Graduate Student Handbook

Chemical Engineering Program

Director of Graduate Studies:
Dr. Thomas Dziubla
Student Affairs Officer: Bruce Cole

August, 2016
Graduate Student Handbook
Department of Chemical & Materials Engineering
Chemical Engineering Graduate Program

To All Chemical Engineering Graduate Students:

This Handbook is designed to answer questions of interest to both new and continuing graduate students relative to the rules and policies of the Department and Graduate School. Sections include how and when one chooses an academic advisor, coursework requirements, qualifying examination procedures, time limits for degrees, etc. Much of the content of these sections is set by the rules and policies of the Graduate School.

In addition, policies set primarily by the Department faculty are given. These address non-coursework related aspects such as research responsibilities, financial assistance, vacation policies, and academic standing in the Department.

In a number of instances, reference is made to administrative forms required by the Graduate School. Nearly all Graduate School forms can be accessed directly online, at:  http://www.research.uky.edu/gs/forms.html. Please note that most forms require the approval or signature of the Director of Graduate Studies for the Department.

Every attempt has been made to accurately abstract information relative to the rules and regulations of the Graduate School. Should any clarification be needed, consult The Graduate School Bulletin as it contains the official policies of the University of Kentucky Graduate School. If further clarification is needed, the Director of Graduate Studies will address the issue in conjunction with The Graduate School. The Graduate School Bulletin is available at:

http://www.research.uky.edu/gs/bulletin/bullinfo.shtml

Please keep this Handbook in your files as you may need to refer to it from time to time during your graduate career.

Welcome to the Department!!
The Faculty Advisor

Each student must choose a member of the Chemical Engineering faculty to be his or her advisor. This person then becomes the faculty member to aid and assist you in your thesis or dissertation research, and to provide guidance in selecting courses other than those required by the Department. Prior to the selection of a faculty advisor, each student is required to meet with all faculty offering research projects; each participating faculty member will present an overview of their research during the first few weeks of the Fall semester. Students should attend these presentations, and are strongly encouraged to follow-up with faculty members individually to obtain more information about a particular project. Each student then provides a list of their top three faculty choices to the Director of Graduate Studies. Assignments are typically finalized in October.

In most cases, students receive their first choice for faculty advisor. However, exceptions do occur where a student will get their second or third choice.

Program and Degree Requirements

Master of Science Degree

Courses and Research Requirements

The option in which our students enroll is called, by the Graduate School, Plan A, and consists of 24 credit hours of coursework plus a thesis. Of the courses taken, five of these are required (i.e., core courses). They are:

- **CME 505** - Analysis of Chemical Engineering Problems
- **CME 620** - Equilibrium Thermodynamics
- **CME 630** - Transport I
- **CME 650** - Advanced Reactor Design
- **MA XXX** - Mathematics course of level 400G or above selected with approval of the Director of Graduate Studies (also includes appropriate courses without MA prefix such as computer science, statistics, etc.). Courses that have been widely used in the past to satisfy this requirement include MA 432G, MA 481G and MA 537.

The M.S. Student can elect to enroll in any other 400G (approved for graduate credit), 500, and above level courses. The Graduate School requires that at least half (twelve or more) of the 24 credit hours must be numbered on the 600 or 700 level, and that 2/3 of the 24 course credits be in the major discipline (i.e. CME). The course program beyond the core is determined by the student in consultation with the major professor. For the first semester, it is anticipated that the new M.S. (or Ph.D.) student will enroll in CME 505, CME 620, MA XXX, and one CME or MSE graduate elective. Enrollment in any elective courses outside of the Department during the first semester must be approved in advance by the Director of Graduate Studies.

Full-time research assistants, and 1/2 research / 1/2 teaching assistants, should take twelve hours in each of two semesters. In addition to the 24 hours of graduate courses, a plan A student must carry out a research project resulting in a written thesis. While designing a course of study, the
student must bear in mind that independent study or research courses must not duplicate thesis work; thesis work must be done in addition to the minimum course requirements. Upon completion of all coursework for the M.S. degree, M.S. degree candidates are enrolled for 0 hours of CME 748 (both Fall and Spring semesters, plus summer sessions) until graduation. CME 748 maintains full-time status for students actively working on their thesis.

