Course ID/Course Name: BIOL6710.001 Signaling Mechanism in Plants (Fall 2020)

Meeting time: Tuesday's and Thursday's 9:30-10:50 AM (synchronously) via Zoom https://unt.zoom.us/j/91499576204

Final exam December 10 (8:00-10:00AM): Join URL: https://unt.zoom.us/i/96124733702

Instructor Contact

Name: Dr. Jyoti Shah **Pronouns:** He/him

Office Location: LSC A210 Phone Number: (940) 565-4494 Office Hours: Mondays 9:00-10:00AM

Email: Jyoti.Shah@unt.edu (preferred method of contacting)

Communication Expectations: Communication between the instructor and the students will be via email to your official UNT email and the Instructors UNT email (Jyoti.Shah@unt.edu). Send all official concerns and questions about this course to Jyoti.Shah@unt.edu from your UNT email (not Canvas) with the subject BIOL6710 Signaling Mechanism. You should expect to hear back from the instructor within 1-2 workdays.

This course will use 'Canvas' for all submissions of assignments, exams, etc.

Welcome to UNT!

As members of the UNT community, we have all made a commitment to be part of an institution that respects and values the identities of the students and employees with whom we interact. UNT does not tolerate identity-based discrimination, harassment, and retaliation. UNT's full Non-Discrimination Policy can be found in the UNT Policies section of the syllabus.

Course Description

Plants need to integrate external (environmental) cues with internal cues related to health, nutritional status and developmental stage to achieve optimal productivity. Communication at different levels (within a cell, between cells and tissues, between organs, and between the plant and the living and nonliving environment) is critical for plant survival and for optimal productivity. This course will cover the variety of signaling molecules and mechanisms that plants utilize to facilitate communication at different levels. A key focus of this course would be on the molecular and biochemical basis of plant signaling and the approaches taken to study signaling mechanisms in plants.

Course Structure

https://unt.instructure.com/login/ldap/ (Canvas). This will be the official site for this course. Course Information, a list of the scheduled lectures will be posted on Canvas. All announcements and communication pertaining to this course will also be made through Canvas.

This class will be held remotely Tuesday's and Thursday's from 9:30-10:50 (synchronously) via Zoom https://unt.zoom.us/j/91499576204. This link can be accessed through Canvas. If there is a change to the zoom meeting ID it will be communicated to you via Canvas.

Although the class will meet synchronously, I will make all attempts to record the lectures so that you can view them later. However, at times I might bring in a guest lecturer and if they permit, I will record the lectures. Since this class does not use a textbook and discussions are important part of this class, it is important that you attend all lectures at the scheduled day and time.

Course Prerequisites or Other Restrictions

A course in plant biology & course in biochemistry/molecular biology, or instructor's permission.

Course Objectives

This course is a set of weekly lectures and paper discussions covering a broad range of topics in signaling associated with plant growth, development and response to stress. You will learn and begin to appreciate how plants, although docile are able to communicate at the level of individual cells, tissues and organs, among themselves and with other organisms. In the process, you will learn about plant hormones and their contribution as signaling metabolites, the molecular mechanism underlying signaling by hormones, and how hormone signaling can be targeted for improving plant traits, productivity and stress tolerance.

Materials

- Text Book: None.
- Recommended Reading: Biochemistry and Molecular Biology of Plants. B. Buchanan et al. (2nd edition); Other resources: ASPB learning/teaching tools (http://www.plantcell.org/content/teaching-tools-plant-biology), and the Arabidopsis Book (https://bioone.org/journals/the-arabidopsis-book/issues)

Course Technology & Skills

Minimum Technology Requirements

You will need access to Zoom and Canvas for which you will require the following:

- Access to a Computer
- Reliable internet access
- Speakers

• Canvas Technical Requirements (https://clear.unt.edu/supported-technologies/canvas/requirements)

Computer Skills & Digital Literacy

In order to succeed in this remotely (synchronously) offered course, you should know how to:

- Use Canvas
- Use email with attachments
- Downloading and installing software
- Connect remotely to Zoom and use the Chat feature in Zoom

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-8pmSaturday: 9am-5pmLaptop Checkout: 8am-7pm

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

Rules of Engagement

- While the freedom to express yourself is a fundamental human right, any communication that
 utilizes cruel and derogatory language on the basis 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 will
 not be tolerated.
- Treat the invited speaker, instructor, classmates and attendees with respect in any communication online or face-to-face, even when their opinion differs from your own.
- Ask for and use the correct name and pronouns for your instructor and classmates.
- 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!"
- Please do not interrupt the speaker. Hold your questions until the Q&A session.

