Chemistry 470_001
Seminar
Spring 2016

Professor:  Dr. ‘Tayo Odunuga
Department:  Chemistry and Biochemistry
Email:  odunugao0@sfasu.edu
Phone:  (936) 468-6468
Office:  122 Math Building
Office Hours:  M-F, 9:00 – 10:00 a.m., M, 1 – 2 p.m.
Class meeting time and place:  F, 12 – 12:50 p. m. Room 130 Math Bldg

COURSE DESCRIPTION:  Written and oral reports. Individual instruction. May be repeated for a total of four credit hours.

RECOMMENDED TEXTS AND OTHER MATERIALS:  The ACS Style Guide

NUMBER OF CREDIT HOURS:  1 semester hour - 1 hour lecture

COURSE PREREQUISITES AND COREQUISITES:  Prerequisite: CHE 337.

PROGRAM LEARNING OUTCOMES:
   4.  The student will articulate scientific information through oral communication.
   5.  The student will articulate scientific information through written communication.

GENERAL EDUCATION CORE CURRICULUM OBJECTIVES:  There are no specific general education core curriculum objectives in this course.  This course is not a general education core curriculum course.

COURSE OBJECTIVE:  The purposes of this course are to
   • develop critical thinking and reasoning skills
   • utilize chemical literature
   • develop written and verbal professional communication skills
   • develop the non-chemical “intangible” tools needed for success after college

STUDENT LEARNING OUTCOMES:  The student is expected to demonstrate and apply the following concepts:
   • Read and analyze chemical literature thoughtfully and critically
   • Communicate ideas orally and in writing in a clear and concise manner (PLO 4, 5)
   • Recognize ethical principles and personal/social responsibilities in a scientific context.

COURSE GOALS:  The student will perform library research on a topic agreed upon by both the student and instructor. This research will result in a formal presentation and written report. The student will prepare a resume and cover letter for job application OR prepare a resume and a personal statement for graduate school.
**STUDENT OUTCOME OBJECTIVES:**

Upon completion of this course students will:

- Understand the basics of performing a literature search appropriate to their field of study.
- Use PowerPoint to prepare a formal presentation.
- Use appropriate scientific literature for the presentation and paper.
- Write a formal report using the given guidelines and the appropriate citation format.
- Be able to prepare a resume and either a cover letter or a personal statement
- Be able to consider ethical issues and personal/social responsibilities in a scientific context

**COURSE REQUIREMENTS:**

<table>
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<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Attendance/participation</td>
<td>10 pt</td>
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<tr>
<td>Assignments</td>
<td>90 pt</td>
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<tr>
<td>Professionalism</td>
<td>50 pt</td>
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<tr>
<td>Formal written report (&amp; complete rough draft)</td>
<td>50 pt (8 pages minimum)</td>
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<tr>
<td>Formal oral report (&amp; complete rough draft)</td>
<td>100 pt (20 min)</td>
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<tr>
<td><strong>TOTAL POINTS POSSIBLE</strong></td>
<td>300 PT</td>
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**ATTENDANCE:** 10 pts total. Two points will be deducted for each absence. The rest of the points will be awarded on participation.

**FORMAL WRITTEN REPORT:** A formal written report covering the students’ undergraduate research project or other approved topic is required. The report must be at least eight pages. The paper is to be 12 point new times roman font with one inch margins. A cover page that includes an abstract is required and does not count toward the minimum page requirement. Figures and tables should be used but do not count toward the minimum page requirement. Pages are to be numbered in the lower right-hand corner. A minimum of 15 peer-reviewed articles are to be used. Web references from a reputable source may be used. An outline and a rough draft are required and due dates are shown on the course calendar.

**FORMAL ORAL REPORT:** A 20-22 minute oral presentation is required. Information about a scientific oral presentation will be provided in class. An outline and rough draft are required and due dates are shown on the calendar. Professional dress is required on the day of the presentation. Students will be required to do a practice oral report before they do the oral report for the class.
METHOD OF EVALUATION:

   Grading scale -  A ≥ 270; B ≥ 240; C ≥ 210; D ≥ 180; F = below 179

MAKE-UP POLICY: There will be no make-ups in this class. Please make the instructor aware of any university related absences well in advance.