All theses are submitted directly to the U.K. Graduate School. Theses must be prepared according to a specific format. This format is detailed on the Graduate School home page, at:

http://www.research.uky.edu/gs/CurrentStudents/theses_prep.html

The student has the option to submit the M.S. thesis in traditional printed (i.e., hardcopy) format, or as an electronic (PDF) document. Specific information on submitting an electronic thesis is available at the website above. Students are encouraged to discuss the electronic submission option with their faculty advisor at the outset of the thesis preparation process. Please note that regardless of the option selected, two additional signed copies, suitable for binding, must be delivered to the Department office after the thesis has been finalized. These copies are for the Department archive, and the major professor, respectively.

A thesis fee (currently $14.00) must be paid to Student Billing Services at the time the thesis is submitted to the Graduate School. This fee must be paid in order for the student’s degree to be officially certified and the diploma issued.

In addition to the thesis option, the Graduate School administers a Plan B or non-thesis option. Plan B requires the student to complete 30 hours (of which 15 or more are at the 600 or 700 level) of acceptable graduate coursework which includes three credit hours of CME 780 - Special Problems in Chemical Engineering. The CME 780 project may or may not be as extensive as a thesis. The project’s content is the decision of the student’s academic advisor, subject to final approval by the Director of Graduate Studies. The project must be typed and bound but need not be prepared in the specific format required of a thesis. A bound copy of the project is to be submitted to the CME office before a grade for the project will be issued.

Plan B is only open to students with substantial prior research or industrial experience. Please note that Plan B is not an option for students receiving financial support (i.e., T.A. or R.A. stipends; tuition scholarships) from the Department. Enrollment in the Plan B option requires the explicit approval of the Director of Graduate Studies, subject to the conditions indicated above.

Final Examinations for M.S. Degree Candidates

A final examination is given to all M.S. candidates. This examination may be oral, written, or both as determined by the student’s academic advisor and approved by the Director of Graduate Studies. The examining committee shall consist of the student’s academic advisor, one other qualified member of the U.K. Graduate Faculty (usually from the CME Department), and a third committee member. At least one member of the student’s examining committee must hold Full
Membership on the U.K. Graduate Faculty. Approval of the student’s examining committee must be obtained from the Director of Graduate Studies and the U.K. Graduate School.

The examination must be scheduled at least two weeks in advance of the desired date, and is scheduled by the notification of the Graduate School through the Final Examination Form, which is an electronic document found at the following web site:

http://www.research.uky.edu/cfdocs/gs/MastersCommittee/Student/Selection_Screen.cfm

Those students completing a thesis must, at the same time, submit a completed Thesis Approval Form indicating that the thesis has been reviewed and is in an acceptable form for the final examination. All members of the committee must be provided with copies of the thesis at least two weeks in advance of the scheduled examination date. In addition, students should submit the required “Application for Degree” form online within 30 days of the start of the semester in which they intend to complete their thesis. The final examination must be taken no later than eight days before the end of classes if the student is a candidate for a degree during that same semester (see U.K. Academic Calendar). Students must satisfy all course requirements and remove any “I” grades before the examination will be scheduled; individuals on scholastic probation are not eligible to sit for the final examination.

Pass/fail decisions for the final exam are based on majority vote; if the committee is evenly divided, the candidate fails. If the candidate fails the final examination, the committee recommends to the Dean of the Graduate School the conditions under which a second examination may be administered. Insofar as it is practical, the same examining committee administers the second examination. A third examination is not permitted.

After the Final Examination is passed, the final copy of the thesis is prepared. It is then submitted to the Graduate School with the signatures of the student’s Major Professor(s) and the Director of Graduate Studies. The thesis must be received by the Graduate School no later than 60 days after the Final Examination.
Program and Degree Requirements

Doctor of Philosophy Degree

Courses and Research Requirements

Persons wishing to obtain a Ph.D. degree in chemical engineering must demonstrate scholarship and original research in the field. Students must complete the core course requirements described above (CME 505, 620, 630, 650 and MA XXX), as well as the doctoral residency requirements (detailed below). Typically, 36 total graduate credit hours of coursework beyond the B.S. degree are required to satisfy the residency requirements. A foreign language is not required by the Department.

Ph.D. students who have not completed a U.K. Master’s degree are required to take CME 780 (Special Problems in Chemical Engineering) in their second semester. This will count as 3 hours of credit toward the required 36 hours. The purpose of this course is to demonstrate aptitude, desire and dedication to research. The final grade will be determined based on an oral presentation and a written report at the end of the semester. These will be evaluated by the faculty advisor, the Director of Graduate Studies, and at least one other departmental faculty member. The written report should be in proposal form and should include an introduction to the research problem, a review of the literature, a research plan, and preliminary results. A grade of “B” or better is required in this course to satisfy pre-qualifying requirements (see below). Students who do not receive a grade of B or better will be transferred to the master’s program and will be required to write a master’s thesis. After satisfactory completion of the master’s thesis, the student may petition for re-admission into the Ph.D. program. Students who have been admitted to the Master’s program but feel that they may be interested in transferring to the Ph.D. program without writing a master’s thesis should also plan to take this course in their second semester.

