

GSTEP for Scientific Teaching - for the College of Sciences
Syllabus SPRING 2020 Semester

Course Information:	<p>Graduate Student Teaching Excellence Program (GSTEP) for Scientific Teaching. Spring 2020 (GRSC 5000Z)</p> <p>GSTEP for Scientific Teaching is an online workshop especially designed for Graduate Students in the College of Science (Biology, Chemistry, Physics, and Mathematics) who wish to learn about researched and effective teaching practices for both instructors and students. This workshop will focus on topics related to scientific teaching and student learning. The format is online and allows the participants to work in flexible hours. However, the modules build on the previous ones, so it is important for the participants to keep on track and complete the activities on time.</p> <p>The course will NOT require any face-to-face events or video recording. GSTEP for Scientific Teaching is offered as a zero-credit-option, meaning that students register (at no cost) and receive official documentation of completion on their transcripts after fulfilling the workshop’s requirements. The participants are expected to complete several assignments and discussions every two weeks. There are six modules in this workshop, two practicums, and 3 in-class observations every semester. The diploma is granted to the students after completing the final practicum in Module 6. (See table 1.0)</p>
Ongoing Research:	<p>We are interested in researching the impact of this workshop on our students’ community, including effect of the workshop on the instructor’s teaching skills, and the effect of the workshop on the undergraduate students’ retention in sciences. Would you like to support this research, and help us advance our understanding on Scientific Teaching? You will receive more information about this in the enrollment survey.</p>
Instructors and Mentors:	<p>Dr. Ruthanne “Rudi” Thompson, CLEAR Executive Director and Principal Investigator Jenna Ledford, Instructor of record for GSTEP Claudia Gonzalez, GSTEP Student Investigator & Mentor.</p>
Office Hours:	<p>By appointment. Email: claudia.gonzalez@unt.edu Office: (940) 565-3611</p>
Contact Information:	<p>Office: Support and Services Building (SSB) and LIFE Sciences A109 You are also welcomed to use Canvas’ email to contact the GSTEP for Scientific Teaching instructor and mentors</p>
Requirements to enroll in GSTEP for Scientific Teaching:	<ul style="list-style-type: none"> • Be enrolled in at least one 16-week graduate-level course. • Understand GSTEP does not count towards financial aid or full-time enrollment. • Understand the grading scale for this course is pass/fail and will show on your transcript. • Know the expectations and the table of content of the workshop (see below) and agree to participate in the six modules.

	<ul style="list-style-type: none"> • A certificate is only offered if the student completes the requirements of the semester after taking GSTEP which are: one practicum, two observations and a self-reflection • Complete the application form for Spring 2020 (Ctrl + click to follow link): https://unt.az1.qualtrics.com/jfe/form/SV_2nUftcSoLp57JqJ
Course Objectives:	<p>By the end of this course, learners will be able to:</p> <ul style="list-style-type: none"> • Engage in ongoing development as an effective scientific teaching facilitator in higher education. • Develop a plan for a course lesson using Backward Design, Blooms Taxonomy and Couch’s Scientific Teaching Taxonomy of Observable Practices. • Engage undergraduate students in a learner-centered experience
Required Materials:	There are NO REQUIRED TEXTBOOKS for this workshop. All of the required readings and supplemental resources will be provided to you in Canvas.
Course Delivery:	The workshop is 100% online. There are no face-to-face meeting, face-to-face seminars or video recordings. You will not be required to participate in interviews.
Time Allocation:	Time required varies from person to person. There are 6 Modules. The duration of each module is two weeks (See table below)
Online Student Support:	<p>The UNT Helpdesk is a student technical support team dedicated to deal with issues or technical needs (e.g. Canvas) if you should encounter any issues online at ANY point during the duration of this course. Please be sure to CONTACT the Student Help Desk support team for any student technical support issues and questions:</p> <p>Phone: (940) 565-2324</p> <p>HelpDesk Email: helpdesk@unt.edu</p> <p>HelpDesk Website: https://www.unt.edu/helpdesk</p>
Minimum Technical Skill Requirements:	For this course, learners will need to be able to create and submit files in commonly used word processing programs, download and upload files, send and receive emails, and use the learning management system Canvas. Other technical skills required will be introduced and coached by GSTEP for Scientific Teaching mentors.
Netiquette:	<p>Professional etiquette is part of your preparation as an instructor. Here are some items to consider as you work in educational environments, especially online.</p> <ul style="list-style-type: none"> • Be kind, polite and respectful. • Be a problem solver and contributor to improvement of situations. Communicating online is not always as easy because of time differences, technology challenges, and lack of context. Try to approach problems from a teacher’s perspective and then work on solutions by changing the environment. • For more information on Netiquette visit this website: http://www.albion.com/netiquette/corerules.html
Modules:	<p>Spring 2020: Module 1: Scientific Teaching, Module 2: Active Learning, Module 3: Assessment: Module 4: Diversity, Module 5: Final Project.</p> <p>Fall 2020: Module 6: Practicum, teaching observations a, self-reflection and exit assessment.</p>
Content :	Five (5) activities in each Module (Module 1 to Module 4): The activities are all online assignments to help you practice what you learned during each

