Course Description: CHEM 5460 is a proficiency analytical course with primary emphasize on strengthening student’s fundamental knowledge of analytical chemistry. The course will also introduce students to the modern analytical methodology with emphasis on measurements, data analyses and instrumental techniques, including separation methods, electrochemical methods and spectroscopy. This course will provide advanced degrees seeking students with the vital practical skills required for professional chemist active in the chemical measurement science.

- Establish a general familiarity with important analytical techniques.
- Bridge any gaps in undergraduate training in chemical analysis.
- Enhance understanding of statistical terminology and its QA/QC applications.
- Master persuasive presentation and effectively utilize scientific literature.
- Promote a mindset change from graduate student to professional scientist.

Instructor: Dr. Oliver Chyan,
Voice (940)565-3463 , Chemistry Building, room 156
E-mail: Chyan@unt.edu


Class Schedule: Tuesday, Thursday 3:30 PM - 4:50 PM.
Remote delivery by Zoom (see Canvas for more info)

Office Hours: (Tuesday & Thursday, 1:00 PM -2:30 PM) (By Zoom, or by arrangements if need extra help.)

Exams: Two term exams will be held on Feb. 18 & Mar. 25. Please plan accordingly. Each term exams will be counted as 35% toward final grade. Presentation (20%) and term paper (10%) based on a research project, selected by students and approved by instructor, will account for the rest of 30% grade. Optional final exam (comprehensive) will be provided to those students like to further improve their term grade. More details will be announced later.
**Missing Exam:** Plan your schedule accordingly. If you must miss an exam, permission (with proper documentation) must be obtained in advance. Medical absence requires proper doctor’s statement.

**Homework:** *Working the problems is very important* to achieve better understanding of materials taught and good grade in the class. A copy of the solution manual *(Check: UNT Willis library service desk)* with detailed answers to the problems is reserved in the Willis library. *Note: the solution manual is not errors free.*

**Grading Scale:**

<table>
<thead>
<tr>
<th>Final percent Average</th>
<th>Letter Grade</th>
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<tbody>
<tr>
<td>90 - 100 %</td>
<td>A</td>
</tr>
<tr>
<td>80 - 89 %</td>
<td>B</td>
</tr>
<tr>
<td>70 - 79 %</td>
<td>C</td>
</tr>
<tr>
<td>60 - 69 %</td>
<td>D</td>
</tr>
<tr>
<td>Below 60 %</td>
<td>F</td>
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</table>

*Note:*

*I reserve the right to make changes/modifications of the syllabus if needed.*

The Chemistry Department believes in reasonably accommodating individuals with disabilities and complies with university policy established under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (1990) to provide equal access and opportunity. Please communicate with your professor as to your specific needs and/or the office of Disability Accommodation (ODA) (1167 Union Circle Sage Hall Suite 167, 565-4323).

**Academic Ethics:** A high level of ethical conduct will be maintained in this course. Any evidence of an act of academic dishonesty during the exams will result in an automatic F and expulsion from this course. Please adhere to University policies and the UNT Code of Conduct and Discipline with respect to academic ethics and honesty.

[https://vpaa.unt.edu/ss/integrity](https://vpaa.unt.edu/ss/integrity)
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic/Exam/Due Items</th>
<th>Note</th>
</tr>
</thead>
</table>
| 1<sup>st</sup> week of Jan 11 | Intro: Analytical Measurements (Ch 0-2)  
Experimental Error (Ch 3) |                           |
| 2<sup>nd</sup> week  | Statistics (Ch 4)  
Quality Assurance & Calibration (Ch 5) |                           |
| 3<sup>rd</sup> week  | Activity & Systematic Treatment (Ch 8)  
Monoprotic Acid-Base Equilibria (Ch 9) |                           |
| 4<sup>th</sup> week  | Polyprotic Acid-Base Equilibria (Ch 10)  
Acid-Base Titrations (Ch.11) |                           |
| 5<sup>th</sup> weeks | EDTA Titrations (Ch 12)  
Fundamental of Electrochemistry (Ch 14) |                           |
| 6<sup>th</sup> week of (Feb 18, Th) | <Feb 25: pre-approval - Research Project Title (Exam #1)  
Ch. 1, 3, 4, 5, 8-11>  
35% grade |                           |
| 7<sup>th</sup> weeks | Electrodes & Potentiometry (Ch.15)  
Redox Titrations (Ch.16) |                           |
| 8<sup>th</sup> week  | Electroanalytical Techniques (Ch.17)  
Spectrophotometry + Spectrophotometers (Ch 18, 20). |                           |
| 9<sup>th</sup> week  | Atomic Spectroscopy (Ch 21)  
Intro of Mass Spec & Anal. Separation (Ch. 22, 23) |                           |
| 10<sup>th</sup> week | *Mar 19 : Presentation Outline due  
*PowerPoint draft due one week before your presenting date |                           |
| 11<sup>th</sup> week (Mar 25, Th) | Gas Chromatography, HPLC (Ch. 24, 25)  
(Exam #2)  
Ch. 12, 14-17, 18, 20, 21>  
35% grade |                           |
| 12<sup>th</sup> week (March 30) | Research Paper Presentation |                           |
| 13<sup>th</sup> week (April 6) | Research Paper Presentation | 20% grade                  |
| 14<sup>th</sup> week (April 13) | Industry Application of Analytical Chemistry |                           |
| 15<sup>th</sup> week (April 20) | Industry Application of Analytical Chemistry |                           |
| April 29 | Term paper due to Chyan@unt.edu | 10% grade                  |
| April 27  
1:30-3:30PM | Final Comprehensive Exam (optional) | For Grade Improvement      |
## MODERN ANALYTICAL CHEMISTRY