Major Professor and Advisory Committee

A major professor is typically assigned within the first six weeks of doctoral study. The Director of Graduate Studies serves in this capacity until the student is assigned a major professor. The full (four member) Doctoral Advisory Committee is chosen after successful completion of the Pre-Qualifying Examination, usually no later than the start of the third semester of doctoral study. This Committee, along with the major professor, guides the student and sets specific requirements pertaining to coursework and research leading to the completion of the degree.

The Advisory Committee has a core of four members. This core consists of the Major Professor as Chair, two members from the major area, and at least one representative from any minor areas. The representative from the minor area must be from outside the College of Engineering (e.g., Chemistry, Pharmacy, Math, etc.). All members of the core must be members of the Graduate Faculty of the University of Kentucky and three (including the Major Professor) must possess Full Graduate Faculty status. Additional graduate faculty members may also serve as members of the Advisory Committee.

The Advisory Committee must remain intact for the duration of the student’s graduate career. If for any reason a committee member cannot continue to serve on the panel, a suitable replacement
must be recommended for approval by the Director of Graduate Studies. The Director of Graduate Studies must approve all Advisory Committees. Students can initiate the Committee formation process through the UK Graduate School webpage:

http://www.research.uky.edu/cfdocs/gs/DoctoralCommittee/Selection_Screen.cfm

Residency Requirements for Doctoral Students

The University of Kentucky requires that doctoral students have ample contact with the U.K. academic community so that the student will become involved in every aspect of scholarly life. For this reason, certain residency requirements must be satisfied.

Pre-qualifying residency requirements are satisfied when the student has completed a total of 36 credit hours of registered coursework. In the chemical engineering program, this includes the core subjects (CME 505, 620, 630, 650, MA XXX and CME 780) for a total of 18 credits, as well as elective subjects and research credits, as appropriate. Doctoral students are strongly encouraged to enroll in a minimum of 12 credits of coursework in each semester, so that the pre-qualifying residency requirement can be completed within the first three semesters of study. Please note that registration in research credits (CME 780, 790) must be approved by the faculty advisor and the Director of Graduate Studies. No more than 6 credit hours of research credits will be permitted (not counting the three hours of enrollment in CME 780 mandated as part of the pre-qualifying requirements).

Students may be eligible to apply prior graduate-level coursework or a completed Master’s degree from another institution towards specific core course requirements, as well overall residency requirements, as described in The Graduate Bulletin. All such petitions must be approved by the Director of Graduate Studies, who will determine an appropriate study plan for the student in consultation with the faculty advisor. Requests to apply Master’s credit for residency requirements originate from the Director of Graduate Study to the Graduate School, and must be supported by the student’s major professor and committee.

Candidates who have successfully completed their oral Qualifying Examination are required to meet post-qualifying residency registration requirements and maintain continuous enrollment until graduation: this requirement is satisfied by registration in two credit hours of CME 767 in both the Fall and Spring semesters until completion of the degree. Details associated with post-qualifying registration are available in The Graduate Bulletin.

Ph.D. Pre-qualifying Procedures

The Graduate School will not schedule a student’s Qualifying Examination until at least thirty-six hours of course work has been successfully completed. For most students this would correspond to the end of the third full-time semester of study. In order to assess the overall progress of each Ph.D. student and their qualifications for doctoral study, a preliminary evaluation is made during the first year. As a part of this evaluation, a pre-qualifying examination is given.
Students enrolled in the Ph.D. program must meet the following requirements in order to maintain good standing and to proceed to the oral Qualifying Examination at the conclusion of the pre-qualifying residency period:

(i) A GPA of 3.4 in core (CME 505, 620, 630, 650, and CME 780) and other approved graduate elective courses. Students with a GPA less than 3.4, but at or above 3.2 may also be considered subject to Chemical Engineering Graduate Committee approval. Credits earned in research courses (beyond 3 credits in CME 780) are not included in the determination of the GPA for this requirement.

(ii) A grade of B or better in CME 780 (taken Spring semester of the first year).

(iii) A grade of B or better in each of the four core chemical engineering graduate courses: CME 505, 620, 630, 650.

(iv) Successful completion of the written pre-qualifying examination.

