



KU
THE UNIVERSITY OF
KANSAS
**Chemical & Petroleum
Engineering**



Graduate Program Manual



Welcome to the KU School of Engineering!

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Welcome to the Chemical and Petroleum Engineering Graduate Program

The Chemical and Petroleum Engineering (CPE) Graduate Program at The University of Kansas provides an in-depth, academic understanding of chemical and petroleum engineering for students who plan to have careers in academia, research and development, or in their related professional industries. Our department offers a Master of Science Degree (MS) in either Chemical Engineering or Petroleum Engineering and a Doctorate of Philosophy (Ph.D.) in Chemical and Petroleum Engineering.

In the Master of Science programs, the primary emphasis is on formal course work in engineering and related subjects. Students take a sequence of core courses in heat, mass and momentum transport, thermodynamics, reaction kinetics, applied mathematics, reservoir engineering, and petroleum recovery.

In the Doctoral program, the focus is on an independent research project in a significant engineering area. Specific Ph.D. course work will revolve around the student's chosen area of specialization, which reflects the combined research interests of the student and faculty. In addition to specialized courses in the department, advanced courses in mathematics and computer science, life sciences, physical sciences, and other branches of engineering may be used to prepare the Ph.D. student for their research project.

During your first semester you will be matched to a research advisor either before you arrive or during the advisor matching process (see the Graduate Director or Program Assistant for more information about advisor matching). Based on either your advisor or your employment status, you will be assigned a grad office which will be your personal space for study, writing, and/or holding office hours. The department administrator will check out any required keys to your office space- they are located in 4132 Learned Hall. The graduate mailboxes are located in 4141 Learned Hall- if you receive anything in the mail (other than packages) they can be found there. When packages are delivered, they come to the main office in 4132 Learned Hall and somebody will email you.

In general there can be some adjustment when you live in a new city and are attending a new university. One great place to look if you have questions about the transition is <http://new2ku.ku.edu/> (it is geared more toward undergraduates but has useful information for all students). For more information about Lawrence, KS, here are two great links: <http://unmistakablylawrence.com> and <http://www.lawrence.com/>

On campus, there are dozens of [student organizations](#). A couple to highlight are The Graduate Engineering Association, the Graduate Ambassador Program, and your industry related groups such as AIChE, SPE, or BMES. See [THIS](#) link for more engineering related student organizations.

This manual is filled with both academic and student life information.

We hope you find it useful as you begin your exciting new graduate career here at KU!

Prerequisite Courses

| <u>For the Chemical Engineering Degree:</u> | <u>For the Petroleum Engineering Degree:</u> |
|---|--|
| C&PE 511: Momentum Transfer | C&PE 511: Momentum Transfer |
| C&PE 512: Chemical Engineering Thermodynamics | C&PE 521: Heat Transfer |
| C&PE 521: Heat Transfer | C&PE 527: Reservoir Engineering II |
| C&PE 523: Mass Transfer | C&PE 618: Waterflooding |
| C&PE 524: Kinetics and Reactor Design | A geology course such as Geol 535: Petroleum and Subsurface Geology, is also recommended |

Regular Graduate Courses

(Note: Not all classes are offered each semester/year)

C&PE 701*** Methods of Chemical and Petroleum Calculations (3) {Fall Only}
C&PE 715 {Topics in C&PE: this class changes each semester}
C&PE 721* Chemical Engineering Thermodynamics (3) {Fall Only}
C&PE 722* Kinetics and Catalysis (3) {Spring Only}
C&PE 725 Molecular Cell Biology
C&PE 731* Convective Heat and Momentum Transfer (3) {Fall Only}
C&PE 732* Advanced Transport Phenomena II (3) {Spring Only}
C&PE 751 Basic Rheology (3)
C&PE 752 Tissue Engineering (3)
C&PE 765 Corrosion Engineering (3)
C&PE 771** Advanced Reservoir Engineering (3) {Spring Only}
C&PE 778 Applied Optimization Methods (3)
C&PE 790** Introduction to Flow in Porous Media (3)
C&PE 795** Enhanced Petroleum Recovery (3) {Fall Only}
C&PE 800 Seminar (.5-1)
C&PE 802 CEBC Colloquium (.5-1)
C&PE 803 MS Research (.5-1)
C&PE 804 Petroleum Management Seminar (1)
C&PE 825 Graduate Problems
C&PE 902 Preparation for Ph.D. Comprehensive Exam (3)
C&PE 904 Ph.D. Research (.5-1)
C&PE 910 Industrial Development of Catalytic Processes (3)
C&PE 911 Industrial Practicum (1-3)
C&PE 929 Advanced Topics in Chemical and Petroleum Engineering (1-4)
C&PE 936 Industrial Separation Processes (3)
C&PE 940 Data Analysis in Engineering and Natural Sciences (3)

