

CH 491 – Senior Thesis

Syllabus

Fall 2012

Professor: Dr. Deyang Qu

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Office hours: TuTh 11:00-12:30

Office: Science Building RM-1-129

Lecture and discussion: Tuesday 2:00 pm – 3:00 pm

Location: Chemistry Conference Room (S-1-089)

Objectives: This course oversees a laboratory or literature investigation by the student under the guidance of the faculty advisor. A research paper of significant length or a literature review paper of the same length, and an oral presentation are required to fulfill the Chemistry capstone requirement.

By the end of the semester, you are expected to be familiar with literature search and review, issues related to scientific ethics, presentation of scientific proposal and results.

Text: “On Being A Scientist: A Guide to Responsible Conduct in Research”, 3rd edition, published by the National Academies Press (available on amazon.com)

There will be department seminars in the chemistry conference room on many Wednesdays, at noon; you are required to attend those seminars. The department also has a graduate seminar series (<http://alpha.chem.umb.edu/chemistry/Seminar/>) that meets every week on Tuesday at 4:30 PM, in the small science auditorium (S-1-0006). You will be required to attend seminars over the course of the fall 2012 and spring 2013 semesters.

Milestones:

- By the first week in October you must have made arrangements with a faculty member to supervise your research project (if you are not already working with someone). Please let me know as soon as possible who that person will be.

- By the end of the fall 2013 semester you will be expected to have completed the preliminary background literature search appropriate for your research project, and you will be presenting the results of that search as a partial PowerPoint presentation. You will also be writing it up as an introduction to your eventual senior thesis.
- In April 2013 there will be a statewide undergraduate research conference. You will be expected to present your research at this conference in the form of a poster or an oral presentation. More information will be provided in class.
- By the end of spring 2013 semester, you must present your research orally, together with the submission of the final report of Capstone research.

Grading: Your final grade will come 70% from your research advisor and 30% from this class (attendance, in-class discussions, presentations, etc.). I expect that everyone will receive an initial grade of Incomplete, as it is very difficult to complete a research project of this sort in one semester.

Preliminary Course Schedule

Date	Topic
September 11	Introduction to the course and discussion
September 18	Home research: discussion with thesis supervisor (no lecture)
September 25	Searching the chemical literature and starting a project
October 2	Presenting scientific results – oral presentation and poster
October 9	Writing a manuscript
October 16	Refining scientific writing
October 23	Introduction of scientific ethics and case studies
October 30	Presenting yourself – resumes and interviews
November 6	Scientific ethics - presentations
November 13	Scientific ethics - presentations
November 20	Scientific ethics - presentations
November 27	Literature Presentations
December 4	Literature Presentations
December 13	Literature Presentations