Syllabus: CHEM 5010
Introduction to Graduate Teaching and Research
Fall Semester 2020 (2 credit hours)

Instructor: Dr. LeGrande M. Slaughter
Room 307E or 101E (Chair’s office), Chemistry Building
Office phone: 565-4350 or -3515. legrande.slaughter@unt.edu

Lecture: Monday, Wednesday 10:00 – 10:50 am, CHEM 106

Anne M. Coghill, Lorrin R. Garson, Eds.
American Chemical Society, 2006
An e-Book version is available through UNT Libraries (requires login)
https://libproxy.library.unt.edu:2337/isbn/9780841239999
This resource has just recently been replaced by the ACS Guide to Scholarly Communication, which is 100% online. I am working with the UNT Library to gain access to this resource—hopefully soon!

Office Hours: Monday and Wednesday, 2:00 – 3:00 pm (other times upon request); by appointment only. Please email ahead of time and I will set up a Zoom meeting.

Objective: The objective of this course is to prepare you, as new graduate students in Chemistry, for success in your Doctoral and Masters studies and in your subsequent career.

Learning Outcomes: Students will learn strategies for time management and success in research, effective use of departmental and UNT resources, and scientific communication skills. Students will also gain knowledge that will help them become proficient in data analysis, scientific writing, scientific ethics, and undergraduate laboratory teaching.

Grades:

<table>
<thead>
<tr>
<th>Category</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance:</td>
<td>150</td>
</tr>
<tr>
<td>Participation:</td>
<td>60</td>
</tr>
<tr>
<td>Assignments/Quizzes:</td>
<td>490</td>
</tr>
<tr>
<td>Final Presentation:</td>
<td>300</td>
</tr>
</tbody>
</table>

1000 points

Letter grade scale:

- A  900-1000 points
- B  800-899
- C  650-799
- D  550-649
- F  0-549
# Tentative Class Schedule (subject to revision)

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Class Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8/24</td>
<td>Introduction; Overview of Graduate Studies</td>
</tr>
<tr>
<td></td>
<td>8/26</td>
<td>Success in Research; Choosing an Advisor</td>
</tr>
<tr>
<td>2</td>
<td>8/31</td>
<td>Effective Teaching*</td>
</tr>
<tr>
<td></td>
<td>9/2</td>
<td>Faculty Research Presentations†</td>
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<tr>
<td>3</td>
<td>(9/7)</td>
<td>(Labor Day: No Class)</td>
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<tr>
<td></td>
<td>9/9</td>
<td>Faculty Research Presentations†</td>
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<tr>
<td>4</td>
<td>9/14</td>
<td>Faculty Research Presentations†</td>
</tr>
<tr>
<td></td>
<td>9/16</td>
<td>Faculty Research Presentations†</td>
</tr>
<tr>
<td>5</td>
<td>9/21</td>
<td>Faculty Research Presentations†</td>
</tr>
<tr>
<td></td>
<td>9/23</td>
<td>Faculty Research Presentations†</td>
</tr>
<tr>
<td>6</td>
<td>9/28</td>
<td>Faculty Research Presentations†</td>
</tr>
<tr>
<td></td>
<td>9/30</td>
<td>Introduction to Ethics in Science (Dr. Acree)*</td>
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<tr>
<td>7</td>
<td>10/5</td>
<td>Ethics in Science (Dr. Slaughter)*</td>
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<tr>
<td></td>
<td>10/7</td>
<td>Finding Scholarship and Fellowship Opportunities*</td>
</tr>
<tr>
<td>8</td>
<td>10/12</td>
<td>Library Resources (meet in CCIL)*</td>
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<tr>
<td></td>
<td>10/14</td>
<td>Library Resources (meet in CCIL)*</td>
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<tr>
<td>9</td>
<td>10/19</td>
<td>Library Resources (meet in CCIL)*</td>
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<tr>
<td></td>
<td>10/21</td>
<td>Scientific Meetings and Networking*</td>
</tr>
<tr>
<td>10</td>
<td>10/26</td>
<td>Fire Safety*</td>
</tr>
<tr>
<td></td>
<td>10/28</td>
<td>Ethics Presentations by Students*</td>
</tr>
<tr>
<td>11</td>
<td>11/2</td>
<td>Ethics Presentations by Students*</td>
</tr>
<tr>
<td></td>
<td>11/4</td>
<td>Making Scientific Presentations*</td>
</tr>
<tr>
<td>12</td>
<td>11/9</td>
<td>Making Scientific Presentations*</td>
</tr>
<tr>
<td></td>
<td>11/11</td>
<td>Intellectual Property and Technology Transfer*</td>
</tr>
<tr>
<td>13</td>
<td>11/16</td>
<td>Working with Scientific Data (lecture)*</td>
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<tr>
<td></td>
<td>11/18</td>
<td>Working with Scientific Data (hands-on in CCIL)*</td>
</tr>
<tr>
<td>14</td>
<td>11/23</td>
<td>Scientific Writing - Introduction*</td>
</tr>
<tr>
<td></td>
<td>11/25</td>
<td>Scientific Writing - Exercises*</td>
</tr>
<tr>
<td>15</td>
<td>11/30</td>
<td>Writing Scientific Proposals*§</td>
</tr>
<tr>
<td></td>
<td>12/2</td>
<td>Preparing for Careers*§</td>
</tr>
<tr>
<td>Finals</td>
<td>12/7–12/11</td>
<td>Final Presentations (date/time to be determined)</td>
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</tbody>
</table>

