

The background of the slide is a solid red color. In the top left corner, the word "RUTGERS" is written in a large, white, serif font. Below it, in a smaller, white, sans-serif font, are the words "THE STATE UNIVERSITY OF NEW JERSEY". A large, faint, circular seal of Rutgers University is visible in the background, centered behind the text. The seal features a sunburst design and the text "RUTGERS THE STATE UNIVERSITY OF NEW JERSEY" around the perimeter.

RUTGERS

THE STATE UNIVERSITY
OF NEW JERSEY

Welcome!

1st Year M.S. Student Orientation

Fall 2016

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)
 - Must maintain 3.0 GPA overall with no more than 1 grade less than B in core courses
- 6 credits research
- M.S. thesis and defense

Fall 2016

Spring 2017

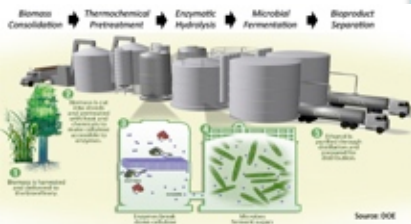


Advisor Selection

- You need a thesis advisor to support your studies, providing an intellectual climate and facilities for your research.
- Pizza with the Professors
 - Tuesdays/Fridays, 12:00-1:20, C-115.
- Lab Open House
 - Time/date to be announced
- Go talk to faculty and their students!
- Advisor selection choices due by end of classes in Dec.
- In the end, it is **your** responsibility to find an advisor. The Department does not guarantee that all students will find research advisors

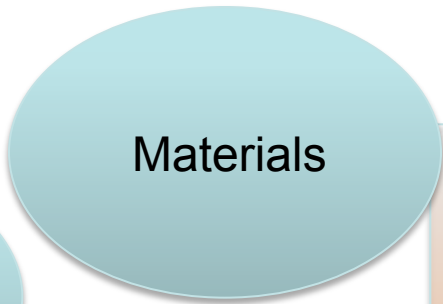
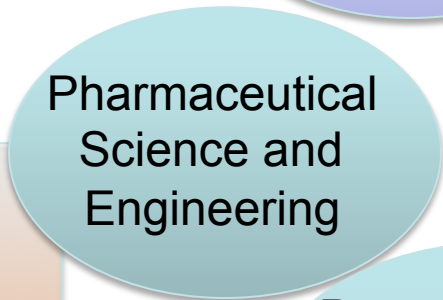
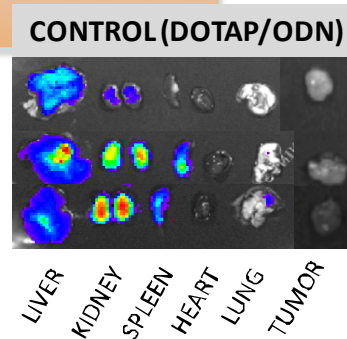
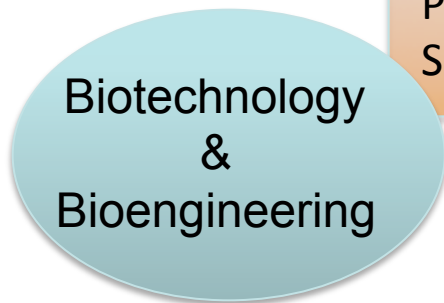
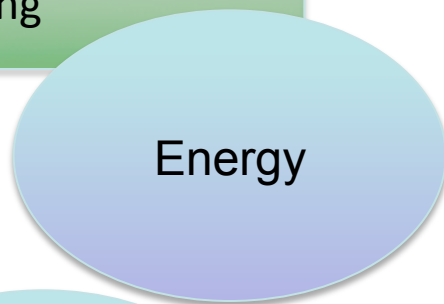


Faculty Research Areas



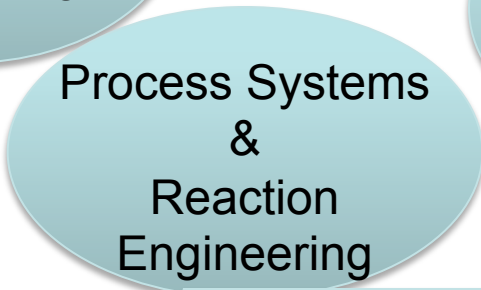
Asefa, Chundawat,
Celik, Tsilomelekis,
Zhang

Androulakis,
Buettner, Moghe,
Pedersen, Roth,
Sofou

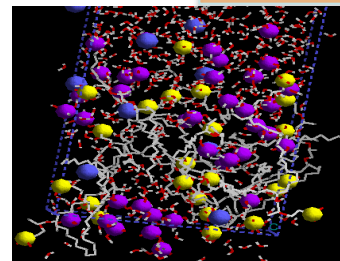
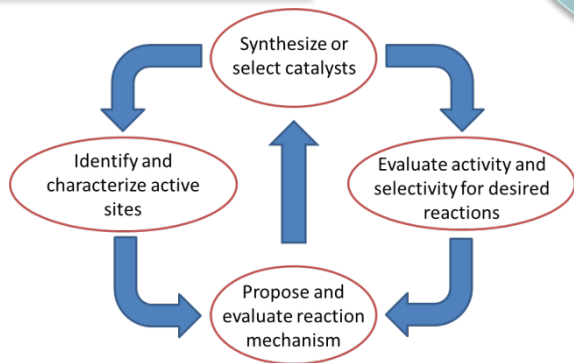


Glasser,
Ierapetritou,
Muzzio,
Ramachandran,
Tomassone

Asefa, Chiew, Dutt,
Hara, Neimark,
Scheinbeim,
Shapley,
Tomassone



Ierapetritou,
Androulakis,
Ramachandran,
Celik
Chundawat



Pizza with Professors

12:00pm

Sept. 13:	Roth
Sept. 16:	Neimark
Sept. 20:	Shojaei-Zadeh
Sept. 23:	Androulakis
Sept. 27:	Ramachandran
Sept. 30:	Chundawat
Oct. 4:	Hara
Oct. 7:	Zhang
Oct. 11:	Singh
Oct. 14:	Open
Oct. 18:	Drazer

12:30pm

Ierapetritou
Dutt
Tsilomelekis
Tomassone
Sofou
Celik
Hausner
Chiew
Asefa
Shreiber
Shapley

Degree Requirements – Non-thesis Option

- 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

Fall 2015

Spring 2016

- 5 electives

- At least 2 must be chemical engineering electives (offered in our department)
- Could take 5 Pharm. Eng. Electives (Pharm. Eng. Option)
- Allowed/encouraged to take 1 “broadening” elective

- Must maintain 3.0 GPA overall with no more than 1 grade less than B in core courses



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 second year
 - 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

Academic Integrity

Graduate Students May Never:

- Quote or 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.

Responsible Conduct of Research

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

- http://academicintegrity.rutgers.edu/files/documents/AI_Policy_9_01_2011.pdf,
p. 6

- “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 students² 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
- **Optional:** substitute an elective for a core course (which you would take next year) or add an elective for 12 credits