Welcome!

1st Year M.S. Student Orientation
Fall 2014
Professor Charles Roth
Agenda

• Introductions
• Curriculum
• Thesis adviser selection
• M.S. to Ph.D.
• Academic integrity
• Support
Degree Requirements – Thesis Option

• 24 credits coursework
  – 5 core courses
    • Analy Methods (Engineering math)
    • Adv Transport I (Fluids)
    • Adv Thermo
    • Adv Transport II (Mass transport)
    • Kinetics and Reactor Design
  – 3 electives
    • Encouraged to take 1 “broadening” elective (explained later)
    – 155:601/602 Graduate Seminar (at least 2 semesters)

• 6 credits research
• M.S. thesis and defense
• 30 credits coursework
  – 5 core courses
    • Analy Methods (Engineering math)
    • Adv Transport I (Fluids)
    • Adv Thermo
    • Adv Transport II (Mass transport)
    • Kinetics and Reactor Design
  – 5 electives
    • At least 2 must be chemical engineering electives (offered in our department)
    • Allowed/encouraged to take 1 “broadening” elective

Fall 2014

Spring 2015
Broadening Elective

• Research/independent study
  – Work on a one-term project under the guidance of a faculty mentor

• Industrial internship
  – Hands-on experience related to chemical engineering in industry
  – Note: we do not have pre-arranged internships available

• Business courses
  – Many in Business in Science program or Business School
  – See electives list published or available

• Pedagogy course
  – For Learning Assistants, provides background and tools for working with students
M.S. to Ph.D.

• The M.S. is considered a terminal degree
• Occasionally, a research project is going well and there is an opportunity for conversion to Ph.D., but this is not the norm
• If there may be an opportunity, application is made during the second year for entrance at conclusion of M.S. degree
  – Academic performance
  – Adviser’s recommendation
• All Ph.D. students are required to pass a Qualifying Exam based on core chemical engineering knowledge and ability to read/interpret a journal paper
Graduate Students May Never:

- Quote of paraphrase without complete citations;
- Cite a source that has been identified through a secondary source but has not been consulted;
- Copy from the internet;
- Collaborate with others without explicit permission from instructor;
- Use unauthorized materials during an examination or on an assignment;
- Look at or copy the work of another student during an exam;
- Submit the work completed in one class to fulfill the requirements of a second class with the consent of the instructor.
Graduate Students as Researchers must adhere to the ethical codes of their discipline/profession and cannot:

- Falsify/fabricate or selectively withhold data or results;
- Misuse or appropriate the data of others;
- Present data in a sloppy or deceptive manner;
- Fail to maintain accurate laboratory notebooks;
- Fail to credit all contributors and authors appropriately;
- Sabotage to research of others; Misuse research funds or institutional property for personal use;
- Develop inappropriate relationships for personal gain;
- Fail to comply with Federal Guidelines for the treatment of human or animal subjects.
Academic Integrity Policy


“Sanctions for a given violation may be imposed differently on those with more or with less experience as students. Thus violations of academic integrity by graduate students\(^2\) will normally be penalized more severely than the same violations by inexperienced undergraduate students. In particular, violations that would be considered nonseparable for an undergraduate student may be treated as separable for a graduate student.”

\(^2\) “In this policy, the term graduate student refers to post-baccalaureate students pursuing advanced degrees of any type or enrolled in a graduate course or courses. The term also includes students in the advanced stages of a professional program that leads to a master’s or doctoral degree without conferral of a baccalaureate degree.”
Support at Rutgers

• Graduate Program Administrative Assistant
  – Lynn DeCaprio, lynny@rci.rutgers.edu, 5-2228

• Graduate Program Director
  – Charlie Roth, cmroth@rutgers.edu, 5-6686

• Graduate School-New Brunswick staff
  – Associate Dean Barbara Bender, bbender@rutgers.edu, 2-7747

• CAPS: Rutgers Counseling, ADAP (alcohol and other drug assistance program) and Psychiatric Services
  – See brochure, contact tel:732-932-7884
Registration – typical

- 155:501 Advanced Transport Phenomena I (3)
- 155:507 Analytical Methods (3)
- 155:511 Advanced Chemical Engineering Thermodynamics (3)
- 155:601 Chemical Engineering Graduate Seminar (optional, primarily for thesis students) (0)

- Total 9 credits