

Graduate Student Orientation – FALL 2006 Rules and Procedures

The “Graduate Rules”

"Requirements and Procedures for Graduate Degrees in Chemical Engineering at Ohio University" revised September 2006 applies to you. It is available on line as Graduate_Handbook.pdf. (<http://cheserver.ent.ohiou.edu/gradinfo/>). Sign and return the sheet stating you received it and will read it and comply with it.

Overview of Procedural Requirements

M.S. students

First quarter

- Choose an advisor

- File tentative course of study (<http://cheserver.ent.ohiou.edu/gradinfo/>)

- Complete Chemical Hygiene Training (Lab Standard)

Third quarter

- Complete research proposal and final course of study
(<http://cheserver.ent.ohiou.edu/gradinfo/>)

- Course requirements

- 20 credit hours of core courses (ChE 600, 601, 604, 642)

- 10 credit hours of approved technical electives

- at least 30 credit hours of ChE 695 (thesis research)

- 1 credit hour of ChE 691 (seminar) every quarter except summer

Ph.D. students

First quarter

- Choose an advisor

- File a tentative course of study (<http://cheserver.ent.ohiou.edu/gradinfo/>)

- Complete Chemical Hygiene Training (Lab Standard)

- Complete qualifying exam (first attempt after Fall quarter. Students without ChE degree may delay first attempt to after Spring quarter. Maximum of two attempts allowed.)

Fourth quarter

- Complete research proposal and final course of study
(<http://cheserver.ent.ohiou.edu/gradinfo/>)

Second year

- Complete comprehensive exam

- Course requirements

- 3 approved PhD-level (700) courses, at least 2 in ChE

- 1 credit hour of ChE 691 (seminar) every quarter except summer

Required of All Students

- ET 502 Technical Writing Seminar – offered every quarter

English Testing

If you did not earn a degree from an English-instruction university in the U.S., U.K., Australia, Canada, or New Zealand, then you must take the TOEFL and the SPEAK test on campus from the Ohio Program for Intensive English.

Advisor Selection

Make appointments to discuss research opportunities with faculty. Refer to your offer letter to determine the deadline for advisor selection. E-mail Dr. Young with your 1st and 2nd choice of advisor before your deadline. Advisor assignments will be made within about 1 week of your e-mail.

Graduate Faculty (potential advisors) in Department of Chemical Engineering

Dr. Khairul Alam (advanced carbon materials, fuel cells) – Mechanical Engineering

Dr. David Bayless (air pollution control, clean coal technology, fuel cells) – Mechanical Engineering

Dr. Gerardine Botte (advanced batteries, fuel cells, clean coal technology)

Dr. Russell Wenjia Chen (process control)

Dr. Kevin Crist (air pollution monitoring, source apportionment, air pollution modeling)

Dr. Douglas Goetz (biomedical engineering, cell adhesion, drug delivery)

Dr. Tingyue Gu (biochemical engineering and separations, biocorrosion)

Dr. Daniel Gulino (semiconductor materials, advanced carbon materials)

Dr. Srdjan Nesic (corrosion, multiphase flow)

Dr. Michael Prudich (air pollution control, clean coal technology)

Dr. Darin Ridgway (biochemical engineering)

Dr. Ben Stuart (alternative fuels, water pollution monitoring and control)

Dr. David Tees (biophysics, biomedical engineering) - Physics

Dr. Valerie Young (air pollution monitoring, atmospheric chemistry, air pollution modeling)

Check your offer letter. Your offer of financial assistance may restrict your advisor selection.

Register for Classes Every Quarter

To register online, you need your social security number and Registration Access Code (RAC). Current RAC shown on Degree Audit Reporting System (DARS) report. In future, get your DARS report from your advisor. You must register before the first week of classes ends. In future, please register for next quarter midway through current quarter to save hassle when classes start. Consult your advisor before taking any course not on your course of study.

You must register for at least 15 credit hours each quarter that you receive a fellowship or a Graduate Recruitment Scholarship or a special summer tuition scholarship and mini-stipend. You must register for at least 12 credit hours each quarter that you receive any other stipend. Audit, Ohio Program of Intensive English (OPIE), and undergraduate courses do not count

towards the minimum. Full-time graduate students may enroll for a maximum of 18 credit hours per quarter.

All students must register for ChE 691 (seminar, 1 credit hour).

All new M.S. students must register for ChE 600 (5 credit hours) and ChE 601 (5 credit hours). Students may register for a technical elective, but it must be on your Course of Study for it to count towards your degree.

