Course Description
CHE 385 covers topics pertinent to all areas of chemistry: scientific ethics, chemical literature and information retrieval, technical writing, and oral presentation. The course is normally taken concurrently with either Intermediate Synthetic and Spectroscopic Laboratory Techniques (CHE 384) or Chemical Instrumentation Laboratory (CHE 304), but an alternative arrangement is possible with the permission of the instructor. Satisfactory completion of CHE 385 is required for chemistry majors to fulfill the University’s upper-division writing requirement.

Meeting Times
Class meets Mondays 11:00am-1:00pm in Frey Hall 222.
Students are responsible for all material and information covered in lectures.

Instructor
Prof. Robert B. Grubbs
Phone: (631) 632-7911
robert.grubbs@stonybrook.edu
Office: Chemistry 749, Wednesdays, 11 am - noon, or by appointment

Learning Outcomes:
After completion of this course, students will gain the ability to:
- Understand introductory topics in scientific ethics
- Use software for chemical drawing and citation management
- Use proper scientific writing skills for reports and articles
- Deliver clear, well-organized and audience-appropriate oral presentations

Course Materials

Required
Kandel, M; Hsiao, B. S. CHE 385: Tools of Chemistry Workbook, Spring 2012 (can be downloaded from Blackboard)

Committee on Science, Engineering, and Public Policy, National Academy of Sciences, National Academy of Engineering, and Institute of Medicine. (2009) On Being a Scientist: Responsible Conduct in Research, 3rd edition (can be downloaded from Blackboard )

Recommended


Assignments

Writing assignments will be given throughout the semester. Some assignments (usually first drafts) will be peer-critiqued in class. For these, you must bring a hard copy of your completed assignment to class. Some assignments (usually revised drafts) will be submitted to the instructor electronically using the electronic submission function in Blackboard. Late electronic submissions will result in a lower grade on the assignment. In CHE 385, you will use the data obtained in CHE 304 or 384 to write your reports, or from other lab courses with permission of the CHE 385 instructor.

Evaluation

CHE 385 will be graded based on the following.

- **Attendance and participation**
  You are expected to attend all class sessions and to arrive with the day's assignment completed (and in hand, if a hard copy is required). You will be allowed one exception. Any other absences will result in a lower course grade. Please consult with the instructor as early as possible in the case of an unavoidable situation. Participation in peer review is also required, as is participation in ethics discussions and presentations.

- **Library and ChemDraw assignments**

- **Writing assignments and writing portfolio**
  - Abstract of journal article
  - Ethics essay
  - Sections of a lab report (CHE 384– Ferrocene lab; CHE 304 – Passive Circuits lab)
    During the semester, you will focus on writing each section of a lab report (abstract, introduction, experimental, etc.). The writing is expected to be more detailed and more refined than what may have been needed for the original lab course.
  - Portfolio. The portfolio is due before class **Monday, November 27**. The portfolio consists of a single document with the following parts:
    - The ethics essay
    - The abstract of the assigned journal article.
    - Your complete and revised lab report, combining all of the sections written throughout the semester.

    We strongly encourage you to revise your previous drafts before you submit the portfolio, based on comments from the instructor, your peers, and if necessary, the Writing Center (see below).

- **Oral presentation.** Presentations must follow the schedule on Blackboard and makeups are not possible.

  To earn a good grade, you must demonstrate competence in writing by the end of the course. If the feedback you receive on early writing assignments indicates that your writing is not satisfactory, you should make use of office hours and the Writing Center (http://www.stonybrook.edu/writingcenter/, Humanities Building Room 2009) to improve your writing during the course of the semester.

Course grades will be assigned roughly as follows, with cutoffs for ± grades (A-, B+, etc.) assigned at the end of the term based on the distribution of grades.

- A: 91-100%
- B: 81-90%
- C: 71-80%
- U: < 70%
<table>
<thead>
<tr>
<th>Class Date</th>
<th>Assignment(s)</th>
<th>In class</th>
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<tbody>
<tr>
<td>8/28</td>
<td>none</td>
<td>• Library resources (Prof. Chu, Clara Tran)</td>
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<td>9/4</td>
<td>Labor Day – no class</td>
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<tr>
<td>9/11</td>
<td>Library assignment (electronic)</td>
<td>• Intro to course • Intro to scientific papers, writing Abstracts</td>
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<td>9/18</td>
<td>1st draft assigned abstract (hard copy) &lt;br&gt;Choose Lab to write up. &lt;br&gt;Bring abstract critique sheet</td>
<td>• Chemdraw and EndNote tutorial &lt;br&gt;Peer review of abstracts</td>
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<td>9/25</td>
<td>Revised assigned abstract (electronic copy) &lt;br&gt;ChemDraw exercises (electronic)</td>
<td>• Lecture on writing Experimental sections • Graduate schools and careers (A. James)</td>
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<td>10/2</td>
<td>1st draft of Experimental section &lt;br&gt;Bring Experimental critique sheet</td>
<td>• Lecture on writing Results &amp; Discussion &lt;br&gt;Peer review of Experimental</td>
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<tr>
<td>10/9</td>
<td>Revised Experimental (electronic)</td>
<td>• Lecture on writing Conclusions and References sections</td>
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<td>10/16</td>
<td>1st draft Results &amp; Discussion (hard copy) &lt;br&gt;Bring Results &amp; Discussion critique sheet</td>
<td>• Lecture on Ethics &lt;br&gt;Peer review of Results and Discussion</td>
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<td>10/23</td>
<td>Revised Results &amp; Discussion (electronic)</td>
<td>• Communicating Science (Alda Center) &lt;br&gt;Ethics small group discussions</td>
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<td>10/30</td>
<td>1st draft of Conclusion, Abstract (hard copy) &lt;br&gt;Bring Conclusions &amp; Abstract critique sheet</td>
<td>• Lecture on writing Introductions &amp; Titles &lt;br&gt;Peer review of Conclusions and Abstract</td>
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<tr>
<td>11/6</td>
<td>Ethics essay (electronic)</td>
<td>• Social Media &amp; Science (J. Timmer)</td>
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<td>11/13</td>
<td>1st draft of Title, Introduction, and References &lt;br&gt;Bring Introduction, References critique sheets</td>
<td>• Lecture on oral presentations &lt;br&gt;Peer review of Title &amp; Introduction, References</td>
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<td>11/20</td>
<td>1st draft of Portfolio documents (hard copy) including Revised Introduction, Title, and References</td>
<td>Peer review of Portfolio documents</td>
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<tr>
<td>11/27</td>
<td>Final portfolio (electronic) due by 11 AM</td>
<td>Oral presentations</td>
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<td>12/4</td>
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<td>Oral presentations</td>
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**Cell Phones and Electronic Devices**
During regular class sessions, cell phones must be either in ‘vibrate mode’ or turned off. Calls cannot be answered. Text messaging is not allowed during class.

**DISABILITY SUPPORT SERVICES (DSS) STATEMENT**
If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, room128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website: [http://www.stonybrook.edu/ehs/fire/disabilities](http://www.stonybrook.edu/ehs/fire/disabilities)

**ACADEMIC INTEGRITY STATEMENT:**
Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at [http://www.stonybrook.edu/uaa/academicjudiciary/](http://www.stonybrook.edu/uaa/academicjudiciary/)

**CRITICAL INCIDENT MANAGEMENT:**
Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures.

**MINIMAL INSTRUCTIONAL AND STUDENT RESPONSIBILITIES:**