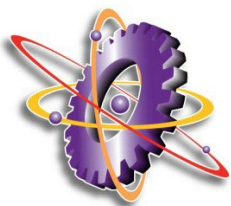


# Graduate Student Handbook

2022-2023



**KANSAS STATE**  
**UNIVERSITY**

Alan Levin Department of  
Mechanical and Nuclear Engineering

# Mechanical and Nuclear Engineering Graduate Student Handbook

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# MECHANICAL AND NUCLEAR ENGINEERING GRADUATE PROGRAM

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## K-STATE MECHANICAL AND NUCLEAR GRADUATE HANDBOOK

This handbook is up-to-date as 2/1/2019. For current information, please see the MNE website, <http://www.mne.ksu.edu>, or the Graduate Program Coordinator.

## K-STATE MECHANICAL AND NUCLEAR ENGINEERING GRADUATE PROGRAM

The Alan Levin Department of Mechanical and Nuclear Engineering (MNE) at Kansas State University offers separate graduate programs in Mechanical Engineering and Nuclear Engineering both leading to M.S. and Ph.D. degrees. Our award-winning faculty are engaged in exciting and cutting-edge research projects in state-of-the-art laboratories and research facilities, while our graduate students are excelling inside and outside of the classroom. Research areas and courses include a broad range of both traditional and emerging fields of Mechanical Engineering and Nuclear Engineering. With over \$5 million in research funding, almost every graduate student in our department receives a graduate research assistantship (GRA). Several of our students receive graduate teaching assistantships (GTAs) with 50-100 percent tuition waiver to help teach laboratory sections.

Applicants must have a bachelor's degree from an accredited institution. Although students with bachelor's degrees in Mechanical and/or Nuclear Engineering make up the bulk of our graduate student body, the department welcomes applicants from other fields including other engineering disciplines, mathematics, physics and chemistry.

Programs of study are flexible and tailored to the interests, backgrounds and career goals of each student. Courses from outside the department are often added to programs of study to enhance the student's experience.

## GRADUATE PROGRAM ACCREDITATION

Kansas State University is fully accredited by the North Central Accrediting Association (NCAA). All undergraduate engineering programs in the College of Engineering are accredited by the Accreditation Board for Engineering and Technology (ABET). The same K-State engineering faculty and departments that are associated with the accredited undergraduate programs offer the graduate programs, thereby maintaining the excellent accredited quality of instruction at the graduate level.

As part of NCAA's university-level accreditation, the MNE Department has developed a self-assessment and evaluation plan for the MNE Graduate Program. At the heart of this plan is a list of Graduate Student Learning Outcomes which define the abilities, skills, attributes, etc. that MNE graduate students should have attained by the time of graduation. The faculty-approved list of MNE

Graduate Student Learning Outcomes is documented below. Additional information related to NCAA and the K-State Office of Assessment can be found at the following site:  
<http://www.k-state.edu/assessment/>.

### **GRADUATE PROGRAM MISSION STATEMENT**

MS Program: The mission of the Masters program in Mechanical Engineering and in Nuclear Engineering is to provide: 1) an excellent education to the Masters student, 2) the opportunity to conduct research or generate new designs in mechanical and nuclear engineering (optional), and 3) training students to serve our professional communities, the state of Kansas, and Nation effectively.

Ph.D. Program: The mission of the Ph.D. program in Nuclear Engineering and in Mechanical Engineering is to provide: 1) an excellent education to the student, 2) conduct research that generates new knowledge in mechanical and nuclear engineering, and 3) provide opportunity to serve our professional communities, the state of Kansas, and Nation effectively.

### **GRADUATE STUDENT LEARNING OUTCOMES**

Graduates of K-State's Mechanical and Nuclear Engineering Graduate Program will possess the following traits:

1. Ability to solve engineering problems using advanced mathematical, scientific, computational, and analytical methods appropriate to the Mechanical (Nuclear) Engineering discipline. (All M.S.; Ph.D.)
2. Ability to synthesize and critically evaluate information pertinent to the Mechanical (Nuclear) Engineering discipline. (All M.S.; Ph.D.)
3. (a) Demonstration of advanced knowledge in one or more areas of specialization within the Mechanical (Nuclear) Engineering discipline. (All M.S.; Ph.D.)  
(b) Demonstration of expertise in one or more areas of specialization within the Mechanical (Nuclear) Engineering discipline. (Ph.D.)
4. (a) Ability to plan and conduct scholarly activities in one or more areas of specialization within the Mechanical (Nuclear) Engineering discipline. (M.S. Thesis and M.S. Report; Ph.D.)  
(b) Ability to plan and conduct scholarly activities that make original contributions to the knowledge base in one or more areas of specialization within the Mechanical (Nuclear) Engineering discipline. (Ph.D.)
5. Preparation for leadership and teamwork through enhanced independence, initiative, and responsibility. (All M.S.; Ph.D.)
6. Ability to communicate effectively both in written and oral forms. (All M.S.; Ph.D.)
7. Understanding of the importance of the ethical, safety, socio-economic, and environmental issues related to the Mechanical (Nuclear) Engineering profession. (All M.S.; Ph.D.)
8. Recognition of the importance of life-long learning and professional service to the Mechanical (Nuclear) Engineering profession. (All M.S.; Ph.D.)