*Date not yet confirmed  †Speaker schedule to be announced  §§Via Zoom at the scheduled time
CHEM 5010: Class Policies  

Class Topics:
Class topics have been chosen to give you the greatest possible exposure to information that will help you to succeed as a graduate student and as a professional chemist. Many classes will involve guest speakers from both inside and outside the UNT Chemistry Department. Some will involve hands-on instruction, for example in searching UNT’s online library resources. Please note that the schedule on p. 2 is tentative and may need revision during the semester.

Course Delivery Mode:
This course is listed as a face-to-face lecture course. The majority of the classes will be taught in-person, in room 106 of the Chemistry Building. A few classes will be taught in the Computational Chemistry Instructional Lab (CCIL, room 232), and a few may be taught remotely via Zoom depending on the needs of external speakers. Please monitor Canvas frequently for updates on the location/delivery mode of each week’s classes. As mandated by the University, the final week of classes (November 30 – December 4), and all Final Exams, will be conducted remotely. Details will be provided later. If the University mandates remote instruction due to a worsening of the pandemic, CHEM 5010 will switch immediately to remote synchronous delivery at the scheduled time.

Technology Requirements:
Access to a computer is required for completion of most assignments. Computers are available in CCIL (room 232) for your use. For remote classes (after Thanksgiving and otherwise as needed), you will need access to a laptop or desktop computer with webcam and microphone (preferred), or at least to a tablet or smartphone with video capability.

Class Attendance:
It is important that you attend class to get the most out of this course. 15% of your grade will be based on attendance. You will receive 5 points (out of 1000 for the course) for each class that you attend on time and 5 points for attending the Final Presentations. If you are late to class without a valid excuse, the number of points you earn will be reduced.

Excused Absences:
You will not be penalized if you miss class due to an excused absence. An excused absence must have a valid reason that can be documented, including: 1) the need to self-isolate due to a positive COVID-19 test or a close contact with someone who tested positive; 2) other illness or injury requiring medical attention; 3) participation in scheduled University activities requiring you to be absent from campus on the class date; 4) religious holidays; 5) other serious reasons beyond your control for which you can provide documentation. Illness not requiring medical treatment, vacation plans, oversleeping, and social activities are not valid reasons, and any absences for these reasons will be unexcused. For each documented excused absence, you will receive 5 attendance points, provided that you arrange with the instructor to pick up any needed materials and complete any required assignments related to the missed class. I intend to be flexible on attendance given the ongoing pandemic. Please contact me immediately if you cannot attend class for any reason related to COVID-19.
**Class Participation:**
Participation in class discussions is an important part of this course. Therefore, 6% of your grade (60 points) will be based on class participation. I will be looking for a reasonable amount of participation throughout the semester. This does not mean that you have to speak in every class period.