*Suggested Homework Problems “Quantitative Chemical Analysis” by D. C. Harris (9th)*

**•Fundamental Skills**

<table>
<thead>
<tr>
<th>Ch.</th>
<th>Assigned Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>The Analytical Process</td>
</tr>
<tr>
<td>1</td>
<td>Chemical Measurements</td>
</tr>
<tr>
<td>2</td>
<td>Tools of the Trade</td>
</tr>
<tr>
<td>3</td>
<td>Experimental Error</td>
</tr>
<tr>
<td>4</td>
<td>Statistics</td>
</tr>
<tr>
<td>5</td>
<td>QA and Calibration</td>
</tr>
<tr>
<td>6</td>
<td>Chemical Equilibrium</td>
</tr>
</tbody>
</table>

**Ch. 0**  The Analytical Process  
None

**Ch. 1**  Chemical Measurements  

**Ch. 2**  Tools of the Trade  
1, 2, 5, 6, 16-22, 24, 25, 28

**Ch. 3**  Experimental Error  
1-7, 9-18, 20-22

**Ch. 4**  Statistics  
1-3, 9, 11-15, 17-24, 26, 31, 35

**Ch. 5**  QA and Calibration  
1-8, 10, 12, 13, 18, 22, 23, 25, 26, 29, 30

**Ch. 6**  Chemical Equilibrium  
1-4, 6-8, 10, 14-16, 19-22, 28-30, 33-36, 38, 39, 44-52

**•Titrimetric Methods of Analysis**

<table>
<thead>
<tr>
<th>Ch.</th>
<th>Assigned Problems</th>
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<tbody>
<tr>
<td>7</td>
<td>Titration Begins</td>
</tr>
<tr>
<td>8</td>
<td>Activity &amp; Systematic Treatment</td>
</tr>
<tr>
<td>9</td>
<td>Monophonic Acid-Base Equilibria</td>
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<tr>
<td>10</td>
<td>Polyprotic Acid-Base Equilibria</td>
</tr>
<tr>
<td>11</td>
<td>Acid-Base Titrations</td>
</tr>
<tr>
<td>12</td>
<td>EDTA Titrations</td>
</tr>
</tbody>
</table>

**Ch. 7**  Titration Begins  
1-8, 10, 11, 13, 17, 19, 22, 26

**Ch. 8**  Activity & Systematic Treatment  
1, 2, 4, 5, 7, 10, 11, 13, 16-20, 23, 25

**Ch. 9**  Monophonic Acid-Base Equilibria  
1-3, 5-8, 11-13, 18, 21-23, 26, 29, 30, 32, 34, 36, 39-40, 42, 43

**Ch. 10** Polyprotic Acid-Base Equilibria  
3, 4, 6, 12-21, 24, 25, 29, 30, 38, 40, 41

**Ch. 11** Acid-Base Titrations  
1-4, 6, 8, 12-14, 18, 19, 23, 25, 27, 29, 31, 36, 37, 42, 45, 49, 50, 58, 60, 62

**Ch. 12** EDTA Titrations  
1-3, 6, 7, 14, 16, 23, 24, 27-29, 32-34, 36, 37

**•Electroanalytical Methods of Analysis**

<table>
<thead>
<tr>
<th>Ch.</th>
<th>Assigned Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Fundamentals of Electrochemistry</td>
</tr>
<tr>
<td>15</td>
<td>Electrodes and Potentiometry</td>
</tr>
<tr>
<td>16</td>
<td>Redox Titrations</td>
</tr>
</tbody>
</table>

**Ch. 14**  Fundamentals of Electrochemistry  
5-10, 12, 14-18, 21-23, 28-32, 37, 39, 40, 42, 43, 46, 49

**Ch. 15**  Electrodes and Potentiometry  
1, 2, 5, 8, 9, 12, 21, 22, 24, 25, 31-35

**Ch. 16**  Redox Titrations  
1-4, 7-11, 13, 14, 17-19, 22-27, 29, 30, 33
Some Study Tips for CHEM 5460

Prepare for Exams (70% grade)

1. **Team study** is a proven effective way to do well in this class. Make friends and work together. Your future people network contacts, Start today!