## DEGREES OFFERED

The department currently offers the following graduate degrees:

### Mechanical Engineering

- Doctoral (PhD - ME)
- Master of Science (MSME) - Thesis Option
- Master of Science (MSME) - Report Option
- Master of Science (MSME) - Course Work Option

### Nuclear Engineering

- Doctoral (PhD - NE)
- Master of Science (MSNE) - Thesis Option
- Master of Science (MSNE) - Report Option
- Master of Science (MSNE) - Course Work Option

## DEGREE REQUIREMENTS

### *Requirements for Master's degree - Thesis Option*

The Program of Study (POS) should include a minimum of 30 credit hours, with the following additional requirements:

1. All MS students must formulate their POS in consultation with their major professor and their supervisory committee. Full-time students **must** file their programs **before the end of their second semester of graduate study**, and part-time students must do so upon the completion of 9 credit hours.
2. A minimum of 18 credit hours of graded coursework (i.e., courses in which a letter grade is assigned).
3. The graded coursework should include at least one 3 credit hour course in engineering mathematics or applied mathematical analysis. Courses that may be used to meet this requirement are: ME 760, ME 860, MATH 616, MATH 632, MATH 713, MATH 740, MATH 745, MATH 855, MATH 856, MATH 864, MATH 865, MATH 866, MATH 867, PHYS 801, PHYS 802.
4. The candidate should earn credit for at least 6 credit hours of Master's Thesis Research (ME 899 or NE 899) culminating in a successfully defended thesis.
5. At least 18 hours, of the required minimum of 30 hours, should be at the 700 level and above, including ME 800 Graduate Seminar/Research Paper, and the thesis/research and the report/problems hours required by the thesis and report options.
6. Courses at the 600-level may be included in the POS, but 500-level courses in the student's major area are expected to have been completed as undergraduate prerequisites to graduate study or as undergraduate deficiency courses assigned upon admission. The use of 500-level supporting courses in master's programs is therefore restricted as follows: (1) no course in the student's major area may be at the 500 level, and (2) normally no more than 6 credit hours may be at the 500 level.

7. The MS candidate must satisfy the 75% attendance requirement (0 credit hour) in at least **two semesters** of ME 800 Graduate Seminar/Research Paper, (refer to ME 800 course requirements).
8. In addition to the minimum graded coursework requirement (18 credit hours) and the minimum Master's Thesis Research requirement (6 credit hours), the candidate must complete 6 more credit hours to meet the minimum credit requirement of 30 credit hours. This can be done through any combination of the following:
  - Up to 2 additional credit hours of Master's Thesis Research (ME 899 or NE 899)
  - Up to 3 credit hours of ME 800 Seminar/Research Paper (refer to ME 800 course requirements)
  - Up to 3 credit hours of independent study
  - Up to 6 credit hours of additional coursework

***Requirements for Master's degree - Report Option***

The POS should include a minimum of 30 credit hours, including 28 credit hours of graded coursework and 2 credit hours of Master's Report. One credit hour of ME 800 Seminar/Research Paper (earned by giving a successful seminar presentation) may be included in the 28 credit hours of required coursework. In addition, items (3), (5), (6), and (7) from the MS Thesis requirements above apply directly to the MS Report Option POS. The MS Report Option must culminate in a successfully defended report.

***Requirements for Master's degree - Course Work Option***

The POS should include a total of 30 credit hours of graded coursework. In addition, items (3), (5), and (6) from the MS Thesis requirements above apply directly to the MS Course Work Option POS. The MS Course Work Option must culminate in a final oral examination.

### ***Requirements for Doctoral (PhD - ME and NE)***

The Ph.D. requires at least three years of full-time study beyond the bachelor's degree, equivalent to at least 90 semester hours, including a dissertation representing at least 30 hours of research credit. Students who hold a master's degree may request transfer of up to 30 hours of that degree toward a Ph.D.

