS</td>
</tr>
<tr>
<td>13</td>
<td>4/17</td>
<td>11</td>
<td>Lab 11 Atmospheric Weather</td>
<td>Quiz</td>
</tr>
<tr>
<td>14</td>
<td>4/22</td>
<td>12</td>
<td>Ch 12 Water quantity and quality</td>
<td>Submit PS</td>
</tr>
<tr>
<td>14</td>
<td>4/24</td>
<td>12</td>
<td>Lab 12 Water quality</td>
<td>Quiz</td>
</tr>
<tr>
<td>15</td>
<td>4/29</td>
<td>13</td>
<td>Ch 13 Terrestrial Ecosystems</td>
<td>Submit PS</td>
</tr>
<tr>
<td>15</td>
<td>5/1</td>
<td>13</td>
<td>Review for final exam, Quiz practice Survey ABET</td>
<td></td>
</tr>
<tr>
<td>Finals</td>
<td>5/4</td>
<td></td>
<td>Final Exam</td>
<td></td>
</tr>
</tbody>
</table>
Course Policies

Syllabus Change Policy
Information provided in the syllabus is subject to change according to circumstances.

Grades
All grades for the course will be final. No extra credit assignments or work will be considered after the final grade has been recorded.

Attendance
Attendance to class is required and monitored.

COVID-19 Impact on Attendance
While attendance is expected as outlined above, it is important for all of us to be mindful of the health and safety of everyone in our community, especially given concerns about COVID-19. Please contact me if you are unable to attend class because you are ill, or unable to attend class due to a related issue regarding COVID-19. It is important that you communicate with me prior to being absent so I may make a decision about accommodating your request to be excused from class.
If you are experiencing any symptoms of COVID-19 (https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or askSHWC@unt.edu) or your health care provider. UNT also requires you to contact the UNT COVID Hotline at 844-366-5892 or COVID@unt.edu for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure. While attendance is an important part of succeeding in this class, your own health, and those of others in the community, is more important.

Class Participation
Students are encouraged to participate during the lectures. When holding Zoom lectures, please logon to the meetings muted and with video off. Use the raise hand tool to request attention to ask questions or making comments.

Late Work
Problem sets are to be submitted by the due date and time. Late work is not accepted.

Examination Policy
Examinations (quizzes and exams) require Respondus LockDown Browser. Make sure you are logged on to Canvas and Respondus LockDown Browers at least 5 minutes before the examination start time to avoid last minute technical difficulties. Students will take the examinations individually and at the same time (per schedule). No make-up examinations will be given.

Assignment Policy
Instructions, due dates, submittal format for each assignment will be given in Canvas. Consider submitting assignments ahead of the due date to avoid potential last minute technical difficulties, including server unavailability. If you experience technical difficulties at the due date and time, you should immediately contact the instructor and the Student Helpdesk helpdesk@unt.edu or 940.565.2324.

Instructor Responsibilities and Feedback
As an instructor I strive to help students learn, providing clear instructions for assessments, answering questions about assignments, identifying additional resources as necessary, providing grading information, reviewing and updating course content. I aim to return graded work to you within one week after the due date. Normally, I do my best to respond to Email questions within a 24-hour timeframe.
UNT policies

Rules of Engagement

Rules of engagement refer to the way students are expected to interact with each other and with their instructors. Here are some general guidelines:

- While the freedom to express yourself is a fundamental human right, any communication that utilizes cruel and derogatory language based on race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law will not be tolerated.
- Treat your instructor and classmates with respect in any communication online, even when their opinion differs from your own.
- Speak from personal experiences. Use “I” statements to share thoughts and feelings. Try not to speak on behalf of groups or other individual’s experiences.
- Use your critical thinking skills to challenge other people’s ideas, instead of attacking individuals.
- Avoid using all caps while communicating digitally. This may be interpreted as “YELLING!”
- Be cautious when using humor or sarcasm in emails or discussion posts as tone can be difficult to interpret digitally.
- Avoid using “text-talk”.
- Proofread and fact-check your sources.
- Keep in mind that online posts can be permanent, so think first before you type.

See these Engagement Guidelines (https://clear.unt.edu/online-communication-tips) for more information.

Academic Integrity Policy

Academic Integrity Standards and Consequences. According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University. Examples of categories of academic dishonesty are:

A. Cheating. The use of unauthorized assistance in an academic exercise, including but not limited to:
   a. use of any unauthorized assistance to take exams, tests, quizzes or other assessments;
   b. dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems or carrying out other assignments;
   c. acquisition, without permission, of tests, notes or other academic materials belonging to a faculty or staff member of the University;
   d. dual submission of a paper or project, or re-submission of a paper or project to a different class without express permission from the instructor;
   e. any other act designed to give a student an unfair advantage on an academic assignment.

B. Plagiarism. Use of another’s thoughts or words without proper attribution in any academic exercise, regardless of the student’s intent, including but not limited to:
   a. the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgement or citation.
   b. the knowing or negligent unacknowledged use of materials prepared by another person or by an agency engaged in selling term papers or other academic materials.

C. Forgery. Altering a score, grade or official academic university record or forging the signature of
an instructor or other student.

D. Fabrication. Falsifying or inventing any information, data or research as part of an academic exercise.

E. Facilitating Academic Dishonesty. Helping or assisting another in the commission of academic dishonesty.

F. Sabotage. Acting to prevent others from completing their work or willfully disrupting the academic work of others.

ADA Policy
UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one’s specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information, see the ODA website (https://disability.unt.edu/).

