The following are examples of situations that are considered plagiarism:

1. To copy words and ideas without giving appropriate credit is plagiarism.
2. To copy someone else's work and submit it as your own is plagiarism.
3. To use ideas (e.g., to steal them from someone else and pass them off as your own is plagiarism.

The following are announcement policy.

It is the responsibility of every member of Clemson University to enforce the academic policies.

If ideas are borrowed and attributed to the source, plagiarism is not an issue. However, if ideas are copied and attributed to the source, plagiarism is deemed a form of academic dishonesty. All cases of plagiarism are reported to the Clemson University Graduate and Professional Programs Office.

Plagiarism - Representation of another's work as one's own. The following webpage link:

Plagiarism - Representation of another's work as one's own. The following webpage link:

http://www.clemson.edu/academicintegrity/policy/

Misrepresentation of other ideas - the unauthorized use of privileged information.

False results - results of modes, including the purpose of a commission of committing data with prior to individuals within the committee. Among the activities to be avoided are:

- Covering words and ideas from others' work without giving appropriate credit.
- Copying someone else's work and submitting it as your own.
- Using ideas (e.g., to steal them from someone else and pass them off as your own.)

The following are examples of situations that are considered plagiarism:

1. To copy words and ideas without giving appropriate credit is plagiarism.
2. To copy someone else's work and submit it as your own is plagiarism.
3. To use ideas (e.g., to steal them from someone else and pass them off as your own is plagiarism.

The following are announcement policy.

It is the responsibility of every member of Clemson University to enforce the academic policies.

If ideas are borrowed and attributed to the source, plagiarism is not an issue. However, if ideas are copied and attributed to the source, plagiarism is deemed a form of academic dishonesty. All cases of plagiarism are reported to the Clemson University Graduate and Professional Programs Office.
- If you change the words in a sentence but do not change the structure this is regarded as plagiarism.
- If you take or copy a vast number of words or sentences or paragraphs from a paper, book, journal or any other literary source so that it makes up a large amount of your work whether you give credit or not is still plagiarism because this goes against United States government guidelines of “fair use”. Basically, if you have copied a text or diagram exactly as in the original source then this is unlikely to be considered fair use. If in some way you have creatively rewritten the material then this more than likely will be considered fair use. However, the more you use or borrow from other sources the less likely it is to be considered fair use.
- Anything directly taken from copyrighted material is plagiarism unless permission is granted to use those materials from the author/publisher.

After reading the above sections and following statement, please sign your acknowledgement:

* The undersigned attests that she/he acknowledges receipt of this manual, has read and understood pages 2 and 3 of the manual, has reviewed the Graduate School’s policies on academic integrity, recognizes the importance of maintaining the highest ethical standards in research, and covenants with the other members of the department to conduct his/her research and professional life in a manner consistent with these details.

Printed Name

Signature

Date

* Document collected and maintained by the MS&E Program Manager.
I, the undersigned, have reviewed the 2015-2016 version of the MSE Graduate Student Manual.

Materials Science & Engineering
Department of

STATEMENT OF AGREEMENT
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This petition will be scored within three months.

Graduate Standards Committee in consultation with the student coordinator and the chair or the change, a student may petition in writing to both the student coordinator and the chair of the student is subject to the policies in effect at the time of beginning their program. If policies

This document is subject to periodic review and revision by the MSEF Faculty. Each graduate

Jurisdiction/Authority

Inconsistencies or omissions should be brought to the attention of the Program Coordinator.

We hope this manual is useful both to graduate students and their faculty advisors any

semester.

committee members responsible. Dates and times of consultation meetings are announced each

help students to select their specific research areas and allow them to choose their advisories.

Materials Science & Engineering and the Graduate School Information from these organizations

All new students are required to attend the orientation sessions held by the Department of

valid.

policies in this manual apply only to students joining MSEF during the year for which this manual is

The faculty of MSEF has adopted these policies. Since policies can be modified each year, the

WWW.CLEMSON.EDU/GRADUATE/

Announcements, which may be found on the Clemson Graduate School website at

Requirements specified herein are in addition to those described in the Graduate School

a catalogue of departmental procedures and requirements that affect graduate students. These

with the operational aspects of this department. As such, it serves as an informational source and

WELCOME to the Clemson University Department of Materials Science & Engineering

INTRODUCTION
QUICK REFERENCE GUIDE - STUDENT CONTACT POINTS

Building Keys:
 Administrative Assistant, 161 Sirrine Hall

Course Selection (1st semester only, students without research advisor):
 Graduate Program Coordinator, 161 Sirrine Hall

Graduate Assistantships:
 Graduate Program Coordinator (students without advisor), 161 Sirrine Hall

Graduate Student Forms:
 Program Manager, 162B Sirrine Hall

Payroll:
 Administrative Assistant, 161 Sirrine Hall

Purchasing:
 Administrative Assistant (dependent on type of order), 161 Sirrine Hall

Student Records:
 Program Manager, 162B Sirrine Hall

Travel:
 Administrative Assistant, 161 Sirrine Hall
ADMINISTRATIVE PERSONNEL

Ms. Dione Swope (161 Simms Hall, 656-5900; dswope@eclason.edu)

Office Manager – assists the Department Chair in general departmental functions

Ms. Tonya Belleose (161 Simms Hall, 656-5900; tbellose@eclason.edu)

Program Assistant

Ms. Hailey Cox (161 Simms Hall, 656-1512; hcox@eclason.edu)

Graduate Program Coordinator

Prof. Gary Luchtel (161 Simms Hall, 656-2994; gluchtel@eclason.edu)

Graduate Standards Committee: coordinates and advises graduate students on academic matters and provides opportunities for professional development.

Graduate Program Coordinator: works with students to develop a research advisor and select a research advisor for those graduate students who have not yet selected a research advisor.

Program Assistant

Ms. Hailey Cox (161 Simms Hall, 656-1512; hcox@eclason.edu)

Grads

Program Coordinator

Ms. Tonya Belleose (161 Simms Hall, 656-5900; tbellose@eclason.edu)

Office Manager – assists the Department Chair in general departmental functions

Ms. Dione Swope (161 Simms Hall, 656-5900; dswope@eclason.edu)

GRADUATE PROGRAM PERSONNEL
support for faculty and students utilizing the analytical equipment. Performs outside industrial/contract laboratory analysis.

**Dr. Kate Stevens** (285 Sirrine Hall, 656-5972, ksteven@clemson.edu)

**Technical Services Manager** – manages daily operation of Physical Testing Facility. Supervises and schedules daily work of technical staff (Mr. James Lowe, Mr. Stanley Justice, Mr. Paul Rowland and Mr. David White), negotiates and schedules industrial testing/trials in the fabric (nonwoven and woven) formation, fiber extrusion, finishing, and/or Physical Testing Facility. Makes recommendations to the Department Chair regarding laboratory equipment and/or safety, computer, space needs.

**Mr. Stanley Justice** (Lab B16 Sirrine Hall, 656-5978, jstanley@clemson.edu)

**Laboratory Specialist** – designs, modifies, and/or installs new or existing equipment to support teaching, research, and public service projects throughout MS&E. Supports industrial projects in the fabric (nonwoven and woven) formation and/or finishing labs.

**Mr. James Lowe** (Lab 280 Sirrine Hall, jaelowe@clemson.edu)

**Laboratory Technologist** - maintains Chemical Inventory list for MS&E laboratories and ensures that all MS&E Labs housing Chemicals are meeting Clemson University (CU) Environmental Health and Safety compliance (Sirrine, Olin, Rhodes, & AMRL). Conducts chemical safety training sessions for faculty, staff and students. Carries out external testing in the Physical Testing Facility in addition to training students on the equipment. Supports industrial projects in the fabric (nonwoven and woven) formation and/or finishing labs.

**Mr. Paul Rowland** (Lab G56 Sirrine Hall, rowlanp@clemson.edu)

**Laboratory Specialist** – supports research in Sirrine and Olin Halls (Tuesday-Friday) and AMRL (Monday) with respect to maintenance and design of equipment components for research, teaching and public service projects. Supports industrial projects in the fabric (nonwoven and woven) formation and/or finishing labs.

**Mr. David White** (162C Sirrine Hall, wdavid@clemson.edu)

**Systems Programmer** – provides Computer and Electronics support to MS&E faculty, staff and students (Sirrine, Olin and AMRL). Assists in solving IT problems. Designs electronic circuits for instrument interfacing. Responsible for updating the MS&E websites and provides support of industrial projects in the fabric (nonwoven and woven) formation and/or finishing labs.