The Ph.D. is awarded to candidates who have demonstrated unique ability as scholars and researchers as well as proficiency in communication. The degree also certifies that the candidate has displayed familiarity and understanding of the subject matter in the discipline and possesses the ability to make original contributions to knowledge.

- 1) All doctoral students must formulate their Program of Study (POS) in consultation with their major professor and their supervisory committee. Full-time students **must** file their programs **before the end of their second semester of graduate study**, and part-time students must do so upon the completion of 9 credit hours.
- 2) The doctoral student is required to complete a total of 90 credit hours of work beyond the Bachelor's degree. Up to 30 credits from a Master's program can be applied towards the Ph.D. degree. The Doctoral Program of Study must include:
  - a) a minimum of 15 hours of graded coursework beyond the Master's degree (all 15 hours **MUST** be at the 800 level or above, in addition to doctoral research credit hours) for candidates entering the Ph.D. program with a Master's degree.  
  
OR  
  
a minimum of 30 hours of graded coursework beyond the Bachelor's degree (including at least 15 hours at the 800 level or above, in addition to doctoral research credit hours) for students who bypass the master's degree.
  - b) no more than 12 credit hours of 500 level courses are permitted in a doctoral program. No 500-level course taken in the student's department may appear on the POS.
  - c) a minimum of 30 hours of doctoral research credit.
  - d) the Ph.D. candidate must satisfy the 75% attendance requirement (0 credit hour) in at least **four semesters** of ME 800 Graduate Seminar/Research Paper, (refer to ME 800 course requirements).



**PhD Examination Guidelines**

All doctoral students in the MNE Graduate program are required to successfully pass the following examinations:

<b>Examination</b>	<b>Time Period</b>	<b>Format</b>	<b>Responsible Parties</b>
PhD Preliminary Examination	After submittal of the Doctoral Program of Study and before the end of the student's third semester as a PhD student	Written* and Oral	Graduate faculty identified on the approved Doctoral Program of Study
Final Dissertation Defense**	At the completion of the doctoral research project	Written (dissertation document) and Oral (dissertation defense)	Doctoral Supervisory Committee

\*- this will satisfy the KSU Graduate School's "written preliminary examination" requirement. All doctoral students must satisfy all Doctoral Program requirements as defined in the Graduate Handbook (<http://www.k-state.edu/grad/graduate-handbook/>).

\*\* - this will satisfy the KSU Graduate School's "Dissertation" and "Final Examination" requirements. All doctoral students must satisfy all Doctoral Program requirements as defined in the Graduate Handbook (<http://www.k-state.edu/grad/graduate-handbook/>).

**PhD Preliminary Examination Guidelines**

- 1) The Preliminary Examination is designed to test the student's breadth and depth of knowledge in the proposed field of specialization, as well as the student's ability to explore problems on the boundaries of knowledge. Satisfactory performance in the examination is an indication that the student is prepared to perform independent work toward the doctoral degree and results in the student being classified as a doctoral candidate upon affirmative recommendation by the supervisory committee.
- 2) The Preliminary Examination should be completed as soon as the supervisory committee and the Ph.D. student feel that it is practical and no later than the end of the Ph.D. student's third semester in the Ph.D. program. The Doctoral Program of Study must be completed and approved prior to the preliminary examination.
- 3) Once the supervisory committee and the student decide when the Preliminary Examination is to be taken, the student should notify the Graduate School at least one month before the scheduled date, by completing and submitting a "Request for Preliminary Examination Ballot" form. A ballot will then be sent to the major professor by the Graduate School.
- 4) Once the student's Preliminary Examination date has been set, it is expected that the supervisory committee, led by the student's major professor, will meet privately to discuss

the student's field of research, as well as the student's completed coursework, and to agree upon the one or more research problem(s) that will be presented to the student. Although it is expected that the research problems presented to the student will be in his/her general field of study, the research problems will not be directly related to the student's specific area of Ph.D. research.