**Class Recordings:**
Some live sessions in the course may be recorded to provide access for students who cannot attend. These will be available for all students to access via Canvas 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 share the recording outside the class, or outside the Canvas system, in any form. Doing so could lead to disciplinary action.

**Assignments:**
There will be a number of assignments and quizzes throughout the semester. These will include short summaries of faculty research presentations, demonstrations of the use of online library resources, etc. These will add up to 49% of your grade (490 points). A tentative breakdown of these assignments is provided on p. 7 of this Syllabus. You are expected to turn in assignments on time. A penalty of 20% per day will apply for late assignments. Please carefully follow the instructions given with each assignment for how to turn it in. Assignments will generally be submitted through Canvas (see below). *Emailed assignments will not be accepted.*

**Final Presentations:**
The Final Examination for this class is a PowerPoint presentation on a scientific topic of your choosing. The topics will be due at the beginning of class on **November 11**. More specific guidelines will be provided later in the semester. Because this represents your Final Exam for this course, the presentations will be scheduled during Final Exam week. Final Presentations will be delivered virtually, via Zoom meeting, in two groups of 4-5 students each. The exact schedule will be determined later in the semester. The Final Presentation will count for 30% of your grade (300 points).

**Missed Final Presentations:**
Students who miss the Final Presentation must notify the instructor of the reasons for their absence by noon of the day following the scheduled time for the Presentation. The instructor will make reasonable efforts to reschedule the Final Presentation if you have a valid, documented reason for the absence. If the Final Presentation cannot be rescheduled during Finals Week, the student will receive a grade of incomplete ("I") for the course and must arrange a time for a make-up examination with the instructor, no later than the end of the first week of classes of the Spring 2021 semester. If there is no valid excuse for the absence, the instructor may decide to allow a rescheduled Final Presentation, but there will be a minimum penalty of twenty percent on your grade. Students who miss the Final Presentation and do not notify the professor of the reason by noon of the following day will receive a grade of zero on the Final Presentation.
Academic Integrity:
Students are responsible for honoring UNT’s Academic Integrity Policies (https://vpaa.unt.edu/fs/resources/academic/integrity) and the Code of Student Conduct (https://deanofstudents.unt.edu/conduct). There will zero tolerance for any form of academic misconduct, including plagiarism, in this course. The above-linked Policies define plagiarism as:

*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:*

1. *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.*
2. *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.*

The minimum penalty for plagiarism will be a grade of zero on the assignment. Serious acts of plagiarism may result in a failing grade for the course and/or further sanctions from the University.

COVID-19-RELATED POLICIES

Face Covering Requirement:
Masks or other approved face coverings are required in all UNT facilities. Students are expected to wear face coverings during all in-person meetings for 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. See this link for details of UNT’s face covering policy.

Social Distancing Requirements:
Sit only in seats that do not have “Do Not Perch Here” stickers. The seat you occupy on the first day of class will be assigned to you for the remainder of the semester. When entering CHEM 106, use only the right entrance, closer to the Chemistry Main Office. Exit the room through the other door, on the right as you face the front of the classroom. When entering or exiting, and during class, maintain a distance of 6 feet (2 meters) from other people at all times.

Disinfection Requirements:
Custodial Services will be cleaning all classrooms nightly, but students will be responsible for disinfecting their seat and desk before each class. There will be a green plastic “camouflage” bucket in the classroom with disinfectant spray and paper towels. We should also have a pump bottle of hand sanitizer in the classroom, and there will be sanitizer stations in the hallways. Please wash your hands and use hand sanitizer frequently throughout the day to help avoid spreading the coronavirus.

