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1 INTRODUCTION

1.1 Welcome and Purpose of This Handbook
Welcome to the Department of Industrial Engineering at Clemson University. We wish you success at every stage of your academic journey.

This handbook is intended to familiarize you, as a graduate student in IE, with the requirements, policies and procedures involved throughout your graduate experience. The rules and regulations provided in this handbook govern our academic programs and describe the duties and responsibilities of graduate students in the department. These rules and regulations, developed through the years and in conjunction with the Graduate School, have proven to be beneficial for both students and faculty in the department. In addition, this handbook provides useful information and resources to ease and enhance your experience in the program. Each student is expected to be familiar with the contents of this handbook.

These rules and requirements are in addition to and subordinate to those described in the Graduate School Announcements, which you can find through the Graduate School office in E-108 Martin Hall or at www.registrar.clemson.edu/html/catalogGrad.htm. Any inconsistencies within this handbook or between this handbook and the Graduate School Announcements should be brought to the attention of the Graduate Coordinator. The Graduate School website has additional information about the community, the University (e.g., available resources and activities), and resources for students (e.g., housing, events and activities).

1.2 Contact Information

Dr. Kevin Taaffe  
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Student Services Coordinator  
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129-A Freeman Hall  
864-656-2035

Here are the people to contact with common problems:
Computer issues: use http://www.clemson.edu/ces/departments/ie/it_request/ (goes to Mr. Clark)
Keys and administrative matters: Ms. Holland
Academic issues or curriculum: Your advisor or Dr. Taaffe
Emergencies: Dr. Taaffe or Dr. Smith
2 PROSPECTIVE STUDENTS

2.1 Applying to IE at Clemson

The online application can be found at www.grad.clemson.edu/Admission.php. In the banner on the left-hand side, there is a large orange button entitled “Apply Now!” that will get you started. Once the online application is complete and application fee is paid, students can check the status of the application process by clicking on a large purple button “Application Status Check” and follow the instructions.

Admission decisions are made independently of funding decisions; hence, gaining admission does not imply that funding is available or will be offered. The Graduate School officially notifies students of admissions decisions, not the Department of Industrial Engineering or the IE Graduate Coordinator.

The following sections describe various aspects of the application process.

2.2 Admission Requirements

Minimum requirements to be considered for admission generally follow those of the Graduate School (see Graduate School Announcements at www.registrar.clemson.edu/html/catalogGrad.htm). Minimum requirements include at least a four-year bachelor’s degree from an institution whose scholastic rating is satisfactory to the University, a high quality of previous academic record, and satisfactory scores on the general portion of the Graduate Record Exam (GRE) and the Test of English as a Foreign Language (TOEFL), if applicable.

It is expected that applicants to the IE graduate program will have earned baccalaureate degrees in engineering, physical sciences, mathematics, or other related majors with strong mathematical backgrounds. Entering graduate students are assumed to have competence in calculus, probability and statistics, and computing.

Upon receipt of all admission materials, the Graduate Committee in IE will evaluate the application regarding admission. Students who are judged to have the background and motivation to be successful in the program are accepted, and affirmed by the Graduate School. There are no minimum score requirements. However, students admitted to the IE Graduate Program typically have:

- An undergraduate grade point average (GPA) of at least 3.0 or above (on a 4.0 scale). Students with a Master’s Degree typically have a GPA above 3.5 in their graduate courses.
- Scores on the Graduate Record Exam (GRE) that exceed 160 (old score of 700) on quantitative.
- Scores on the Test of English as a Foreign Language (TOEFL) that exceed 100 (iBT) or 600 (PBT) for international students.

If the student’s performance on these measures is not consistent with the guidelines, it is important that the reference letters and the statement of purpose provide the Graduate Committee with additional information as to why the student should still be considered for admission to the IE Graduate Program.

Completed applications received before the deadline posted on the IE Graduate Program website will receive full consideration. You may find some helpful information about admissions from the following websites:

http://www.clemson.edu/ces/departments/ie/graduate_programs/M.S.PH.D./FAQ.html
2.2.1 English language proficiency
   A graduate student whose native language is not English may be required by the Graduate Committee or their Advisor to complete English 1110 (English as a Second Language) or an approved course from one of Clemson’s ESL affiliates.

2.3 Transfer Credits
   Clemson University policy does not allow automatic transfer of graduate credit. Students with graduate credit earned at another institution, in another department at Clemson University, or earned before admission to this program must have prior work evaluated for transfer credit. Requests for transfer credit to the program must be recommended by your Advisory Committee and approved by the Program Coordinator, the Department Chair and the Dean of the Graduate School. The request must be in writing for each course or credited activity to be transferred. An official transcript, catalog description and syllabus or other supporting documentation must accompany each request. Grades earned for courses taken at institutions other than Clemson University will not be included in the student’s academic GPA. It is the student’s responsibility, not the Major Advisor’s or the department, to request a transcript of transfer credits be sent directly to the Graduate School.
   In any case, the number of credit hours that may be transferred from an accredited institution will not be greater than one-third of the graded course work required for a master’s degree. For the doctoral degree, up to 48 semester credit hours of work may be transferred. No more than 12 semester credit hours earned in a non-degree status at Clemson University can be applied to a degree program.
   Transfer credit will not be awarded for research, internships, courses graded pass/fail, or course work in which the grade received is lower than a B or its equivalent. No credit will be given for continuing education units, correspondence, extension or in-service courses or for concentrated courses and workshops that award credits at a rate exceeding one credit per week. Course work completed outside the six-year time limit may not be transferred to Clemson University or validated for graduate credit. See the Graduate School Announcements for more information regarding transfer credits (www.registrar.clemson.edu/html/catalogGrad.htm).

2.4 Direct Admission to the Ph.D. Program
   If a student has a bachelor’s degree in a field approved by the department, but not a master’s degree, they may apply directly to the Ph.D. program.

2.4.1 Duplication of degrees
   The holder of a master’s degree in a given field that was received at another institution may not become a candidate for another master’s degree in the same field at Clemson.
2.4.2 Undergraduates involved in Graduate Programs

Undergraduate students majoring in Industrial Engineering at Clemson may take courses for graduate credit in two ways:

- Seniors with a minimum cumulative grade-point ratio of 3.0 may apply to take graduate courses while continuing to pursue their bachelor’s degrees. If successfully completed, these courses may be eligible to be counted either (1) in lieu of one or more required undergraduate classes or (2) as graduate credits to be used at Clemson or transferred elsewhere. (See Graduate School form GS-6 for details.)
- Students may apply to take up to 12 semester hours of courses and have them count towards both the bachelor’s and master’s degrees in Industrial Engineering. To take advantage of this opportunity, students must have a minimum cumulative GPA of 3.4, must have completed the junior year and must have a record that will allow them to be admitted to the graduate program. (See Graduate School form GS6BSMS for details. Note: It is important to identify these courses as “graduate credit” and not as replacing a requirement of the undergraduate program. Please see the Graduate Coordinator for further details.)

Students should consult with their Undergraduate Advisor and the Graduate Coordinator before enrolling in graduate courses. If approved, the student must complete the appropriate form, including obtaining all required signatures. When this form is complete with all approvals, the student receives conditional admission to graduate school dependent only on successful completion of the undergraduate degree. Under no circumstances can 6000-level counterparts of 4000/6000 courses required in the bachelor’s program (e.g., 6610, 6650, 6820) be counted toward master’s requirements if the bachelor’s degree is earned at Clemson University. Additionally, 8910, 8920, 8950, and 9910 will not be accepted in the undergraduate program and cannot be included in the 12 semester hours that count towards both the B.S. and M.S. degrees. Determination of whether the classes count towards the non-thesis M.S. degree will be made by the student’s Advisory Committee.

2.5 South Carolina Residency

Many students are interested in establishing residency in South Carolina for the purpose of paying in-state tuition. The South Carolina residency laws call for you to establish legal ties with the state; in general, you must wait one year before establishing legal ties. Thus, you should take steps near the beginning of your program to initiate the process of becoming a South Carolina resident.

The legislation defining residency sets forth a fairly strict set of criteria for the administrative approval of residency requests. The Office of Residency Classification handles all the information regarding domicile requirements for residency status. Due to the frequency of changes implemented by the state legislature in past years, those criteria are not elaborated here. If you are interested in establishing South Carolina residency, review the up-to-date information at www.clemson.edu/SCResident/. Questions should be addressed to the Office of Residency Classification (G-01 Sikes Hall, (864) 656-2281).

2.6 University Employee Enrollment

With the approval of the appropriate dean or director, a qualified employee of Clemson University may pursue graduate work for credit. However, no member of the faculty or staff who has a rank higher than instructor or its equivalent may be considered as a candidate for an
advanced degree in the academic department where you are employed. Payment of the application fee is required.

You must make up any time spent in class during normal working hours under a schedule acceptable to your employment supervisor. Flexibility will be given to accommodate class schedules, but you must work out conflicts with your supervisor. You must complete a master’s degree within six years of commencing the program; the Ph.D. must be completed within five years of satisfactory completion of your comprehensive examinations.

2.7 International Students

2.7.1 Student expenses

International students must certify access to a minimum of one year’s estimated expenses. Form IS-50 can be accessed from http://www.clemson.edu/administration/ia/services/forms.html. You may also contact the Office of International Affairs (E-303 Martin Hall, 864-656-3614) for more information.

2.7.2 Student visa

You are responsible for maintaining legal status with the US Department of Homeland Security during your studies. Form DS-2019 (J-1 exchange visitor visa certificate) is usually issued to students who are funded by their home government or by an international organization. If no organizational sponsor is involved, an I-20 (F-1 student visa certificate) will be issued.

When a student’s application to the Graduate School has been accepted and their language and financial abilities are certified, Campus Immigration Services will issue an I-20 or DS-2019. The student should take this document to the nearest US Consulate to apply for a nonimmigrant student visa. For more information and details about applying for your visa, see the Office of International Affairs International Services website at http://www.clemson.edu/administration/ia/services/index.html or contact them at 864-656-3614.