2. **Pre-view** (i.e. read ahead) the chapter(s) and pre-recorded lectures before attending the class, especially for new concepts like statistical analysis, etc

3. **Our lecturing time is rather limited.** Both important concepts and selected examples will be covered in the class. However, *do not expect all questions tested will be covered exactly in the class.*

4. **What will be tested from textbook?** Study *chapter examples,* Do the *Exercises* and verify the answers at the end of the book. Work on *Assigned Problems* and verify with answers from solution manual (UNT library reserved)

5. **What will be tested other than textbook?** Study “practicing quizzes” provided and take notes on Lecture examples.

6. **Practice before exam:** Before the exam, make up a simulated exam (put in some of those marked problems you have difficulty earlier) and give yourself one hour and half on the simulated exam.

Term Paper and Presentation (30% grade)

1. **Start Early** on literature search, seek Dr. Chyan’s approval of chosen topic(s) *early* (confirm topic priority based on E-mail date).

2. **Continue taking Good Notes** (electronic notes with selected Figures/proper citations) on relevant papers (>20 papers) from your own literatures search.

3. **Establish a Central Theme (Objectives)** of the term paper; seek Dr. Chyan’s inputs and approval. *(due by Feb 25, Research Project Title)*

4. **Construct Presentation Outline** *(due by March 19)* that leads to convincing writing and persuasive presentation to communicate your central theme and objectives.

5. **Prepare Sharp PowerPoint Presentation** *(due one week before your presentation date)* with clear messages that attracts audience attention to learn, invites questions to practice Q/A. Tips will be provided.

6. **Deliver an Inspiring Persuasive Presentation,** tips/advises will be provided.
Some Suggested Research Frontiers for Term Paper Topic

Analytical Chemistry using Nanoparticles

Single-molecule spectroscopy (SMS)

Single Molecular Detection and Imaging

Surface-Enhanced Raman Spectroscopy

Analytical applications using Microfluidic Systems

Nanoscopic Porous Sensors

Application of High-Resolution Mass Spectrometers in Medical Science

Chemical Sensor based on optical fibers and waveguides

Chemical Sensor based on ion-selective and chemically modified electrodes

Chemical Sensor based on surface acoustical wave devices

Fluorescent-Protein-Based Biosensors

Two-dimensional separation using high-performance liquid chromatography

HPLC–capillary electrophoresis

Recent Advances in Scanning Probe Microscopy

Developing of fast gas chromatography (GC) separations (< 1 minute) Metrology

Microchannel Electrophoresis based on lab-on-chip concepts

Capillary Electrophoresis (CE) in Biological Materials Analysis

Analytical Applications based on DNA hybridization and antibody-antigen binding

Scanning Electrochemical Microscopy (SECM) and its Applications

Desorption Electrospray Ionization (DESI) mass spectrometry and Its Applications

Electroanalytical Application using Miniaturized Electrode (~nm)

Environmental Analytical Chemistry

Analytical Applications Related to Food and Drug Administration Requirements

Analytical Applications Related to Microelectronic Industry

Analytical Applications Related to Pharmaceutical Industry
Relevant to COVID Safety

Attendance Policy: You are required to attend all the remotely delivered lectures.

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 COVID-19 including symptoms, potential exposure, pending or positive test results, or if you have been given specific instructions to isolate or quarantine from a health care provider or a local authority. 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.

Face Coverings required at in-person Exams

Face coverings are required in all UNT facilities. Students are expected to wear face coverings during this class. If you are unable to wear a face covering due to a disability, please contact the Office of Disability Access to request an accommodation. UNT face covering requirements are subject to change due to community health guidelines. Any changes will be communicated via the instructor.

UNT Policy on Class Recordings

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.

More Details of UNT Policies are listed in pages 11-14, Please Read carefully and Follow accordingly.
Technical Assistance

Part of working in the online environment involves dealing with the inconveniences and frustration that can arise when technology breaks down or does not perform as expected. Here at UNT we have 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

Online Student Resources ([https://clear.unt.edu/canvas/student-resources](https://clear.unt.edu/canvas/student-resources))
- [Canvas Student Guide](https://clear.unt.edu/supported-technologies/canvas/requirements)

For additional support, visit [Canvas Technical Help](https://community.canvaslms.com/docs/DOC-10554-4212710328)

Student Support Services

Academic Support & Student Services

Student Support 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)

### Chosen Names

A chosen name is a name that a person goes by that may or may not match their legal name. If you have a chosen name that is different from your legal name and would like that to be used in class, please let the instructor know. Below is a list of resources for updating your chosen name at UNT.