Any student who does not meet requirements (i) or (ii) at the end of the first academic year will be transferred to the master’s program and will be required to write a master’s thesis. After satisfactory completion of the master’s thesis, the student can apply for re-admission to the Ph.D. program. Re-admission is subject to the approval of the CME Graduate Studies Committee. Upon re-admission, the student must satisfactorily complete the written pre-qualifying examination, as described, below.

Any student who fails to meet requirement (iii) must re-take the core course(s) in question during the second year in order to remain eligible for the Ph.D. program. No more than two attempts are permitted for any core course.

Pre-qualifying Examination. The written pre-qualifying examination covers basic principles of chemical engineering. All Ph.D. students are expected to take the pre-qualifying exam after completing their first year of graduate coursework.

The pre-qualifying examination consists of three stand-alone sections: Kinetics and Reactor Design; Momentum, Heat, & Mass Transfer; and Thermodynamics. Each examination is two and one-half hours, and is designed to test foundational knowledge and problem solving abilities at the advanced undergraduate level. Students can expect each examination to be comparable to an end-of-term final examination in the respective undergraduate subjects. The three examination sections are administered over two days.

Two faculty will be responsible for preparing and grading each section; the faculty will include the recent instructor(s) of the corresponding undergraduate level course(s). The examinations will be closed-book, although individual faculty may allow students to prepare equation/reference sheets for a particular exam, as appropriate. In addition, students are permitted to bring a basic scientific calculator. Specific information regarding examination format and coverage will be provided by the respective faculty in advance of the examination.
Each section of the examination will be graded separately, and students must obtain a minimum score of 60% in order to pass each individual section. Grading is done using a blind system (each student is assigned a number and only this number is used as identification on the exam). Students who fail one or more sections will be required to re-take that section at the next opportunity when the pre-qualifying examination is administered, subject to approval by the Director of Graduate Studies. Students are allowed no more than two attempts (total) on a particular section of the pre-qualifying examination.

Note: in rare instances, a student may receive a “provisional” pass on a particular section of the pre-qualifying examination. In such cases, additional remedial activity in the subject area is typically required in order to satisfy the pre-qualifying examination requirement.

Students who fail to obtain a passing grade on each of the three sections of the pre-qualifying examination (after two attempts) must transfer to the master’s program and will be required to write a master’s thesis. A student who successfully passes two of the three sections of the pre-qualifying examination will be eligible for re-admission to the Ph.D. program after completion of the master’s degree. Conditions for re-admission to the Ph.D. program are described below. Students who fail two or more sections of the pre-qualifying exam (after two attempts) will be provided with an opportunity to complete the master’s degree, but will be ineligible for re-admission to Ph.D. status.

The pre-qualifying examination is given during the third or fourth week of May. Students who fail one or more sections of the pre-qualifying examination will have an opportunity to re-attempt the section(s) in question when the examination is offered again in mid-August. A second attempt on any section is subject to approval by the Director of Graduate Studies, and is contingent upon otherwise good standing in the Ph.D. program.

Students who successfully complete the five core courses (CME 505, 620, 630, 650, and CME 780) with a GPA of 4.0 will be exempted from the written pre-qualifying examination.

Re-admission to the Ph.D. program:

Students who are transferred to the master’s program owing to a failure to pass one section of the pre-qualifying examination must complete and defend a M.S. thesis. Upon completion of the master’s degree, the student may petition the Director of Graduate Studies for re-admission to the Ph.D. program. Re-admission to the Ph.D. program is contingent upon the following:

(i) Approval of the Director of Graduate Studies and the CME Graduate Studies Committee, contingent upon satisfactory performance in research.

(ii) The satisfactory completion of CME 505, 620, 630, 650 with a grade of “B” or better.

(iii) Remediation of any deficiencies related to the pre-qualifying examination. Specifically, any student who has failed one section of the pre-qualifying examination (after two attempts) must enroll in the corresponding undergraduate class during their second year of study and obtain a grade of “B” or better, based on completion of all course assignments and examinations. The corresponding undergraduate classes are:
Kinetics and Reactor Design, CME 550; Momentum/Heat/Mass Transfer, CME 425; and Thermodynamics, CME 320.

In assessing the application for re-admission to the Ph.D. program, the Graduate Studies Committee will examine the quality of the M.S. thesis, the student’s research productivity, performance in coursework (including any required remedial coursework) and performance on the pre-qualifier. The requirements listed above are considered to be the minimum performance expectations for re-admission to doctoral status.