module. Some of the activities build on the previous ones. You will be able to see the previous modules as the workshop progresses. You can always go back and review the material from past modules if you want or need to. The time spent on the activities varies from person to person, but the deadlines are every two weeks, which makes it easier to work on the activities during your spare time and during the weekends.

- **One Teaching Assistant of GSTEP Package:** We call this file “TAGPack”. It is an Excel Sheet with activities for the analysis of the laboratory lesson you teach.
- **One TAGPack#Pre_FinalProject:** This file is for you to work little by little on your final project. In each module you apply the knowledge you learned and start modifying the lesson to make it more scientific. In other words, to add active learning, assessments and diversity strategies to the lesson you teach.
- **One Action Plan for Scientific Teaching:** It is a document with four basic questions about how you could implement the tools and strategies learned in future semesters.
- **One Exit Assessment:** It is a quiz with one question. We basically ask you to describe in your own words, how you think each topic affects learning.
- **One Self-evaluation:** This file is a rubric that describes the expectations of each module. You learn how to evaluate your own assignments. The researchers will also provide you feedback. We practice what we teach: “to be student centered, and not teacher centered.” This means you are in control of your own learning and we are there as facilitators not guardians of the knowledge.

Teaching Observations in Module 4 and 6 – These activities about observing 3 instructors teach a class/lab. You will record your observations, and submit your notes and reflections using a rubric provided in GSTEP.

Three (3) activities in Module 5: This is the “Final Project’s Module” and there are three (3) activities to submit in this Module. They include:

- **One Framework of a Teachable Unit:** The Framework of the Teachable Unit is a report of the lesson plan. It is a Word document that includes all the parts you have been working throughout the semester (TAGPack#Pre_FinalProject). The format is different because this one is the final report, not the analysis.
- **One in-class observation:** The primary investigator or a member of the key personnel will plan to observe you during the teaching practicum (a required component of the course). Observers will use an observation rubric to assess your teaching especially your scientific teaching practices (active learning, assessment and diversity). A copy of the observation rubric will be provided to you prior to your observation. Observations will NOT be audio or video