- 5) On the pre-determined Preliminary Examination date, the supervisory committee will present the Ph.D. student with one or more research problem(s). These problem statements will each be brief and will be presented in written format with oral discussion to ensure that the Ph.D. student thoroughly understands the problem(s) to be addressed.
- 6) The Ph.D. student will select one (if presented with more than one) of the problems presented by the supervisory committee and will be given an appropriate amount of time (as determined by the supervisory committee, but typically 1-2 weeks) to formulate a research strategy with which to solve the selected research problem. This problem formulation will be summarized in the form of a written report and will be submitted to the supervisory committee before the end of the pre-determined time period.
- 7) Within one week of the submission of the written document, the Ph.D. student will give an oral presentation to the supervisory committee outlining and describing the formulation to the research problem. During this oral component of the Preliminary Examination, the supervisory committee may ask the Ph.D. student questions pertaining to the original research problem statement, the written report, and the oral presentation.
- 8) This oral component of the Preliminary Examination will be administered in the same manner in which a traditional Master's or Doctoral final oral defense is conducted. At the conclusion of the oral component of the Preliminary Examination the supervisory committee will ask the Ph.D. student and all visitors to leave the room. The supervisory committee will then discuss the student's performance associated with the written report and the oral examination. Based on this discussion, the supervisory committee will take the appropriate actions regarding the disposition of the Preliminary Examination ballot.
- 9) The results of the Preliminary Examination are indicated on the ballot by the signatures of the members of the supervisory committee. The student is considered to have passed the Preliminary Examination and to be recommended to candidacy if at least three fourths of the supervisory committee votes to approve candidacy.
- 10) In case of failure of the first Preliminary Examination, the supervisory committee may approve a second examination with no more than one dissenting vote. A second Preliminary Examination can be taken no sooner than three months following the initial failure and no later than six months following the initial failure. Once the supervisory committee and the student decide when the second Preliminary Examination is to be taken, the student should notify the Graduate School one month before the scheduled date. The composition of the supervisory committee shall not be changed before a final decision is reached on admission to candidacy. A second failure constitutes denial of admission to candidacy for the doctoral degree in the field of study of the graduate program.
- 11) Copies of the original problem statement and the student's written report will be filed with the MNE Academic Program Coordinator and made available on request to any graduate faculty member for a period of two years from the date of Preliminary Examination.

## ME AND NE GRADUATE COURSE ROTATION SCHEDULE

Fall – Odd Year	Spring – Even Year	Fall – Even Year	Spring – Odd Year
<b>GENERAL</b>			
ME 760 Engg. Analysis I	ME 777 Monte Carlo Methods	ME 760 Engg. Analysis I	ME 800 Grad Seminar/Paper
ME 800 Grad Seminar/Paper	ME 800 Grad Seminar/Paper	ME 800 Grad Seminar/Paper	ME 860 Engg. Analysis II
	ME 860 Engg. Analysis II		
<b>THERMAL/FLUID SYSTEMS</b>			
ME 620 IC Engines	ME 622 Env Eng I	ME 620 IC Engines	ME 622 Env Eng I
ME 628 Aerodynamic	ME 631 Air/Miss Prop	ME 628 Aerodynamics	ME 631 Air./Miss. Prop.
ME 633 TMPC	ME 773 Int Heat Transfer	ME 633 TMPC	ME 773 Int Heat Transfer
ME 720 Int. Fluids	ME 811 Thermo Analysis	ME 720 Int. Fluids	ME 921 Therm Sys Analysis
ME 721 Therm. Systems Design		ME 721 Therm. Systems Design	ME 942 Conv Heat Transfer
ME 722 Human Thermal Engg.		ME 831 Boundary Layer	
ME 935 Heat Cond. in Solids		ME 943 Rad Heat Transfer	
ME 947 Boil Heat Transfer			
<b>DYNAMIC SYSTEMS AND CONTROLS</b>			
ME 640 Con of Mech. Sys II	ME 615 Apps in Mechatronics	ME 640 Con of Mech. Sys II	ME 615 Apps in Mechatronics
	ME 728 Comp Control of E-M Sys		ME 635 Dyn. of Flight-Stability
	ME 730 Control Sys Analysis		ME 728 Comp Control of E-M Sys
			ME 730 Control Sys Analysis
<b>MECHANICS, MATERIALS, AND DESIGN</b>			
ME 610 FE-FD	ME 656 Vibrations I	ME 610 FE-FD	ME 656 Vibrations I
ME 651 Intro to Composites	ME 716 Intermed Dynamics	ME 651 Intro to Composites	ME 716 Intermed Dynamics
ME 701 Dev. of Comp. Apps in ME	ME 862 Finite Elements	ME 701 Dev. of Comp. Apps in ME	ME 862 Finite Elements
ME 836 Fracture Mechanics	ME 910 Comp Methods in Design	ME 738 Exp Stress Analysis	ME 871 Mech of Composite
ME 846 Vibrations of Cont. Media	ME 902 Theory of Plasticity	ME 802 Adv. Mech. of Mat./Elast.	
<b>NUCLEAR ENGINEERING</b>			
NE 630 Nuc Reactor Theory (15)	NE 612 Princ. Of Radiation Det	NE 630 Nuc Reactor Theory (15)	NE 612 Princ. Of Radiation Det
NE 806 Neutronics	NE 635 Gen IV Reactor Design	NE 806 Neutronics	NE 635 Gen IV Reactor Design
	NE 648 Nuclear Reactor Lab		NE 648 Nuclear Reactor Lab
	NE 690 Rad Protection and Shielding		NE 690 Rad Protection and Shielding
			NE 737 Int Rad Meas Apps
			NE 761 Radiation Measurement