- [UNT Records](https://studentaffairs.unt.edu/care)
- [UNT ID Card](https://studentaffairs.unt.edu/care)
- [UNT Email Address](https://studentaffairs.unt.edu/care)
- [Legal Name](https://studentaffairs.unt.edu/care)

*UNT euIDs cannot be changed at this time. The collaborating offices are working on a process to make this option accessible to UNT community members.*

### Pronouns

Pronouns (she/her, they/them, he/him, etc.) are a public way for people to address you, much like your name, and can be shared with a name when making an introduction, both virtually and in-person. Just as we ask and don’t assume someone’s name, we should also ask and not assume someone’s pronouns.

You can **add your pronouns to your Canvas account** so that they follow your name when posting to discussion boards, submitting assignments, etc.

Below is a list of additional resources regarding pronouns and their usage:

- How are pronouns and why are they important?
- How do I use pronouns?
- How do I share my pronouns?
- How do I ask for another person’s pronouns?
- How do I correct myself or others when the wrong pronoun is used?

### Additional Student Support Services

- [Registrar](https://registrar.unt.edu/registration)
- [Financial Aid](https://financialaid.unt.edu/)
- [Student Legal Services](https://studentaffairs.unt.edu/student-legal-services)
- [Career Center](https://studentaffairs.unt.edu/career-center)
- [Multicultural Center](https://edo.unt.edu/multicultural-center)
• **Counseling and Testing Services** (https://studentaffairs.unt.edu/counseling-and-testing-services)
• **Pride Alliance** (https://edo.unt.edu/pridealliance)
• **UNT Food Pantry** (https://deanofstudents.unt.edu/resources/food-pantry)

**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/)
**UNT Policies**

**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. [Insert specific sanction or academic penalty for specific academic integrity violation.]

**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/](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 such conduct and investigates 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 (with keys), and written papers 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 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](https://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 [insert administration dates] 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](mailto: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](mailto: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.

**Important Notice for F-1 Students taking Distance Education Courses**

**Federal Regulation**

To read detailed Immigration and Customs Enforcement regulations for F-1 students taking online courses, please go to the Electronic Code of Federal Regulations website (http://www.ecfr.gov/). The specific portion concerning distance education courses is located at Title 8 CFR 214.2 Paragraph (f)(6)(i)(G).

The paragraph reads:

(G) For F-1 students enrolled in classes for credit or classroom hours, no more than the equivalent of one class or three credits per session, term, semester, trimester, or quarter may be counted toward the full course of study requirement if the class is taken on-line or through distance education and does not require the student’s physical attendance for classes, examination or other purposes integral to completion of the class. An on-line or distance education course is a course that is offered principally through the use of television, audio, or computer transmission including open broadcast, closed circuit, cable, microwave, or satellite, audio conferencing, or computer conferencing. If the F-1 student’s course of study is in a language study program, no on-line or distance education classes may be considered to count toward a student’s full course of study requirement.

**University of North Texas Compliance**

To comply with immigration regulations, an F-1 visa holder within the United States may need to engage in an on-campus experiential component for this course. This component (which must be approved in advance by the instructor) can include activities such as taking an on-campus exam, participating in an on-campus lecture or lab activity, or other on-campus experience integral to the completion of this course.

If such an on-campus activity is required, it is the student’s responsibility to do the following:

1. Submit a written request to the instructor for an on-campus experiential component within one week of the start of the course.
2. Ensure that the activity on campus takes place and the instructor documents it in writing with a notice sent to the International Student and Scholar Services Office. ISSS has a form available that you may use for this purpose.

Because the decision may have serious immigration consequences, if an F-1 student is unsure about his or her need to participate in an on-campus experiential component for this course, s/he should contact the UNT International Student and Scholar Services Office (telephone 940-565-2195 or email internationaladvising@unt.edu) to get clarification before the one-week deadline.

**Student Verification**

UNT takes measures to protect the integrity of educational credentials awarded to students enrolled in distance education courses by verifying student identity, protecting student privacy, and notifying students of any special meeting times/locations or
additional charges associated with student identity verification in distance education courses.
See UNT Policy 07-002 Student Identity Verification, Privacy, and Notification and Distance Education Courses (https://policy.unt.edu/policy/07-002).

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.