* Chemical Engineering Core Course

**Petroleum Engineering Core Course

***Both ChemE and PetroE Core Course

GENERAL GRADUATE PROGRAM OVERVIEW

MS: Items 1–3 & 8-10; **Ph.D.:** All Items 1-10

| | Item | When | Who |
|----|---|---|-------------------------------|
| 1 | Advisor Selection | During first or second semester | Student and Graduate Director |
| | Attend faculty presentations, meet with faculty, and submit selections requests | | |
| 2 | Plan of Study | End of second semester | Student and Research Advisor |
| | Meet with Advisor to plan degree path and select elective courses | | |
| 3 | Selection of Committee Members | End of second or third semester | Student and Research Advisor |
| | <p style="text-align: center;">MS: 3 members, no special requirements Ph.D.: 5 members, at least 1 must be from another department</p> | | |
| 4 | Preliminary Research Exam | End of first calendar year | Research Advisor |
| | For all students who want to be a Ph.D. aspirant | | |
| 5 | Residency Requirement for Ph.D. | Before completing the comprehensive exam | Student |
| | At least two semesters as full time students at KU | | |
| 6 | Responsible Scholarship and Research Skills Requirement | After the relevant courses are completed and as a requirement for taking the comprehensive exam | Research Advisor |
| | <p style="text-align: center;"><u>Responsible Scholarship:</u> Must complete a minimum of 3 credit hours of CPE 800 <u>Research Skills:</u> A letter to be sent to Graduate Studies from your Advisor explaining a coherent research theme</p> | | |
| 7 | Comprehensive Examination | After all course work and at least 15 credit hours research are completed | Thesis Committee |
| | <p style="text-align: center;">(a) Written Part: Research problem presented in a proposal form (b) Oral Part: Only after Written Part is approved. {Note: The Research Advisor will prepare the problem and the Exam must be completed at least 5 months before graduation. }</p> | | |
| 8 | Final Defense of Ph.D. Dissertation or Master's Thesis | When the advisor and student decide it is ready {for Ph.D. all post-comp hours must be met } | Thesis Committee |
| 9 | Submit Dissertation or Thesis | When all corrections are made | Student |
| 10 | Graduate!! | When all above items are complete | Student |

Master of Science Path

The following information and guidelines include departmental requirements and are intended to assist each student, and their advisory committee, in preparing a Plan of Study: your individualized, detailed path to a graduate degree.

The MS degree program requires a minimum of 30 credit hours, including the Graduate Core and the submission and successful oral defense of a research thesis. Students in this program may be considered for research assistantships, teaching assistantships, and fellowships. A 3.0 grade-point average at the end of each semester of residence is required to maintain regular student status and for graduation. Only the first 6 hours of enrollment in C&PE 803 meet degree requirements.

The following are summaries of the degree requirements for a Master of Science in the CPE department. Only in rare occasions are exceptions from the C&PE course work allowed. It is recommended that part of the elective hours (3 – 6 credit hours, depending on an advisor's recommendations) be from other departments. For petroleum engineering, if a student has not completed an advanced-level, reservoir-related course in geology as an undergraduate, such a course must be taken as one of the electives: GEOL 535 Petroleum and Subsurface Geology is recommended.

MS in Chemical Engineering

Credit Hours

ChE Graduate Core Courses (15 hours)

| | |
|---|---|
| C&PE 701 Methods of Chemical and Petroleum Calculations | 3 |
| C&PE 721 Chemical Engineering Thermodynamics | 3 |
| C&PE 722 Kinetics and Catalysis | 3 |
| C&PE 731 Convective Heat and Momentum Transfer | 3 |
| C&PE 732 Advanced Transport Phenomena II | 3 |

Electives (6 hours) 6

Research (9 hours)

| | |
|-------------------|---|
| C&PE 800 Seminar | 3 |
| C&PE 803 Research | 6 |

Thesis

Oral Examination (presentation of the thesis to your committee)

MS in Petroleum Engineering

PE Graduate Core Courses (12 hours)

| | |
|---|---|
| C&PE 701 Methods of Chemical and Petroleum Calculations | 3 |
| C&PE 771 Advanced Reservoir Engineering | 3 |
| C&PE 790 Introduction to Flow in Porous Media | 3 |
| C&PE 795 Enhanced Petroleum Recovery | 3 |

Electives (9 hours) 9

Research (9 hours)

| | |
|-------------------|---|
| C&PE 800 Seminar | 3 |
| C&PE 803 Research | 6 |

Thesis

Oral Examination (presentation of the thesis to your committee)