Any remaining credit hours should be ChE 695 (thesis) for M.S. students or ChE 895 (dissertation) for Ph.D. students.

CS/Math Courses are NOT allowed without prior written approval by your advisor and the graduate chair. New students should not register for these courses.

Keys

All students should receive keys to:

Stocker front door (for night and holiday building access)

Stocker 046 (ChE grad student desks, mailboxes, & microwave)

You will also receive lab keys after you are assigned an advisor. You will need your student ID number and the room number(s) to request keys.

Computer Access & e-mail Accounts and Computer Access

You have an "Oak" account (domain name ohiou.edu or ohio.edu); your Oak e-mail address is printed on your DARS report and on instructor course lists and grade reports. This is your official Ohio University e-mail address. The graduate chair and most instructors will use this address. If you choose not to check your Oak account regularly, forward all mail to your preferred account. Activate your Oak account here: <http://www.cns.ohiou.edu/email/index.html>. If you want a "Bobcat" account on the server maintained by the college (domain name bobcat.ent.ohiou.edu), see Paul Deering in Stocker 264 with your student ID.

Stocker 049 is the Chemical Engineering PC Lab. This room is for Chemical Engineers only. To activate an account for these computers, e-mail: labadmin@bobcat.ent.ohiou.edu and state that you are a Chemical Engineering Student requesting an account for computer labs in Stocker. As a registered chemical engineering student, you are entitled to 100 pages per week of printing in this room. (See the graduate chair to have your print limit temporarily increased when you are finishing your proposal, thesis, or dissertation.) You may also use the other engineering computer labs in Stocker.

Expectations

Objectives of Our Graduate Program

A graduate of our program will:

be a skilled and knowledgeable researcher in an area of specialization.

be well-versed in the application of fundamental chemical engineering principles to the solution of a variety of problems.

have the communication skills needed to succeed in an English-speaking professional environment.

We expect that you will create and take advantage of opportunities to achieve these objectives. In other words, take personal responsibility for your professional development.

Attitude

We assume you are here because you want to be here. We assume you want to do research, to publish papers, to learn new things, to build yourself a good reputation. This is your degree; take responsibility for it. Request meetings with your advisor to plan and review progress. Watch deadlines. Set goals for yourself. Seek new literature in your area. Look for opportunities to present your work. Go beyond the minimum required. Stop thinking of graduate school as "school". Think of it as a job, and be professional.

Graduate Student Work Hours

An engineer is a professional: work according to what must be accomplished, not according to the clock. Still, guidelines on the work hours expected may be helpful. Most advisors expect to be able to find you between 9:00 am and 5:00 pm. Each credit hour of ChE 695 or ChE 895 equals 3 – 4 hours per week of research. A full stipend or fellowship (minimum \$2100 per quarter) equals 15 – 20 hours per week of research (for research assistants or fellows), or 15 – 20 hours per week of another assignment (for teaching and graduate assistants). An OGS stipend equals 6 hours per week of another assignment. Each credit hour of coursework equals 1 hour per week in class and 2 – 3 hours per week out of class.

Typical New MS student

two core courses (10 credit hours total)

30 - 40 hours/week

seminar (1 credit hour)

1 hour/week

ChE 695 (1 – 4 credit hours)

3 – 14 hours/week

stipend assignment (full)

15 – 20 hours/week

Total

50 – 75 hours/week

Coursework is required, but alone it will not get you a degree. Keep your grade point average above 3.0, but make research a priority. Homework is homework; do it at home in the evening. During the day, work on research unless you are in class or have scheduled teaching/graduate assistant duties.

Vacation

Graduate school is a full-time job. School "breaks", spring "break" are vacations for undergrads; they are research time for you. Expect about two weeks of vacation a year, and discuss when you will take vacation with your advisor. Advisors may approve additional vacation on an individual basis. If you are gone more than two weeks, expect a reduction in pay.

Safety

Take the Chemical Hygiene Course (Lab Standard) offered by the university when you are notified. After the training date, you cannot work in a laboratory until you complete it.

Do not leave operating equipment unattended unless you are certain it is safe. Label containers. Post signs and instruct coworkers on how to shut down your experiment safely. If you are uncertain of a procedure, get help. Read the Materials Safety Data Sheet (MSD) for each chemical you use. Ask about proper disposal of chemicals. Dispose of glass and sharp metal objects in approved containers, not the garbage can. Wear safety glasses.