*Students holding a prior Master’s degree from a U.S. University:*

Students who hold a M.S. degree in Chemical Engineering from a U.S. University are subject to the pre-qualifying requirements as detailed, above. In cases where course substitutions have been approved by the Director of Graduate Studies, overall GPA requirements still apply.

Students with a prior M.S. in Chemical Engineering from a U.S. University are expected to sit for the pre-qualifying examination at the first available opportunity. Students who fail one section of the pre-qualifier (after two attempts) will be permitted to remain in Ph.D. status if approved by the Graduate Studies Committee; the student must then obtain a grade of “B” or better in the corresponding undergraduate course. This deficiency must be resolved before the student can sit for the oral qualifying exam. Students with a prior U.S. master’s degree who fail two or more sections of the pre-qualifier will be terminated from the CME graduate program.

**The Qualifying Examination**

As noted previously, The Graduate School requires that a minimum of 36 credit hours of coursework be completed prior to scheduling the oral Qualifying Examination (see residency requirements, above). In most cases, this will be achieved in three full-time semesters. Upon completion of the required coursework and satisfaction of all other pre-qualifying requirements, students are eligible to sit for the oral Qualifying Examination, which is the last step in the advancement to doctoral candidacy.

It is the expectation of the Department that students will schedule the oral qualifying examination for the semester (or Summer Session) immediately following the completion of the coursework and pre-qualifying requirements. The Qualifying Examination must be scheduled through the Director of Graduate Studies and approved at least two weeks in advance by the Graduate School. Students can initiate the scheduling of the qualifying examination through the Graduate School webpage. The scheduling process must be completed within the first six weeks of the semester (although the exam can take place at any point during the term). Regulations pertaining to the qualifying exam can be found in the *Graduate School Bulletin*.

The oral Qualifying Examination consists primarily of a presentation of the student’s ongoing research project. Students are required to prepare a written research proposal that describes the research hypothesis, experimental methods, and results and conclusions to date. This document should take the form of a formal paper, complete will all necessary figures, tables, and bibliographic citations. A copy of the report (in hardcopy form) should be delivered to each
member of the Doctoral Advisory Committee at least 10 days prior to the examination. It is expected that the student will provide the major professor an opportunity to review and approve the document prior to its distribution to the Committee.

Although the Qualifying Examination is focused on the student’s research project, all core areas of chemical engineering, as well as any minor areas relevant to the research problem, may be addressed during the course of the examination. The outcome of the examination is determined by majority vote of the Doctoral Advisory Committee. If the Committee is evenly split, the candidate fails. A second examination can be scheduled only after the approval of the Committee and the Director of Graduate Studies. For more information, see the Graduate School Bulletin.

**Final Examination for Doctoral Candidates**

The completion of the doctoral degree requires the submission of the doctoral dissertation and the defense of that dissertation during the Final Examination.

No later than eight weeks prior to the intended date of the Final Examination, a Notification of Intent to Schedule a Final Examination form must be submitted to the Graduate School. Upon receipt of this form, the Graduate Dean will appoint an outside examiner as a core member of the Advisory Committee. At the same time, students should submit the required “Application for Degree” for the semester in which they intend to complete their degree, if they have not already done so. Deadlines associated with these various filings are indicated in the University Academic Calendar, available on-line.

No later than two weeks prior to the scheduled final exam date, a Request for Final Examination form must be submitted to the Graduate School along with the signed Dissertation Approval Sheet. At this point, the dissertation must be in its final form for the examination, complete with all figures, tables, captions, appendices, references, etc. Once the final examination is scheduled, the student must immediately provide the outside examiner with a hardcopy of the completed dissertation, as the outside examiner is entitled to a minimum of two weeks to review the dissertation prior to the Final Examination.

The Final Examination is a public event. Any member of the University community may attend. The Final Examination includes a defense of the dissertation but may also include questions about the student’s major coursework or chemical engineering in general. The content of the Final Examination is left to the discretion of the Advisory Committee. A majority opinion of the Advisory Committee prevails in all Final Examination decisions. If the committee is split evenly, the candidate fails. In the event of a failure, the Advisory Committee recommends to the Graduate School conditions under which a second examination may be administered. A third examination is not permitted.

After the Final Examination is passed, the final copy of the dissertation is prepared. It is then submitted to the Graduate School with the signatures of the student’s Major Professor(s) and the Director of Graduate Studies. The dissertation must be received by the Graduate School no later than 60 days after the Final Examination.
The Dissertation

All doctoral candidates must conduct a major research project, the results of which culminate in a dissertation. The dissertation must be a well-reasoned, original contribution to the knowledge and field of chemical engineering and must show evidence of scholarly achievement.