Basic Four Term Enrollment Plan for Chem E MS:

| | |
|----------------|--|
| Fall Term 1: | C&PE 701, 731, and 721 |
| Spring Term 1: | C&PE 722, 732, and an elective course |
| Fall Term 2: | Elective Course(s), Research hours with your advisor, Seminar C&PE 800 |
| Spring Term 2: | Research hours and Seminar |

Basic Four Term Enrollment Plan for Pet E MS:

| | |
|----------------|--|
| Fall Term 1: | C&PE 701, 790, and an elective course (note: term availability may vary) |
| Spring Term 1: | C&PE 771, 795, and an elective course (note: term availability may vary) |
| Fall Term 2: | Elective Course(s), Research hours with your advisor, Seminar C&PE 800 |
| Spring Term 2: | Research hours and Seminar |

Enrollment: 9 credit hours per semester is considered full time enrollment for a graduate student. This is one of the notable differences between graduate and undergraduate education. Students working as a GTA or a GRA will be considered full time with enrollment in 6 credit hours. Taking more than 12 credit hours per semester is not recommended as courses of level 700 and above are significantly more challenging and demanding of your time than courses level 600 and lower. GTA or GRA students in their final semester can request to have this enrollment requirement reduced even further with the successful filing of a Petition for Reduced Enrollment (see [THIS](#) link).

Master of Science in Chemical Engineering- Non-thesis Option:

We do offer a non-thesis option, but only to those who apply and are admitted directly into this option from the start. Students on the non-thesis track will take additional courses making the total number of credit hours needed for graduation 33. In the final semester, a project will be assigned and graduation will be approved after your Master's Advisory Committee agrees that the project has been completed to their satisfaction.

Plan of Study: Before the end of the second semester, each student on the MS track, with the help of their advisor, should create and submit a Plan of Study to the School of Engineering via their website: <https://gradplan.engr.ku.edu/> The Plan of Study is a tool which is used to help keep you on track throughout the degree program. When you create your plan, you will decide your estimated term of graduation and it will help you pace your class choices. Depending on a student's academic background and proposed Plan of Study, additional undergraduate prerequisite courses may be required. Up to 3 credit hours of the undergraduate prerequisite courses (numbers 500 or above) may be counted toward the MS degree as elective hours.

Course Completion: Finish all required core courses and electives. If there is ever any question as to which courses to take, there are many people available to assist, such as: your advisor, the department's Graduate Advisor, the Graduate Program Assistant, or the Graduate Director.

Thesis Writing: Once the core courses have been completed and research is fully underway, it will be time to start writing a thesis about your research. The title and topic will be decided by the student with the help of their advisor and committee. All Master's degree seeking students will form a committee of no less than three faculty members; their research advisor normally serves as chair of this committee. For more information about writing a thesis, ask other students, read previously published thesis, check-in

with the [Writing Center](#), and/or attend a thesis writing workshop through [Graduate Studies](#). Attending other students' final defenses can also help you prepare to go through the process yourself. Keep your eye on the Graduate Posting Board outside of 4132 Learned Hall for flyers about final defenses, seminar speakers, and much more.

Thesis Defense: While your committee is reading through the draft of your thesis, it will be time to plan your defense. Ideally, the Thesis Defense should be scheduled one month before your target graduation deadline. You'll decide on a day and time when you and your entire committee are available to meet for at least 2 hours, then reserve a conference room through the Graduate Program Assistant or through the C&PE administrator. When you inform the Graduate Program Assistant about the time of your defense, also include an abstract of your thesis and the title; that information will be used to create your defense announcement flyer and for the paperwork required to make this important milestone official through the Progress to Degree system. The defense itself will usually take 30-45 minutes during which time you will present your research findings to an audience of your committee and peers. After your presentation, your committee chair will open the floor to questions from the audience which will take another 10 – 20 minutes. Once the Q&A is complete, the audience will leave and your committee will discuss your performance and outcome with you in private.

Graduation: During your final semester, while finishing your thesis and planning your defense, it will be time to plan for graduation as well. It's a good idea to be familiar with the [graduation deadlines](#) so you can plan accordingly. Every item on the [graduation checklist](#) must be complete before the graduation deadline, including edits to your thesis after your defense. Your thesis must be uploaded: see [THIS](#) link. You must have "Applied for Graduation" via Enroll and Pay. If you plan to graduate in the summer or fall, but want to be included in the large spring graduation recognition ceremony, you must apply for graduation by March 1st before the applicable commencement ceremony. You can then rescind your application for graduation after the recognition ceremony and then must reapply during the semester you are actually ready to finish. The School of Engineering has several checklists and information available to help students [prepare for graduation](#), detailed information about [applying for graduation](#), and information about the [graduation ceremony](#) itself.