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

Course Requirements

- Attending lectures and presentations, including the presentations on the Finals Day is mandatory. Material (lectures, notes/handouts, discussions) presented during lectures will contain vital information needed to do well in the exams. Lecturers may deviate from the material made available on Canvas. We may have guest lectures by experts in plant signaling during the course of the semester.
- The schedule is subject to change.
- Students are strongly encouraged to ask questions during the class. We learn best by having healthy discussions on the topics that we will cover.

Assignments

Note: All assignments, including paper critiques, exams and term proposals will need to be submitted through Turnitin in Canvas.

- Students will be assigned published papers and reviews for each topic, which they are required to review before coming to class. You will be required to come to class having read the paper of the week and submit a critique for each paper highlighting the strengths and weaknesses of each paper. There will paper critique. Each critique will be worth 10 points. The top three scores will be counted towards a maximum of 30 points of your final grade.
- Term proposal: Students will be required to write a proposal, which will be due Monday November 17. Please consult with your instructor on the topic, appropriateness and feasibility of your proposal. Title and abstract of your proposal are due on the Tuesday November 14, 2017. The term proposal will be a seven page proposal on one of the topics covered during class. The proposal should adhere to the guidelines provided in the file 'Proposal Guidelines'. Proposal should be typed and an electronic copy provided to the instructor. The electronic copy should be emailed to Jyoti.shah@unt.edu by the December 2 (5:00 PM) deadline. The written Final Term Proposal will count towards a maximum of 50 points of your final grade
- You will be required to give a 10 min oral presentation on your term proposal on Thursday Dec 10 (Finals day). This oral presentation of your Final Term Proposal will count towards a maximum of 20 points of your final grade.

Exams and Grading

Exams: There will be three take home exams, each worth 100 points. Exams will be based on material covered during lectures, reading assignments, handouts, and in class discussions. The top two scores will be counted towards a maximum of 200 points of your final grade. Missed Exams: Make-up for exams will be offered only if you have a documented university excused absence

Grading:

I.	Exam 1	100 points*
II.	Exam 2	100 points*
III.	Exam 3	100 points*
IV.	Final Term Proposal	50 points
V.	Oral presentation of Final Term Proposal	20 points
VI.	Critique of weekly papers (3 papers@10 points per paper)	30 points

^{*}The lowest score from the three exams (I, II and III) will be dropped when computing your final grade

Final Letter Grade (based on a max score of 300 points):

A = 270 and higher

B = 240-269

C = 210-239

D = 180-209

F = 179 and less

Tentative Schedule (subject to change)

Week 1	Aug 25 & 27: INTRODUCTION to the course. Overview of plant growth, development and interaction with the
	environment
Week 2	Sept 1 & 3: Hormones as signaling molecules in plants - Cytokinin, Auxin
	and Strigolactones
Week 3	Sept 8 & 10: Hormones as signaling molecules in plants – Gibberellin,
	Brassinosteroid, Abscisic acid.
Week 4	Sept 15: Peptide hormones and other signaling metabolites
	Sept 17: Exam I(take home exam-due back by end of day Friday Sept 18)
	Class does not meet for face-to-face instruction on exam day
Week 5	Sept 22: Protein modification and its involvement in signaling- ubiquitination,
	sumoylation, acylation, phosphorylation
	Sept 24: Paper discussion 1: protein modification
Week 6	Sept 29: Small RNAs in signaling
	Oct 1: Paper discussion 2- small RNAs
Week 7	Oct 6: Flowering
	Oct 8: Paper discussion 3- Transition to flowering
Week 8	Oct 13: Cell-Cell communication during stomatal & trichome development
	Oct 15: EXAM-2 (take home exam- <u>due back by end of day Friday Oct 16</u>)
	Class does not meet for face-to-face instruction on exam day
Week 9	Oct 20: Epigenetics and its role in gene regulation and memory
	Oct 22: Paper discussion 4- Epigenetics
Week 10	Oct 27: Signaling during Fruit Development- Ethylene signaling
	Oct 29: Paper discussion 5- Ethylene signaling
Week 11	Nov 3: Spatio-temporal signaling in Root Development
	Nov 5: Plant-Plant Interaction – parasitic plants
Week 12	Nov 10: Inter-kingdom signaling: Mutualistic interaction
	Nov 12: Inter-kingdom signaling: Plant-insect interaction
Week 13	Nov 17: Signaling associated with plant-pathogen interaction
	Proposal title and abstract due to instructor before 5:00PM- Tuesday Nov 17
	Nov 19: EXAM-3 (take home exam- <u>due back by end of day Friday Nov 20</u>)
	Class does not meet for instruction on exam day
Week 14	Nov 24: Long-distance signaling and trans-generational response to stress
	Nov 26: Thanksgiving day (No Class)
Week 15	Dec 1: Work on your proposal (class does not meet for instruction)
	Proposal due back by end of day Wednesday Dec 2
	Dec 3: Work on your proposal presentation (class does not meet for instruction)
Week 16	Dec 10 (Thursday Finals week): Proposal Presentations 8:00-10:00AM