**Off Campus Recruitment and Outreach**

**Mr. Bob Bowen** (162A Sirrine Hall, rlbowen@clemson.edu)

**Director of Recruitment**, The Department of Materials Science and Engineering,

**Off-Campus Recruitment Coordinator**, The College of Engineering and Science – directs recruitment efforts for undergraduates for the department of Materials Science and Engineering, meets with prospective graduate students when they visit campus, disseminates general information about the department and the University to prospective graduate and undergraduate students, recruits off campus regionally for the Department and the College, represents the Department and the College at conferences and conventions.
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<th>Winter 12/6</th>
<th>Spring 12/9</th>
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<td>1/2/6</td>
<td>3/9/12</td>
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<td>Semester</td>
<td>6/3</td>
<td>9/3</td>
<td>1/15/12</td>
</tr>
<tr>
<td>Student Category</td>
<td>Full-Time Students</td>
<td>Full-Time Students</td>
<td>Full-Time Students</td>
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<td>Graduate Assistants</td>
<td>Graduate Assistants</td>
<td>Graduate Assistants</td>
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Enrollment Limits: Maximum/Minimum Credit Hours

The Office of Registration Services provides an online guide: www.register.clemson.edu

Registration Procedures:

Personal for current Coordinator.

and will help them plan their initial program of study. See "Graduate Program Report to the Graduate Program Coordinator. He/she will be their initial academic advisor prior to registration for the first semester of study. Beginning graduate students must

Registration for New Students

REGISTRATION
FINANCIAL SUPPORT

Financial support is awarded based on several factors, which include academic merit, the teaching needs of the department and also the availability of funds. Eligible first year graduate students are awarded a Teaching Assistantship (T.A.) for the first two semesters. This assistantship includes a Stipend (pay) and a Graduate Assistant Differential (GAD), which is that portion of the tuition and fees paid by the university for the student. The remainder of the tuition and fees paid by the student every semester and summer session is termed the Graduate Fee. In certain instances, first year students may be awarded a Research Assistantship (R.A.), or a combined R.A./T.A.. In both cases, the assistantship includes the stipend and GAD. After the two semesters, most students will be placed on a R.A. or on a research stipend (which does not include a GAD). Any student receiving financial support must log into the Time Capture system http://workgroups.clemson.edu/TIME_CAPTURE/to record their time each week.

Graduate students are eligible for continued financial support provided they are: (1) enrolled full-time; (2) in good academic standing, i.e., not on probation; (3) making satisfactory progress towards their degree based on their research and work ethic; and (4) the availability of funds. If a student changes his/her subject area after support has been extended, support eligibility will be reviewed and may be terminated.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE 9610</td>
<td>Fiber Formation</td>
</tr>
<tr>
<td>MSE 8620</td>
<td>Fiber Physics II</td>
</tr>
<tr>
<td>MSE 9610</td>
<td>Fiber Science III</td>
</tr>
<tr>
<td>MSE 8400</td>
<td>Analytical Methods in Textile and Polymer Science</td>
</tr>
<tr>
<td>MSE 8590</td>
<td>Introduction to Polymer Science II</td>
</tr>
<tr>
<td>MSE 8510</td>
<td>Introduction to Polymer Science I</td>
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<td>MSE 8510</td>
<td>Introduction to Polymer Science I</td>
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<td>MSE 6570</td>
<td>Color Science</td>
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<td>Transport Phenomena Phase Transformations in Materials</td>
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<td>MSE 8770</td>
<td>Kinetics of Phase Transformations</td>
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<td>Phase Equilibria in Materials Systems</td>
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<td>MSE 8250</td>
<td>Solid State Materials Science</td>
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<td>MSE 8270</td>
<td>Fracture and Failure</td>
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<td>MSE 8200</td>
<td>Mechanism in Solids</td>
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<tr>
<td>MSE 8190</td>
<td>Inorganic Materials Characterization</td>
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<tr>
<td>MSE 8100</td>
<td>Fundamentals of Materials Science</td>
</tr>
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**Recommended Pre-Requisites**

**Graduate Courses**
POLICIES AND PROCEDURES FOR MASTER’S DEGREES

Important: Please follow the “M.S. Student Checklist” on page 55 to make sure that you are on the track to complete your degree requirements.

Introduction
These policies supersede any policies written prior to the current semester. Academic regulations pertaining to the various degree programs are published in the “Graduate School Catalog” the “Graduate School Policy Handbook” and on-line at www.clemson.edu/graduate/students/policies-procedures/index.html.

Selecting a Research Advisor
All beginning M.S. students are asked to confer with each MS&E faculty member in whose general area they may have an interest. Upon having done so, the student selects a research advisor subject to the consent of the selected faculty member. The student subsequently begins to formulate research plans with the advice of their advisor.

Advisory Committee
The student, working with his/her advisor, selects an advisory committee. The advisory committee should be chosen by the beginning of the student’s second semester. The advisory committee shall consist of a minimum of three (3) members who hold faculty appointments at Clemson University. A majority of the committee shall hold tenure/tenure track faculty appointments in the Department of Materials Science & Engineering. Part-time visiting and other nontenure-track faculty employed by Clemson University, Emeriti faculty, and Adjunct faculty may serve as advisory committee members but may not serve as chair. The chairperson of the committee is usually the research advisor and must hold a full time faculty appointment at Clemson University. If the student has declared a minor, at least one of the committee must be from the faculty of the program offering the minor.

The student’s advisory committee will perform the following functions:

- Provide advice and consent in the selection of course work by the student;
- Assist in supervision of the student’s thesis research program;
- Meet with the student six months prior to the final oral examination to review progress;
- Administer the final oral examination;
- Approve the Master’s thesis when requirements are met; and,
- Initiate recommendation to the Graduate School for awarding of the degree.
in MSE 8010 Graduate Seminar in Materials Research. Every semester, with the exception of the semester they present in seminar and are enrolled in MSE 8000 Seminar in Materials Research. All students must also enroll in MSE 8000 Seminar in Materials Research in every semester. A student has to maintain a minimum 3.0 overall GPA in order to graduate within a maximum of six (6) years after admission.

Students pursuing an M.S. in MSE are required to take at least six (6) MSE graduate courses. Core Courses

Of MSE 8010 required for graduation, 5 credits of MSE 8000 are not toward the total number of semester hours of Graduate credit (exclusive of corequisite required courses during a normally scheduled course offering). However, these graduate level courses, normally, these are selected required courses, normally, these are selected at the discretion of a student’s advisor. It is important that the recommendation of the graduate level courses be met early in the program in order to provide the student with background for the requirements of a student’s dissertation. It is important that the recommendation be selected as a condition of a student’s admission. In addition, and/or in conjunction, core + other courses required to have the appropriate technical background prior to the MSE 8010 Graduate Program is not designed to be a “terminal or entry-level” program. Course Requirements

**Student must register for MSE 8010 to receive credit for seminar presentation. Does not include MSE 8000/8010 Materials Research Seminars.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Core Courses</td>
<td>4 + Other = 8</td>
</tr>
<tr>
<td>Core Courses</td>
<td>24 Hours</td>
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<tr>
<td>Research Credit Hours</td>
<td>12</td>
</tr>
<tr>
<td>6-Hour Thesis (Grad School Requirement)</td>
<td>16</td>
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<tr>
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<td>4</td>
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<td>Theoretical Research MSE 8910</td>
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<td>Theses Defense</td>
<td>1</td>
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<tr>
<td>Exams</td>
<td>2</td>
</tr>
<tr>
<td>Research Credit Hours</td>
<td>12</td>
</tr>
<tr>
<td>Core + Other Courses Required</td>
<td>10</td>
</tr>
</tbody>
</table>

Minimum Degree Requirements for M.S. in MSE:
Curriculum Development – Plan of Study – GS2 Form

The GS2 is a set of electronic forms that serve to appoint the graduate advisory committee and notifies the Graduate School of the classes the student will take to fulfill the degree requirements. **It is important to note that any class listed on one’s GS2 must be completed before graduation. If changes are necessary, a revised GS2 must be filed.** This form may be found in the students iRoar portal entered via https://iroar.clemson.edu/registration.php.

The student’s advisory committee must approve all the courses by electronically signing the student’s GS2. All students are expected to develop an area of study with the advice and consent of their advisory committee.

The planned course of study, once approved, must be submitted to the Graduate School via the completion of the electronic GS2 found in iRoar. The GS2 must be completed as soon as the student talks with his/her advisor and determines the course of study he/she will pursue, and is due at the beginning of the second semester.

Procedure to Complete GS2:

1. Log into iRoar
2. Choose the “Student” tab
3. Under the “Registration” drop down, select “GS2 Committee Selection”
4. Fill out the form with your Committee Chair’s information along with your other committee members information. Once all information has been entered, submit the form for approval by the Committee Chair and additional committee members.
5. Once approved, log back into iRoar and under “Student” ➔ “Registration” select “GS2 Plan of Study”
6. Using the student’s anticipated graduation date for completion of research hours, their advisor’s input and research emphasis as guidance, the student should fill in the form.
7. Once completed, the form will be electronically submitted to the necessary parties for approval.
Results and Discussion

Approaches

Collection and the use of the data should be provided, as well as final evaluation information about the development of those procedures. Information about the data collection methods should include procedures and any type of experimental design and a matrix of experiments included the experimental/empirical/comprehensive design. The approaches should be used to accomplish the tasks listed in the objectives section. The approach should then be followed to accomplish the tasks listed in the objectives section. The approach should then be followed to accomplish the tasks listed in the objectives section.

Research Methodology

Outline the experimental hypotheses. If a hypothesis is suggested, it should be written first. The major objective whenever possible should be stated as a hypothesis with factors.

Research Objective

This section should contain a paragraph summarizing the major objective of the research.

Introduction

The thesis should include some brief introductory remarks and a summary of the expected characteristics for discussion.

To discuss the expectations for graduation, some expected results for the candidate and the committee should be stated in the thesis. An advisory committee pre-dissertation meeting is approximately six months before the expected final defense.