Rendered Image of the new Earth, Energy, and Environment Center opening Late 2017



View of the McClendon Atrium in LEEP2 from the second floor balcony

Doctorate of Philosophy Path

Admission. Admitted students usually complete an MS in Chemical or Petroleum Engineering before they pursue the Ph.D. Students admitted with a completed MS degree will take the Graduate Core courses as needed based on their previous coursework and training and as specified by the Graduate Standards Committee (GSC). Course waiver forms will be filled out and evaluated by the GSC. If approved, the student will receive a waiver for the equivalent course, but this is not a credit transfer. No outside credit hours can be counted toward the total credit hour requirements, instead the student will take alternative courses or research hours as decided by the students and their research advisor.

A graduate student who has not previously earned a MS degree may apply for a change of status to 'Ph.D. Aspirant' if the student a) has achieved a grade point average (GPA) of 3.2 or higher in the Graduate Core (or 3.25 GPA or higher for Petroleum), b) has earned no more than one 'C' grade in the Graduate Core, and c) has passed the Preliminary Exam of Research, or 'prelim'. These criteria are evaluated during the second semester of residence by the graduate faculty of the department upon recommendation by the GSC. Students who start on the MS/Ph.D. track and successfully change to a 'Ph.D. Aspirant' without earning a Master's degree along the way are called Direct Ph.D. students. Students joining the graduate program who do not meet the Direct Ph.D. criteria will need to complete the MS degree before applying for the Ph.D.

Enrollment: 9 credit hours per semester is considered full time enrollment for a graduate student. This is one of the notable differences between graduate and undergraduate education. Students working as a GTA or a GRA will be considered full time with enrollment in 6 credit hours. Taking more than 12 credit hours per semester is not recommended as courses of 700 and above are significantly more challenging and time consuming than courses level 600 and lower. GTA or GRA students in their final semester can request to have this enrollment requirement reduced even further with the successful filing of a Petition for Reduced Enrollment (see [THIS](#) link).

Credit hours for the Ph.D. degree normally consist of 15 credit hours of courses beyond the Graduate Core and 30-34 credit hours of research work totaling at least 60 credit hours. The average Ph.D. student will complete about 63 credit hours with an average per semester enrollment of 7 credit hours (approximate minimum of 9 total full time semesters) as specified in the following table:

Ph.D. in Chemical & Petroleum Engineering

Courses: 30 credit hours as follows:

- C&PE Core Courses (5 courses/15 hrs for Chem E focus or 4 courses/12 hrs for Petro E focus)
- C&PE Inside Electives (3 courses/9 hrs for ChemE focus or 4 courses/12 hrs for Petro E focus)
- Outside Electives (700+ level/ 2 courses = 6 hrs)

Research: 30+ total cumulative credit hours fulfilled by a combination of the following:

- C&PE 800 Graduate Seminar (and/or C&PE 802 CEBC Colloquium)
- C&PE 902 Preparation for the Ph.D. Comprehensive Examination (optional)
- C&PE 904 Research (MS research C&PE 803 hours will count toward Ph.D. research hours)

Note: there are additional courses which may count toward the total number of research hours

Enrollment Requirements and Guidelines:

The following regulations apply to all Ph.D. students in selection of course work:

1. Enrollment in the C&PE Graduate Seminar (C&PE 800) every semester in residence, usually for 1.0 credit. Students who are required to attend another seminar to satisfy a fellowship or research program requirement may enroll in both seminars for 0.5 credit hour each. Any schedule conflicts should be discussed with both seminar coordinators. (Exception: in a student's final semester, if all research hours and post comp hours have been achieved, a student may request not to enroll in seminar with the permission of that semester's seminar faculty member.)
2. Enrollment in a minimum of three graduate-level courses in C&PE or in an advisor approved outside course (includes research hours: CPE 904 for Ph.D. aspirants). These do not include C&PE 902 (Preparation for the Ph.D. Comprehensive Examination) or any graduate seminar hours. All courses in the C&PE department that count toward the Ph.D. degree must be numbered 700 or above, although one (1) 500 level course taken as a prerequisite can count as an elective. (Note: Students on a GTA or GRA contract will have lower enrollment requirements.)
3. For non-KU students, the KU equivalents of courses that have already been counted toward another degree do not count toward the Ph.D. degree, but may be included in the cumulative GPA.

*Note: Adherence to these regulations is essential when preparing the plan of study. In rare cases there may be exceptions arising from the student's academic background; in such cases, the student's plan of study must have the written approval of the C&PE Graduate Standards Committee (GSC).

