

UNIVERSITY OF MASSACHUSETTS - AMHERST

Department of Chemical Engineering
159 Goessmann Laboratory
686 North Pleasant Street
Amherst, MA 01003-9303

Voice: 413-545-2507
Fax: 413-545-1647
www.ecs.umass.edu/che

General Chemical Engineering Honors Guidelines

ComCol Proposal

- Enroll in ChE499Y with Commonwealth College for the fall semester of senior year during the registration enrollment period in the spring of the junior year.
- Enrollment in ChE499Y requires that you have found a faculty advisor and a committee member.
- Enrollment must be approved by the department honors coordinator and the Commonwealth College.
- Write a Proposal for the Commonwealth College. General instructions can be found at <http://www.comcol.umass.edu/ceproposal>. For the Proposal, focus on the logistics of your project. There are 5 points to focus on: 1) Topic Identification, 2) Methodology, 3) Evaluation, 4) Communication and 5) Timeline.
- The Proposal should include:
 - The topic, title, and scope of your project
 - The procedures and techniques you plan to use
 - The expected products of your research
 - The expected content of your thesis
 - How often you will meet with your advisor
 - How your performance and grade will be evaluated
 - How your advisor will provide feedback regarding your progress
 - The expected time commitment for your project (e.g., 10 hours per week)
 - Who else in the laboratory you will work with
 - An expected date for your thesis defense
- The Proposal should be about 1-2 pages.

Mid-Year Report

- Enroll in ChE499T with Commonwealth College for the spring semester of senior year at the end of the fall semester of the senior year.
- Enrollment must be approved by your advisor, your committee member, the department honors coordinator, and the Commonwealth College.
- Enrollment in ChE499T requires completion of the Mid-Year Report by the last day of classes in the fall semester.

- You will be assigned a grade on this proposal by your faculty advisor. This grade will count for ChE499Y.
- In the Mid-Year Report, update the logistic material from the Proposal.
 - Have the methods of evaluation changed?
 - How often do you plan to meet with your advisor? Did you have enough interaction during the first semester?
 - How will you organize your thesis (chapters, e.g.)?
 - When is the first outline due?
 - What is the date for review of your final draft by your committee?
 - What is the date of the oral defense of your thesis?
- The Mid-Year Report requires additional content to the Proposal. In addition to the logistics of your project it should contain all of the scientific goals for your thesis. This additional material is required by the Chemical Engineering Department.
- Organize the Mid-Year Report similarly to a grant proposal
 - Introduction and Background
 - Experimental Methods
 - Results to Date (Preliminary results)
 - Proposed research
- Most of this material can be incorporated directly into the thesis. Therefore, this proposal does not require any extra work, but it should facilitate the writing of the thesis.
- The Mid-Year Report should be at least 15-20 pages.

Oral Defense

- The oral defense will be conducted by the research committee, following completion of the Capstone thesis.
- The defense should be held before final exams to allow time to incorporate suggestions and make final corrections before submitting the final manuscript to Commonwealth College.
- Typically oral defenses last one hour during which time the committee will question about:
 - research techniques
 - knowledge or skills acquired
 - applications of results
 - future work and future goals
- At the discretion of the chair, the defense may be restricted to the committee or open to a broader audience.
- The oral defense provides an excellent opportunity to share what has been learned and receive valuable feedback from invested and knowledgeable reviewers.

Senior Thesis

- Use the guidelines provided by the Commonwealth College. These can be found at: <http://www.comcol.umass.edu/cedocumentation>. For example, the left margins must be 1.5 inches and 1 inch on remaining sides.
- Additional formatting is at the discretion of the advisor. Some advisors require formatting specific to their field of research. Note that all Commonwealth College guidelines must be followed.
- The senior thesis should contain the description of a completed body of work
- Typically a thesis contains:
 - o Abstract
 - o Introduction and Background
 - o Experimental Methods
 - o Results and Discussion
 - o Conclusions
 - o Figures
 - o References
- The thesis is the basis of the grade for ChE 449T.
- At the latest all theses are due by the last day of classes in the spring semester of the senior year. It is encouraged that theses be completed earlier in the semester.