*Note: This is up-to-date with the current printing. For a current course listing, please see the K-State Course Schedule at <http://courses.k-state.edu>*

*Note: “Topics” and “Problems” courses are not listed above; these courses are offered “On Demand”.*

*Note: NE 851 Nuclear Engineering Lab is offered “On Demand”.*

*Note: Fall “Even” Year = Fall of an “Even” calendar year; Spring “Even” Year = Spring of an “Even” calendar year, etc.*

## ME 800, GRADUATE SEMINAR/RESEARCH PAPER

ME 800 is the presentation (oral and written) and discussion of progress in research. Preparing and/or presenting publication quality papers can earn credit hours. Topics may be drawn from any current research area in mechanical and nuclear engineering, and the course may be repeated with change in subject matter.

### *Variable Credit Hour Enrollment*

Cr Hrs.	Requirements	Comments
0	During the given semester, the student must attend at least 75% of all regular scheduled ME 800 Seminars.	Round <b>UP</b> if 75% of total number of seminars is not integer. (e.g., 6 seminars scheduled * 0.75 = 4.5; therefore the student must attend at least <b>5 seminars</b> to satisfy attendance requirement)
1	During the given semester, the student must give a quality seminar presentation during one of the regular scheduled ME 800 Seminars.	Presentation does NOT have to be a COMPLETED research project. It may be a snapshot of research progress, as long as there is sufficient content to support a quality presentation. Seminar topic does NOT have to be related to the student's thesis research, as long as there is sufficient content to support a quality presentation.
2	During the given semester, the student must write and submit a peer reviewed research paper to an engineering journal or <b>similar venue</b> .	Paper topic does NOT have to be related to the student's research, as long as there is sufficient content to support a quality paper. It is the responsibility of the STUDENT to request the ADVISOR to send an email or memo to the Grad Program Coordinator verifying the completion of these requirements.
3	During the given semester, the student must give a quality presentation during one of the regular scheduled ME 800 Seminars <b>AND</b> must write and submit a peer reviewed research paper to an engineering journal or <b>similar venue</b> .	See comments above.

### *MS Program Requirements for ME 800 (thesis, report, and course work options)*

The MS candidate must satisfy the 75% attendance requirement (0 credit hour) in at least **two semesters** of ME 800 Graduate Seminar/Research Paper.

### *PhD Program Requirements for ME 800*

The PhD candidate must satisfy the 75% attendance requirement (0 credit hour) in at least **four semesters** of ME 800 Graduate Seminar/Research Paper. (Semesters applied toward MS degree cannot also be applied toward PhD requirements.)

### ***General Comments on ME 800***

- A student is not required to give a presentation (1 credit hour) nor submit a peer-reviewed paper (2 credit hours) to satisfy the ME 800 Degree Program requirements.
- It should be noted that presenting a ME 800 seminar (1 credit hour) and/or submitting a peer-reviewed paper (2 credit hours) during a semester without ALSO satisfying the 75% attendance requirement does NOT constitute successful completion of one of the required semesters in the degree program requirements.
- If a student has already satisfied the degree program requirements (2 semester for MS; 4 semesters for PhD) at the 0 credit hour level, then he/she may enroll in 1 credit hour and give a presentation and/or 2 credit hours and prepare a peer-reviewed paper during a given semester without being required to satisfy the 75% attendance requirement during that semester.
- If a student enrolls in 0 credit hours of ME 800 Graduate Seminar/Research Paper and fails to attend 75% of all regular scheduled seminars, then that student will receive a grade of NC (No Credit) for that semester.
- If a student enrolls in 1 credit hour (presentation) and/or 2 credit hours (paper) in a given semester and fails to successfully complete the requirements listed in the table above, then that student will receive a grade of INC (Incomplete) for that semester.
- No more than 3 credit hours of ME 800 can be applied toward a student's Program of Study.