2.7.3 Social security number

If you are an international student receiving an assistantship, you must bring your offer letter to Clemson. You should then go to the Social Security Administration in Anderson, S.C., for a Social Security Number or meet with the Social Security Administration representative in Martin Hall on the dates indicated by the Graduate School. You should then see the Account Fiscal Analyst in 112 Freeman Hall. She will provide you with the paperwork that you must take with your signed Social Security card to the Foreign National Payments Coordinator in E-303 Martin who will complete the necessary paperwork to assist you with getting on the payroll. Be sure to bring the following:

- U.S. Visa
- Unexpired foreign passport
- I-94
- IAP-66/I-20

You must call for an appointment before going to the Foreign National Payments Coordinator’s office. The telephone number is (864) 656-5589.
2.8 Costs
For current tuition and fees, see www.grad.clemson.edu/Financial.php. Graduate students with assistantships may choose to defer tuition and fees. This means that fees and tuition costs will be deducted from the first six full paychecks of the semester. For more information about academic costs, financial aid and making payments, contact the Office of Student Financial Aid (G-01 Sikes Hall, (864) 656-2280) or the Bursar’s Office (G-08 Sikes Hall, (864) 656-2321).

2.9 Assistantships (Research Assistants and Teaching Assistants)
Award decisions are based on academic record, test scores, statement of purpose, and letters of recommendation. Assistantships for entering students are almost exclusively reserved for those who already have an M.S. degree in Industrial Engineering or a closely related field. In other words, the vast majority of students who are admitted to our Ph.D. program are provided with assistantships. M.S. students should be prepared to finance their entire program of study. Occasionally, some of our M.S. students who perform at a high level after enrolling at Clemson are funded in later semesters. More specifically, M.S. students may be eligible for assistantships if they are (1) enrolled in full-time graduate studies, (2) in high academic standing, and (3) making satisfactory progress toward their degree. Tuition and fees for students receiving support are combined into a reduced flat fee. To receive this reduced fee in a particular semester, a qualified student must be on the department payroll by the end of the second week of that semester.

TA and RA assistantships are awarded on a semester-by-semester basis and are not guaranteed in subsequent semesters. If you do not receive an RA or a TA assistantship, there may be other employment opportunities for graduate assistants or other positions around campus (like food service, campus police, etc.) after enrollment.

2.10 Housing and Area Information
Information about housing, transportation (CAT bus and Greenville LINK), and student life are provided on the Clemson University Graduate School website http://www.grad.clemson.edu/.

3 ENROLLED STUDENTS

3.1 Orientation
University and Departmental orientations are now provided on-line. For the University orientation, go to the Graduate School web page (http://www.grad.clemson.edu/), and there is a “Newly Accepted Students Guide” that you can reach from the Current Students link. For the IE Department orientations, go to IE Graduate Programs webpage (http://www.clemson.edu/ces/departments/ie/graduate_programs/), locate your degree, and follow the link to the orientation pages.

3.2 Student Responsibilities
The faculty members in IE expect you to approach your graduate study in a professional manner. This is a job and, as such, you should expect to work at least 45-50 focused hours per week on your studies and research. It should also be noted that graduate students may not be allowed all breaks/holidays afforded to undergraduate students.
3.3 Academic Integrity

A university is a community of scholars dedicated to the inquiry into knowledge. It follows as a basic tenet that students will conduct themselves with integrity in academic pursuits. In instances where the academic standards may have been compromised, Clemson University has a responsibility to protect this process and to respond appropriately and expeditiously to charges of academic misconduct.

A summary of the Graduate School’s policy on academic integrity, current as of press time, follows. For a complete text of the policy, including rules and procedures, and specifics related to former students, academic research and revocation of academic degrees, see the “Academic Regulations Index” section of the CU Gradspace website at http://gradspace.editme.com/Policies and the Graduate School Announcements at www.registrar.clemson.edu/html/catalogGrad.htm.

3.3.1 Definitions, explanations and examples of violations of academic integrity

1) Cheating. Cheating involves giving, receiving or using unauthorized aid on any academic work submitted for grading including coursework, laboratory assignments, research projects, comprehensive and qualifying examinations, theses and dissertations or using computer center account numbers that belong to another person without the permission of the account owner. Unauthorized aid includes collaborating with classmates or others when explicitly prohibited, using online paper mills or paying individuals to prepare research papers, reports or projects, submitting identical work to satisfy the requirements of more than one class without the approval of the faculty, or using textbooks, notes, the web and other sources when instructed to work alone.

2) Fabricating/falsifying information. Fabricating or falsifying information involves actions such as making up data that were not collected, stating that studies were conducted that were not, indicating that original source material was read when information was obtained from secondary or tertiary sources, making up references not used or identifying sources that were not consulted.

3) Facilitating violations of academic integrity. Facilitating violations of academic integrity involves students intentionally assisting others to violate the principles of academic integrity (for example, allowing friends access to their work, or instructing students on ways to solicit aid on papers, projects, take home exams, tests for state and national licenses, etc).

4) Failing to cite contributors. Failing to cite an author or multiple authors involves not giving credit to individuals who have contributed significantly to a work (paper, research project, poster, etc.) and claiming the final product as one’s own.

5) Plagiarizing. Plagiarizing is theft of the work accomplished by someone else. It includes copying words, phrases, sentence structure, computer code or files, images, or ideas from any source and attributing the work to one’s own efforts. Blatant examples of plagiarism include failure to use quotation marks, to indent text of more than three lines and failure to cite consulted sources either in footnotes, endnotes or within the body of the text of a document. More subtle examples of plagiarism include paraphrasing or using others’ conceptual frameworks for developing creative works without acknowledgement or permission or citing a source within the text but then directly quoting the materials without the use of quotations marks or text indentation. For more information about and examples of plagiarism visit http://gradspace.editme.com/AcademicGrievancePolicyandProcedures#integriypol.
6) **Thwarting others’ progress.** Thwarting others’ progress involves editing, deleting or otherwise destroying computer files that belong to another person or intentionally stealing or destroying property which prevents others from using it to gain needed information to complete assignments, for example, library materials on reserve, materials on loan by a faculty member or reports and documents made available for student use by external companies, state and federal agencies, etc.

3.3.2 **Levels of seriousness of violation**

At the graduate level, it is expected that students exhibit sophistication in understanding the tenets of academic integrity. Even so, it is clear that some types of violations are more serious in nature than others and that some types of violations require deliberate, calculated actions on the part of the student. The Graduate School’s policy categorizes academic integrity violations into four levels, ranging from an unawareness or minor misunderstanding, to an intention to defraud or otherwise engage in criminal-type activity. Each level of violation carries one or more sanctions, from verbal reprimand to permanent dismissal from the University; repeated violations, irrespective of the level, may result in more severe sanctions as well.

3.3.3 **Graduate Academic Integrity Committee**

The authority to resolve cases of violations of academic integrity by enrolled graduate students is vested in the Graduate Academic Integrity Committee (GAIC). The GAIC consists of four tenured faculty members from each of the five colleges and one graduate student from each college. An Associate Dean (AD) of the Graduate School serves as the non-voting administrative coordinator for the GAIC.

It is the responsibility of every member of the Clemson University community to enforce the academic integrity policy. Students and staff members should report violations of this policy to the faculty member for the affected course (including the research advisor or internship/practicum/co-op supervisor). When, in the opinion of anyone outside the University, there is evidence that a student has committed a violation of academic integrity, that person should bring the allegation to the attention of the AD of the Graduate School. The AD will contact the appropriate faculty representative of the student’s program (consistent with the alleged violation).

When, in the opinion of the faculty member, a student has committed a violation of academic integrity, the faculty member will fully document the charge in writing in a statement delivered in a sealed envelope to the AD of the Graduate School. At the same time, at his or her discretion, the alleging faculty member is encouraged, but is not required, to privately inform the student charged of the nature of the allegation. Within three working days from the date the AD has received a formal charge of an alleged violation, he or she will provide the student with a copy of the charge and the procedures of the GAIC. Those procedures vary depending on the level of the violation and whether the student chooses to pursue a hearing. For more information about the procedures, refer to the Graduate School Announcements at www.registrar.clemson.edu/html/catalogGrad.htm.

3.3.4 **Academic research**

The effectiveness of the research infrastructure throughout the world is based on the personal and professional integrity of the people involved. The central assumption to all research endeavors is that researchers have done what they say they have done. The IE department is part
of that infrastructure and the research conducted here must withstand the highest scrutiny. Consequently, we must all ensure that our scholarly work is conducted and reported with the highest ethical standards. We must be careful in our recordkeeping and diligent in our efforts to always attribute credit where it belongs. In particular, we must guard against any activity that would bring the integrity of the department or the individuals within it into question. Among the activities to be avoided are:

- **Falsification of data** – ranging from fabrication to deceptively selective reporting of results or methods, including the purposeful omission of conflicting data with intent to falsify results.
- **Plagiarism** – representation of another’s work as one’s own.
- **Misappropriation of others’ ideas** – the unauthorized use of privileged information, however obtained.

By conducting research in the Department of Industrial Engineering, you enter into a covenant with the faculty and all of your student colleagues to uphold the highest ethical standards in research and that you will conduct your research and professional life in a manner consistent with those ideals.

### 3.4 Maintaining academic standing

A graduate student must maintain a minimum overall average of B (3.0) for all courses taken. If at any time you fail to satisfy this requirement, you will be automatically placed on probation for one semester during which time you will not be eligible for financial aid/assistantship. You are permitted only one probationary semester during the entire course of your graduate program. In addition, a failing grade in a course in your major area may be a cause for dismissal regardless of your overall average.

The awarding of an advanced degree does not merely attest to completion of academic requirements in courses, seminars and research activities, but also to the acquisition of acceptable professional standards, including standards of ethics (see the University’s Academic Integrity Policy). Violations of professional standards may result in disciplinary action, including dismissal from the program.

### 3.5 Other important Graduate School policies and procedures

For other graduate school policies and procedures please see the Graduate School Policies webpage at: [http://gradspace.editme.com/policies](http://gradspace.editme.com/policies). Here you can find information about the policies and regulations related to incomplete coursework, enrolling in a class on a pass/fail basis, auditing courses, withdrawing from a course, enrollment and leave of absence policies, as well as the procedures for withdrawing from the University.