	<p>recorded. The lesson you will teach will be one of the labs you teach a week before the laboratory's final exam.</p> <ul style="list-style-type: none"> • One Self-reflection: With the feedback received and your notes, you are asked to write a self-reflection of your experience teaching a lesson that contains scientific teaching practices. <p>Six (6) Discussions: Each module has 1 or 2 discussions. The discussions are a great opportunity for you and your peers to learn from each other's teaching experiences. Each discussion includes posting once and responding twice to your peers. The topics are related to each module: active learning, assessment and diversity. All the discussions are online and are NOT audio or video recorded.</p> <ul style="list-style-type: none"> • Module 1 (1 discussion) • Module 2 (1 discussion) • Module 3 (2 discussions) • Module 4 (2 discussions) <p>GSTEP Extended (Three in-class observations feedback reports (GSTEP peers), one observation, and one self-reflection): These activities happen the semester after you take GSTEP for Scientific Teaching. You are asked to provide us the syllabus of the next semester as well as any changes made in the lesson plan to program one more time an in-class observation. There is also an in-class observation not scheduled, so we can observe if any of the tips, tricks and techniques are continued to be used in your daily experiences. The observers will provide you feedback, so you can write and send us a self-reflection. You are required to observe 3 peers and write 3 feedback reports using the GSTEP rubric. All personal information will be kept private and secured including demographic surveys, results from activities including assignments, discussions, observations, feedback reports, and self-reflections.</p>
Workshop Evaluation:	<p>Each module contains a self-evaluation that the participant submits along with the assignments (TAGPack activities, Thin-Pair-Share activities, discussion, action plans, exit assessments)– The participant is in control of his or her own learning. In these evaluations the participants monitor the expectations and criteria to pass each module so they can work toward the goals and monitor their own results. The instructor and mentor(s) of GSTEP for Scientific Teaching will validate the form and provide the final evaluation per module. The final score of each module should be: PASS to proceed with the next one.</p> <ul style="list-style-type: none"> • In case that the requirements are not met and the participants' score below the pass score, the graduate student will get a "on probation" grade. The participant can continue with the workshop but should contact the GSTEP for Scientific Teaching mentor(s) for deadlines and support.
Workshop Policies:	<ul style="list-style-type: none"> • Late Assignment Policy: Modules (including activities) and assessments have deadlines set for Sunday nights at 11:59 pm CST (See table 1). You are expected to submit module activities and assessment components by the

<p>UNT Policy:</p>	<p>deadline. We will consider extensions on a case-by-case basis. Please contact your assigned mentor if you are either unable to submit on time.</p> <ul style="list-style-type: none"> • <u>Attendance Policy:</u> The workshop is 100%, and do not require face-to-face meetings. • <u>Class Participation:</u> This is a discussion-based workshop. The workshop's is designed for you to discuss the material, ask questions and contribute to the group with your teaching experiences as you work on it. • <u>Student Communication:</u> Participants are encouraged to develop communication networks with other class members via electronic communication vehicles such as Canvas, email, discussions, and/or other UNT tools. • <u>Syllabus Change Policy:</u> The syllabus and workshop due dates are subject to revision by the instructors throughout the semester. Students will be notified promptly of any changes via weekly course announcements and email. • <u>UNT Academic Integrity Policy:</u> 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. • <u>ADA Policy:</u> UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Access (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 at disability.unt.edu. • <u>Emergency Notifications and Procedures:</u> 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 Blackboard for contingency plans for covering course materials. • <u>Retention of Student Records:</u> 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
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	<p>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.</p> <ul style="list-style-type: none"> • 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. The Code of Student Conduct can be found at deanofstudents.unt.edu/conduct.
<p>Student Academic Support Services:</p>	<p>As students of the university, you have many resources available to you. If you have questions about academic support services, please consult the following UNT resources:</p> <ul style="list-style-type: none"> • Academic resources: where to buy textbooks and supplies, access academic catalogs and programs, register for classes, and more https://www.unt.edu/academics • Code of Student Conduct: provides Code of Student Conduct along with other useful links https://deanofstudents.unt.edu/conduct • Office of Disability Access exists to prevent discrimination based on disability and to help students reach a higher level of independence https://disability.unt.edu/ • Counseling and Testing Services provides counseling services to the UNT community, as well as testing services; such as admissions testing, computer-based testing, career testing, and other tests https://studentaffairs.unt.edu/counseling-and-testing-services • UNT Libraries https://library.unt.edu/ • UNT Learning Center provides a variety of services, including tutoring, to enhance the student academic experience https://learningcenter.unt.edu/home • UNT Writing Center offers free writing tutoring to all UNT students, undergraduate and graduate http://writingcenter.unt.edu/ • Succeed at UNT: information regarding how to be a successful student at UNT https://success.unt.edu/