Every member of the Advisory Committee is to be furnished a hardcopy of the dissertation and must make a decision as to whether or not the dissertation is of sufficient quality so that the Final Examination may be scheduled. A majority of the Advisory Committee (i.e., at least three members, including the major professor(s)) must indicate their approval on the Dissertation Approval Sheet which is submitted to the Graduate School.

Upon successful completion of the Final Examination, the student makes any required modifications to the dissertation under the supervision of the major professor and the Director of Graduate Studies. The final, signed dissertation is submitted directly to the U.K. Graduate School. Dissertations must be prepared according to a specific format, as detailed on the Graduate School home page, at:

http://www.gradschool.uky.edu/CurrentStudents/theses_prep.html

The student has the option to submit the Ph.D. dissertation in traditional printed (i.e., hardcopy) format, or as an electronic (PDF) document. Specific information on submitting an electronic dissertation is available at the website above. Students are encouraged to discuss the electronic submission option with their faculty advisor at the outset of the dissertation preparation process. Please note that regardless of the option selected, two additional signed copies, suitable for binding, must be delivered to the Department office after the dissertation has been finalized. These copies are for the Department archive, and the major professor, respectively.

A dissertation binding fee (currently $74.00) must be paid to Student Billing Services at the time the dissertation is submitted to the Graduate School. No diplomas will be released without payment of the applicable dissertation fee.

In order to register the dissertation copyright (optional), the candidate must pay a copyright fee of $65 (this copyright charge is in addition to the $74 dissertation fee); additional information is available on the Graduate School web page.

Time Limit for Degrees - Graduate School

Master’s Degree Time Limit
All activities (coursework, research, etc.) which are used to satisfy Master’s degree requirements must be completed within six years preceding the proposed date of graduation. Extensions of time will be considered by the Graduate Dean only upon written recommendation by the appropriate Director of Graduate Studies. No activity completed more than ten calendar years preceding the proposed graduation date will be considered for graduation. Please see the Graduate School Bulletin.

Doctoral Degree Time Limit

According to Graduate School rules, students enrolled in the doctoral program are required to successfully complete the oral qualifying examination within five years of their entry into the program. As detailed above, funded students typically sit for the qualifying examination immediately after satisfaction of the coursework and pre-qualifying residency requirements, which usually take three to four semesters to complete. As such, it is expected that the five year time limit will apply only in rare circumstances.

In addition, all degree requirements for the doctorate must be completed within five years following the semester or summer session in which the candidate successfully completes the oral qualifying examination. Extensions up to one additional year may be approved by the Dean of the Graduate School, upon the recommendation of the Director of Graduate Studies. Further extensions (up to a total of ten years) require the approval of the Graduate Council and involve re-taking the oral qualifying examination. Please see details in the Graduate School Bulletin.

Transfer Credit

The transfer of prior graduate credits applies only to students enrolled in the M.S. degree program. A student may request that up to nine hours of graduate work taken while enrolled (1) as a post-baccalaureate student, (2) as a graduate student in another U.K. department, or (3) as a graduate student in another university, be transferred to his/her academic record (see details in the Graduate School Bulletin). The Director of Graduate Studies should be consulted for initiation of such a request. A grade of “B” or better is required in order for a course to be considered for transfer, and all such transfers are subject to the Master’s degree time limits of the Graduate School. In no case will independent study, research, thesis, or dissertation credit be transferred. Decisions on such requests are at the discretion of the Director of Graduate Studies and the U.K. Graduate School.

Please note that for students enrolled in the doctoral program, prior graduate work may be applicable to the pre-qualifying residency requirements, as well as for the satisfaction of certain core course requirements. Students with prior graduate credits should consult with the Director of Graduate Studies, who will evaluate all prior graduate work and who will assist in determining an appropriate course of study.

Application For Degree

An “Application for Degree” must be filed with the Graduate School at the beginning of the semester in which the student wishes to graduate. This requirement is applicable to both M.S. and
Ph.D. degree candidates. The exact deadline date is printed in the Official University Academic Calendar for that semester. Students not filing a degree application will have their actual graduation date delayed, regardless of whether or not all other requirements have been met. No student may graduate if an “I” or “S” (exceptions: “S” in CME 748 or CME 749/769) grade remains on his/her record.
Departmental Policies

Graduate Student Responsibilities

Graduate students in chemical engineering are expected to be fully engaged scholars who seek to maximize the learning opportunities associated with their classwork, teaching and research responsibilities. Individuals who receive RA and/or TA financial support have an added obligation to meet these responsibilities to the greatest extent possible. As such, it is expected that students will make every effort to attend all classes and submit all required assignments, and will meet their teaching and research obligations in a timely manner. Students who fail to meet their obligations will be subject to review by the Director of Graduate Studies and the Graduate Studies Committee; in addition to academic consequences, the continuation of financial support will be examined.