ACADEMIC HONESTY POLICY: Any student found cheating will be subject to the penalties as stated in the Student Code of Conduct handbook; including but not limited to a score of zero on exam, expulsion from the class or expulsion from the University.

ACADEMIC DISABILITIES POLICY: Students with Disabilities – To obtain disability – related accommodations and/or auxiliary aids, students with disabilities must contact the Office of Disability Services, Wisely Hall, Room 104, 468-3004/468-1004 (TDD) as early as possible in the semester. Once verified, DS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided.

CLASSROOM BEHAVIOR POLICY: Students are expected to behave professionally at all times. Students are expected to dress professionally when giving a formal presentation.
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<thead>
<tr>
<th>DATE</th>
<th>Class activity</th>
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| Jan. 22  | **TOPIC:** Welcome & Introduction  
Assignment #1: Learn how to use SciFinder. Perform appropriate literature search about your research topic. Find at least 15 journal articles related to your research. Bring articles to class. You may bring a flash drive with the complete article on it or paper copies of the full article. |
| Jan. 29  | **TOPIC:** Effective Scientific Writing  
*Turn in Assignment #1*  
**Assignment #2:** Watch the webinar from the American Chemical Society  
| Feb. 5   | **TOPIC:** Chemical Professional’s Code of Conduct  
*Turn in Assignment #2*  
**Assignment #3:** Read the [Chemical Professional’s Code of Conduct](http://www.acs.org/content/acs/en/careers/profdev/ethics/the-chemical-professionals-code-of-conduct.html) Write a half page reflection about the Chemist’s Code of Conduct. |
| Feb. 12  | **TOPIC:** Ethics Case Studies from ACS  
*Turn in Assignment #3*  
**Assignment #4** Go to the ACS web site and review the cases studies presented there. Be prepared to discuss the case studies in class. *An in-class assignment will be given.*  
[http://www.acs.org/content/acs/en/about/governance/committees/ethics/ethics-case-studies.html](http://www.acs.org/content/acs/en/about/governance/committees/ethics/ethics-case-studies.html) |
| Feb. 19  | **TOPIC:** Practical Aspects of Oral Presentation and PowerPoint  
**Assignment #5:** Prepare a rough draft of your oral presentation. |
| Feb. 26  | **TOPIC:** Peer Review of slides for oral presentation  
*Turn in Assignment #5 (Bring a copy of your presentation for peer-review) Also give a copy to your research advisor.* |
| Mar. 4   | **TOPIC:** Writing a Research Report  
**Assignment #6:** Prepare a rough draft of your research report. |
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<tr>
<th>Date</th>
<th>Topic</th>
<th>Details</th>
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<tbody>
<tr>
<td>Mar. 11</td>
<td><strong>TOPIC:</strong> Peer Review</td>
<td>Turn in Assignment #6 <em>(Bring a complete copy of your rough draft of your research report)</em> <em>Also give a copy to your research advisor.</em></td>
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<td>Mar. 18</td>
<td>SPRING BREAK</td>
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<td>Mar. 25</td>
<td>EASTER BREAK</td>
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<td>Apr. 01</td>
<td><strong>TOPIC:</strong> Editing/Revising</td>
<td>Work on editing/revising presentation. and research report</td>
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<td>Apr. 08</td>
<td><strong>TOPIC:</strong> Scientific Posters</td>
<td><strong>Assignment #7:</strong> Watch the ACS webinar: Tips for Creating High Impact Scientific Poster Presentations <a href="http://acswebinars.org/znosko">http://acswebinars.org/znosko</a>. Prepare a poster over your research project</td>
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<td>Apr. 15</td>
<td><em>Turn in Assignment #7. Email the slide to Dr. Odunuga. Also send a copy to your research advisor.</em></td>
<td>Practice Presentations – make sure research advisor can attend</td>
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<td>Apr. 22</td>
<td>Final Practice Presentations – make sure research advisor can attend</td>
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<td>Apr. 29</td>
<td>Presentation: Students presenting literature review only</td>
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<td><strong>SATURDAY APRIL 30</strong></td>
<td><strong>RESEARCH SYMPOSIUM</strong></td>
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Note: This syllabus is subject to changes at the discretion of the instructor.

Dr. Tayo Odunuga  
January 22, 2016