Pre-Dissertation Advisory Committee Meeting

- How to Publish a Scientific Paper by Robert A. Dreyfus.

For additional information on technical writing, the following are recommended:

- Graduate study.

Select a Research Topic

- Report the results of the problem in a concise, precise professional style.
- Effectively plan the work leading to the completion of the problem.
- Demonstrate knowledge relevant to a meaningful resolution of a specific problem.

The purpose of the M.S. thesis is to demonstrate the capability of the student to:

Masters Thesis

Research
Conclusions
In this section, the main challenging steps of research procedures have to be briefly discussed and their strong and weak points must be mentioned. The results of the conducted research have to be delivered in a concise form and the proposed mechanisms explaining the results should be clearly articulated

Significance
This section should be a brief summary of why it is important to conduct the proposed research. What are the results and how will they benefit the Materials Science & Engineering community?

Helpful Hints
• Students should use the recommended Graduate School format desired for references, font and other formatting items.
• Whenever possible, use the active voice as the use of the first person is generally discouraged in technical writing.
• Avoid starting sentences with numbers. Numbers less than or equal to ten should be spelled out. Numbers of 11 or more can be represented by Arabic numerals. However, if referring to an exact amount such as 1.0 mL, use numerals.

Graduate Diploma Application
Students apply for graduation through their iRoar account. Choose the "Apply for Graduation" link under the "Student Record" menu.

Thesis Deadline
A first draft of the thesis should be completed well before the date of the final oral examination. A final draft (approved by the advisor) should be submitted to the advisory committee at least two weeks before the oral exam. Consult your advisory committee for specific requirements.

Final Oral Examination
The final oral examination is given at least three weeks before the date on which the degree is to be conferred. This is given under the authority of the student’s advisory committee in accordance with Graduate School deadlines. The committee will have been given final draft copies of the thesis a minimum of two weeks prior to the exam.

The chair of the student’s advisory committee will schedule the examination that is administered by the committee. During the examination, the student will be expected to orally present the findings of the research, support various aspects thereof, and be questioned on integrated knowledge of related coursework. The Graduate School will be notified of the date, time and place of the examination at least ten days prior to the date scheduled. At the same time, members of the MS&E faculty, the Graduate Standards Committee, the Dean of the Graduate School, and MS&E students will be invited to attend the examination. Procedurally, the examination normally consists of a 30-45 minute presentation made by the student followed by questions posed, first by those in attendance and second by the members of the student’s graduate advisory committee.
In case of failure, the advisory committee is required to submit the GS7-M Form to the MSEE Program Manager and to the Graduate School stating that the student failed the final examination. A second failure on the final examination shall result in the student being declared ineligible for a Master's Degree in Clemson University.

2. Additional study in their area of specialty. 

1. Additional work on the thesis and resubmission of the thesis to the advisory committee. This will result in at least one of the following actions to be taken:

   Unsatisfactory performance on the final examination, as determined by the advisory committee. Once complete, the form should be submitted to both the MSEE Program Manager and to the Graduate School. This form must be filled out and taken to the defense by the student and signed by the advisor. The results of the oral defense are submitted to the Graduate School via the GS7-M Form.
POLICIES AND PROCEDURES FOR PH.D. DEGREES

Important: Please follow the “Ph.D. Student Checklist” on page 57 to make sure that you are on the track to complete your degree requirements.

Introduction
These policies supersede any policies outlined in graduate manuals written prior to the current semester. Academic regulations pertaining to the various degree programs are published in the “Graduate School Catalog,” the “Graduate School Policy Handbook” and on-line at www.clemson.edu/graduate/students/policies-procedures/index.html.

Selecting a Research Advisor
All beginning Ph.D. students should confer with each MS&E faculty member in whose general area they may have an interest. Upon doing so, the student should select a research advisor subject to the consent of the selected faculty member. The student subsequently begins to formulate research plans with the advice of his/her advisor. The student should have determined their research advisor by the beginning of their second semester in the program.

Advisory Committee
The student, working with his/her advisor, should select an advisory committee no later than the beginning of the third semester. The Ph.D. advisory committee shall consist of a minimum of four (4) members who hold faculty appointments at Clemson University. A majority of the committee shall hold tenure/tenure track faculty appointments in the Department of Materials Science & Engineering. Part-time visiting and other nontenure-track faculty employed by Clemson University, Emeriti faculty, and Adjunct faculty may serve as advisory committee members but may not serve as chair. The chairperson of the committee is usually the research advisor and must hold a full time faculty appointment at Clemson University. If the student has declared a minor, at least one of the committee must be from the faculty of the program offering the minor.

The student’s advisory committee will perform the following functions:
- Provide advice and consent in the selection of course work by the student;
- Assist in supervision of the student’s dissertation research program;
- Administer the comprehensive and final oral examinations;
- Meet with the student twelve months prior to the final oral examination to review progress;
- Approve the dissertation;
- Initiate recommendation to the Graduate School for awarding the degree.

Curriculum Development – Plan of Study – GS2 Form
The student should develop a plan of coursework with the assistance of the research advisor and input from the advisory committee. This should be done by the end of the third semester. This plan is formally submitted to the Graduate School via the GS2 Form (See Curriculum Development - Plan of Study-GS2 Form on page 15).
One additional MSE 8000 level course.

MSE 8190 Inorganic Materials Characterization Techniques

MSE 8400 Analytical Methods in Textile and Polymer Science

One of the following:

MSE 8270 Kinetics of Phase Transformations

MSE 8260 Phase Equilibrium in Materials Systems

MSE 8100 Introduction to Materials Science

Mandatory Courses:

Four (4) of their core courses.

Year 1: In order to be allowed to take the Comprehensive Exam, they must have taken at least one of their third/final/half-year semester and all the following courses within their first two years.

Advisory Committee: Students are required to complete the first four (4) core courses by the end of the first year. These courses are listed below.

Where applicable, should be made by the student in consultation with his/her advisor and will result in the completion of the (5) core courses. Decisions about which courses to take will be made by the student in consultation with his/her advisor.

Students pursuing a Ph.D. in MSE are required to take the following courses which will student must register for MSE 8110 to receive credit for seminar presentations.

** Does not include MSE 8000/8000/MSE 8000/8000/MSE 8000/8000

<table>
<thead>
<tr>
<th>2 Presentations</th>
<th>Seminar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive and Dissertation Defense</td>
<td>Exams</td>
</tr>
<tr>
<td>Research Credit Hours: Credit Requirement (Total Course Plus) 18 hours (Grad School)</td>
<td>9910</td>
</tr>
<tr>
<td>Core Courses Required</td>
<td></td>
</tr>
<tr>
<td>Total Hours of Course</td>
<td>16 hours</td>
</tr>
</tbody>
</table>

Minimum Degree Requirements for the Ph.D. in MSE
Other courses, which the supervisor/committee recommends to the student, may be taken; however, the grades in these courses will not be used in calculating the minimum GPA required to take the Ph.D. Comprehensive Examination. *All students must also enroll in MSE 8000 Seminar in Materials Research every semester, with the exception of the semesters they present in seminar and are enrolled in MSE 8010 Graduate Student Seminar in Materials Research.* The student must maintain a minimum 3.0 overall GPA for all classes taken during his/her graduate study to be eligible for Ph.D. degree.

If a student has completed comparable course work or obtained a Masters degree at another Institution, she/he must still complete the five (5) core classes in the Department of MSE at Clemson University with the first four (4) completed prior to attempting the Comprehensive Exam. If student has received their MS from the Department of MSE at Clemson University, the student may CU MS&E can use courses taken during their M.S. to fulfill core course requirements for the comprehensive exam. Their GPA of these courses will be not considered if the average of their M.S. courses was equal to or above a 3.50 GPA.
content of Comprehensive Examination and Expections

2. Dissatisfied with the Proposal: If they have already earned the M.S. degree at

Those students not meeting this time deadline will be

Students who do not achieve at least a GPA of 3.5 after completion of four (4) of their core

Qualification and Eligibility Requirements for Students to Take Comprehensive Exam

Ph.D. COMPREHENSIVE EXAMINATION
1. Determining Ph.D. Comprehensive Exam Schedules

If a student starts his/her comprehensive exam in the Fall semester, the deadline dates for the following academic year will be:

- Electronic submission of an intent to take the comprehensive exam (form “Declaration of Qualification for Ph.D. Comprehensive Examination” found on page 25) must be presented to the MS&E Graduate Standards Committee Chair with a printed copy to the Program Manager: before August 15th
- Electronic submission of a written proposal (PDF file), exam statement (form “Ph.D. Comprehensive Examination Statement of Topical Areas and Personal Contribution to the Formulation of Ideas & Research” found on page 30) to the Graduate Standards Committee Chair (the 1st attempt): before September 15th
- Review of proposal by the student’s committee members and the external examination chair. All reviewers will calculate a score and the external examiner will average the scores and submit comments/scores to the Graduate Standards Committee Chair by October 15th
- Feedback to the student on the written proposal by the Graduate Standards Committee Chair: by October 15th
- The student should meet with each member of the examination committee for additional comments concerning the written proposal and topics: before November 15th.
- If the student receives a “pass” in the first attempt of the written proposal, schedule Oral Exam: before December 1st
- If the student receives a “fail” in the first attempt of the written proposal, he/she should complete the following—
  - Resubmission of a written proposal: before January 15th
  - Receive feedback from committee members/external reviewer (of the 2nd attempt of the written proposal): before February 15th
  - Schedule the Oral exam – the first attempt (if the student receives a “pass” in the written exam in the 2nd attempt): before March 15th
- If the student receives a “fail” in the first attempt of the oral exam, the time for the second attempt will be suggested by the committee. This second attempt must be completed before September 15th of the following year, or less than one year from the start date to satisfy a Graduate School Regulations.