5 Year Plans for Direct Ph.D. Students

Basic Enrollment Plan for Chemical Engineering Focus Ph.D.:

Fall Term 1: C&PE 701, 731, 721, and 1 hour of C&PE 800 (Seminar)
Spring Term 1: C&PE 722, 732, 1 hour of C&PE 800, and an elective (optional)
{Create a Plan of Study}
Summer Term 1: 1-3 hour(s) of Research with your research advisor (optional)
{Prepare for the Preliminary Exam of Defense}

Fall Term 2: Elective Course(s), Research hours with your advisor, and Seminar
Spring Term 2: Electives, Research hours, and Seminar
Summer Term 2: 1-3 hour(s) of Research with your research advisor (optional)

Fall Term 3: Elective Course(s), Research hours with your advisor, and Seminar
Spring Term 3: Electives, Research hours, and Seminar
Summer Term 3: 1-3 hour(s) of Research with your research advisor (optional)
{Prepare for the Comprehensive Exam, to be taken sometime during year 4}

Fall Term 4: C&PE 902 Comps prep (optional), Research hours, and Seminar
Spring Term 4: Research hours and Seminar
Summer Term 4: 1-3 hour(s) of Research with your research advisor (optional)
{Work/writing on your dissertation should be well on its way by now}
{Time to start planning for Graduation}

Fall Term 5: Research hours with your advisor and Seminar
Spring Term 5: Final research hour(s) (seminar may be waived in the final term), schedule final defense

Basic Enrollment Plan for Petroleum Engineering Focus Ph.D.:

Fall Term 1: C&PE 701, 790, an elective course (optional), and 1 credit hour of Seminar (C&PE 800)

Spring Term 1: C&PE 771, 795, and an elective course (optional) and Seminar

{Create Plan of Study}

Summer Term 1: 1-3 Research hours (optional)

{Prepare for the Preliminary Exam of Research}

{For years 2-5: see the Chem E path as they are the same after the first year}

Detailed Explanations of each major step

Plan of Study: Before the end of the second semester each student on the Ph.D. track, with the help of their advisor, should create and submit a **Plan of Study** to the School of Engineering office via the website: <https://gradplan.engr.ku.edu/> The Plan of Study is a tool which is used to help keep students on track throughout their degree program. When a student creates their plan, they will decide their estimated term of graduation and it will help pace their class choices. Students will work with their research advisor to select elective course which will most benefit their research.

Ph.D. Advisory Committee: An advisory committee of five faculty members is formed for each student once the student has been designated a Ph.D. aspirant. The committee works with the aspirant to develop an appropriate overall Plan of Study and monitors the progress of the student throughout the remainder of the Ph.D. program. On The Committee are:

- 1- The Chair- usually the student's research advisor
- 2- The Graduate Studies Representative- cannot be from the CPE department and should NOT have a vested interest in the student's research (aka. No Conflict of Interest)
- 3, 4, & 5 - The other 3 members of the committee are typically faculty members in the department or researchers working in their respective labs

{For information, see the policy on [Graduate Faculty appointments.](#)}

The **Preliminary Examination of Research** is an important milestone for each graduate student on their way to becoming a Ph.D. candidate in the Chemical & Petroleum Engineering department. The prelim is given to determine the student's aptitudes for; 1) Independent, original critical thinking; 2) Planning and organizing a research program; 3) Use of previous work and background literature to demonstrate; a) Understanding of the planned research within the scope of the larger project and b) Ability to conduct that research; 4) Application of fundamental theory (e.g. equations) to the proposed work; 5) Effective communication of technical work

Students taking this exam will have a) completed the five Chemical Engineering core classes or four in the Petroleum Engineering concentration with a 3.2 GPA or higher (or 3.25 GPA or higher for Petroleum) without having earned more than one 'C' or lower grade or b) have met the same criteria for equivalent

courses during their Master's degree program at another accredited university and maintained a KU cumulative GPA above 3.25.

Successful completion of the preliminary exam of research admits the student into the Ph.D. program and earns the student the 'Ph.D. Aspirant' status.

{Contact your advisor, the Graduate Director, or the Graduate Program Assistant for a full copy of the Preliminary Exam of Research when you are preparing to schedule the exam date. General guidelines: The Written Exam should be 3-5 pages, double spaces. The Oral presentation should take no more than 15 minutes. This is an excellent opportunity to make sure your full committee is arranged and for them to give you initial feedback as your dissertation writing begins in earnest}

Comprehensive Examination. The aspirant takes the comprehensive examination after completion of all course work. Before this exam can be taken, there are three additional requirements set by the School of Engineering:

1. **Residency Requirements:** Must have been enrolled full time for at least 2 semesters.
2. **Research Skills:** Per a letter from the student's advisor clearly explaining how they've been met.
3. **Responsible Scholarship:** All students must complete at least 3 credit hours of CPE 800 before scheduling the comprehensive exam.