Graduate Student Teaching Excellence Program (GSTEP) For Scientific Teaching

Table 1: Syllabus Spring 2020 Semester

Deadlines	Module 1: Scientific Teaching
January 21	Module 1 and discussions start. Read the START HERE section and introduce yourself in the group's forum
January 24	Deadline to submit the syllabus of the lab you teach during Spring 2020. Select a topic from that syllabus and inform us your selection. Note: See Module 5 for practicum dates and contact your GSTEP mentor in case of questions.
February 2	Deadline to submit the next files: <ul style="list-style-type: none"> • TAGPack#Module1 • Action Plan for Scientific Teaching • Exit Assessment for Scientific Teaching • Self-evaluation Module 1 Deadline to discuss the case "Frustrated Professor"
Deadlines	Module 2: Active Learning
February 3	Module 2 and discussions start
February 16	Deadline to submit <ul style="list-style-type: none"> • TAGPack#Module2 • TAGPack#Build_your_final_project_Module2 • Think-Pair-Share: Conversion of exercises from passive to active - Assignment and discussions • Think-Pair-Share: Compare learning gains active vs passive exercises - Assignment and discussions • Action Plan for Active Learning • Exit Assessment for Active Learning • Self-evaluation Module 2 Deadline to discuss the case "Constructing Knowledge"
Deadlines	Module 3: Assessment
February 17	Module 3 and discussions start
March 1	Deadline to submit <ul style="list-style-type: none"> • TAGPack#Module3 • TAGPack#Build_your_final_project_Module3 • Think-Pair-Share: "Compare and Contrast Two Assessments" - Assignment and discussions • Think-Pair-Share: "EnGauge Students in Learning" - Assignment and discussions • Action Plan for Assessment • Exit Assessment for Assessment • Self-evaluation Module 3 Deadline to discuss the cases <ul style="list-style-type: none"> • "Frustrated Student" • "Grading"
Deadlines	Module 4: Diversity
March 2	Module 4 and discussions start
March 22	Deadline to submit <ul style="list-style-type: none"> • TAGPack#Module4 • TAGPack#Build_your_final_project_Module4 • Think-Pair-Share: "Statistics attrition of students from science and engineering major in college" - Assignment and discussions • Think-Pair-Share: "Creating an Inclusive Classroom" - Assignment and discussions • Action Plan for Diversity • Exit Assessment for Diversity • Self-evaluation Module 4 • Teaching Observations - observe 3 instructors teach a class/lab and submit your observations and reflection (Use the rubric provided in GSTEP) Deadline to discuss the cases

	<ul style="list-style-type: none"> • “Cousins Vang”, “Inclusive Classrooms”, or “Bantering” • “Diversity in science classrooms” <p>Getting ready for the Practicum: Confirm day/time/room number</p>
Deadlines	Module 5: Final Project
March 23	Module 5 starts
April 5	<ul style="list-style-type: none"> • Deadline to submit TAGPack#FinalProject, power point, other files/attachments • Framework of a Teachable Unit - Depending on the feedback, the framework might need to be resubmitted next semester <p>All files need to be submitted before your practicum</p>
April 6-April 26	<ul style="list-style-type: none"> • Practicum and GSTEP in-class observations
3-5 days after your practicum	<ul style="list-style-type: none"> • Your mentor will send you feedback – Depending on the feedback, the framework might need to be resubmitted next semester
May 2-May 8	<ul style="list-style-type: none"> • Deadline to submit the self-reflection of your teaching experience using Scientific Teaching in the laboratory • Submit your Exit Assessment: Final Project and Workshop • Complete your Self-Evaluation (Module 5)
May 11	You will receive an email of completion or no completion. Your grade will show up in your transcript.
Deadlines	Module 6: Practicum and Teaching Observations FALL 2020
First two weeks of Fall 2020	<p>Please submit your:</p> <ul style="list-style-type: none"> • Syllabus and teaching schedule for Fall 2020 • Schedule your practicum (day, time and laboratory number) • Practice giving feedback. Schedule three GSTEP peer-teaching observations.
3 weeks before practicum	Submit an update of the Framework of a Teachable Unit
TBD	Practicum
2-3 days after peer- teaching observations	Submit the three GSTEP peer-teaching observations. (All feedback from peers will be coded and provided anonymously to the participants)
5-7 days after practicum	Your mentor will send you the observations and feedback so you can write your final self-reflection.
7-10 days after you receive feedback	<p>Please submit:</p> <ul style="list-style-type: none"> • The self-reflection of your teaching using Scientific Teaching. Use your notes and the feedback provided by your GSTEP mentor • Complete the final exit assessment • Certificate request form (Hard copy)

This table is a guideline and is subject to change at any time.

UPDATED: JANUARY 7, 2020