### 3.6 Harassment

It is the policy of Clemson University to conduct and provide programs, activities and services to students, faculty and staff in an atmosphere free from harassment. Harassment is unwelcome verbal or physical conduct, based upon race, color, religion, sex, sexual orientation, gender, national origin, age, disability, status as a military veteran or protected activity (e.g., opposition to prohibited discrimination or participation in the statutory complaint process), that unreasonably interferes with the person's work or educational performance or creates an intimidating or hostile work or educational environment. Examples may include, but are not limited to, epithets, slurs, jokes or other verbal, graphic or physical conduct.
Harassment of University faculty, staff, students or visitors is prohibited and shall subject the offender to appropriate disciplinary action, including dismissal from the program. Employees or students who feel they are victims of any form of discrimination are encouraged to consult the Office Access & Equity (E-103 Martin Hall, (864) 656-3181) for advice and assistance in resolving complaints.

In the event a graduate student wishes to appeal the resolution of the Office of Access & Equity, the student must submit a written request for an appeal to the Dean of the Graduate School, who in turn will convene an ad hoc committee that will review the process and/or sanction. The committee membership will come from faculty and students already appointed to the Graduate Council.

Sexual harassment
Title VII of the Civil Rights Act of 1964, as amended, provides that it shall be unlawful discriminatory practice for any employer, because of the sex of any person, to discharge without just cause, to refuse to hire, or otherwise discriminate against any person with respect to any matter directly or indirectly related to employment. Harassment of any employee on the basis of sex violates this federal law. The Equal Employment Opportunity Commission has issued guidelines as to what constitutes sexual harassment of an employee under Title VII. Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when any of the following occurs:

- Submission to such conduct is made explicitly or implicitly a term or condition of an individual's employment or academic standing;
- Submission to or rejection of such conduct by an individual is used as a basis for employment or for arriving at academic decisions affecting an individual;
- Such conduct unreasonably interferes with an individual's work or academic performance, or creates an intimidating, hostile or offensive working or academic environment.

Sexual harassment of University faculty, staff or students is prohibited and shall subject the offender to dismissal or other sanctions after compliance with procedural due process requirements. In the event a claim of sexual harassment arises, the claimant may use University grievance procedures that have been established for faculty, staff and students as appropriate. This policy also prohibits an employee from sexually harassing a superior and a student from sexually harassing a faculty member.

Amorous relationships
Amorous relationships that might be appropriate in other circumstances can be inappropriate when they occur between a faculty member, officer or supervisor of the University, and any student or subordinate employee for whom he/she has a professional responsibility.

Those in positions of authority inherently carry the element of power in their relationships with students or subordinates. It is imperative that those with authority neither abuse, nor appear to abuse, this power entrusted to them.

Officers, supervisors and members of the teaching staff should be aware that any romantic involvement with a student or subordinate employee could make them liable for formal action if a complaint is initiated. Even when both parties have consented to such a relationship, it is the officer, supervisor or faculty member who may be held accountable for unprofessional behavior. Difficulties can also arise from third parties who may feel that they have been
disadvantaged by such relationships. Graduate assistants, research assistants, tutors and teaching assistants who are professionally responsible for students would be wise to exercise special care in their relationships with students they instruct or evaluate.

Any questions concerning these statements or Clemson University's Policy on Sexual Harassment should be directed to the Office Access & Equity (E-103 Martin Hall, (864) 656-3181).

3.7 Drugs, alcohol, smoking
Drugs: The use, possession, distribution or dispensation of illegal drugs is strictly prohibited. Violation could result in your dismissal from the University.
Alcohol: Alcoholic beverages are prohibited for any activity held in any College of Engineering and Science facility.
Smoking: In the interest of the safety and health of all the occupants of our buildings, no smoking is allowed in any classroom, hallway, laboratory, office or other public spaces.

3.8 Grievance policy and ombudsman information
It is the policy of the Graduate School to address all grievances of an academic nature filed by enrolled graduate students. Graduate student grievances are heard by the Graduate Academic Grievance Committee (GAGC). The GAGC typically consists of three faculty representatives from each of the five colleges and one graduate student representative from each college. A six-member Initial Grievance Review Board (IGRB) is formed from among GAGC members and is responsible for determining which grievances will go forward to the GAGC.

Procedure
Grievances must be filed with the Graduate School within 60 days of the alleged act and may involve the following: violations of program, department, college or Graduate School policies related to final grades in courses or research (891 or 991); violations of program, department, college or Graduate School policies related to the completion of any academic requirement including theses and dissertations, and oral or written comprehensive examinations; and graduate student assistantship employment including offers of assistantship appointments made during recruiting not honored after enrollment.

At any time prior to filing a grievance, the student may consult with the University ombudsman charged with mediation in cases involving graduate students.

Any student wishing to file a complaint must first make every attempt to resolve it within the college. The student must first take the complaint to the faculty or staff member(s) involved. If no resolution can be reached, the student should request assistance from the department chair and the dean of the college.

If the grievance remains unresolved, the student may file the complaint with the Graduate School. The student must first meet with the Associate Dean of the Graduate School charged with oversight of the GAGC. The Associate Dean will describe the grievance process to the student. If the student wishes to proceed with the grievance, the Associate Dean will provide the student with Graduate School Form GSG-A, “Request to File a Grievance,” which will enable the student to provide a written statement detailing the issue and his or her attempts to resolve it at the college level by documenting a) the dates of consultations at the college level, b) the names of those persons consulted, and c) the signature of the collegiate dean attesting that no resolution could be reached. The student must return the fully executed Form GSG-A to the Graduate
School within 30 days of receipt from the associate dean. Students who fail to file the grievance within this timeframe forfeit their opportunity to proceed.

The student may seek external counsel (an advisor, an attorney, etc.) to assist with preparation of materials to submit to the GAGC. The student may request such individual accompany him or her to the hearing and may wish to proceed to prepare for this event. Questions concerning possible impacts on the student’s graduate status should he or she not be successful in the grievance may be discussed at this time with the associate dean of the Graduate School.

The IGRB will determine if the complaint, as submitted on Form GSg-A constitutes a grievance under the Graduate School’s policies. Grievable complaints will be addressed by a subcommittee of the GAGC appointed for the purpose of addressing the complaint in question. The subcommittee will convene an informal, closed hearing to recommend a resolution to the grievance. For more information about the procedures, refer to the Graduate School Announcements at [www.registrar.clemson.edu/html/catalogGrad.htm](http://www.registrar.clemson.edu/html/catalogGrad.htm).

**University ombudsman**

The ombudsman is an independent, confidential resource that provides assistance to faculty, graduate students and post-doctoral students in resolving problems, complaints and conflicts when normal processes and procedures have not worked satisfactorily. The Ombudsman’s Office serves as a central information source on policies, procedures and regulations affecting faculty, graduate students and post-docs. The office refers individuals to persons able to resolve problems or handle appeals at the lowest possible level. Where appropriate, the ombudsman can facilitate and/or mediate communication between parties who find themselves in a dispute.

The ombudsman strives to ensure that faculty, graduate students and post-docs receive fair and equitable treatment within the University system. He provides an independent point of view in an informal and confidential environment. The ombudsman will not identify you or discuss your personal concerns with anyone without your permission. Private confidential meetings can be arranged at your convenience. All communications will be treated with strict confidentiality. The ombudsman works toward resolutions based on principles of fairness. He is neither an advocate for faculty, administration or students, nor an agent of the University, but is an advocate of fair processes.

The Office of the Ombudsman provides fair and impartial counseling to faculty members, graduate students and post-docs by: 1) addressing problems and concerns, and identifying and evaluating options to reach resolutions; 2) providing available resources within the University, particularly as to policies and procedures; 3) serving as a neutral party in conflict resolution; 4) opening lines of communication through mediation; and 5) recommending changes in University policies and procedures when necessary. The ombudsman assists in issues of harassment, academics, unfair or inequitable treatment, or any other University policy that you feel has been applied unfairly or erroneously.

The ombudsman, as a designated neutral, has the responsibility of maintaining strict confidentiality concerning matters that are brought to his attention unless given permission to do otherwise. The only exceptions, at the sole discretion of the ombudsman, are where there appears to be imminent threat of serious harm. The ombudsman must take all reasonable steps to protect any records and files pertaining to confidential discussions from inspection by all other persons, including management.
The ombudsman will not testify in any formal judicial or administrative hearing about concerns brought to his attention. When making recommendations, the ombudsman has the responsibility to suggest actions or policies that will be equitable to all parties.

Concerns can be directed to the University ombudsman by letter, walk-in, appointment or telephone: University Ombudsman for Faculty and Graduate Students and member of the Ombudsman Association, 101 Clemson House; telephone (864) 656-4353 or (864) 656-4957; email ombudsman@clemson.edu.

3.9 Departmental Resources and Responsibilities

3.9.1 Computer access and use

Graduate students will have access to computers in research labs, open departmental labs and in CCIT computer labs. Any problems with computers in department labs should be reported to Martin Clark using http://www.clemson.edu/ces/departments/ie/it_request/


3.9.2 E-mail

E-mail is the most common medium used by the department and the University to communicate with you. Many events and information of importance to your success in the program are announced via email. It is very important, and you are expected to check your email regularly (at least once a day). If you are requested to respond, you should do so in a timely manner. There are resources available at http://www.clemson.edu/ccit/ for accessing Clemson emails on mobile devices. There are also resources available for initializing google apps and g.clemson email addresses on the CCIT website. If you forward e-mail from your Clemson account to a private account such as Gmail, you take full responsibility for not receiving important or time-sensitive information due to malfunctions with the private account.

3.9.3 Mailboxes and personal mail

Each graduate student is assigned a mailbox, which you should check regularly. All personal mails are to be directed to your home address. The department is not to be used as your mailing address. The department assumes no responsibility for personal deliveries to Freeman Hall.

3.9.4 Keys

You will be issued keys to areas where you have been granted access and a building door key. Keys for other areas like research laboratories will be issued upon obtaining permission from the faculty member in charge of the lab. Students leaving the University through graduation or for an extended period of time for any reason must return all keys to Ms. Holland. We recommend that you give your keys to Ms. Holland any time you leave the country. A fee will be charged for any unreturned key.