### **PROGRAM OF STUDY**

Every graduate student must file with the Graduate School a Program of Study (POS), a formal list of the courses the student intends to take to fulfill the requirements of the degree. The program of study should consist solely of courses directly related to the student's graduate degree (MS or PhD). Full-time students must file their programs before the end of their second semester of graduate study, and part-time students must do so upon the completion of 9 credit hours. The student should prepare the POS in consultation with the supervisory committee, all members of which must indicate their approval by signing the POS form provided by the Graduate School. The head of the academic unit must then endorse the POS and forward it to the Dean of the Graduate School, whose approval must be received within the first two semesters of graduate work. Subsequent changes in the POS require approval of all members of the supervisory committee, and if changes are made, a Program/Committee Change form should be submitted to the Graduate School before graduation. To find the POS forms, see <https://www.k-state.edu/grad/about/forms/>.

### **ACADEMIC POLICIES AND STANDARDS**

Academic policies and standards affecting MNE graduate students are developed by the Program, the Department, the College, the University and the Graduate School. Those described in this section reflect Program, Departmental and College requirements. A few policies and standards of the other administrative units are repeated here. Others are outlined in the K-State Graduate Catalog, the K-State Graduate Handbook and the information sheets published by the Graduate School. See <https://www.k-state.edu/grad/about/forms/>.

## ***Grades***

The following grades are used in the Graduate School: A, B, C, D, F, Credit, No Credit, Incomplete, and Withdrawn. A candidate for an advanced degree must have a 3.0 cumulative grade point average and a 3.0 on course work on the POS. To count for graduate credit the grade in a course must be C or better and no course may be counted more than once in a program. Retaken courses remain on the transcript and are considered as part of the record. A graduate student's record will be reviewed after the completion of each session.

The grade of Incomplete (I) is given in regular courses (except for theses, dissertations and directed research courses) upon request of the student for personal emergencies that are verifiable. The faculty member has the responsibility to provide written notification to the student of the work required to remove the incomplete. The student has the responsibility to take the initiative in completing the work and is expected to make up the I during the next semester (Fall or Spring) after receiving the grade (except for dissertations and directed research courses). If the student does not make up the I during the semester after receiving it, a grade may be given by the faculty member without further consultation with the student.

If at the end of the next semester the I remains on the record, it will be designated as F (previously IX) for record keeping and will be computed in the student's GPA, weighted at 0 points per credit. A grade of NR will be treated in a like manner.

## ***Grievances***

If a student feels he or she has been unjustly treated in some aspect of academic work, the student should first meet informally with the faculty involved to resolve the grievance. The student should be prepared to discuss the nature of the grievance, why they believe it is a legitimate grievance and to propose a remedy. If the informal meeting does not lead to a solution acceptable to both parties and the student wishes to pursue the grievance further, the student should follow the university's grievance procedures as stated in the Graduate Catalog and Graduate Handbook.

## ***Academic Probation and Dismissal***

Admission to and continuation in the Graduate School depends upon a high level of achievement. Students may be placed on probation as a condition of their admission to graduate programs, if warranted by their prior academic record. In addition, students who fail to make satisfactory progress in their graduate programs will be placed on probation. Either of the following conditions will warrant probation: (a) a grade point average lower than 3.0; (b) the recommendation of the major professor or student's committee that the student's progress is unsatisfactory.

Students on probation as a condition of admission will acquire good standing if they achieve a cumulative GPA of at least 3.0 in the first 9 credit hours of graduate course work. Students placed on probation for deficient grades will be restored to good standing if they achieve a cumulative GPA of 3.0. Normally, this must be done within two semesters for full-time students and within 12 credit hours for part-time students. If the student received less than 3.0 in a course listed on the program of study, the student's major professor and the student's supervisory committee may require that the student retake the course. If the course is retaken by the direction of the major professor and the supervisory committee, the original grade is noted as retaken and removed from the grade point average. The retake grade will always be used in computing the grade point average regardless of

whether it is higher or lower than the original grade. A student may retake a course with subsequent removal of the prior grade only once for each course and for a total of two courses in a degree program. The Request to Retake a Graduate Course is available in the Graduate School and should be submitted to the Graduate School by the specified deadline.

A graduate student will be denied continued enrollment in the University for any of the following reasons: (a) failure of a student on probation as a condition of admission to achieve a minimum cumulative GPA of 3.0 in the first 9 hours of graduate level course work; (b) failure of a student placed on probation for deficient grades to achieve a cumulative GPA of at least 3.0 within two semesters for full-time students and within 12 credit hours for part-time students; (c) failure to meet published departmental or university requirements; (d) failure to maintain satisfactory progress toward a graduate degree; (e) failure in the preliminary examination (doctoral students only) or the final examination; (f) failure to acquire mastery of the methodology and content in a field sufficient to complete a successful thesis or dissertation; (g) qualifying for placement on probation a second time, except when the first period of probation is a condition of admission or when the second period is a condition of reinstatement.