The examination itself consists of two parts: a written proposal for research and an oral examination based on, but not limited to, the research proposal.

For the research proposal, the student is assigned a topic of current interest to the chemical and/or petroleum engineering profession. This assignment is made by an examining committee consisting of at least five persons, including the advisory committee and at least one person outside the department. The aspirant identifies a research problem within the assigned topic area and prepares a written proposal for research on this problem. Normally, the written proposal must be prepared over a specified time period of 30 consecutive days. Except in unusual circumstances, the problem must be distinctly different from the dissertation problem. For formatting, the student can choose between NSF or NIH guidelines.

The examining committee evaluates the research proposal upon completion. If the committee judges it satisfactory, the oral examination part of the comprehensive examination is held. The oral examination is based on the research proposal but also may cover areas peripheral to the proposal.

A student must pass both parts of the examination. Failure of either part constitutes an unsatisfactory grade on the entire examination. An aspirant who receives a grade of Unsatisfactory may repeat the examination upon the recommendation of the examining committee, but under no circumstances may it be taken more than twice. The examination may not be repeated until at least 90 days have elapsed since the unsuccessful attempt. To prepare the aspirant for the comprehensive examination, the advisory committee may require enrollment in C&PE 902 (Preparation for the Ph.D. Comprehensive Examination) during the first year of the Ph.D. program. On receipt of a grade of Honors or Satisfactory on the comprehensive examination, the aspirant is admitted to candidacy for the degree of Doctor of Philosophy.

{For more about the School of Engineering comprehensive exam requirements: click [HERE](#)}

Dissertation Writing: Once the core courses have been completed and research is fully underway, it will be time to start writing a Doctoral Dissertation about your research. The title and topic will be decided by the student with the help of their advisor and committee. For more information about writing a dissertation, ask other students, check-in with the [Writing Center](#), and/or attend a thesis/dissertation writing workshop through [Graduate Studies](#). Attending other students' final defenses can also help you prepare to go through the process yourself. Keep your eye on the Graduate Posting Board outside of 4132 Learned Hall for flyers about final defenses, seminar speakers, and much more.

Final Dissertation Defense: While your committee is reading through the draft of your dissertation, it will be time to plan your defense. Ideally, the Dissertation Defense should be scheduled one month before your target graduation deadline. You'll decide on a day and time when you and your entire committee are available to meet for at least 2 hours, then reserve a conference room through the Graduate Program Assistant or through the C&PE administrator. When you inform the Graduate Program Assistant about the time of your defense, also include an abstract of your dissertation title; that information will be used to create your defense announcement flyer and for the paperwork required to make this important milestone official through the Progress to Degree system. The defense itself will usually take 30-45 minutes during which time you will present your research findings to an audience of your committee and peers. After your presentation, your committee chair will open the floor to questions from the audience which will take another 10 – 20 minutes. Once the Q&A is complete, the audience will leave and your committee will discuss your performance and outcome with you in private.

Graduation: During your final semester, while finishing your thesis and planning your defense, it will be time to plan for graduation as well. It's a good idea to be familiar with the [graduation deadlines](#) so you can plan accordingly. Every item on the [graduation checklist](#) must be complete before the graduation deadline, including edits to your thesis after your defense. Your thesis must be uploaded: see [THIS](#) link. You must have "Applied for Graduation" via Enroll and Pay. If you plan to graduate in the summer or fall, but want to be included in the large spring graduation recognition ceremony, you must apply for graduation by March 1st before the applicable commencement ceremony. You can then rescind your application for graduation after the recognition ceremony and then must reapply during the semester you are actually ready to finish. The School of Engineering has several checklists and information available to help students [prepare for graduation](#), detailed information about [applying for graduation](#), and information about the [graduation ceremony](#) itself.

When the timeline is broken:

Sometime life gets in the way of completing your degree under the typical timeline. When this happens, it's time to consider a **Leave of Absence**. If you think you might need to take a leave of absence, the first step is to speak to your advisor, the Graduate Program Assistant, or the Director of Graduate Program. For more information about the Leave of Absence policy, see <https://policy.ku.edu/graduate-studies/leave-of-absence>

Additional Information for students on a GRA/GTA/GA Appointment:

These are sometimes referred to as 3G appointments. These appointments are the most common way that graduate students are funded. Appointment percentages vary. A full appointment is 50% FTE. Any student with an appointment over 40% will be considered an employee of the university and will qualify for in-state tuition rates. The appointments of 40%+ will also qualify for 100% tuition coverage via a third party sponsorship; for GTAs this means the university will waive the tuition and the first 3 credit hours worth of fees, for GRAs this means that the grant/funding you are working under will cover 100% of your tuition and up to all of your campus fees (as determined by your research advisor). Students on a 3G appointment will still have some fees each semester such as medical insurance and international student fees (if applicable).