Student Visa Requirements:
New students holding F-1 visas are required to have face-to-face activities in at least one course. CHEM 5010 satisfies these requirements. If you require written documentation of face-to-face instruction for visa purposes, I will be glad to provide it upon request.
CHEM 5010: Additional Course Resources Fall 2020

Special Accommodations for Students: If you feel that you have a disability or any other circumstances requiring special accommodation, please contact the Office of Disability Access (Sage Hall Suite 167, Phone 565-4323). If possible, please contact me during the first week of classes to discuss the needed arrangements.

Canvas:
The instructor will be using Canvas, an online digital learning platform, for this course. Enter your EUID and password at the following Web address to log in:

https://unt.instructure.com/login/ldap

The instructor will post PowerPoint presentations, handouts, assignments, and supplementary materials on Canvas. Hard copies of most of these will also be provided in class. Most assignments will be turned in through Canvas as well, in either PDF or MS Word (*.docx) format, unless otherwise stated on the assignment. Please follow the instructions given with each assignment to make sure they are turned in properly.

I recommend that you download all presentations, handouts, and assignments for this course and save them on a secure memory device for future reference. Note that you will not have access to the Canvas page once the semester is over.

ACS Style Guide:
This is a valuable resource for any chemist involved in scientific writing, including journal articles as well as theses and dissertations. It is available as an e-Book through UNT Libraries (see p. 1 of this Syllabus). There are also two hard copies available for short-term loan at the Willis Library Reference Desk. There may be copies available for purchase at the UNT Campus Bookstore. Note that this resource is now outdated and has just recently been replaced by the ACS Guide to Scholarly Communication, which is 100% online. I am working with the UNT Library to gain access to this resource—hopefully soon!

Note on Using the Internet for Information:
You should be aware that many sources of chemical information on the Internet are unreliable. Simply “Googling” certain terms or using popular Web sites such as Wikipedia will sometimes lead to false or incomplete information. While you may sometimes get useful leads this way, you should not use these as your primary methods of retrieving information. Online databases and search tools specifically designed for scientists and scholars, such as SciFinder and Web of Science, are the tools that you should be using in your research. You will learn more about these during the classes on Library Resources.

Also, please be aware that copying, or even closely paraphrasing, material found on the Internet is considered plagiarism.
Note: The following scheme is subject to adjustment. Any changes to the grading scheme will be announced via Canvas.

Quizzes (pop quizzes over material covered in a previous class; may be unannounced)

Quiz #1  34 points
Quiz #2  32 points
Quiz #3  32 points

Assignments

Assignment #1 (Faculty research summaries)  112 points (14 x 8 points)
Assignment #2 (Presentations on scientific ethics) 100 points
Assignment #3 (Library resource activities)  60 points (3 x 20 points)
Assignment #4 (Data analysis)  60 points
Assignment #5 (Scientific writing exercises)  60 points

Maximum Points for Quizzes & Assignments  490 points
Important Dates

August 24 – 28  Add/drop period (Last dates to change/add a class)
September 7  Labor Day holiday; no class
September 4  Last day to drop a course without a grade
November 2  Last day to drop course with a grade of “W”
November 11  Final Presentation topics due
November 20  Last day to withdraw (drop all classes)
November 26-27  Thanksgiving Break (no classes; University closed)
Nov. 30 – Dec. 4  Pre-Finals Week – *All instruction will be remote or online*
December 7-11  Finals Week – *All Final Exams conducted remotely*

COVID-19 EMERGENCY INFORMATION

If you experience any symptoms of COVID-19—such as fever, shortness of breath, or coughing—or if you had close contact with an individual who tested positive for COVID-19, contact the UNT COVID hotline immediately using the phone number or email address below.

**COVID@unt.edu**
(844) 366-5892

If you contact the hotline, UNT personnel will provide you information about testing and self-isolation procedures that you may be required to follow. *Please do not hesitate to contact the hotline if you believe you may have been exposed to COVID-19. It is very important to prevent the virus from spreading throughout the UNT community, and your responsible behavior is an important part of this effort.*