A student denied the privilege of continued enrollment may petition the graduate dean for reinstatement to the same curriculum or for admission to a different curriculum.

### ***Special Services***

If you are a student who will benefit from special accommodations for physical or learning disabilities and/or attention deficit disorder, you may seek assistance from the K-State Student Access Center ([www.k-state.edu/accesscenter/](http://www.k-state.edu/accesscenter/)). It is the student's responsibility to provide documentation of a disability and request appropriate accommodations. Such requests should be made during the first two weeks of each semester.

### ***Changing Advisors***

If you would like to change advisors, please see the Graduate Program Coordinator in Rathbone 3014.

### **GRADUATE RESEARCH ASSISTANTSHIPS**

Graduate Research Assistantships (GRAs) are available through research conducted by the MNE faculty. GRA positions are dependent upon external funding acquired by individual faculty members. These positions provide graduate students with opportunities to assist with research projects that support their academic interests. Selection criteria for GRA positions are developed by the primary investigator(s) of each research project.

A GRA receives a stipend and resident tuition rates, but it does not support the full cost of attending Kansas State University.

### **GRADUATE TEACHING ASSISTANTSHIPS**

The MNE department offers a few teaching assistantships. A graduate teaching assistantship (GTA) receives a stipend and, in most cases, a reduction or waiver of tuition, but it does not support the full cost of attending Kansas State University. Appointments are generally made for one year but sometimes for one semester only. GTA positions are awarded to students to assist faculty with teaching, help sessions, labs, and grading.

There are fewer GTA positions available than qualified applicants and selection is competitive. These positions contribute to the instructional needs of the department as well as helping to support the best qualified students pursuing graduate degrees within the department. The MNE department generally awards GTA appointments based on demonstrated knowledge of subject matter to be taught, degree of satisfactory completion of the degree program and specific needs of available positions. Appointment to a GTA position in a given year does not guarantee that the graduate student will be reappointed for a second year. Factors considered for reappointment include satisfactory performance both in the teaching assignment and in the student's program of study, the availability of funding, the teaching needs of the department, and the qualifications of other applicants. The GTA may be required to adjust his or her schedule of classes to conform to the assigned teaching schedule.

### **SUMMER ASSISTANTSHIPS**

Students who are on **assistantships** in the summer are required to be enrolled in a minimum of one credit hour. Additional taxes will be withheld from paychecks if not enrolled in three or more hours.

### **WORKERS' COMPENSATION**

#### ***What if I have an accident at work?***

All accidents must be reported to your supervisor as soon as possible so the accident may be investigated to prevent recurrence of the event. Failure to report an accident could jeopardize a claim for benefits, so report any accident to your supervisor regardless of its severity. You must also notify the department Business Manager in Rathbone 3002 within **3** working days of the accident.

#### ***Where do I go for medical care?***

For non-life threatening injuries or illnesses occurring on other days of the week or times of day

Call the State Self Insurance Fund

785-296-2364

They will direct you where to go for treatment.

#### Life threatening injury or illness

Call 911 or report directly to the Emergency Room-

Via Christi Hospital in Manhattan

1823 College Avenue

### **HEALTH INSURANCE FOR STUDENTS ON ASSISTANTSHIP**

GRAs and GTAs who are on half-time assistantships are eligible to enroll in the university sponsored health insurance plan. Enrollment for international students is mandatory. Premiums are reduced for students enrolled in the program, with the university contributing 75% of the cost. Eligible full-time students who enroll in the insurance plan may also purchase insurance for family members (spouse and unmarried children under 19 years). For more information refer to <http://www.k-state.edu/hcs/benefits/health/gradhealth.html>



## **MANDATORY HEALTH INSURANCE FOR INTERNATIONAL STUDENTS NOT ON ASSISTANTSHIPS**

Health insurance coverage is automatically included in international student tuition bills, and students will no longer be required to make separate payment arrangements. Students will still be free to choose alternative insurance so long as their plan's coverage meets or exceeds the minimum requirements listed by the ISSC. In order to use alternate insurance, students must complete and submit the Student Health Insurance Waiver form no later than the 20th day of classes each semester. Once a waiver request is submitted and approved, the insurance charge will be removed from the tuition bill.

To learn more about the mandatory health insurance, visit the ISSS's website at:

[http://www.k-state.edu/issc/students/health\\_insurance/](http://www.k-state.edu/issc/students/health_insurance/).

If you have questions regarding health insurance, contact the department Business Manager in Rathbone 3002.