Students must be enrolled correctly and maintain good academic standing to continue employment via a 3G appointment. Full time enrollment for 3G students consists of 6 credit hours during spring and fall. For students on the GRA contract specifically, 3 credit hours during the summer are required to maintain full pay and employment standing. GTA appointments are rarely offered during the summer, and summer enrollment is not required for any non-GRA funded student.

There are many policies governing the 3G appointments, especially for the GTA appointments. For example, all GTAs must attend the annual training conference before beginning their contract and non-native English speakers must provide additional English Proficiency beyond what is required for admissions.

Some useful links for 3G appointments are:

<http://policy.ku.edu/graduate-studies/benefits-for-GRAs-GTAs-GAs>

<http://graduate.ku.edu/gta-and-gra>

<http://graduate.ku.edu/resources-graduate-teaching-assistants>

<http://aec.ku.edu/speak-test>



Useful Links and Other Information

Related Websites:

CPE Main Website: <http://cpe.ku.edu/>

CPE Faculty: <http://cpe.engr.ku.edu/faculty>

CPE Research Labs: <https://cpe.drupal.ku.edu/research>

School of Engineering Main Site: <http://engr.ku.edu/>

Graduate Studies Main Site: <http://graduate.ku.edu/>

FAQ and useful links via School of Engineering: <http://engr.ku.edu/why-choose-ku>

Engineering Graduate Ambassadors: <http://engr.ku.edu/engineering-graduate-ambassadors>

Graduate Student Organizations: <http://engr.ku.edu/student-organizations>

Rock Chalk Central: <https://rockchalkcentral.ku.edu/>

Student Involvement: <https://cpe.drupal.ku.edu/student-involvement>

Information for GTAs and GRAs: <http://graduate.ku.edu/gta-and-gra>

Optional Funding Information: <http://graduate.ku.edu/funding>

<http://engr.ku.edu/graduate-funding>

<http://engr.ku.edu/funding-opportunities>

Campus Maps: Parking Map ([pdf](#))

<http://places.ku.edu/map>

Bus System, SafeRide and SafeBus: <http://lawrencetransit.org/trip-planner>

<https://safebus.ku.edu/safebus-map>

Campus Resources

[Legal Services for Students](#)

This office can help with many legal issues and provide either assistance or advice on most legal matters depending on the situation. For International Students they can provide help setting up your Glacier account and figuring out your tax rate. For all students, they can help you prepare your annual tax forms, represent you in landlord-tenant disputes, provide Notary Public services, and many more. The vast majority of services provided through the Legal Services for Students office are no charge. They also offer several workshops. Contacting Legal Services: 785-864-5665 | 212 Green Hall | legals@ku.edu

[Academic Achievement and Access Center](#) (Nickname: Triple A C)

The AAAC offers many services and programs to assist students in their academic success and to enhance their collegiate experience at KU. Choose from learning strategy consultations, group workshops or general or course-specific academic assistance, by appointment or on a walk-in basis. Feel free to talk with us and ask for information or direction about academic and personal issues.

[AAAC helps with issues like special test accommodations, tutoring services, and injury related accommodations. They offer workshops and individual consultations.]

Contacting AAAC: 785-864-4064 | achieve@ku.edu | Strong Hall, Room 22 | achievement.ku.edu

[Counseling and Psychological Services](#) (Nickname: Caps)

CAPS can help students with issues related to adjusting to college and other psychological, interpersonal, and family problems. Individual, couple, and group sessions are available.

Contacting CAPS: 785-864-2277 | Watkins Memorial Health Center | 1200 Schwegler Dr., Room 2100 | caps.ku.edu

[The University Ombudsman Office](#)- (Nickname: Ombuds)

The University Ombuds office is a safe place where members of the University of Kansas community can seek informal, independent, confidential and impartial assistance in addressing conflicts, disputes, or complaints on an informal basis without fear of retaliation or judgment. The University Ombuds office adheres to the International Ombudsman Association (IOA) Standards of Practice and Code of Ethics.

Contacting Ombuds: 785-864-7261 | Carruth O'Leary Hall Room 36 | ombuds@ku.edu

[Institutional Opportunity and Access](#) (Nickname: IOA)

As a premier international research university, the University of Kansas is committed to an open, diverse and inclusive learning and working environment that nurtures growth and development of all. KU holds steadfast in the belief that an array of values, interests, experiences, and intellectual and cultural viewpoints enrich learning and our workplace. The promotion of and support for a diverse and inclusive community of mutual respect requires the engagement of the entire University. The office of IOA has an institutional responsibility to enhance and strengthen diversity and inclusion at the University of Kansas.