If a student starts his/her comprehensive exam in the Spring semester, the deadline dates for the following academic year will be:

- Electronic submission of an intent to take the comprehensive exam (form “Declaration of Qualification for Ph.D. Comprehensive Examination” found on page 25) must be presented to the MS&E Graduate Standards Committee Chair: before December 15th
- Electronic submission of a written proposal (PDF file), exam statement (form “Ph.D. Comprehensive Examination Statement of Topical Areas and Personal Contribution to the
The Graduate Committee Chair will assemble all examination topics for all
readbacks of the written proposal by October 15th or February 15th.

Then the examination committee, led by the external chair, will discuss and confirm
the initial oral examination topics, and submit them along with the written proposal
by September 15th or January 15th.

The student should work with his major advisor and advisory committee to select
three oral examination topics.

Timeline for selection and approval of the three oral examination topics will be:

Start date (no earlier than August 15th):
- Complete before January 15th of the following year or by the end of the
  second attempt as suggested by the committee. This second attempt must be
  completed before January 15th.

Prepare for the oral exam – the first attempt (if "pass" the written exam in the
first attempt): before September 15th.
- Receive feedback from committee members/external reviewers (or the 2nd attempt
  or before May 15th).
- Receive commission of a written proposal: before May 15th.
- Should complete the following:
  - If the student receives a "fail" in the first attempt of the written proposal, he/she
    should complete the following:
  - Oral examination is to be scheduled for the first attempt (if "pass") the written exam in
  March 15th or
  - Additional comments concerning the written proposal and topics: before March 15th.

The student should meet with each member of the examination committee for
feedback to the student on the written proposal by the Graduate Standards Committee
Chair by February 15th.

Review of proposal by the student’s committee members and the external
examination chair.
- All reviewers will calculate a score and the external examiner will
  review the scores and submit comments to the Graduate Standards Committee.
- Review of proposal (the 1st attempt): before January 15th.

Formulation of ideas & research (found on page 30) to the Graduate Standards
DECLARATION OF QUALIFICATION
FOR
PH.D. COMPREHENSIVE EXAMINATION

Legal Name: __________________________________________

Date: __________________________________________

List Core Courses Taken and Grade Received in Each:

__________________________________________________

__________________________________________________

__________________________________________________

__________________________________________________

Core Course GPA: ____________________

I am hereby eligible to begin the Ph.D. Comprehensive Examination, beginning:

____ Fall Semester _________(year) – Form must be submitted prior to August 15th

or

____ Spring Semester _________(year) – Form must be submitted prior to December 15th

Student Signature ______________________________________

Advisor’s Name (please print) ____________________________

Advisor’s Signature _________________________________

Submit to Program Manager
For submission and evaluation, the student must provide a well-written research proposal and a brief description of the research methods to be used. The proposal must clearly state the objectives, methodology, and expected outcomes of the research. It should also include a literature review and a description of the theoretical framework. The proposal should be submitted to the faculty advisor for review and approval.

The research proposal should be structured as follows:

1. Introduction
   - Background
   - Literature review
   - Research questions

2. Methodology
   - Research design
   - Data collection
   - Data analysis

3. Expected outcomes

4. Conclusion

The evaluation of the research proposal will be based on the following criteria:

- 8% Possible
  - Technical Writing Quality:
    - 7% Possible
    - Style
    - Content

- 10% Possible
  - Potential Original Contribution and Impact on Science and Engineering:
  - Relevance to current research and future developments
  - Relevance to student's field of study

- 40% Possible
  - Research Plan Section:
    - Results and Analysis
    - Theoretical and Methodological Aspects
    - Research Objectives and Hypotheses

- 40% Possible
  - References:
    - Proper citation of sources
    - Extensive and relevant references

Any additional comments or feedback provided by the faculty advisor should be included in the proposal. The proposal should be submitted to the faculty advisor for review and approval.

2. Guidelines for the Ph.D. Research Proposal

Each comprehensive committee is asked to use the following table when evaluating the written research proposal provided by the graduate student. The table includes the following sections:

- Methodology
- Research Design
- Data Collection
- Data Analysis
- Expected Outcomes

The evaluation of the research proposal will be based on the following criteria:

- 8% Possible
  - Technical Writing Quality:
    - 7% Possible
    - Style
    - Content

- 10% Possible
  - Potential Original Contribution and Impact on Science and Engineering:
  - Relevance to current research and future developments
  - Relevance to student's field of study

- 40% Possible
  - Research Plan Section:
    - Results and Analysis
    - Theoretical and Methodological Aspects
    - Research Objectives and Hypotheses

- 40% Possible
  - References:
    - Proper citation of sources
    - Extensive and relevant references

Any additional comments or feedback provided by the faculty advisor should be included in the proposal. The proposal should be submitted to the faculty advisor for review and approval.
The research proposal defense is public and thus no request for confidentiality can be made to the examination committee, no exceptions.

The Research Proposal is intended to provide the student with the opportunity to:

a. Show they are capable of undertaking a specific research project on a chosen topic with minimum supervision in the area of specialization;
b. Demonstrate their ability and initiative to organize and plan such investigative work;
c. Undertake a literature survey and critically apply their findings;
d. Develop their ability to analyze and solve problems and produce or suggest rational solutions to such problems;
e. Interpret the data produced from their investigations and draw conclusions;
f. Present a concisely written research proposal;
g. Use appropriate information from the research proposal for the oral defense of said proposal;
h. Communicate to faculty the basic problem and the experimental, practical or theoretical work undertaken, and to discuss the results and conclusions to date.

While Research Proposals will vary to some extent in quantity and type of information, the various sections of the proposal should be structured as close as possible in the following way:

A. Statement of Research Objective
   A well-stated objective leads one directly to the approach that must be taken to accomplish the objective. This initial statement should be written such that any informed scientist should be able to understand what you intend to do. The research objective may be written in the following forms (other variations are possible):
   • The research objective of this proposal is to test hypothesis \( H \).
   • The research objective of this proposal is to measure parameter \( P \) to within an accuracy of \( A \).
   • The research objective of this proposal is to prove conjecture \( C \).
   • The research objective of this proposal is to apply method \( M \) from field \( F \) to problem \( X \) in field \( Y \).

B. Introduction and Motivation
   The introduction should explain why the project is considered to be of importance, be it from a financial, technological, environmental, or academic viewpoint. The reader should clearly understand your motivation for the work and why this research is necessary.

   The goal of the project should be reiterated next. This should be followed with an outline describing the specific tasks necessary to accomplish this goal. This should be written as concisely as possible.

C. Background
   This section should consist of a literature survey describing what has been done previously to solve the problem related to the research objective. Sufficient background should be given so that the reader will understand the techniques and
Padding, which could have been shortened or omitted. Moreover, the proposal length should not exceed 5,000 words, and should be no more than 15 pages long. This length is determined by the student, and should be used to promote a proposal of a scientific length. The proposal should indicate the extent of the student's involvement in the research, including the student's specific contributions to the project.

Statement of Research Contribution: The formulation of ideas and Plan of Research

A statement is required expressing the student's contribution to the formulation of ideas. The student's role in the research should be included, along with any assumptions made. The student may adopt a common research style, and refer to known materials in the field, such as books, journals, and conference proceedings. The proposal should indicate the student's potential for an original contribution to the field.

E. Potential Original Contribution and Broader Impacts for Science

Methods: If the initial plan is unsuccessful, additional methods should be considered. The student should consult with the faculty advisor on any modifications in the plan and alternative approaches. The student should be encouraged to design new experiments and research objectives. The student should be aided in using new experimental methods and procedures. The student should be encouraged to conduct experiments to evaluate these approaches.
The proposal must be typed, using standard 12 POINT typeface (Arial, Helvetica, Times New Roman), with double spacing on standard paper, leaving a margin of at least 25 mm (1 inch) on the left side, 20 mm (0.75 inches) on the right side and 25 mm (1 inch) top and bottom of the sheet.

Any acronyms used should be initially defined by fully writing out with the acronym in parentheses following the text, e.g. General Skewed Data (GSD). If several such abbreviations are to be used in the text, the student should also include a page with a glossary of terms.

Diagrams, graphs, charts, equations, etc. should be numbered consecutively throughout the proposal, or, better still, numbered consecutively within each section, e.g. Figure 2.3 (denotes the third figure in section 2). Whenever possible, charts, tables, etc. should be included in an appendix with only summary versions in the text.