As a small town, Athens seems safe, but incidents happen. Women are more vulnerable than men. When you work after dark, tell someone where you are and when you will return. Check on each other. Close building doors if you find them propped open. Do not prop them open yourself. Travel in pairs. Campus Escort Service (593-4040) can help you get home safely. If someone threatens you, report it to Campus Police at 593-1911.

Academic Preparation

We expect all of our graduate students to be at least as well prepared in chemical engineering as our senior undergraduates. Our expectations for our undergraduates are outlined on the next page. If your foundation is weak in some area, it is your responsibility to improve. Unprepared M.S. students will struggle in their core courses and their research proposal. Unprepared Ph.D. students will struggle in their qualifying exam, research proposal, and comprehensive exam. You may wish to sit in on courses or independently study a text for a particular course. Consult your advisor, a course instructor, or the graduate chair.

Recent experience has revealed that some graduate students struggle in our program because of inadequate preparation in two specific areas: computer programming and statistics. To identify students needing remedial help in these areas, all new students must take an assessment exam on each of these topics. The exams will NOT depend on your familiarity with any particular programming language, software package, or textbook. There is no need to study.

Students who perform poorly on the computer programming assessment exam will be assigned an introductory Matlab textbook for self-study and may choose to sit in on one of our undergraduate courses. The core course ChE 600, the qualifying exam, and numerous research projects involving modeling rely on a basic foundation in computer programming.

Students who perform poorly on the statistics assessment exam will be required to take ChE 408 – Experimental Design along with the undergraduates in Spring 2007. The course will be given a special graduate-level number for you, so that it will count towards your minimum enrollment for the quarter. Your research proposal, comprehensive exam, and thesis or dissertation research rely on a basic foundation in statistics and experimental design. Poor preparation in this area will hinder success in your research proposal and comprehensive exam.

Culture Shock?

Interpersonal skills

Smile and say hello when you pass someone whose name you know, or someone who looks familiar because you see them often.

Treat clerks, secretaries, technicians, and custodial staff with respect. Ask for favors; don't give orders. They can be helpful to you; be grateful for their assistance and knowledge. This is true at work, and also in the community, at stores and repair shops.

Treat faculty with respect, but great formality is not expected. You are less experienced, but still our colleagues. Many faculty will invite you to call them by their first names to signify this. Do so, if you feel comfortable. If you are not comfortable with using first names, address faculty as "Dr. xxxxx". It is not necessary to address faculty as "Sir" or "Ma'am", or to stand when we enter the room.

Learn different cultures and languages by socializing with people from different places. Speak English in laboratories, classrooms, and other professional situations. That is the one common language we all share. Practicing English is essential to your professional development and your safety.

Academic and professional conduct

Classroom participation is valued and expected. Raise your hand (and perhaps say, "Excuse me"), and wait for the instructor to recognize you. Then make a comment or ask a question.

Teamwork is often allowed or even encouraged. Freeloading and plagiarism are not. Each member of the team is accountable for all parts of the team's product. Be sure you contribute, and that you can understand and explain even what you did not do yourself. If you ever have a question about how your actions might be perceived, ask before you do it.

Honesty is valued and expected. Plagiarism is reviled. Using someone else's words or ideas without giving credit is not flattery; it's stealing. Copying someone else's coursework is not fair; it's cheating. Professors expect that if they leave the room during an exam, or give a take-home assignment, students will work independently even though they are unsupervised. If you ever have a question about how your actions might be perceived, ask before you do it.

Where Can I Buy?

Inexpensive clothing, furniture, kitchen and household items

Yard sales – Families sell items they no longer use. Sale usually takes place on weekend in front of house. Pay cash. Bargain only on more expensive items (> \$20) or late in the day, and usually no more than 2 to 3 rounds. Sometimes advertised in the newspaper.

New-to-You stores – Used clothing and other goods on Stimson Avenue. Used furniture on Euclid Avenue. Variable quality.

Wal-Mart – New. Usually good quality.

Inexpensive and/or Ethnic Foods

Athens Farmers Market – Fresh vegetables, fruit, and meat. Saturday & Wednesday mornings on East State Street in the University Mall parking lot. Pay cash.

Bulk Food Depot – Spices, rices, flours, nuts, dried fruit, pasta, cheese, eggs. Radford Road (off Hwy 50/32 West near Carter Lumber). Cheaper than grocery store.

The New Market – Asian food and kitchen items. State Street opposite community center.