Course Evaluation

Student Perceptions of Teaching (SPOT) is the student evaluation system for UNT and allows students the ability to confidentially provide constructive feedback to their instructor and department to improve the quality of student experiences in the course.

Course Policies

Attendance policy: Attending lectures and presentations, including the presentations on the Finals Day is mandatory. Material (lectures, notes/handouts, discussions) presented during lectures will contain vital information needed to do well in the exams. Lecturers may deviate from the material made available on Canvas. We may have guest lectures by experts in plant signaling during the course of the semester.

Assignment submission: All assignments should be turned in through Turnitin via Canvas. Plagiarism will result in a grade of zero for that assignment.

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 experiencing symptoms of COVID-19, It is important that you communicate with me prior to being absent and simultaneously report to the UNT COVID hotline as indicated below.

If you are experiencing any <u>symptoms of COVID-19</u> (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 <u>askSHWC@unt.edu</u>) or your health care provider PRIOR to coming to campus. UNT also requires you to contact the UNT COVID Hotline at 844-366-5892 or <u>COVID@unt.edu</u> 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 Materials for Remote Instruction

Students will need access to a [webcam and microphone] to participate in fully remote portions of the class. Information on how to be successful in a remote learning environment can be found at https://online.unt.edu/learn.

Statement on Face Covering

Face coverings are required in all UNT facilities. If you are accessing the lectures from on-campus with others around you, you 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.

Class Participation

Attendance is mandatory. You are encouraged to ask questions.

Late Work

UNT instructors have the prerogative to accept or not to accept late work. Please submit your summaries as required by the Tuesday deadlines as listed above.

Examination Policy

All paper critiques, exams and proposals should be checked for plagiarism and turned in through Turnitin. Plagiarism will result in a 'zero' score on that assignment.

Instructor Responsibilities and Feedback

As an instructor, I will be available during office hours (Mondays 9:00-10:00AM) to answer questions about the class, your attendance and grade via the zoom link for this class. The best way to reach out to me is via email to lyoti.Shah@unt.edu. I usually respond within 1-2 workdays.

Syllabus Change Policy

Any changes in the lecture schedule or cancellations will be announced via Canvas and email.

Help Desk

The University is committed to providing a reliable online course system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty, which prevents students from completing a time sensitive assessment activity, the instructor will extend the time windows and provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and contact the UNT Student Help Desk: helpdesk@unt.edu or 940.565.2324 and obtain a ticket number. The instructor and the UNT Student Help Desk will work with the student to resolve any issues at the earliest possible time.

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/).

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. 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 Oce@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 <u>Electronic Code of Federal Regulations website</u> (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 <u>UNT Policy 07-002 Student Identity Verification, Privacy, and Notification and Distance Education</u> <u>Courses</u> (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

- 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.

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:

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

- UNT ID Card
- UNT Email Address
- Legal Name

*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 <u>add your pronouns to your Canvas account</u> 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:

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

Additional Student Support Services

- Registrar (https://registrar.unt.edu/registration)
- <u>Financial Aid</u> (https://financialaid.unt.edu/)
- <u>Student Legal Services</u> (https://studentaffairs.unt.edu/student-legal-services)
- Career Center (https://studentaffairs.unt.edu/career-center)
- <u>Multicultural Center</u> (https://edo.unt.edu/multicultural-center)
- <u>Counseling and Testing Services</u> (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)
- <u>Academic Success Center</u> (https://success.unt.edu/asc)
- <u>UNT Libraries</u> (https://library.unt.edu/)
- Writing Lab (http://writingcenter.unt.edu/)