Plagiarism and Inadequate Referencing

Plagiarism is strictly prohibited. Please refer to the pages 2-3 in “MS&E Graduate Student Manual” and any relevant Clemson University academic regulations for the definitions of plagiarism. Inadequate referencing is where students have indicated that they are quoting another person’s work but fail to reference it adequately in the discussion, resulting in confusion as to where their own work began and the cited work ended. The penalties for plagiarism and inadequate referencing are severe. Normally, it is a failed Project and possible expulsion from the MS&E program and Clemson University. No further warnings on violation of this type will be provided to the student.

Delivery of Written Proposal to Committee Members

The proposal along with three topics has to be submitted to the GSC Chair electronically. The proposal topic should be logically expressed and the proposal written in clear, unambiguous English.
personal contribution to the formulation of ideas & research PhD comprehensive examination statement of

Topical Areas and

I. Insert description

2. Insert description

3. Insert description

My advisor and committee members. They are:

Topical Areas selected for my comprehensive exam were completed by me after discussion with
3. MS&E Oral Ph.D. Comprehensive Exam Procedures Guidelines

**MS&E Oral Ph.D. Comprehensive Exam Procedures**

- One week before the exam, it is the responsibility of the student to email the committee members to confirm the time, date and place of the oral exam;
- On the day of the exam, the committee members and candidate should arrive five minutes before the presentation and the exam should start on time;
- Before the presentation begins, the appointed external evaluator should hand out to all attending faculty members the list of procedures for undertaking the exam;
- The external evaluator should ask the student if questions can be offered during or after the presentation and all committee members have to follow the student’s preference;
- The authority of the external evaluator to control discussions and exam progression should be recognized by all other members;
- The advisor of the student should not be allowed to enter into any discussion during the course of the exam without a clear indication by the external evaluator that doing so is acceptable;
- The time period of the exam should be divided into measurable milestones and the chair should indicate when discussions should end to insure exam progression; the entire exam should be kept to a two hour period;
- The voting for determining a Pass/Fail for the exam should be administered by secret ballot; it’s the responsibility of the external evaluator to bring the secret ballot box & scorecards to the exam. All members of the student’s committee and the external evaluator have votes. The student’s advisor does not vote.
- If a member of the committee is unable to attend the oral exam due to scheduling or sickness, the examination can continue. The final vote will be tallied if a majority of members are in agreement on the Pass/Fail decision. If an additional vote is needed, the missing committee member will meet within one week with the candidate to complete the oral exam and give their vote to the external committee chair.

**Description**

The oral examination will emphasize the candidate’s capability as well as basic knowledge. Each oral exam should be two hours in length. This time will be used for the research presentation, topic examination presentations and relevant questions. Approximately 20-30 slides should be prepared on the written research proposal and should be about 30 minutes in length. Students will be asked questions about their thesis proposal, the three examination topics and also any other questions that the committee deems relevant. The Question & Answer period is expected to range from 30 minutes to one hour in the examination.

Questions may be asked on

- The dissertation proposal;
- The three (3) examination topics;
- Any other “fundamental” MS&E questions that a Ph.D. in MS&E is expected to know (undergraduate MS&E knowledge plus core courses)
Final Oral Examination

Specific requirements:

An oral examination, to be given at least three weeks before graduation, will serve to

Dissertation

Graduation under the "Student Record" menu

Students apply for graduation through theirReached. Choose the "Apply for Application for Graduation and Diploma"

Committee to discuss the expectations for graduation.

Pre-defense advisory committee meeting

October 1st: Done with results of written exam.

The written proposal by October 1st.

Finishing the written exam proposal should be forwarded GSC Chair along with

The PhD student should then work with their research advisor to assemble the

Committee of at least one person (other than the research advisor and the examination chair/exam evaluator, no member)

The PhD student should initiate discussion with each of their advisory committee members (other than the research advisor) who have been identified and discuss the results of the written exam proposal.

Examination Topics to be Covered in Addition to Research

The committee chair will then collect the proposals and determine the outcome of the exam.

Committee (plus the chair of the examination committee) will then vote on whether the student has achieved the "pass" or "fail" status of the examination. The

At the end of all the presentations and once the committee has asked all questions that

Order that the committee sees appropriate:

The advisory committee may divide OYA into different sections or conduct them in any
interpretation of the research project and conclusions is required of the student. The committee will have already received final draft copies of the dissertation ten (10) business days prior to the examination. This examination will be conducted under the authority of the Ph.D. advisory committee. All MS&E faculty members will be invited to participate in the examination and to provide advisory comments to the committee.

Successful completion of this examination will result in a recommendation (GS7-D Form, www.grad.clemson.edu/forms/forms_graduating.php) by the advisory committee to the Graduate School that the Ph.D. degree be awarded. Unsatisfactory performance on the final examination will require either complete re-examination (with or without recommendations for additional work) or dismissal. A signed copy of the GS7-D must be submitted to the Program Manager and to the Graduate School regardless of pass or fail.
For all current policies, procedures, deadlines, and regulations regarding theses and dissertations, consult the Graduate School website: www.clemson.edu/graduate.

Duplication. Duplication usually takes no longer than one week. The cost for duplication depends on the length and the number of copies requested. The cost for duplication is calculated directly to the student by the Business Office of the University. Upon receipt of a quote from the Business Office, located in Stiles Hall, the student will need to pay the quoted cost. Duplication fees are payable at the Business Office, located in Stiles Hall. If the duplication is requested after the appointment, the student will need to pay the quoted cost. Duplication fees are payable at the Business Office.

A minimum of one bound copy must be made for the research advisor. Additional copies may be made for the advisor.

made to the thesis of dissertation.

written in final form. The theses committee will provide any comments or corrections that must be completed by the student to the dissertation. The dissertation must be written in a final form that is acceptable to the Graduate School (A.S., M.S., or Ph.D.). The written process begins toward the end of the research period. The document.

Writing the Thesis or Dissertation

These deadlines will result in a postponement of graduation.

Failure to meet any of these deadlines also means that the student will be unable to defend the dissertation and receive the degree. The deadlines for the theses depend on the date of anticipated graduation and are posted at the Graduate School. For more information, consult the Graduate School website: www.clemson.edu/graduate.

Planning Dissemination Timeline

Preparation of Theses or Dissertations
GRADUATE ASSISTANTSHIP AND FINANCES

Assistantship Award Policy
Assistantships are awarded based on many factors, including but not limited to: GPR, GRE scores, recommendations, previous schools, discipline, Statement of Purpose, and English language ability.

Assistantship Funding
The Department of MS&E uses two different sources for funding graduate students: State of South Carolina monies and funds from contracts, grants and donations. Students supported by state funds normally are assigned teaching assistant duties while those supported by research contract funds are assigned research duties. All assistantships may be subject to time limits as described below (depending upon the degree being pursued) and are contingent upon satisfactory performance and progress toward the degree by the student.

- Assistantships for M.S. students will normally last for a maximum of two years. The same time limit applies to fellowships awarded by the Department of MS&E. Assistantships for Ph.D. students will normally last for three years beyond the M.S. degree. The same applies to fellowships awarded by the Department.
- 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. If a research contract or grant is terminated before a student has completed his/her degree program, the Department will endeavor (on an individual basis) to provide financial support to allow completion of the student’s program. The foregoing statement should not be construed as an assurance of funding. The student is expected to complete his/her degree program in a timely fashion.

Work Load
The normal half-time (50%) graduate assistantship workload is 20 hours per week (average). Students are sometimes hired for 25% (10 hrs) or 37.5% (15 hrs) of full-time work, under appropriate circumstances. Students should be aware of both their academic and work obligations and are encouraged to discuss any problems with faculty.

Vacations
In addition to days off when the University is closed, students are allowed up to two weeks of vacation time each year. These days should be scheduled with approval of their advisor and these vacations must not interfere with T.A./R.A. responsibilities.

Start of Pay
Students are appointed to a graduate assistantship at the beginning of the first semester if the student is present and available for a work assignment at that time. Otherwise, pay will begin when the student is available for work. Students with research assignments should report to their research advisor. All other students should report to the Graduate Program Coordinator.
can apply for future consideration with the Department Chair.

Students who are part of a graduate program in the Department of MSE with an assistantship will not be notified of a position and their application will be reviewed by the chair. Any student not on an assistantship will be notified of a position in the spring or fall.

Students without assistantships or assistantship or fellowship must enroll in a minimum of six credit hours for the fall or spring session. Any student not on an assistantship will be notified of a position in the spring or fall.

Summer Enrollment

Students pursuing the vacation policy, as stated above, are subject to the following:

1. Must have completed all major courses and be approved by the Department Chair.
2. Must have an approved summer schedule.
3. Must have a minimum of 12 credit hours.
4. Must have a minimum GPA of 3.0.

Payment

Payment will be made to the student's account. Payment will be made by check or wire transfer. The student must provide the Department Chair with the necessary information to receive the payment.

Termination of Pay

Payment will be terminated if the student does not complete the required number of hours.

Forms and Documents

For complete information on employment requirements for international students, make an appointment at the Office of International Affairs (659-3614, E-301 Martin Hall) or visit the following website: https://www.clemson.edu/administration/hr/services/index.html. Electronic applications will be accepted at the Office of International Affairs (E-301 Martin Hall) or via their website.
Deferment of Graduate Fees

Graduate assistants may choose to defer tuition and fees. This is accomplished easily on the day of registration. Persons in the fee assessment area will have a list of all graduate assistants. Anyone listed may sign a note to defer these costs and these costs will be deducted from the first six full paychecks of the semester. It is not possible to defer fees for summer sessions. The student must pay these for each summer session.
In case of fire, exit the building immediately. Use stairwells, do not use elevators.