The key(s) issued to you are for your use exclusively. You must never loan keys to anyone else, not even another graduate student. Failure to observe this rule may result in revocation of your key privilege. Unauthorized possession of a key to a University building is prohibited by South Carolina law. You are responsible for locking all rooms to which you have gained access with a key.
3.9.5 Building security, maintenance
Freeman Hall is normally locked at night on weekdays and throughout weekends. As you enter and leave the building, if it is locked, be sure that all doors are locked behind you. Should you discover a building problem, report this to the Administrative Coordinator. If something major is found wrong outside of normal office hours, inform the Graduate Coordinator and/or the Department Chair after you have called the University Security Office at (864) 656-2222.

3.9.6 Use of departmental office resources
Graduate students employed as teaching or research assistants may use the departmental copier and fax for official business associated with their employment. Use for any other purpose is strictly prohibited. The department does not furnish office supplies to graduate students for personal use. All use of office supplies while conducting contract-related research or as part of a teaching assistantship must be authorized by the appropriate faculty member. See the Administrative Coordinator for all requests of this nature.

3.9.7 Student offices/desks
It is the goal of the department to provide a desk for each graduate student. However, due to the limited available space, it may not be possible to accommodate each student. Therefore, a priority system is used which first assigns a desk to doctoral students, graduate assistants and graduate fellows, then to unsupported master’s students. New students should see Ms. Holland concerning a desk assignment.

3.9.8 Faculty offices
Faculty members carry out numerous duties, of which teaching and research are but two. Please observe faculty office hours when posted and arrange appointments in advance whenever possible. Do not enter a faculty member's office unless invited to do so.

3.9.9 Dress code
On December 3, 1969, the Board of Trustees of Clemson University delegated the power to the student body of Clemson University to recommend rules that regulate student conduct on campus. Clemson University does not have a dress code beyond that defined by local, state and federal laws. Consequently, beyond enforcing dress appropriate to the occasion for safety purposes, the Department of Industrial Engineering does not regulate dress codes. On the other hand, the faculty urges graduate students to dress appropriately for meetings and special occasions because others view you as representing yourself, the department and the University at these functions. If you are unsure of the guidelines, please ask your GS2 Advisor or the Department Chair for advice.

3.9.10 Student photos
At the beginning of each semester (as part of the new student orientation), photos of matriculating students are taken for the department directory.

3.9.11 Student travel and awards
The Major Advisor will inform students when travel is required as part of their duties in the Department and will provide student with details of the rules and regulations that are
applicable. The Graduate Student Government (GSG) awards amounts of up to $500 to full-time graduate students toward their attendance at conferences and other professional development events. See the GSG website for application information (http://www.clemson.edu/students/cgsg/).

3.9.12 Inclement weather
Cancellation of classes due to inclement weather is determined by University Administration and announced through local radio and television stations. University Administration attempts to alert students of any disruption of scheduled classes by 7 a.m. Separate announcements are made for the main campus and the University Center in Greenville.

3.10 Campus Facilities and Resources

3.10.1 Emergencies
Call the 911 (or 9-911 from a Clemson phone) or Clemson University Police Department at 864-656-2222 for all major emergencies: fire, medical, police.

3.10.2 Graduate Student Government
The Graduate Student Government (GSG) is a University-wide organization of all graduate students for promoting graduate student interests. At the start of each fall semester, departmental GSG representatives are elected. The biweekly senate meetings are open to all graduate students. See the Graduate School Announcements (www.registrar.clemson.edu/html/catalogGrad.htm) for more information, or contact the GSG office at (864) 656-2697. Your active participation in the Graduate Student Government is encouraged.

3.10.3 Counseling services
The demands of graduate school can sometimes seem overwhelming. If you feel you could benefit from talking to a counselor — about grad school stress or any other issue — you may be eligible to receive services from the Counseling and Psychological Services program (CAPS), located in Redfern Health Center. To learn about their current programs, visit the CAPS website at http://www.clemson.edu/campus-life/campus-services/redfern/mental-health/ or call them at (864) 656-2451.

3.11 Professional Development
There are a number of opportunities for you to develop professionally in addition to your coursework and research. These include presenting talks and/or posters at regional and national conferences, becoming a student member of professional organizations, and preparing for your eventual job search. In addition, the Graduate School provides professional development information on the www.grad.clemson.edu website.

3.11.1 Career planning
The Michelin Career Center provides information about market conditions and gives assistance in acquiring knowledge about your career opportunities and job requirements. The Center hosts career fairs each fall and spring, and offers workshops in a variety of career-related
3.11.2 Professional and student organizations

Graduate students are encouraged to join the Clemson Student Chapter of the Institute of Industrial Engineers (IIE) that also provides membership in the national and local chapter as well. Additionally, if interested in Human Factors, students are encouraged to join Clemson University’s Human Factors and Ergonomic Society Chapter.

3.12 Graduate School Deadlines

The Graduate School sets deadlines for the following items. The specific dates are determined according to the academic calendar for the semester in which you plan to graduate.

<table>
<thead>
<tr>
<th>Form/process</th>
<th>Approximate deadline*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submit your final GS2 to Enrolled Services</td>
<td>End of the term prior to the term in which you plan to graduate</td>
</tr>
<tr>
<td>Submit GS5 to Enrolled Services</td>
<td>Six months prior to defense</td>
</tr>
<tr>
<td>Complete online application for diploma (formerly Form GS4)</td>
<td>Within the first four weeks of the term in which you will graduate</td>
</tr>
<tr>
<td>Written notification of defense submitted to Enrolled Services</td>
<td>At least 10 days prior to your defense</td>
</tr>
<tr>
<td>Submit completed thesis/dissertation electronically for formatting review</td>
<td>Two weeks prior to graduation</td>
</tr>
<tr>
<td>File GS7 with Enrolled Services</td>
<td>Two weeks prior to graduation</td>
</tr>
<tr>
<td>All revisions requested by the Manuscript Review Office must be completed and approved by the Manuscript Review Office</td>
<td>One week prior to graduation</td>
</tr>
</tbody>
</table>

*Refer to the Graduate School’s website for actual deadline dates at www.grad.clemson.edu/Deadlines.php.

Notes on filing GS2 and GS7 forms:

- All M.S. non-thesis students: Your GS2 needs approval by the IE Department first. Please submit this form to the Graduate Coordinator and the Coordinator will get the form routed for signatures.
- All M.S. thesis and Ph.D. students: As soon as you have your Advisory Committee formed, you should complete your GS2. This should be occurring by the end of your second semester. This needs signatures of your advisor and Advisory Committee before being submitted to the Department Chair and the Graduate Coordinator.
- All graduating students: You do not need to fill out or file the GS7M or GS7D forms. These will be handled by the IE Department.

3.12.1 General Guidelines

All theses and dissertations shall be prepared in accordance with guidelines established by the Graduate School (see www.grad.clemson.edu/Manuscript.php). This guide provides advice on preparing an acceptable thesis or dissertation. You should consult this guide before
beginning the writing phase of your graduate research. Pay particular attention to formatting requirements.

3.12.2 Planning

Task planning is a very important part of any research program. The deadlines for the tasks depend on the date of anticipated graduation and are presented in the Graduate School Announcements. A list of the deadlines is also available from the Graduate School website, www.grad.clemson.edu/Deadlines.php. Failure to meet any of these deadlines will result in postponement of your graduation. You must allot sufficient time for writing the thesis or dissertation. It is highly recommended that you fully complete your thesis or dissertation before leaving the University. Many former students who left without completing their thesis or dissertation still have not completed their degree requirements. Experience shows it is very difficult to complete a report/thesis/dissertation after leaving the University.

3.12.3 Formatting guidelines and electronic submission

Once you have defended your thesis/dissertation, you must submit it electronically to the Manuscript Review Office of the Graduate School for formatting review. The Graduate School enforces specific formatting guidelines to ensure that your manuscript is considered credible and professional. Templates, examples and specific guidelines are provided on the Graduate School website (http://www.grad.clemson.edu/Manuscript.php) to assist you in formatting. You will not be allowed to graduate until the Manuscript Review Office has approved your final manuscript.

The Manuscript Review Office uses an electronic thesis/dissertation submission process (ETD). Hard-copy (i.e., paper) manuscripts will not be accepted. Not only does this process make your manuscript more accessible, but it also costs you much less due to the minimization of printing costs.

3.12.4 Patent, copyright/publishing information

Clemson University and the Department of Industrial Engineering retain full ownership rights to any inventions, discoveries, developments and/or improvements, whether or not patentable (inventions), which are conceived, developed or reduced to practice, or caused to be conceived, developed or reduced to practice by graduate students during the course of their research activities conducted as part of any Graduate School curriculum. Any such invention will be handled by the University in the same manner as set forth in The Faculty Manual of Clemson University (http://www.clemson.edu/faculty-staff/faculty-senate/manuals.html).

You will retain copyright ownership of your thesis or dissertation. However, the right to publish research will be maintained by the Department of Industrial Engineering. Copyright ownership of any research publications will be determined by University policy and by the policies of organizations responsible for publishing or distributing copyrighted materials.

All graduate students should keep a formal notebook for recording research procedures and results. Students are urged to study the recommendations for maintaining proper research records that are listed at the University's Intellectual Property Policy page (http://media.clemson.edu/research/technology-transfer/ip-policy.pdf).

All data, research notebooks and related materials (slides, pictures, graphs, publication reprints, etc.) generated by any graduate student within the department are the property of the department and will remain in the department after your graduation/departure. You must collect
these materials and submit them to your Major Advisor before you graduate/depart. The major advisor will have final authority on the disposition of any or all of these materials.

3.12.5 Application for diploma
You must submit a formal application for a diploma to the Graduate School. You must complete this form online in the first four weeks of the semester in which you intend to graduate. Early submission is not accepted (e.g., do not complete the form in January if you do not plan to graduate until August or December, only if you plan to graduate in May). If you miss the deadline, you must contact Enrolled Services to receive a hard-copy version of the application; late fees will accrue at $25 the first day after the deadline and an additional $5 each business day thereafter to a maximum of $125. If you submit the form and, for some reason, do not graduate in that semester, you must re-submit in each term in which you hope to graduate thereafter.

If your name in the student database is not as you want it to appear on your diploma (due to marriage, etc.), you must contact Enrolled Services prior to submitting the Diploma Application form online. Any degree/major changes via form GS2 must also be processed before you submit the Diploma Application.

