# CBE: 5104/5105

Introduction to Literature Review & Technical/Proposal Writing

## Time and Place

11:30 AM-12:20 PM Monday-Wednesday-Friday 2133 Seamans Center for the Engineering Arts & Sciences

## Course Description

These courses are designed to introduce the student to the skills used in reviewing the literature, reading publications critically, and communicating scientific ideas in both written and oral form. For CBE:5104, this form will be a publication-caliber review article on a select topic. For CBE:5105, this form will be a federal-agency-style research proposal. Both written forms will be accompanied by an appropriate oral presentation. Other communication forms including group writing and posters will be discussed, along with additional practical considerations such as the peer review process and plagiarism.

#### **Instructor**

Prof. Jennifer Fiegel <u>jennifer-fiegel@uiowa.edu</u>, 4128 SC Office Hours by appointment

## Course Format

Lectures with in-class assignments and discussion. Due to the nature of the course, attendance is mandatory. Only excused absences (verifiable illness or conference participation) will be accepted.

## Required Text

You must have a reference text which you will use to guide you in writing and preparing presentations. You can choose the text which suits you best. Recommendations include:

ACS Style Guide, 3rd ed., A.M. Coghill and L.R. Garson, Oxford Press, 2006.

*Technical Communications – Process and Product*, 7<sup>th</sup> ed., S.J. Gerson & S.M. Gerson, Prentice Hall, 2012.

Technical Communication Fundamentals, W.S. Pfeiffer and K.E. Adkins, Prentice Hall, 2012.

The Essentials of Technical Communication, 2<sup>nd</sup> ed., E. Tebeaux and S. Dragga, Oxford Press, 2012.

Engineering Communication – From Principles to Practice, R. Irish and P.E. Weiss, Oxford Press, 2009.

## **Grading**

The following criteria will be used to evaluate each student's performance in the course:

- 1. <u>Homework and In-class Participation</u> (20% of grade)
  - Participation in classroom discussions and evaluations
  - Performance on periodic in-class and take-home assignments
  - Writing log
- 2. *<u>Projects</u>* (30% of grade)
  - Written literature review exercise
  - Oral presentation based on literature review exercise
- 3. Final Written Review Paper (CBE:5104) / Research Proposal (CBE:5105) (50% of grade)
  - Written <u>original</u> manuscript
  - Oral presentation based on manuscript

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#### Tentative Course Timeline:

- Week 1: Introduction, Scope of Course, Critically Evaluation the Literature
- Week 2: Literature Searches, Analyzing the Literature, Using Endnote
- Week 3: Data Management, Elements of Papers
- Week 4: Elements of Papers, Presentation Skills
- Week 5: First Presentations, Establishing Good Writing Habits
- Week 6: Writing Skills
- Week 7: Plagiarism, The Research Problem
- Week 8: Elements of Proposals
- Week 9: Literature Review Presentations and Discussion
- Week 10: Presentation Feedback, Biosketches, Writing Workshop Evaluating Objectives
- Week 11: Using Feedback, Abstracts, Poster Presentation Discussion
- Week 12: Abstracts, Group Writing
- Week 13: Keeping Laboratory Records, Statistics, Ethics in Data Presentation
- Week 14: Writing workshops, Final Presentations
- Week 15: Final Presentations
- Finals Week: Final Presentations (if needed)

#### Scheduling conflicts

Students anticipating a scheduling conflict should contact the instructor as soon as possible. Exams will be offered at alternative times as consistent with the University's exam policies. These policies can be viewed at www.registrar.uiowa.edu/exams/exampolicy.aspx

#### Accommodations for Disabilities

If you feel that you may need an accommodation based on the impact of a disability please contact Prof. Fiegel privately to discuss your specific needs. You may also contact the Office of Student Disability Services (319-335-1462) to discuss the accommodations that are available for students with documented disabilities.

This course is housed in the College of Engineering, therefore class policies on matters such as requirements, grading, and sanctions for academic dishonesty are governed by the College of Engineering. Students wishing to add or drop this course after the official deadline must receive the approval of the Dean of the College of Engineering. Details of the University policy of cross enrollments may be found at: <u>http://www.uiowa.edu/~provost/deos/crossenroll.doc</u>