In case of tornado warning, take appropriate shelter. Use stairwells, do not use the elevator.

Emergency: The Clemons University Police Department (656-2277) is to be called for all major accidents. The Clemons University Police Department (656-2277) is to be called for all major accidents.

Parking Services (656-2277), ample parking is available. Parking on campus requires a permit that can be purchased at the building office.

Building Security

Deposits required for every key issued. See the "Quick Reference Guide" for the current key distribution. Keys must be turned in when no longer needed. Keys are issued to students and faculty. Keys must never be loaned to anyone else.

Keys

University

In case of mandatory evacuation, students will be notified through e-mail. Students will be dismissed for the day. Students should make plans to return to campus for the following week.

Parking Services

The department of the building student, the location of which will be shown to him or her upon becoming a student. MSPACE also maintains a mail slot for each student. Each student should have a current address, email address, and phone number on file with the department.

Notice

The Graduate Program Coordinators' task is to assist students with such questions. Students should not hesitate to ask questions concerning MSPACE policies and procedures.

General Departmental Information
Desks
It is the goal of the Department of MS&E 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 that first assigns a desk to each graduate assistant and graduate fellow, then to each unsupported M.S. thesis student. Remaining desks are allocated to all other students on a temporary use basis.

NOTE: Study facilities for graduate students are intended solely for studying and interacting with students. They are not to be used for socializing or temporary housing. Students abusing these privileges will forfeit them.

Room Use Policies
Certain classrooms and conference rooms are to be used by reservation only. For classroom reservations contact the Program Manager. To reserve the department’s conference room, Sirrine 158, contact an Administrative Assistant in Sirrine 161.

Computer Laboratories
Well-equipped computer laboratories maintained by Clemson Computing and Information Technology (CCIT) are located throughout campus. Visit their website www.clemson.edu/ccit for locations, help, details, and computing short courses.

Office Supplies
The department does not furnish office supplies to graduate students for personal use. The faculty advisor must authorize all research contract-related use of office supplies, including letterhead stationery.

Mail
All personal mail is to be directed to the student's home address. The department is not to be used as one's mailing address. Outgoing mail, both U.S. and campus mail, can be placed in the appropriate receptacle in the reception areas.

MS&E Copy Machines
Teaching assistants required to make copies for class may use this machine with an account number specific to the course provided by the instructor. Otherwise, department copy machines may not be used for personal copies.

MS&E Seminars
During the fall and spring semesters, the Department of MS&E sponsors a weekly seminar. Students and faculty give presentations about their research or other topics of interest to the department. Invited speakers from industry, government, and other academic departments are also included. All students are required to attend the seminars and faculty is expected to attend. If a student cannot attend a particular seminar, s/he should inform the seminar course coordinator ahead of time. The MS&E curriculum requires that all students enroll for this seminar each semester.
Recycle materials when possible.

Note: Do not pick up any box that has not been checked in.

Administrative Assistant receiving supplies from students. If boxes are not checked in, they are expected a package exchange.

Receiving Supplies

Use only supplies of the Department of MSE.

MSE Library

and also, more importantly, for the potential recommendations later in life.

At the start of each semester, photos of beginning students are taken for the MSE directory.

Photos

Graduate students should not access department files. Students should contact the Program.

Files

- Student Union (Federer-Brown University Union)
- Campus Police (Orange and Building, near Gate 10)
- CIL Computer Center (Ground Floor of Student Union)
- Graduate Student Center (702 Federer-Brown University Union)
- Student Development (707 Federer-Brown University Union)
- Parry Office (Admin, Service, Bldg.)
- International Student Services (E-209 Martin)
- Enrollment Services (E-209 Martin)
- Graduate School Office (Admissions Office-Admissions Halls)
- Registrar's Office (E-209 Martin Halls)

Phone Numbers to Know

Personal calling card:

Graduate students make research-related long distance calls at the request of an advisor.

Telephones

with authorization from their advisor.

Fax Machines
Professional Memberships
Students are encouraged to join professional organizations serving the Materials Science and Engineering community. Application forms for membership in various Materials Science & Engineering professional organizations may be obtained from appropriate faculty or online through the organization websites.

Local Graduate Chapters include:
- Materials Research Society (MRS) - Dr. Thompson Mefford (mefford@clemson.edu)
- Optical Society of America (OSA) - Dr. Stephen Foulger (foulger@clemson.edu)

Student Travel Overview
Department-specific travel information and guidelines from the Clemson University Travel Policy and Guidelines have been incorporated into this section. The complete Policy and Guidelines, including authority references and guidelines specific to university administration, is available at www.clemson.edu/finance/procurement/travel/studentguidelines.html, under the “Travel” tab in the sidebar. Any questions regarding travel should be directed to the Administrative Assistant in charge of travel in 161 Sirrine. Summarized MS&E procedures are as follows:

1. Complete “Request to Travel” form, obtain appropriate signatures (faculty member responsible for the account number to which it will be charged) and submit to the Administrative Assistant.
2. Enter travel status according to guidelines outlined herein.
3. Upon completion of travel, complete Travel Worksheet, obtain appropriate signatures, and submit to the Administrative Assistant for reimbursement.

Note: Hardcopies of all travel forms are located in the copy/work room in 161 Sirrine. If students have trouble using the electronic forms, please see one of the Administrative Assistants for assistance.

Student Traveler’s Responsibilities
When individuals file for reimbursement of travel expenses they are stating:
- They have followed the University’s travel policies;
- They have not nor will not receive reimbursement for these expenses from any other entity outside the University;
- None of the expenses are of a personal nature;
- All supporting documentation is on file with the department.

Under the Progressive Discipline Policy of the University, any employee who falsifies records or documents or willfully violates written rules, regulations or policies can be suspended or terminated from his/her job.

Reimbursement will be made upon completion of the travel. All travel vouchers must be submitted within the same fiscal year (July 1-June 30) in which the trip occurred.

All travel vouchers submitted for reimbursement are required to have the signature of the traveler and one other person authorized to spend funds from the account numbers that
An individual must be in travel status more than 10 miles from their residence or official headquarters to be eligible for reimbursement of meals.

Disbursements include the name and affiliation of the person sharing the meal, the nature of the business, and any documentation for which business meals, documented on Form W-2, may be necessary. For example, meals completed in the course of business can be considered income and reported on either W-2 Form. For example, meals on Form W-2, tax forms, for instance, means

If an individual on non-official travel receives reimbursement for meals, this amount must be allowed provided that a receipt and proper accumulation for the bank of charge will be allowed provided that a receipt and proper accumulation for the bank of charge when the dailylimit for meals is exceeded due to the cost of an official banquet.

Maximizing Reimbursement Reimbursement rates are variable. There are two maximums. First, for meals.

TODAY

The cost of travel since direct payment by CU is available using the department purchase order system. Although credit cards will be made to employees prior to the payment of travel expenses, it is recommended that a personal credit card be used for personal expenses. No reimbursement will be allowed.

Unauthorized Travel Costs

Official University business are not reimbursable. Paid the expenses. Travel expenses for spouses, friends, or other individuals not traveling on official business are not included. No reimbursement is given for meals or any additional expenses incurred. The maximum is an individual only if those expenses were incurred travel.

Expenses for Spouses or Other Individuals While Student Travels

Transportation to or from points of arrival and departure will be by the most economical method.

Travel by commercial airlines will be in coach or tourist class.

Expenditures for travel are reimbursed at a maximum of $200 per day. The maximum amount is $50 per day. No reimbursement is allowed for meals because it is a personal expense.

Accommodations

Professional and business accommodations are not reimbursable. Personal accommodations are not reimbursable. Personal accommodations are not reimbursable.

Expenditures for meals and personal accommodations are not reimbursable. No reimbursement for meals or personal accommodations is allowed.
**Travel Lodging**
Lodging expenses will be allowed subject to the following limitations, provided an original, itemized receipt is furnished. Lodging arrangements and any required deposits are the responsibility of the traveler and will be reimbursed as part of the travel expenses upon completion of the trip.

Actual lodging expenses will be reimbursed; however, the more moderately priced accommodations must be requested when a choice is available. Employees should request a state or government rate when available.

No reimbursement will be made for overnight lodging within 50 miles of the employee's official headquarters or residence.

The expense for shared lodging may be reimbursed to one employee if only one original itemized receipt is obtained. If the room is shared with someone other than a University employee, the single room rate will apply.

All necessary and reasonable tips for baggage handling will be reimbursed.

**Travel Miscellaneous Expenses**
Movies, bar bills, laundry, room service, safes and security insurance, health or spa fees, etc. will not be subject to reimbursement on the travel expense report. These are considered personal in nature and should be paid by the traveler.

**Foreign Travel**
Travel outside the continental United States, Alaska, Hawaii, Canada, Puerto Rico or the Virgin Islands requires approval prior to departure. A Foreign Travel Request must be filled out and approved before travel. Foreign travel funded from sponsored program activities must be approved in advance by Sponsored Programs Accounting.