Contacting IOA: 785-864-641 | Carruth O'Leary Room 153A | ioa@ku.edu

[Office of Multicultural Affairs](#) (nickname OMA)

The Office of Multicultural Affairs provides direction and services for current and prospective students from underrepresented populations. In addition, through collaborative partnerships we offer diversity education programs that foster inclusive learning environments for all students. Our programs and services enhance the retention of successful matriculation of students, while supporting their academic and personal development.

Contacting OMA: 785-864-4350 | 1299 Oread Ave (connected to the main Union) | oma@ku.edu

[Student Account Services](#)

This office deals with a variety of student issues such as paying tuition, tuition refunds, 1098-T forms, account holds, setting up direct deposit, and more.

Contact Information: 785-864-3322 | Strong Hall Rooms 21 & 23 | stu.accounting@ku.edu

[Student Involvement & Leadership Center \(nickname Silk\)](#)

Prepares students to become contributing members of society by providing meaningful co-curricular experiences. SILC is responsible for coordinating registered university organizations and providing leadership education experiences for students in addition to providing programs and services to specific target populations including fraternity/sorority members, non-traditional students, and students of all gender identities, gender expressions and sexual orientations. A Student Affairs department, SILC has six full-time professionals and a number of graduate/undergraduate student employees.

[Libraries](#)

There are several libraries available to you on campus. Here in the Engineering Complex we have the [Spahr Engineering Library](#) where you can find resource materials, computers, scanners, printers, and study/meeting spaces available for your personal and academic use. If the study spaces are not being used or reserved, then feel free to take a room. To reserve a room for a meeting, click [HERE](#).

The Libraries website is for more than just finding a library book. It contains links to thousands of articles and hundreds of journals and e-journal databases. <https://lib.ku.edu/find-resources> is their useful search tool.

The Fishbowl

In Eaton Hall there is a large computer lab specifically for engineering students. There are dozens of computers available at all hours of the day with printing resources. There is also our giant Google Earth Station, so if you're missing home or just want to visit a location via 180 degree 5 screen Google Earth awesomeness, go check it out! For a full list of computer labs, click [HERE](#).

Printing

Posters: If you have a large poster that needs to be printed for a presentation, go to <http://enr.ku.edu/printing-request>. If there is not a specific course number related to the print job, just use your C&PE 803 or 904 research hour class as the course number. There is a cost related to having these posters printed, so check with your research advisor first to see if they will cover it.

Other Printing resources: if you are a GTA and need to print off homework or class materials, you should not have to pay for that. Come to the main office (4132 Learned Hall) and we will help you get those items printed. Also, if you're running low on your student printing account and just need a few items printed, we can usually help with that too!

Lawrence Community Resources

[Center for Community Outreach](#)- search for local volunteer opportunities and more.

[Explore Lawrence](#)- lists many fun things to do around the Lawrence Area, shopping, and restaurants.

[Lawrence.com](#)- Great place to find out about local events, nightlife, and live music.

Useful People for Graduate Students

In the Chemical & Petroleum Engineering Department

Prof. Laurence Weatherley, Department Chair

4132F Learned Hall
lweather@ku.edu
864-3553 (ext 4-3553)

Prof. Kyle Camarda, Graduate Director

(For issues relating to: recruiting, matching research advisors, pre-arrival issues)
4165 Learned Hall
camarda@ku.edu
864-2928 (ext 4-2928)

Mrs. Martha Kehr, Graduate Program Assistant

(Manages policies, desk/office assignments, records, deadlines, Plan of Studies, posts exam notices and milestone achievements, and more)
4132A Learned
mkehr@ku.edu
864-2900 (ext 4-2900)

Mrs. Cynthia Perez, CPE Administrative Associate

(Manages mailboxes, deliveries, supply orders, conference room scheduling, key check in and out)
4132 Learned Hall
caperez@ku.edu
864-4965 (ext 4-4965)

In the School of Engineering

Anna Paradis, Graduate Program Director

1415L LEEP2 {785-864-1952}
aparadis@ku.edu

Sarah Craig, Accountant/SSC Contact

(For: pay issues (both GTA and GRA), travel reimbursements, financial questions)
2011 Eaton Hall {785-864-5114}
sarah.craig@ku.edu

Graduate Engineering Association

Website: <https://rockchalkcentral.ku.edu/organization/gea>
Contact: <https://ku.campuslabs.com/engage/organization/gea/contact>