## **BEING EMPLOYED AS A GRADUATE STUDENT IN YOUR FINAL SEMESTER**

Graduate students are required to be enrolled in at least six credit hours to be hired into a graduate student position, either as a Graduate Teaching Assistant, Graduate Research Assistant or a Graduate Assistant. However, an exception may be made by the Graduate School during your final semester to allow you to be enrolled in less than the six hour requirement.

During your final semester you may be employed on a graduate student appointment, however, if you enroll in less than six hours you cannot be employed on a graduate student appointment beyond November 17 (fall semester) or April 17 (spring semester). The number of hours enrolled determines the length of employment on a graduate student appointment during your final semester. Please refer to the "Last Semester GTA/GRA/GA Employment: Hours Based on Length of Appointment" table that follows.

### Procedures:

1. Business Manager submits appropriate appointment form to Human Resources prior to the beginning of semester.
2. Major professor sends an email or memorandum to Associate Dean of Graduate School indicating termination date of assistantship during the resident enrollment time frame and a statement that the student will complete degree requirements by the end of the semester and that the student is enrolled in the designated number of hours in "Last Semester GTA/GRA/GA Employment: Hours Based on Length of Appointment" table.

3. Associate Dean of Graduate School prepares memorandum to Enrollment Center requesting that the student receive resident tuition benefits based on employment and verifying termination and completion dates. The correspondence also indicates that the student is aware that if they do not graduate they will be assessed non-residence fees. The major professor and the student are informed of the consequences of not graduating.

<b>LAST SEMESTER GTA/GRA/GA EMPLOYMENT: HOURS BASED ON LENGTH OF APPOINTMENT</b>	
<b>Fall Semester</b>	
6 hours	Appointment entire semester (Sept. 1- Nov. 17)
5 hours	Appointment ends between Nov. 1 & Nov. 17
4 hours	Appointment ends between Oct. 16 & Oct. 31
3 hours	Appointment ends between Oct. 1 & Oct. 15
2 hours	Appointment ends between Sept. 15 & Sept. 30
1 hour	Appointment ends between Sept. 1 & Sept. 14

<b>Spring Semester</b>	
6 hours	Appointment entire semester (Feb. 1 - April 17)
5 hours	Appointment ends between April 1 & April 17
4 hours	Appointment ends between March 15 & March 30
3 hours	Appointment ends between March 1 & March 14
2 hours	Appointment ends between Feb. 15 & Feb. 28/29
1 hour	Appointment ends between Feb. 1 & Feb. 14

***International students on assistantship in their last semester***

International students need to also receive authorization from International Student and Scholar Services if they are enrolling in less than 6 hours. This entails submitting a letter from your advisor requesting approval and stating that it is your last semester and specifying the number of credits needed for you to graduate. The letter should be the original, on department letterhead and sent or brought to International Student and Scholar Services.

## **INTERNATIONAL STUDENT & SCHOLAR SERVICES**

International Student and Scholar Services (ISSS) provide immigration services for K-State's international students and scholars. They are located at the International Student Center. Their phone number is 785-532-6448 and their email is [iss@k-state.edu](mailto:iss@k-state.edu). Detailed information can be found at their website at: <http://www.k-state.edu/iss/>.

## **COMMUNICATIONS**

### ***Mail***

MNE student mailboxes are located in Rathbone 3008. The mailboxes are for business related mail only, not personal mail. Please check your box frequently.

### ***E-Mail and eID***

All students and faculty have e-mail addresses and communicate by electronic mail. Students must use their official K-State e-mail address and eID (electronic ID) for access to the network and university on-line resources. In order to save paper, many announcements from university college and department offices will arrive in your electronic INBOX. Please check your INBOX frequently.

### ***Computer Accounts***

Please refrain from putting large media files on your account. This includes not only downloaded music and videos, but course lectures as well. Also beware that some software packages generate large data files. An example of this is Ansys – the files it generates can get very large (over 1GB).

Graduate students are limited to 200 prints per week. In addition, you should keep your account space below 1000MB.

### ***Software***

The software installed in the majority of the labs is listed below:

- Mathcad
- Matlab
- Microsoft Office
- Microsoft Project
- Microsoft Visual Studio
- Solidworks
- Visio

***Remote account access***

Please refer to : <https://intranet.mne.ksu.edu/>

***KSIS***

To enroll in courses, view your semester schedule, look up semester grades, view your student account and check the status of your financial aid go to <https://ksis.k-state.edu>. Use your eID and password to log-in.

## Mechanical and Nuclear Engineering Faculty

**Steven J. Eckels:** Department Head; Professor; Ph.D. Iowa State University; teaches thermodynamics and fluids; research in heat transfer, fluid mechanics and two-phase flow. [eckels@ksu.edu](mailto:eckels@ksu.edu)

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