There is no fee to receive a diploma if you attend the graduation ceremony or agree to pick up your diploma in the Enrolled Services office in Sikes Hall. There is a $10 fee assessed if you request that your diploma be mailed to you.

For more information, contact Enrolled Services at (864) 656-5339, if your last name begins with A-L, or (864) 656-5341 if your last name begins with M-Z.

If you choose to participate in graduation ceremonies, you should make arrangements for cap and gown purchase (or rental, if preferred, for Ph.D. gowns) at this same time. See the Clemson University Bookstore’s website at www.clemson.edu/bookstore/ for deadlines and more information.

3.13 Final Check-Out
When you leave the University due to graduation or any other reason, you must do the following pertaining to the department:

- Turn in all keys to the Department.
- Be sure that all equipment and supplies which you have drawn are returned to stock.
- Be sure that any portion of the lab or office that you occupied is clean and ready for another occupant. Please leave your lab or office in the condition you would have liked to have found it originally.
- Return all borrowed materials (books, journals, etc.) to their appropriate location.
- Inform the Program Coordinator that you are leaving and have complied with all regulations, and schedule an exit interview.

3.14 The GS2 Advisor
All first-year graduate students (MS or PhD) will have a GS2 Advisor. The GS2 Advisor will be a faculty member in IE. This faculty member will help the student begin the process of determining an appropriate plan of study to complete their degree. However, it is always the student’s responsibility to complete the form for review by the advisor and Graduate Committee. The student and/or advisor can always come to the Graduate Coordinator with any questions they have about the GS2 form and its requirements.
3.14.1 Schedule of courses
Periodically, the planned course offerings will be posted on the department’s website.

3.14.2 Department and Graduate School forms
Graduate School forms are available at www.grad.clemson.edu/forms/GeneralForms.php.
Departmental forms are available from the department secretary. Specific deadline dates for
Graduate School forms can be found at www.grad.clemson.edu/Deadlines.php, departmental
deadlines are contained in this document, and other deadlines will be sent to you from the
Graduate Coordinator via your Clemson e-mail account.

The most common form request is the GS2 (Plan of Study – MS or PhD) or GS2-14
(Master’s En-Route to PhD). Here are the possible form requirements when following an MS-
related path:
1. Student pursuing M.S. non-thesis
   Select one of the concentration areas and submit a standard GS2 with courses listed to the
   student’s GS2 advisor. Once the GS2 advisor approves the student’s GS2, the student
   should sign the form. Note that the GS2 advisor is not required to sign the form unless the
   GS2 advisor is a member of the Graduate Committee. The student/GS2 advisor should
   submit the GS2 to the Graduate Coordinator who will get signatures from the Graduate
   Committee and the Department Chair. This signed GS2 form will be submitted to the
   Graduate School by the Administrative Coordinator;
2. Student pursuing M.S. thesis
   Submit a standard GS2 with courses and research listed to the student’s thesis advisor.
   Once the student and the thesis advisor sign the GS2, submit the form to the student’s
   thesis committee to get their signatures. The student/thesis advisor will then submit the
   form to the Graduate Coordinator who will get the signature from the Department Chair.
   This signed GS2 form will be submitted to the Graduate School by the Administrative
   Coordinator;
3. Student obtaining M.S. non-thesis while pursuing Ph.D.
   a. Submit the GS2-14 with courses listed to the Graduate Coordinator. Once approved,
      the Graduate Coordinator will get signatures from the Graduate Committee and the
      Department Chair. This signed GS2-14 form will be submitted to the Graduate School
      by the Administrative Coordinator;
   b. Also, submit a standard GS2 with courses and research listed to the dissertation
      advisor. Once the dissertation advisor approves the form, the student/dissertation
      advisor will need to submit to dissertation committee to get their signatures. The form
      should be submitted to the Graduate Coordinator who will get the signature from the
      Department Chair. The signed GS2 form will be submitted to the Graduate School by
      the Administrative Coordinator;
4. Student obtaining M.S. with thesis while pursuing Ph.D. (not common)
   a. Submit the GS2-14 with courses listed to the Graduate Coordinator. Once approved,
      the Graduate Coordinator will get signatures from the Graduate Committee and the
      Department Chair. This signed GS2-14 form will be submitted to the Graduate School
      by the Administrative Coordinator;
   b. Also, submit a standard GS2 with courses and research listed to the dissertation
      advisor. Once the dissertation advisor approves the form, the student/dissertation
      advisor will need to submit to dissertation committee to get their signatures. The
form should be submitted to the Graduate Coordinator who will get the signature from the Department Chair. The signed GS2 form will be submitted to the Graduate School by the Administrative Coordinator.

3.15 Appeals Process

Appeals for waivers to any of these policies and procedures are made to the Graduate Committee. You must outline the nature of your appeal and the desired outcome in writing, and submit the document to the Graduate Coordinator. A meeting of the Graduate Committee will be held and the decision will be communicated to you in writing.

*Any appeals for coursework to count towards a concentration must be made prior to the first day of classes in a given semester in order for the Graduate Committee to render a decision prior to the Add/Drop deadline for that semester.*

3.16 Assistantships/Financial Support

The faculty members in Industrial Engineering understand that financial aid is of prime importance to many students. As described earlier, the vast majority of Ph.D. students who already have a master’s degree in Industrial Engineering or a closely related field have assistantships. Unfortunately, very few entering M.S. students receive funding from the Department. Occasionally, some M.S. students who demonstrate a high level of academic achievements may receive assistantships in later semesters.

The following information provides more details on assistantships should you receive an offer at any point in your time at Clemson. Please read this very carefully so that you fully understand all requirements of the assistantship before you accept the offer.

3.16.1 Description of assistance available

Graduate assistantships are available in teaching and research. Graduate teaching assistantships include graders, laboratory assistants/instructors and teachers of record. These may be in the form of ¼-time (10 hours per week) ½-time (20 hours per week) or ¾-time (28 hours per week) appointments. Graduate research assistantships are generally made by individual faculty members to conduct research on specific projects. These may also be ¼-time, ½-time, or ¾-time appointments.

Fellowships are available from organizations outside Clemson University. Information on these opportunities is available from the department and from the Graduate School website ([www.grad.clemson.edu/fellowships.php](http://www.grad.clemson.edu/fellowships.php)).

Your responsibilities and details of your financial support are included in your official offer letter from the Department Chair and Graduate Coordinator. This letter requires your signature indicating your acceptance of the terms. (Teaching assistants will receive a separate communication with more detail as to their specific assignments, such as course sections, etc.) To maintain your assistantship, you must complete the duties in a satisfactory manner and make satisfactory progress toward your degree.

There are some overarching factors that govern both teaching and research assistantships.

- Continuation of assistantships and fellowships is contingent upon satisfactory academic performance, as well as satisfactory performance of assigned duties associated with the assistantship.
- All research contract- and grant-supported graduate assistantships are subject to continued funding by the contracting agency.
- You are required to be on campus for the full term of your appointment as indicated on your offer letter. If you cannot be present on the first day prescribed on the offer letter, or if you cannot stay in Clemson until the final date on the offer letter, you MUST receive permission directly from your faculty supervisor. Alternatively, you can simply decline the offer.
- All graduate students holding a teaching, research or graduate assistantship appointment at Clemson University shall be compensated based on a standard full-time (100%) equivalent (FTE) rate (12-month basis) established by the department. This rate shall also serve as the basis for all rate adjustments described below. Two standard FTE rates shall be established: one for master’s students and another for Ph.D. students. Generally, all such appointments shall be ½-time appointments (50% of the standard FTE rate).
- Compensation at a rate exceeding the standard FTE rate is allowed according to the following guidelines:
  - Funds for such additional compensation may be derived from a fellowship, traineeship or similar form of award (e.g. NSF, Edwards or Alumni fellowships) in which the awardee is selected competitively from a group of applicants on the basis of scholarly excellence. In this case, such additional compensation is limited to a maximum of 25% of the standard FTE rate. In the event that such an award exceeds this limit, the assistantship appointment shall be diminished in like proportion such that the total compensation does not exceed 75% of the standard FTE rate.
  - Funds for such additional compensation may also be derived from a research grant or contract provided you had a significant intellectual role in preparing the research proposal leading to the grant or contract, as judged by your Major Advisor. In this case, such additional compensation is limited to a maximum of 25% of the standard FTE rate.
  - Upon each anniversary of your matriculation, your Major Advisor may, at his/her discretion, reward you for exceptional performance by increasing your pay rate in an amount not to exceed 15% of the standard FTE rate using either incentive, research contract or other funds derived from a similar source. NOTE: You are responsible for submitting the required paperwork to initiate the raise.
  - The maximum compensation limit does not apply to students who do not hold a teaching, research or graduate assistantship appointment at Clemson University.

3.16.2 Minimum enrollment
A minimum enrollment is required for appointment as a graduate assistant. During the academic year, the minimum enrollment is nine semester hours for all graduate assistants. Minimum enrollment in the summer sessions is three semester hours per session. An assistantship may be withdrawn at any time for failure to maintain satisfactory enrollment status.
3.16.3 Employment-related information

3.16.3.1 Income taxes
The State of South Carolina, as well as the U.S. government, levies an income tax. Therefore, as a general rule, state and federal taxes will be withheld from your pay and you will need to file income tax returns with both the state and federal taxing agencies.

3.16.3.2 Paydays
Employees receive pay every two weeks for the period ending the 15th, and ending the 30th (or 31st) of each month. When you go on the payroll for the first time, you will have a two-week lag before you will be paid. This “lag pay” is paid out after your termination from your position.

3.16.4 Paperless pay
Stipend checks must be direct-deposited through the University system. You must fill out an “Authorization for Deposit of Net Pay” Form upon starting your assistantship. To view your pay stub and other employment-related information on go to Blackboard (bb.clemson.edu) click on “Human Resources Self Service (View Paycheck, Benefits, etc.)” and relogin into Peoplesoft. From the menu within Peoplesoft you are able to review paychecks, acquire tax information and access other employment information.