Academic Integrity

The Department maintains the highest standards of academic integrity and ethical scientific conduct. Academic offenses such as plagiarism or the fabrication or misrepresentation of research results can lead to actions administered by the Dean of the Graduate School or the Provost that include suspension or expulsion from the University. The “Student Rights and Responsibilities” (http://www.uky.edu/StudentAffairs/Code/) details policies and procedures regarding academic misconduct.

Students are advised that all academic work completed for the satisfaction of program degree requirements are subject to the academic standards of the University. This includes (but is not limited to) all coursework, written portions of the pre-qualifying and qualifying examinations, and any required research proposals or reports (e.g., CME 780 report; proposal document for the oral qualifying examination, advisory committee reports, etc.). All submitted work must be the original work of the student; students who have questions with respect to issues of plagiarism and/or the proper citation or attribution of the work of others should consult their major professor, or the Director of Graduate Studies. Such consultations should occur before the work is submitted.

Chemical and Materials Engineering Seminar

The Department holds its regular Seminar series on Wednesdays throughout the Fall and Spring semesters at 11:00 A.M. The seminar is comprised primarily of visiting speakers from other universities, industrial facilities, and national laboratories. Attendance at the seminar is considered part of each student’s scholarly development as a researcher, and is REQUIRED, regardless of the student’s point of progress in the program. Students who wish to register for courses which conflict with the seminar MUST obtain approval in advance from the Director of Graduate Studies.

Non Coursework Related Duties, i.e., Teaching, Research
Full-time teaching assistants are expected to carry 9 or more hours of classes and grade papers, or assist in an undergraduate laboratory for 20 hours per week. Most students serve as half-time teaching assistants. These individuals are expected to carry 12 credit hours of classes, grade papers or assist in an undergraduate laboratory 10 hours per week, and devote at least 10 hours per week to research. It is the current policy of the Department that new graduate students serve as half-time T.A.’s for their first two semesters at U.K.

A research assistantship or fellowship carries with it duties and responsibilities similar to a teaching assistantship. That is, the student is being paid to work on his/her M.S./Ph.D. research project for at least 20 hours per week and take 12 hours of courses. The advantage of a R.A. or fellowship over a T.A. is not in reduced time requirements, but that the full 20+ hours per week is devoted towards a project that will result in a thesis or dissertation. As their course load diminishes, students are expected to increase the time spent on research. A student who has completed his/her courses must devote full-time to research.

Periodically, all part- and full-time graduate students are evaluated relative to their research performance. Students who have excelled in research and scholarship are often eligible for special supplementary fellowships and awards from the Department; the number and amount of such awards depends on the availability of funds. However, students who are not demonstrating an appropriate level of commitment and progress in research may be placed in probationary status. In this situation, the deficiencies of the research effort will be identified, and the student will be given a limited time to improve. Failure to address deficiencies in research performance can lead to the termination of financial support. As such, the student becomes responsible for all tuition and fees associated with continuation in the program.

Note: The Graduate School Bulletin specifies the terms and conditions for academic termination from the M.S. and Ph.D. programs; academic termination is distinct from the termination of financial support, the latter of which is at the discretion of the major professor and the Director of Graduate Studies, and may also be subject to the availability of funds.

Vacation

Except for those periods when the University is officially closed, such as the week between Christmas and New Year’s, graduate students are required to be actively engaged in coursework and research. Periods when classes do not meet, such as Spring Break, are to be used for full-time research activity.

In addition to official University holidays, supported graduate students are allowed a maximum of one week of vacation per year. The time when this is taken must be approved by the student’s faculty advisor. Satisfactory progress in research must be demonstrated to take vacation. If a student is not showing satisfactory progress in his/her research, the faculty advisor can deny approval of vacation.
Students must obtain permission to attend any professional meeting. Meeting attendance will be approved only if it is going to benefit the student academically. Attending meetings solely to look for employment or to have fun is acceptable only as part of the allotted one week vacation.

Students who take more than one week vacation will not be provided with stipend funding during that time. It is important to remember that funding is provided for a limited time and excessive absence could result in loss of funding prior to completion of the degree.