While on foreign travel, actual lodging expenses will be reimbursed. Fees for the purchase of traveler's checks, passports and visas will be reimbursed provided a receipt is furnished. All expenses claimed must be converted to U.S. dollars and the conversion rate and computation should be shown on each receipt.

When an employee is on foreign travel, meal expenses not exceeding federal rates will be reimbursed. These rates are listed by country under the “Per Diems” tab at: www.state.gov/travelandbusiness/

**Travel by Automobile**
Automobile transportation may be used when common carrier transportation cannot be arranged satisfactorily, or to reduce expenses when two or more University employees are traveling together.

University employees may use their own automobile for official travel provided the University would incur no added expenses above that of other forms of transportation available. See the Administrative Assistant for current mileage rates for personal vehicles.
No student will be cleared to leave until these procedures have been completed:

**Interview**
- Inform the Program Manager of the upcoming departure and schedule an exit interview.
- Return all books and journals to the department library.
- Submit an electronic version of the thesis or dissertation.
- Clean assigned office space.
- Clean assigned laboratory space.
- Return all equipment and supplies to appropriate locations.
- Turn in all keys to current key manager (see "Quick Reference Guide").

**Final Checkout**

Vendor when it is submitted.

If reimbursement is not approved at the next level in the approval process, must accompany the travel document

Any expenses per person, per day, for meals, tolls, and lodging are allowed. All receipts and paid bills should be submitted. If receipts are not available, a request for reimbursement may be authorized.

Students must submit a receipt before departure for expenses of $5 or more except for meals, tolls, and lodging.

**Receipts**

Travel paid in cash at the time of the meeting. Reimbursement will be made after the trip is completed.

For reimbursement, submit a Direct Purchase Voucher and send it to Accounts Payable for proper handling.

If reimbursement is not approved at the next level in the approval process, must accompany the travel document.

Any expenses per person, per day, for meals, tolls, and lodging are allowed. All receipts and paid bills should be submitted. If receipts are not available, a request for reimbursement may be authorized.

Students must submit a receipt before departure for expenses of $5 or more except for meals, tolls, and lodging.

**Conference/Convention Reimbursement**

**Limitations**

DO NOT obtain additional coverage while in travel areas inside the reimbursement area. The insurance will be included in the automobile rental agreement. The insurance will be for collision damage and the driver will be responsible for all damage.

For travel, the insurance will be included in the automobile rental agreement. The insurance will be for collision damage and the driver will be responsible for all damage.

**Travel by Rental Cars**

For moving or non-moving violations, no reimbursement will be made to operators of state owned vehicles who must pay fines.

If reimbursement is claimed against a hotel or parking garage parking, it is not reimbursable. If reimbursement is claimed against a hotel or parking garage parking, it is not reimbursable. If reimbursement is claimed against a hotel or parking garage parking, it is not reimbursable. If reimbursement is claimed against a hotel or parking garage parking, it is not reimbursable. If reimbursement is claimed against a hotel or parking garage parking, it is not reimbursable.
GENERAL SAFETY AND HEALTH POLICIES

The MS&E Dept. takes the health and safety of its students, staff and faculty seriously. All students, staff and faculty are to follow the standards outlined by the Clemson University Office of Research Safety. The following are excerpts of those policies that the faculty have chosen to highlight.

Chemical Hygiene Plan

The chemical hygiene plan is designed to explain the roles and responsibilities of each person that works in a Clemson University laboratory. The plan also gives an overview of Clemson University’s safety program. The document is required reading for all lab workers. Once the plan is read, an acknowledgement sheet must be signed and filed. Any questions regarding this should be directed to the research advisor. New students will attend a safety seminar at the beginning of the fall semester each year. This will be conducted by MS&E faculty and staff.

Training

According to many governmental agency requirements, training must be taken by people that work in laboratories. The training required depends on what work is being done in the lab. All training modules are available at the Office of Research Safety website (http://clemson.edu/research/safety). Training should be completed before beginning work in the laboratory.

- Working with chemicals requires Chemical Hygiene Training
- Generating any chemical waste requires Hazardous Waste Training
- Working with biohazardous agents requires Biosafety Level 2 training
- Generating biological waste requires Biohazardous Waste Management training
- Work with blood or other potentially infectious materials requires Bloodborne Pathogen training (must be live initially)

Additional training is also required for working with any ionizing radiation or lasers.

Laboratory Operating Policies

Most of the rules for working safely in the laboratory are covered in the Chemical Hygiene Training, but there are some additional rules for working in MS&E. There are also some rules from the training the faculty has chosen to highlight:

- No food or drink is to be brought into or consumed in any laboratory.
- To facilitate cleaning, nothing is to be stored on laboratory floors.
- No protective gloves can be worn outside of the laboratories (i.e. hallways, offices, etc.)
- Only scientific charts and similar educational or reference materials are to be hung from laboratory ceilings or walls.
- Suitably sized posters or photos may be affixed to walls using non-damaging tape or hangers.
- Nothing is to be affixed to the laboratory doors.
- No laboratory doors including the exterior doors are to be propped open.
Faculty advisor for proper disposal of chemicals. Questions about disposal should be directed to the

Ph.D. in both the Hazardous Waste Training and the MS/EE Hazardous Waste Management.

Refer to instructions of chemicals in the HazMat book to down the chain. Follow the directions.

DfE: Regulations regarding chemical waste disposal can lead to staff issues. The university.

Hazardous Waste Management

Additional information for PPE can be found at the Research Safety website.

Labels compatible with the hazardous materials being used are also required.

Department representatives. If hazardous chemicals or biologicals are used, then lab coats and

personal protective equipment (including visors) are worn. Gloves, closed toe shoes and safety glasses (or

lab coat) must be worn. PPE used in the lab depends on the hazards present. PPE is required for PPE

may be required based on the hazards present. All PPE must meet OSHA requirements.

Laboratory includes: safety glasses (or splash goggles), lab coat and gloves. Additional PPE

is used to protect workers from exposure to hazards. Common PPE: Common PPE used in the

Personal Protective Equipment (PPE)

- Recycled paper and cans are to be placed in the appropriate containers.
- Any spills are to be reported immediately.
- Key coats in all doors are to be kept under lock and key.
- PPE placed in the appropriate dispenser.
- All spills/leakage of any material that can easily be placed in a trash receptacle is to be cleaned up and

washed out. Noxious fumes are to be placed on the chemical bulletin boards.
- All spills are to be minimized and clean and free of residue.
- All spills are to be cleaned off whenever vacuuming a room.
- All chemicals in the laboratory should be segregated and must be safely stored.
- Cleaners when no longer needed.

Personnel responsible. The contents are to properly disposed of and the bottles

All samples, bottles, standards, etc. are to be dated and identified as to contents and

When conducting research in the laboratory, plastic compartmentalized boxes are to be

All information, data, etc. are to be cleaned weekly. More frequently if required.

Nothing, including cars, is to be stored or left in the hallways.
Emergency and Accident Procedures
While following the safety rules and guidelines can help provide a safe working environment, accidents can and will still occur. It is very important that faculty, staff and students be aware of procedures in the event of an emergency. A list of potential emergencies/accidents is given below with instructions on how to proceed in each scenario.

**Fire:** Faculty, staff and students are not encouraged to fight fires. Only fires in which hazardous chemicals are not involved AND which are very small may be extinguished using a fire extinguisher. If the nature of the fire is not known or if the fire is not very small, exit the building and pull the fire alarm when exiting. When the fire alarm sounds all personnel in the building should meet in Trustee Park (across the street from Olin Hall). **Since we are located in many buildings on and off of campus, please refer to the specific building fire evacuation plan.** While fire alarms should be located near every exit from the building, if one is difficult to find, call 911 to report the fire.

**Chemical or Biohazardous Material Spill:** Cleanup of spill should only be done by personnel that are comfortable doing so. Do not clean up a spill of unknown materials. If a chemical or biohazardous material is spilled the first concern is decontamination of personnel. If it is spilled on a person, remove clothing on which the spill occurred and, if necessary, use the safety shower. Once all personnel are safe, contain the spill to be sure it does not go into drains or leave the immediate area. This can be done by surrounding the spill with absorbent material. Last, clean up the spill. The spill residues should be collected for pick up by Research Safety.

For large spills or spills of unknown origin (if the nature of the spill cannot be determined by asking other lab personnel), call 911 to report the spill. Clemson University’s HAZMAT team will respond to clean up the spill.

**Injury or Other Medical Emergency:** If a serious injury or other medical emergency occurs, call 911 to be taken to the nearest emergency medical facility. For minor injuries, report the injury to your supervisor and report to Redfern. Your supervisor or the Administrative Assistant will call Risk Management to report the injury so that Compendium (Clemson’s workman’s compensation insurance) can be contacted. All injuries should be reported to your supervisor who must then contact Risk Management, even if you do not seek medical attention. If the accident involves a chemical or chemicals, obtain a copy of the MSDS if possible. If the accident involves a biohazard, make sure the treating physician is aware of the nature of the biohazard.

Working safely is the responsibility of everyone. OSHA requires that a workplace free from recognized hazards be provided for all workers. If, at any time you feel a situation is unsafe you may contact Mr. Jae Lowe or the Office of Research Safety. Your time and abilities are valuable so your safety and health are a top priority.
Purchasing Procedures for University of South Carolina

Introduction to Purchasing

All students will follow this procedure for purchasing chemicals and supplies:

1. Identify the need for the product or service.
2. Determine the appropriate purchase order form.
3. Complete the purchase order form with all necessary details.
4. Submit the purchase order form to the appropriate person for approval.
5. Receive the product or service.