3.16.5 Work injury protocol
Should you be injured during the course of your employment responsibilities, you must immediately report the injury to your supervisor. Your supervisor should then immediately call the workers’ compensation insurance company. Their medical manager will gather information about the accident and direct you to a healthcare facility or physician for treatment. No coverage will be provided for work-related claims unless reported by your supervisor before you receive medical treatment at the authorized provider.

In the event of severe injury/emergency, call 911 first, and then execute the above procedures.

3.16.6 Workload
The normal ½-time graduate assistantship workload is 20 hours per week (average). Students are sometimes hired for 12.5% (5 hours), 25% (10 hours), 37.5% (15 hours) and 75% (28 hours) of full-time work, under appropriate circumstances. You should be aware of both your academic and work obligations, and are encouraged to discuss any problems with faculty.

3.16.7 Work product
Computer programs written, data generated, discoveries made, derivations developed, etc., in the course of your assistantship are the property of Clemson University.

3.16.8 Reduction of pay
Normally, your agreed-upon workload will be submitted as hours worked for each payroll period. However, if the amount of work you perform consistently deviates below the required workload, your pay will be reduced accordingly. Due to the procedure in which time sheets are currently used, it may be necessary to implement any pay reductions in the pay period.
following the one in which the work deficiency actually occurred. Pay also may be withheld from students who violate the vacation policy (see below).

3.16.9 Vacation policy

As a rule, graduate assistants do not accrue paid vacation time. Your work timeframe should not be perceived to be the same as the semester class schedule. In the event of a death in your immediate family, illness of a close family member or personal illness or hardship, you may request up to four weeks leave without pay per semester and one week of leave without pay per summer session from your immediate supervisor.

3.16.10 Military leave policy

The Graduate School has ruled that a graduate student on military leave, for example summer camp, will not receive a stipend for the period of that leave. Students planning to take military leave should notify the departmental secretary of the inclusive dates. Short periods of about one week can be taken as regular vacation with no interruption in pay. Students leaving the campus for six weeks to attend summer camp must obtain written permission from the dean of the Graduate School to be excused from the continuous enrollment provision.

3.16.11 Holidays

Graduate students are entitled to take as holidays the days on which the University is officially closed. See the official University holiday schedule at http://www.clemson.edu/employment/benefits/holiday.html.

3.16.12 Termination of pay

Pay for any session will end when you leave Clemson or are no longer available for work assignments. Normal termination dates for the spring and fall semesters for students not continuing into the next session is graduation day. Any deviations from these dates must be approved by your Major Advisor or the department chair.
4 THE DOCTOR OF PHILOSOPHY DEGREE

The Doctor of Philosophy is the highest academic degree offered. The Ph.D. program emphasizes scientific and analytical foundations as well as concepts useful for practice at the highest professional levels. In addition to formal coursework, a Ph.D. student devotes significant time to independent study, participation in seminars, and preparation of a dissertation based on independent and original research. The basis for granting the Ph.D. includes:

- A grasp of the subject matter contained in the broad field of industrial engineering.
- Competency to plan and conduct independent and original research that contributes to knowledge in a focused area of industrial engineering.
- The ability to adequately and professionally communicate in oral and written form.

4.1 Summary of Ph.D. Degree Requirements

Pursuing a doctoral degree involves the following minimum requirements:

- It is mandatory for a Ph.D. student to have a Major Advisor by the end of their first Spring semester in the Ph.D. program. The Major Advisor must have an appointment in the Industrial Engineering department at Clemson. See Section 4.4 for further details.
- If a student wishes to continue in a Ph.D. program after obtaining an MS from the IE Department at Clemson University, or wishes to transition from an MS student into a PhD student, the student must complete an application to the Ph.D. program. The application includes a CV, statement of purpose, and two letters of recommendation. This includes having the support from at least one faculty member willing to serve as the Major Advisor. If admitted, the student needs to submit a GS-14 or GS2-14.
- Completing at least 18 credits of doctoral research (IE 9910) exclusive of any research credits earned at the master’s level.
- Completing at least 12 credits of coursework, exclusive of IE 9910 research credits.
- Completing a minimum of:
  - 60 semester credit hours of graduate course work (including IE 9910 credits) beyond a baccalaureate degree; or
  - 30 semester credit hours of graduate course work (including IE 9910 credits) beyond a Master’s degree.
- Passing all Doctoral Examinations.
- Presenting a research topic at a conference (or in the IE Department’s Seminar Series).
- Submitting at least one manuscript for publication to a refereed journal prior to the Dissertation Defense.
- Satisfying the University’s degree requirements addressed in the Graduate School Announcements.
- Finally, at least one-half of the total graduate credit hours shown on the GS2, exclusive of any dissertation research, must be selected from courses numbered 8000 or above.

4.1.1 Residence for doctoral degree

Residence is a necessary concept in graduate education, particularly in the preparation of the dissertation. The purpose of residence is to require you to spend a specified minimum amount of time in direct personal association with members of the faculty of the University and under direct advisement of your Major Advisor and Advisory Committee, and to participate in other
normal activities pertinent to graduate education such as seminars and close association with other student researchers.

To receive the Doctor of Philosophy degree, you must complete at least 15 hours of graduate credit including research credit hours (9910) on the Clemson University campus in a continuous 12-month period.

For students employed substantially more than ½-time, a statement specifying the manner in which the residence requirement is to be satisfied shall be formulated by your Advisory Committee and included in your curriculum. Also, upon completion of the final examination, your Advisory Committee will forward to the Graduate School a statement approved by the department chair and college dean certifying that residence requirements have been met.

Exceptions to the residence requirement may be granted by the dean of the Graduate School. Major Advisors seeking an exemption to this policy must submit an academic plan for the student that is signed by the Major Advisor and the department chair.

4.1.2 Coursework restrictions

Students in the Ph.D. program cannot enroll in courses associated with the Master of Engineering (MEng) Program in Capital Projects Supply Chain. This includes IE 8500-8590.

4.2 Breadth Requirement

Although the Ph.D. degree in Industrial Engineering (IE) at Clemson requires specialization in some discipline of IE, students must also acquire breadth of knowledge in their discipline. This breadth will facilitate collaborative research opportunities for IE students, and will allow them to be more versatile in their careers after graduation.

The breadth requirement focuses on the following four areas:

- Human Factors IE 8000
- Optimization IE 8030
- Probability and Statistics IE 8090
- Engineering Economics IE 6840

Areas can be satisfied by one of the following mechanisms:

1. By taking the corresponding IE course and earning a C or better (or “pass”).
2. Via allowable substitutions of those classes taken at Clemson.
3. By petition to the graduate committee.

The third mechanism can be used to satisfy at most two classes. Those classes must be taken at the graduate level. Petitions must be made to the Graduate Committee within his/her first semester as a Ph.D. student at Clemson, but should be done before the first week of classes. This petition should include the course syllabus and textbook used (along with performance in the class). The committee will use this information, along with the student’s grade obtained in the course and institution at which the class was taken, to make a decision. Their decision will be final.

Important Note: The breadth requirement must be complete before the student takes his/her comprehensive exam.
Each student must complete and maintain the Breadth Requirement Form (available from the Department’s website). This form should be completed no later than the end of the student’s first semester in the Ph.D. program at Clemson.

4.2.1 Substitutions for Breadth Courses
IE 8030 is considered to be a graduate-level introductory course to both deterministic and stochastic optimization methods. If a student has prior knowledge in these areas, one of the following courses would be considered a suitable alternative:
- IE 8600 – Dynamic Programming
- IE 8800 – Advanced Methods in Operations Research
- IE 8880 – Advanced Probabilistic Methods

IE 8090 is considered to be a graduate-level introductory course to both probability and statistics. If a student has prior knowledge in these areas, one of the following courses would be considered a suitable alternative:
- IE 8880 – Advanced Probabilistic Methods
- MATH 8000 – Probability
- MATH 8010 – General Linear Hypothesis I
- MATH 8020 – General Linear Hypothesis II
- MATH 8030 – Stochastic Processes
- MATH 8050 – Data Analysis
- MATH 8060 – Nonparametric Statistics
- MATH 8070 – Applied Multivariate Statistics
- MATH 8090 – Time Series Analysis, Forecasting, and Control

The student has the option to appeal to the Graduate Committee for approval of a course not listed on either approved substitution list.

4.3 Qualifying Examination Requirement
Beginning in the 2015-2016 academic year, Ph.D. students will be required to take qualifying exams at the end of the first year of study. There will be two exams: one that broadly covers human factors, and one that broadly covers operations research. Details of the exam structure, content, and the methods to prepare for the exams will be released in the next version of the Handbook.

4.4 Advisor Requirement and Advisory Committee
All Ph.D. students, after passing the qualifying exams, must always have a research advisor, select an Advisory Committee, and file Form GS2. The Advisory Committee consists of a student’s research advisor and at least three additional faculty members. Faculty members from outside the Department of Industrial Engineering are permitted to be members of the Advisory Committee; however, a simple majority of the committee (including the Major Advisor) must be from the Department of Industrial Engineering at Clemson.

If a student does not have an advisor for a span of 30 contiguous days after passing the qualifying exam, then that student’s case is automatically brought to the graduate committee. The graduate committee can decide to (a) remove the student from the Ph.D. program, (b) articulate a set of requirements that the student must satisfy, by a certain date, or (c) table making a decision on the student until a given time. Option (c) requires the department chair’s approval.
4.5 Dissertation-related Doctoral Examinations

Doctoral students are required to successfully complete three examinations: the Comprehensive Examination, the Dissertation Proposal, and the Doctoral Dissertation Defense.

4.5.1 Comprehensive exam

Passing the Comprehensive Exam is the mechanism by which each doctoral student demonstrates depth of knowledge in their chosen field. There are three main components to the exam: 1) Dissertation Prospectus, 2) Written Examination, and 3) Oral Examination. This exam is administered by the student’s Advisory Committee and reflects a set of topics that the committee specifies based on the student’s intended area of research. It is recommended that this exam be attempted for the first time within 16 months of entering the doctoral program but must be attempted for the first time within 21 months of entrance. Students who fail the Comprehensive Exam on the first attempt may be granted a second attempt by the Advisory Committee. Failure of the second attempt will result in dismissal from the program.

