Recommended Texts and Other Materials:
- Students will be informed about other resources in class.

Course Requirements:
- Assignments: 50 pt
- Professionalism: 30 pt
- Formal written report (& complete rough draft): 100 pt
- Formal oral report (& complete rough draft): 100 pt
- Exit Survey: 20 pt
- Total points possible: 300 pt

Method of Evaluation:

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

Attendance: Attendance is compulsory. One unexcused absence will result in loss of 30 points for professionalism. Two unexcused absences will result in a grade of F for the class.

Formal Written Report: A formal written report covering the students’ undergraduate research project is required. The report must be at least eight pages. The paper is to be 12 point new times roman font, single-spaced 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. The referencing should follow the format of the Journal of Chemical Education ([http://pubs.acs.org/paragonplus/submission/jceda8/jceda8_authguide.pdf](http://pubs.acs.org/paragonplus/submission/jceda8/jceda8_authguide.pdf)). More information can be found at [http://www.washburn.edu/academics/college-schools/arts-sciences/departments/chemistry/files/acs-research-report-guidelines.pdf](http://www.washburn.edu/academics/college-schools/arts-sciences/departments/chemistry/files/acs-research-report-guidelines.pdf)

Formal Oral Report: A 20-22 minute oral presentation is required. Information about a scientific oral presentation will be provided in class. Professional dress is required on the day of the presentation. Students will be required to give practice oral presentations in class with their research professors in attendance. It is the responsibility of the student to make sure their research professor is able to attend practice sessions.

Professionalism: This includes keeping deadlines, promptness to lab, good lab behavior, following instructions etc.

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.
<table>
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| Jan. 19   | - Welcome and introduction  
- **Assignment #1:** In consultation with your research professor, write an appropriate title and a tentative abstract for your presentation/scientific report and bring to class next week. Find 15 journal articles that are relevant to your research. Articles should peer-reviewed and ≤ 10 years old. The assignment should be on 2 pages. The first page should contain the title of your research, your name, affiliation (department and university address) and abstract. The second page should contain your references (15 journal articles) cited in the format of the Journal of Chemical Education ([http://pubs.acs.org/paragonplus/submission/jceda8/jceda8_authguide.pdf](http://pubs.acs.org/paragonplus/submission/jceda8/jceda8_authguide.pdf)). Have your research professor initial and make a comment that he/she has read it. Print out a copy and bring to class next week.  
- **Assignment #2:** Students to read and summarize (2 paragraphs) paper on “How to critique scientific articles’ by Marshall (on D2L). All assignments should be typed in Times New Romans, 12 font size, single-spaced with 1 inch margins all round. |
| Jan. 26   | - Turn in assignments #1 & 2, have students review someone else’s abstract  
- Briefly discuss Effective Scientific Writing – the purpose of literature review in scientific writing and presentation  
- **Assignment #3:** Complete draft of Introduction/Literature Review for Oral and Written Reports. Have your research professor initial and make a comment that he/she has read it. Print out a copy and bring to class next week. |
| Feb. 2    | - Turn in Assignment #3  
- Have students review someone else’s assignment #3  
- Watch the webinar from the American Chemical Society on Fundamentals of Scientific Writing ([http://acswebinars.org/sainani](http://acswebinars.org/sainani)).  
**Assignment 4:** Method section for both Oral and Written reports. Have your research professor initial and make a comment that he/she has read it. Print out a copy and bring to class next week. |
| Feb. 9    | - Turn in Assignment #4  
- Watch Practical aspects of giving a PowerPoint presentation ([https://www.youtube.com/watch?v=gF3FWu56dc8](https://www.youtube.com/watch?v=gF3FWu56dc8))  
- **Assignment #5:** Results for both Oral and Written Reports. Have your research professor initial and make a comment that he/she has read it. Print out a copy and bring to class next week.  
- Peer review/Practice presentations (make sure your advisor an attend) |
| Feb. 16   | - Turn in Assignment #5  
- **Assignment #6:** Write Discussion for both Oral and Written Reports and compile the whole document (include your previous assignments in order). Have your research professor initial and make a comment that he/she has read it. Print out a copy and bring to class next week.  
- Peer review/Practice presentations (make sure your advisor an attend) |
| Feb. 23   | - Turn in Assignment #6  
- Peer review/Practice presentations (make sure your advisor an attend) |
| Mar. 2    | - Peer review/Practice presentations (make sure your advisor an attend) |
| Mar. 9    | - Peer review/Practice presentations (make sure your advisor an attend)  
- Instructor returns assignment #6 with comments. |
| Mar. 16   | **SPRING BREAK (Students work on corrections to be submitted on Apr. 6)** |
| Mar. 23   | - Peer review/Practice presentations (make sure your advisor an attend)  
- **Assignment #7:** Discuss corrected Written Report with your professor, make necessary changes and get him/her to initial and make comment that he/she has read it. |
| Mar. 30   | **EASTER BREAK** |
| Apr. 6    | - Turn in Assignment #7  
- Peer review/Practice presentations (make sure your advisor an attend) |
| Apr. 13   | - Peer review/Practice presentations (make sure your advisor an attend)  
- Instructor returns assignment #7 with comments. |
| Apr. 20   | - Peer review/Practice presentations (make sure your advisor an attend)  
- Final Written Report due |
| Apr. 27   | - **FIRST RESEARCH SYMPOSIUM** |
| Apr. 28   | - **SECOND RESEARCH SYMPOSIUM** |
| May 5     | Submit final draft of written report |

Note: This syllabus is subject to changes at the discretion of the instructor. Students will be duly informed of any changes.  
Dr. Tayo Odunuga, January 19, 2018