Prohibition of Discrimination, Harassment, and Retaliation (Policy 16.004)
The University of North Texas (UNT) prohibits discrimination and harassment because of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law in its application and admission processes; educational programs and activities; employment policies, procedures, and processes; and university facilities. The University takes active measures to prevent and investigate such conduct and takes remedial action when appropriate.

Emergency Notification & Procedures
UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Canvas for contingency plans for covering course materials.

Retention of Student Records
Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets, and assignments submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Canvas online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student’s records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University’s policy. See UNT Policy 10.10, Records Management and Retention for additional information.

Acceptable Student Behavior
Student behavior that interferes with an instructor’s ability to conduct a class or other students’ opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom or Zoom meeting and the instructor may refer the student to the Dean of Students to consider whether the student’s conduct violated the Code of Student Conduct. The University’s expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion
groups, field trips, etc. Visit UNT’s Code of Student Conduct (https://deanofstudents.unt.edu/conduct) to learn more.

**Access to Information - Eagle Connect**

Students’ access point for business and academic services at UNT is located at: my.unt.edu. All official communication from the University will be delivered to a student’s Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail Eagle Connect (https://it.unt.edu/eagleconnect).

**Student Evaluation Administration Dates**

Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The survey will be made available during weeks 13, 14 and 15 of the long semesters to provide students with an opportunity to evaluate how this course is taught. Students will receive an email from "UNT SPOT Course Evaluations via IASystem Notification" (no-reply@iasystem.org) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey they will receive a confirmation email that the survey has been submitted. For additional information, please visit the SPOT website (http://spot.unt.edu/) or email spot@unt.edu.

**Sexual Assault Prevention**

UNT is committed to providing a safe learning environment free of all forms of sexual misconduct, including sexual harassment sexual assault, domestic violence, dating violence, and stalking. Federal laws (Title IX and the Violence Against Women Act) and UNT policies prohibit discrimination on the basis of sex, and therefore prohibit sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking, and/or sexual assault, there are campus resources available to provide support and assistance. UNT’s Survivor Advocates can assist a student who has been impacted by violence by filing protective orders, completing crime victim’s compensation applications, contacting professors for absences related to an assault, working with housing to facilitate a room change where appropriate, and connecting students to other resources available both on and off campus. The Survivor Advocates can be reached at SurvivorAdvocate@unt.edu or by calling the Dean of Students Office at 940-565-2648. Additionally, alleged sexual misconduct can be non-confidentially reported to the Title IX Coordinator at oeo@unt.edu or at (940) 565 2759.

**Use of Student Work**

A student owns the copyright for all work (e.g. software, photographs, reports, presentations, and email postings) he or she creates within a class and the University is not entitled to use any student work without the student’s permission unless all of the following criteria are met:

- The work is used only once.
- The work is not used in its entirety.
- Use of the work does not affect any potential profits from the work.
- The student is not identified.
- The work is identified as student work.

If the use of the work does not meet all of the above criteria, then the University office or department using the work must obtain the student’s written permission.

Download the UNT System Permission, Waiver and Release Form

**Transmission and Recording of Student Images in Electronically-Delivered Courses**

1. No permission is needed from a student for his or her image or voice to be transmitted live via videoconference or streaming media, but all students should be informed when courses are to be conducted using either method of delivery.
2. In the event an instructor records student presentations, he or she must obtain permission from the student using a signed release in order to use the recording for future classes in accordance with the Use of Student-Created Work guidelines above.

3. Instructors who video-record their class lectures with the intention of re-using some or all of recordings for future class offerings must notify students on the course syllabus if students' images may appear on video. Instructors are also advised to provide accommodation for students who do not wish to appear in class recordings.

   Example: This course employs lecture capture technology to record class sessions. Students may occasionally appear on video. The lecture recordings will be available to you for study purposes and may also be reused in future course offerings.

No notification is needed if only audio and slide capture is used or if the video only records the instructor's image. However, the instructor is encouraged to let students know the recordings will be available to them for study purposes.

**Class Recordings and Student Likenesses**

Synchronous (live) sessions in this course will be recorded for students enrolled in this class section to refer to throughout the semester. Class recordings are the intellectual property of the university or instructor and are reserved for use only by students in this class and only for educational purposes. Students may not post or otherwise share the recordings outside the class, or outside the Canvas Learning Management System, in any form. Failing to follow this restriction is a violation of the UNT Code of Student Conduct and could lead to disciplinary action.

**Academic Support and Student Services: Mental Health**

UNT provides mental health resources to students to help ensure there are numerous outlets to turn to that wholeheartedly care for and are there for students in need, regardless of the nature of an issue or its severity. Listed below are several resources on campus that can support your academic success and mental well-being:

- [Student Health and Wellness Center](https://studentaffairs.unt.edu/student-health-and-wellness-center)
- [Counseling and Testing Services](https://studentaffairs.unt.edu/counseling-and-testing-services)
- [UNT Care Team](https://studentaffairs.unt.edu/care)
- [UNT Psychiatric Services](https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry)
- [Individual Counseling](https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling)

**Academic Support Services**

- [Academic Resource Center](https://clear.unt.edu/canvas/student-resources)
- [Academic Success Center](https://success.unt.edu/asc)
- [UNT Libraries](https://library.unt.edu/)
- [Writing Lab](http://writingcenter.unt.edu/)