Dissertation prospectus

The Dissertation Prospectus is a written document (approximately 10 pages in length but no more than 15 pages; 12-point font/double spaced) describing the intended area of the student's dissertation research. The Prospectus has the following structure:

- **Abstract** – Up to 100 words briefly summarizing the Prospectus
- **Introduction** – A brief description of the intended area dealing with its scope, significance, potential for research, and relation to the student's doctoral coursework.
- **Literature review** – A description and citations of prior research in the area. This will demonstrate the student's knowledge and the state of research in the chosen field.
- **Research questions, research significance, and potential research contributions** – Descriptions of two or more problems of current interest in the area, including their relevance, importance to the field, and research potential contributions of the student in advancing research in this area.
- **Approach** - This optional section will describe the approach the student intends to take and any information (such as a proposed timeline, experimental strategy, or analytical development required) that could assist the committee in its assessment. The purpose of this section is to allow the committee to provide constructive advice to assist in developing a Dissertation Proposal.

The Dissertation Prospectus may have an alternative format with the approval of the Advisory Committee and concurrence of the student. Alternative formats must be documented by memorandum to the Graduate Coordinator prior to the beginning of the Comprehensive Examination; this memorandum must describe the alternative format and must be signed by all members of the Advisory Committee and the student.

The written Dissertation Prospectus is to be provided to the committee at least ten calendar days in advance of the Oral Comprehensive Examination. The format of the document should follow the Graduate School's formatting requirements for theses and dissertations.
Written/oral exam structure
The Advisory Committee will construct a Written Examination to test the candidate’s knowledge of their area of specialization within Industrial Engineering. It is a take-home exam and should last 10 calendar days. The Advisory Committee determines the exact nature and scope of the exam. The Comprehensive Examination concludes with an Oral Examination where the student presents his/her Dissertation Prospectus, including an introduction to the areas or problems where a contribution to research will be made. The Advisory Committee can pose questions on any of the following:
- Components of the research plan
- Answers to the Written Examination questions
- Other topics related to the proposed area of specialization

Written/Oral Exam content
The purpose of the Comprehensive Exam is to test the student’s ability to convey a deeper level of knowledge on subjects related to their chosen area of expertise, but not necessarily specific to their dissertation topic. Questions should not resemble exam questions found in the Core Knowledge Requirement coursework. The intent of the Comprehensive Exam is to explore the student’s true understanding of their chosen field and, as such, must contain adequate rigor to demonstrate knowledge at the Ph.D. level.

4.5.2 Dissertation proposal review
The Dissertation Proposal Review is conducted after the Doctoral Candidate has progressed in their research to the point that a document and presentation can be made that identifies the research topic, a description and citations of prior and recent research in the area that demonstrates an in-depth knowledge of the area and the state of research in the area, preliminary findings, and a proposed set of research questions that will be addressed in the final dissertation. The Candidate must have completed the Breadth Requirement before scheduling this review. Candidates should conduct this review as soon as possible but no later than one year after passing the comprehensive exams or one month after successfully completing the Breadth Requirement if this occurs after completing of the Comprehensive Exam.

This is not an examination (in the sense of a limited number of attempts), but a necessary step to gather input from the Advisory Committee regarding research topic and proposed direction. To that end, the exact structure for the Dissertation Proposal Review is established by the student’s Advisory Committee. The typical process involves the student submitting a document to their Advisory Committee that includes the abovementioned items and discussing the document with their Advisory Committee at a formal meeting. The student must make a formal presentation covering the research and any results that have been obtained. It should be noted, however, that the focus of the process is to gather input from the Advisory Committee; not defending the research or the document. Successfully completing this milestone is documented on a Departmental form entitled “Dissertation Proposal.”

4.5.3 Doctoral dissertation defense
The final examination is the Doctoral Dissertation Defense in which the student presents the completed Dissertation to their Advisory Committee. The Advisory Committee’s examination typically focuses on the dissertation, but may include questions related to other components of the student’s program as well. If the student fails his or her Doctoral Dissertation Defense, the
Advisory Committee may grant a second attempt; however, failure of the second examination will result in dismissal from the Graduate School.

4.5.4 *Timeline for dissertation-related exams*

While there are some time-based regulations on doctoral students imposed by the graduate school. The IE Department imposes the following deadlines:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive Examination First Attempt</td>
<td>Within 21 months of matriculation</td>
</tr>
<tr>
<td>Advisory Committee Established and Form GS2 filed</td>
<td>Within 2 semesters of entering the doctoral program</td>
</tr>
<tr>
<td>Comprehensive Examination Second Attempt (if needed)</td>
<td>Within 6 months of failing the first attempt</td>
</tr>
<tr>
<td>Dissertation Proposal Review First Attempt*</td>
<td>Within 12 months of passing the Comprehensive Examination*</td>
</tr>
<tr>
<td>Dissertation Proposal Review Completed</td>
<td>At least 6 months before attempting the Doctoral Dissertation Defense</td>
</tr>
<tr>
<td>Doctoral Dissertation Defense</td>
<td>In the final semester, according to the deadlines established by the Graduate School</td>
</tr>
</tbody>
</table>

* This assumes the Candidate has successfully completed the Core Knowledge Requirement. If this is not true, the Dissertation Proposal Review has a deadline of being completed within one month of successfully completing the Core Knowledge Requirement.

4.6 *Dissemination Requirements*

It is critical in each Ph.D. student’s development that the student begin to disseminate his/her research prior to graduation. To address this, each Ph.D. student must:

- Prepare and present a research topic at a conference (or in the IE Department’s Seminar Series).
- Submit at least one manuscript for publication in a refereed journal prior to their Dissertation Defense.

Each Ph.D. student must communicate his/her completion of these two items to the Graduate Coordinator.
### Checklist/Worksheet of Requirements

Use the following checklist to track your completion of program requirements.

<table>
<thead>
<tr>
<th>What</th>
<th>When to Complete</th>
<th>How/Who</th>
<th>Date Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select Major Advisor</td>
<td>Before the end of your second semester</td>
<td>Notify Graduate Coordinator</td>
<td></td>
</tr>
<tr>
<td>Appoint Advisory Committee</td>
<td>Before the end of your first year</td>
<td>Notify Graduate Coordinator</td>
<td></td>
</tr>
<tr>
<td>Successfully complete the Qualifying Exam</td>
<td>After the second semester (date to be determined)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepare and submit Form GS2</td>
<td>Before the end of your first year</td>
<td>In consultation with Major Advisor and Advisory Committee</td>
<td></td>
</tr>
<tr>
<td>Attempt comprehensive exam for first time</td>
<td>Within 21 months of matriculation</td>
<td>In consultation with Major Advisor and Advisory Committee; success recorded on Form GS5D</td>
<td></td>
</tr>
<tr>
<td>Complete Breadth Requirement</td>
<td>Prior to first attempt of Dissertation Proposal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successfully complete Dissertation Proposal Review</td>
<td>Must complete no less than 6 months prior to the final exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply for diploma</td>
<td>Beginning of final semester*</td>
<td>Fill out online via SISWeb</td>
<td></td>
</tr>
<tr>
<td>Order cap and gown</td>
<td>Beginning of final semester</td>
<td>Order through bookstore</td>
<td></td>
</tr>
<tr>
<td>Submit dissertation</td>
<td>Approved copies at least 2 weeks prior to final examination</td>
<td>Supply to Advisory Committee members</td>
<td></td>
</tr>
<tr>
<td>Successfully complete Doctoral Dissertation Defense</td>
<td>At least 3 weeks prior to graduation*</td>
<td>Major Advisor files GS7D with Graduate School</td>
<td></td>
</tr>
<tr>
<td>Submit completed manuscript to Graduate School for formatting review</td>
<td>At least 2 weeks prior to graduation*</td>
<td>Submit online*</td>
<td></td>
</tr>
<tr>
<td>Complete format revisions; gain manuscript approval by Graduate School</td>
<td>At least one week prior to graduation*</td>
<td>Via email and website; the manuscript review office will notify you of any revisions required</td>
<td></td>
</tr>
</tbody>
</table>

Specifics available on Graduate School website - [www.grad.clemson.edu](http://www.grad.clemson.edu)
5 THE MASTER’S OF SCIENCE DEGREE

You may pursue the Master’s of Science (M.S.) degree in Industrial Engineering by either the non-thesis or thesis options. These options are designed to provide you with a strong foundation across the breadth of industrial engineering and sufficient flexibility so that the degree is tailored to your background and career objectives.

The non-thesis option is an excellent choice for most students. This option provides a solid background for students seeking industrial employment after graduation as well as those who wish to pursue the Ph.D. The thesis option is available if you have a very strong interest in research and you can identify a faculty member who agrees to be your major advisor.

We provide requirements for both the non-thesis and thesis options below. Additional information on course offerings at the graduate level can also be found at http://www.grad.clemson.edu/programs/cd_course.php.

5.1 The Core Knowledge Requirement

Students must demonstrate an understanding of the breadth of industrial engineering by completing the following classes:

- IE 8000 Human Factors Engineering
- IE 8030 Engineering Optimization and Applications
- IE 8090 Modeling Systems Under Risk

5.2 Non-Thesis Option

The non-thesis option requires a minimum of 30 graduate semester hours of coursework. This option is recommended for all master’s students except those with special interests in research. The coursework associated with this option provides an excellent background both for students seeking industrial employment after graduation as well as those who anticipate entering a doctoral program.

5.2.1 M.S. Non-thesis Program Requirements

Students pursuing the M.S. degree via the non-thesis option must satisfy the requirements listed below.

1) Core Subjects
   - IE 8000 Human Factors Engineering
   - IE 8030 Engineering Optimization and Applications
   - IE 8090 Modeling Systems Under Risk
2) At least 18 semester credit hours of coursework must be in IE.
3) At least 30 semester credit hours of coursework in total must be taken.
4) At least one-half of the total graduate credit hours shown on the GS2 must be selected from 8000-level courses.
5) Courses taken outside of IE can be selected as follows:
   - All graduate-level courses in the College of Engineering and Science
   - Graduate-level courses in Accountancy and Finance, City and Regional Planning, Construction Science and Management, Economics, Management, Packaging Science, Psychology, and Technology Entrepreneurship
All other classes would need to be approved on a case-by-case basis.
- No research or independent study credits from other departments are accepted.