Financial Assistance

Financial assistance in the form of graduate teaching and research assistantships is available to qualified applicants. Also, merit-based university and industry fellowships are available. The Graduate School offers a number of fellowships for qualified applicants, such as dissertation year fellowships. As the requirements and qualifications for these fellowships vary considerably, the Director of Graduate Studies will attempt to identify appropriate applicants within the Department.

Note: Students with full financial assistance are not allowed to do other work (e.g. grading, etc.) at U.K. or outside the University.

Maximum Support for M.S. and Ph.D. Students

A student enrolled full-time in our Master’s program and making satisfactory progress can expect a stipend for 18 months. The faculty advisor has the option of extending funding for six more months. Under no conditions will funding be provided for more than 24 months. This time limit is independent of the source of funding.

A student enrolled full-time in our Ph.D. program and making satisfactory progress can expect a stipend for 54 months. The faculty advisor has the option of extending this for 6 more months. Under no conditions will funding be provided for more than 60 months. This is independent of the source of funding.

Students who have completed and defended a master’s degree and continue for a Ph.D. will be provided with a stipend for 42 months. The faculty advisor has the option of extending this funding for 6 more months. Under no conditions will funding be provided for more than 48 months.

Students are strongly encouraged to finish within the specified time. However, students who require more time, and who exceed the funding time limits established by the Department, will be required to complete their research using their own funds. This would include living expenses, as well as any tuition costs necessary to maintain continuous enrollment standing in the program. Please note that Graduate School time limits may also apply in this situation.
All funding is contingent upon satisfactory performance in classes and research, and availability of funds. If a student is not showing satisfactory performance in research, funding can be terminated.

Financial Support (Stipend and/or Tuition) for Students on Academic Probation

Any student with 12 or more hours (cumulative) will be considered deficient for purposes of Departmental financial support (stipend and any Department-paid tuition) if, at the end of any semester, a CGPA of < 3.0 is recorded. The student will be informed of this deficiency by the Graduate School. The student will have one semester in which to bring this up to a 3.0 or better CGPA. Failure to do this will result in the loss of all Departmental T.A., R.A., or scholarship support, as well as tuition scholarship support. The exception to this rule is the case where a repeat option would normally be exercised (E in a course), but cannot be exercised because the course is not offered in the current semester. Students in this situation must meet the above requirement relative to the courses they have taken other than the failed course which qualifies for exercising a repeat option. For example, a student with a CGPA < 3.0 has 12 hours of courses; he/she has received B, B, C, E. Assuming the E course is not offered in the next semester, the student must get enough A grades (in this case, one) to bring the CGPA (after excluding the E) up to 3.0 by the end of the current semester. Failure to do so will result in the loss of all financial support as stated above.

Any student with 12 or more hours (cumulative) will be considered deficient for purposes of Graduate School support if at the end of any semester a CGPA of less than 3.0 is recorded. The Graduate School policy is to terminate all support immediately. That is, there is no grace period of one semester. Since most students have their tuition paid for by a graduate school scholarship, a CGPA < 3.0 can result in the loss of the tuition scholarship. The exact statement of policy is given in the Graduate School Bulletin.

Some students are partially supported by the Department and partially by the Graduate School. These parts are subject to the respective portions of this policy, as stated above.

Student Health Insurance

All fully-supported graduate students (R.A.; T.A.; fellow) who are in good standing are enrolled in the Graduate School student group health insurance plan. Also, health insurance is required for international students. For more details, please review the Graduate School Bulletin, or visit the Graduate School’s health insurance web site:

http://www.research.uky.edu/gs/fellowship/healthcoverage.html
Unsupported Students

In certain rare circumstances, a student may be admitted to the M.S. or Ph.D. program without financial support. In this situation, the Director of Graduate Studies stipulates the conditions under which such a student may be eligible for future financial support, if such support (e.g. research or teaching assistantship) becomes available. Consideration for financial support would typically include an evaluation of the student’s performance in coursework in the Department, as well as any research activities. However, this policy in no way implies or guarantees financial support for any unsupported student.

Checking Out

If a student completes a graduate degree program, it is his/her responsibility to leave the desk or carrel and all laboratory space in good, clean condition. All keys for desks and carrels must be returned to the Director of Graduate Studies or his/her administrative assistant. In addition, any residual charges on the student’s record (e.g., library fines, parking tickets, etc.) can result in the University withholding transcripts and diplomas. Students are strongly encouraged to confirm that they are in good standing prior to leaving the University.