**Important Notes:**
- A graduate-level IE course must be a minimum three-credit course. Research credits (IE 8910) will not count towards the non-thesis requirement.
- Students can enroll in a maximum of three credits of IE 8900.
- Master of Science (MS) students cannot enroll in Master of Engineering (MENG) courses (IE 8500-8590).

5.2.2 **Becoming a non-thesis student**
When a student selects the non-thesis option, he or she should use the information provided below to construct a plan of study and then schedule a meeting with their GS2 advisor. The GS2 advisor will be assigned before the end of the first semester at Clemson. At the meeting, the plan of study is finalized, the advisory committee is assigned, and the GS2 form can be then completed. Based on the structure of this option, students may complete their degree in three academic semesters (or one calendar year if courses are taken during the summer).

5.2.3 **IE 8900 Enrollment**
Students who exhibit exceptional performance may be invited to join the research team of a faculty member and conduct a limited scope research project that counts as one 3-semester hour course. Invitations to participate are extended by individual faculty to students whom they judge to be qualified. Each student is limited to a maximum of three credits of IE 8900.

5.2.4 **Program Focus Areas**
Students may consider further specializing by taking a group of classes from such focus areas as Human Factors and System Safety, Logistics and Transportation, Optimization and Modeling, or Quality. However, this is not a requirement. The plan of courses must only follow the guidelines set forth in Section 5.2.1. A sample of courses that would be representative of each focus area follows.

- Human Factors and System Safety: IE 6180, 6300, 6630, 6870, 6890, 8010, 8020, 8110, 8130, 8150
- Logistics and Transportation: IE 6560, 6570, 6650, 6820, 8040, 8650, 8860, 8870
- Optimization and Modeling: IE 6820, 6850, 8600, 8040, 8800, 8810, 8860, 8870
- Quality: IE 6520, 6600, 6620, 6630, 8040, 8050

5.2.5 **Students Enrolled in the BS/MS Option**
Students in the BS/MS option may count *up to 12 credits of graduate IE courses* towards both their BS and MS degrees. Since the 6000-level of a required 4000-level class is not eligible, students frequently capitalize on this opportunity by taking the 6000-level of an IE technical elective while an undergraduate because that same course will count towards the BS degree and towards their MS degree in IE at Clemson. There are three important requirement associated with this program:

1) To be eligible, the student must have completed the bachelor's curriculum through the junior year (minimum 90 credits) and have a minimum overall grade-point ratio of 3.4.
2) All other requirements presented in Section 5.2.1 still hold.
3) The combined bachelor’s/master’s degree (documented on GS6BS/MS) must have a minimum combined total of 150 credit hours. This total may contain a maximum of 6 credit hours of thesis research and all credit hours to be included from courses taken after receiving the baccalaureate degree must be in 6000 level or higher courses.

Full details can be found at
http://gradspace.editme.com/AcademicRegulationsA thruD#combined.

5.3 Thesis Option

The thesis option requires a minimum of 30 graduate semester hours of coursework (classes and research) and successful completion of a thesis. If you wish to pursue this option, you must first find a faculty member who has research interests consistent with yours and who will agree to be your major advisor.

5.3.1 M.S. Thesis Program Requirements

Students pursuing the M.S. degree via the thesis option must satisfy the requirements listed below.

1) Core Subjects
   - IE 8000 Human Factors Engineering
   - IE 8030 Engineering Optimization and Applications
   - IE 8090 Modeling Systems Under Risk
2) At least 15 semester credit hours of coursework must be in IE.
3) At least 6 semester credit hours of thesis research (IE 8910).
4) At least 24 semester credit hours of coursework in total must be taken.
5) At least one-half of the total graduate credit hours shown on the GS2 (exclusive of any thesis research) must be selected from 8000-level courses.
6) The student and major advisor shall select specific courses that support the thesis research.

Important Notes:
- Students must have an approved GS2 on file to enroll in thesis research hours (IE 8910).
- Thesis students cannot count IE 8900 credits towards their degree.
- Master of Science (MS) students cannot enroll in Master of Engineering (MENG) courses (IE 8500-8590).

5.3.2 Becoming a thesis student

You and your major advisor select the remaining members of the advisory committee and develop a plan of study. Besides the core subjects, the remaining hours are selected to support the research as well as to augment your background. In addition, thesis research represents an original contribution to the selected field of study; hence, the program of study will also include at least 6 semester credit hours of thesis research.

Once you have decided to pursue the thesis option, identified a major advisor and advisory committee, and defined the program of study, you must complete Form GS2 to document these decisions. An approved GS2 formalizes the coursework requirements for the
degree and must be on file in the Department prior to registering for IE 8910 (thesis research) credits.

After a thesis topic is selected, you must schedule a thesis proposal presentation to your advisory committee. You must provide the committee with a thesis proposal document at least two weeks (14 calendar days) prior to the presentation.

Prior to graduation, you must schedule your thesis defense. You must provide the committee with a final thesis document at least two weeks (14 calendar days) prior to the presentation.

Specific dates for completing various steps and forms are shown in Section 5.4.

5.4 Process and Procedures

There are some deadlines internal to the IE Department, as well as University and Graduate School deadlines. University and Graduate School deadlines can be found at: http://grad.clemson.edu/Deadlines.php. In addition, guidance on the formatting and submission process of theses and dissertations can be found at: http://grad.clemson.edu/manuscript.php.

Use the following checklist for deadlines within the Department.

<table>
<thead>
<tr>
<th>What</th>
<th>When to Complete</th>
<th>How/Who</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decide on thesis or non-thesis option</td>
<td>Before the end of your second semester</td>
<td>Notify GS2 Advisor</td>
</tr>
<tr>
<td>Appoint a thesis Advisory Committee</td>
<td>Within the first 12 months</td>
<td>In consultation with your Major Advisor</td>
</tr>
<tr>
<td>(thesis students only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepare/file plan of study (GS2)</td>
<td>Before the end of your second semester (or first full year for thesis students)</td>
<td>In consultation with your GS2 Advisor or Major Advisor</td>
</tr>
<tr>
<td>Notify Graduate Coordinator of intent to</td>
<td>Beginning of final semester</td>
<td></td>
</tr>
<tr>
<td>graduate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successfully complete your thesis proposal</td>
<td>Must complete no less than 6 months prior to the thesis final defense</td>
<td></td>
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<tr>
<td>presentation (thesis students only)</td>
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<tr>
<td>Successfully complete your thesis final</td>
<td>At least 1 week prior to date that thesis is due to the University</td>
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<tr>
<td>presentation (thesis students only)</td>
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</table>
6 THE MASTER OF ENGINEERING DEGREE

The Master of Engineering (MEng) degree is a terminal master’s degree developed exclusively for working professionals seeking advanced education while remaining a full time employee. The MEng is a coursework-only degree delivered exclusively online. The program consists of 10 courses that the students take in lockstep fashion over a 30-month period; one course at a time, three courses per year. New cohorts begin in May of each year and no other entry is allowed. The MEng coordinator is Dr. William G. Ferrell, Jr.

6.1 Courses
The program consists of 10 classes:
   - IE 8500 Introduction to Capital Projects Supply Chain Design
   - IE 8510 Data Collection and Analysis
   - IE 8520 Modeling and Decision Making
   - IE 8530 Foundations of Quality
   - IE 8540 Fundamentals of Supply Chain and Logistics
   - IE 8550 Capital Projects Supply Chain
   - MGT 8560 Business Fundamentals for Supply Chain Management
   - IE 8570 Industrial Safety and Risk Management
   - IE 8580 Case Studies in Capital Projects Supply Chain
   - IE 8590 Capstone Design Project

Students in the MEng program cannot enroll in courses associated with the M.S./Ph.D. program.

6.2 Process and Procedures
6.2.1 Schedule of courses
Classes will be offered in the following sequence with “May” representing the semester between May through August, “August” representing the semester between August through December and “January” representing the semester between January through May.

<table>
<thead>
<tr>
<th>Year</th>
<th>Semester starting month</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>May</td>
<td>IE 8500</td>
</tr>
<tr>
<td></td>
<td>August</td>
<td>IE 8510</td>
</tr>
<tr>
<td>Year 2</td>
<td>January</td>
<td>IE 8520</td>
</tr>
<tr>
<td></td>
<td>May</td>
<td>IE 8570</td>
</tr>
<tr>
<td></td>
<td>August</td>
<td>IE 8530</td>
</tr>
<tr>
<td>Year 3</td>
<td>January</td>
<td>IE 8540</td>
</tr>
<tr>
<td></td>
<td>May</td>
<td>MGT 8560</td>
</tr>
<tr>
<td></td>
<td>August</td>
<td>IE 8550</td>
</tr>
<tr>
<td>Year 4</td>
<td>January</td>
<td>IE 8580</td>
</tr>
<tr>
<td></td>
<td>May</td>
<td>IE 8590</td>
</tr>
</tbody>
</table>

6.2.2 Appeals process
Appeals for waivers to any of these policies and procedures are made to the MEng Committee. Students should outline the nature of their appeal and the desired outcome in writing, and submit the document to the MEng Coordinator. A meeting of the Graduate Committee will be held and the decision will be communicated to the student in writing.
6.3 Applying to the Program

6.3.1 Applying to the MEng program at Clemson
The online application can be found at http://www.grad.clemson.edu/prospectiveStudents.php On the right hand side, there is a large orange button “Apply Now!” Click on this and follow the instructions. When you get to the place where you must specify the degree to which you are applying, be sure to enter 446.

6.3.2 Admission requirements
Minimum requirements to be considered for admission to the MEng program are:
1. An undergraduate degree from a 4-year university.
2. Three (3) years creditable experience after the undergraduate degree has been obtained.
3. Letter of recommendation from a supervisor indicating you are person who is highly motivated, organized and is a top candidate for this program.
4. Either calculus courses taught for engineering or a business calculus course plus a statistics course. Topics that should be covered in these classes can be found on the Master of Engineering website.

6.3.3 Transfer credits
The MEng has some unique features and is also a degree that is taught in lockstep fashion so each course utilized information taught in all previous courses. As such, students are not permitted to transfer courses from other Universities.

6.3.4 Costs
For current tuition and fees, see www.grad.clemson.edu/Financial.php.