Primary Vendors

University Purchasing Department.

Chemicals or supplies are to be ordered from primary vendors.

Purchase Requisitions

Purchase Requisitions must be submitted to the appropriate department or division. Any order that exceeds $2,500 and requires special handling or additional services, excluding tax, must be approved by the Director of Purchasing. An administrative assistant in the Office of General Services, General Office Supplies, Books, etc., is responsible for ensuring that all requisitions are processed in a timely manner.

Purchasing Regulations

Purchasing regulations are governed by the State of South Carolina. All purchases must be authorized by the appropriate department or division. Any purchase over $2,500 must be approved by the Director of Purchasing.

Detailed information is available in the handbook located in the administrative area. Any student wishing to order laboratory supplies, equipment, etc., must use Clemson University's purchasing system as well as all applicable state and university policies.

Purchasing Orders and Purchase Requisitions

The following vendors are approved by the State of South Carolina for laboratory supplies and equipment:

- Fisher Scientific Company
- VWR Scientific Products

Limited Items

Items that are not available through regular channels may be purchased from approved vendors. A purchase requisition must be completed and approved by the appropriate department or division.

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GENERAL UNIVERSITY INFORMATION

Graduate Student Government
The Clemson University Graduate Student Government (CGSG) is the official representative of the Clemson University Graduate Students. The goals of CGSG are to increase student involvement, enhance the educational opportunities for all graduate students through collaboration and professional development, and to provide opportunities for graduate students to succeed both academically and professionally. Prior to the beginning of the fall semester, MS&E Senators are selected with input from the president of the Materials Research Society. The biweekly senate meetings are open to all graduate students.

R.M. Cooper Library
Located on campus adjacent to the reflecting pool, the main library (R.M. Cooper Library) is replete with MS&E related books and journals. Your student ID is your library card. You can check out up to 200 items at a time, but only 3 journals at a time for 3 days maximum. Most books can be checked out for 6 weeks. To avoid late fees, books can be renewed in person or online via My Library Account. You can pay fines online using TigerStripe, a debit card, or a credit card; or pay in person using TigerStripe. The Library is cashless. The Library’s catalog is online and is available at http://libcat.clemson.edu. Many books are available from the catalog, as well as access to electronic books and journals. If you are off-campus, it is best to go through the VPN (Virtual Private Network). The Library also subscribes to many databases to identify and provide access to journal articles. This Library Guide for MS&E compiles many of these resources in one place. In addition to all of these resources, a Reference Librarian – Jan Comfort – is assigned to Materials Science and Engineering. It is a good idea to make an appointment to meet with her to review strategies for your individual research.

Fike Recreation Center
Graduate assistants can use these facilities. Lockers are available at the recreation center.

Sporting Events
Graduate students may purchase season tickets for Clemson football and basketball games. If interested, students should report to the ticket office in IPTAY/ticket office complex (Gate 9, Memorial Stadium) to complete an application. Further information can be obtained from the ticket office, 656-2118. Baseball games are free with university ID. Tickets for soccer games may be purchased at the gate (discounts with university ID).

Counseling and Psychological Services (CAPS)
CAPS is the University’s only facility for personal counseling, psychological testing, outreach and consultation. These services are typically covered by the graduate student insurance and are completely confidential. The primary mode of accessing Counseling and Psychological Services is through the CUNow Clinic. Students are asked to complete the initial paperwork (takes about 15 minutes) and then are seen for a brief initial session. Through an administrative process, each student’s case is reviewed and assigned to a primary counselor. That counselor will then contact the student by phone and schedule an appointment for a diagnostic interview. At that time, the student’s needs are assessed and a
Services located in C-01 Edgar Brown University Union (656-2720).

Parking on campus is restricted and requires a permit that can be purchased at Parking

Campus Parking.

Graduate School to be excused from the continuous enrollment provision. Six weeks to attend summer camp must obtain written permission from the Dean of the

Departments of the University. Short periods of sabbatical leave are granted for

administrative reasons or the satisfactory performance of the student. The Graduate School may not exceed the

sabbatical leave of that leave. Students planning to take military leave should notify

the

Graduate School has ruled that a graduate student on military leave will not receive a

Military Leave.

include ADD, diabetes, learning disabilities, mobility issues, etc.).

consult with the干事 or the University Academic Affairs Office. Please note that any disabilities (with appropriate documentation) could be

identified. Resources: Please contact the University Academic Affairs Office. If a student

would like to discuss testing for identifying a disability, then student

administration of reasonable accommodations (e.g., the voice, extended time, etc.). If a student

and positive. If any graduate student has documented disabilities, SDS will coordinate

Student Disability Services (SDS)

problem.

Implementation plan developed that focuses on the student's strengths and addresses the presenting
T.A. ASSESSMENT
To be completed each semester and submitted to the Program Manager

Observation of T.A. teaching by the faculty in charge of the course or module.

As a T.A. it is required that your performance has aided student learning. Your overall competence as a T.A. (as deemed by your course coordinator) is required to be satisfactory or better in order to maintain T.A. status.

Through your performance as a T.A. the class has:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. been able to learn effectively, efficiently and independently</td>
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<tr>
<td>2. been able to understand, analyze and synthesis substantial amounts of information</td>
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<td>3. been able to make use of concepts, some of them abstract</td>
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<tr>
<td>4. been able to engage in critical evaluation of received information</td>
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<tr>
<td>5. been able to become skilled in reasoning and argument</td>
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<td>6. been able to communicate opinions, clearly and by giving evidence</td>
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<tr>
<td>7. been able to recognize and solve problems and been adaptable and flexible in applying theoretical understandings to problems encountered in the world around them</td>
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</tr>
<tr>
<td>8. been able to make well-founded judgments on the application of my knowledge</td>
<td></td>
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<tr>
<td>9. been able to cooperate in team work</td>
<td></td>
</tr>
<tr>
<td>10. been able to become confident in the use of IT as required for the academic discipline</td>
<td></td>
</tr>
<tr>
<td>11. Comment on the overall performance as either Excellent, Very good, Satisfactory, Poor, or Very Poor</td>
<td></td>
</tr>
</tbody>
</table>

1 = strongly agree,
3 = neither agree or disagree,
5 = strongly disagree

Action item for the T.A. student before starting the T.A. position

Before you start your formal T.A. position, students should get a description of your duties and responsibilities from the faculty member in charge of the course. Please note that T.A.s will work on the course both before the first day of classes and are expected to grade until after grades are due.
MSE 8010 seminars (Minimum requirements: 1 for M.S.; 2 for Ph.D.) - Please list date/title:

For Ph.D. students: Please indicate the five (5) core courses (must be "C" or better) and the GPA for these courses:

<table>
<thead>
<tr>
<th>Semester Taken</th>
<th>Grade</th>
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<tbody>
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</tr>
</tbody>
</table>

Overall GPA:

Ph.D.

M.S.

Program (please select):

CUID:

Date:

Signature:

Name Print:

***************************************************************************
To be completed each year and submitted to the Program Manager

MSE Graduate Student Annual Progress Report (Section I)
MS&E Graduate Student Annual Progress Report (Section 2)

To be completed each year and submitted to the Program Manager

List Teaching Assistant Duties Performed (including course number and title, semester/year):

•

Publications and Presentations (at Clemson): Please provide all authors in the correct order (underline your name), article title, journal/conference name, vol. and start/end page #’s (for publications), year, and time/place (for presentations).

Please list your refereed journal publications and status (submitted, in revision, in press or published):

•

Please list other technical publications (e.g., papers in conference proceedings):

•

Please list your presentations at national and international conferences (talks or posters):

•

Please list any internal presentations:


mandatory for Excellent and for Fair/Poor performance ratings.
Additional Comments (Comments are optional for Very Good/Good performance ratings; and

Excellent Very Good Good Fair Poor

This student's performance is (circle one):

______________________________
(printed name of the research advisor)

To be completed by the student's research advisor:

******************************************************************************
To be completed by May 15th each year and submitted to the Program Manager

MISAE Graduate Student Annual Progress Report (Section 3)
# M.S. Student Checklist

If you are in the MS program, please complete/update the following table.

<table>
<thead>
<tr>
<th>WHAT</th>
<th>WHEN</th>
<th>HOW/WHO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection of research advisor</td>
<td>Before the end of the 1st semester</td>
<td>Notify Graduate Program Coordinator and Program Manager</td>
</tr>
<tr>
<td>Appointment of advisory committee</td>
<td>By the end of the 1st semester</td>
<td>In consultation with research advisor</td>
</tr>
<tr>
<td>Preparation of plan of study</td>
<td>By the end of the 1st semester</td>
<td>In consultation with research advisor and committee</td>
</tr>
<tr>
<td>Filing of plan of study</td>
<td>Beginning of the 2nd semester</td>
<td>Student submit GS2 via iRoar</td>
</tr>
<tr>
<td>Advisory committee meeting before defense</td>
<td>~ six months before final examination (or consult your advisory committee)</td>
<td>In consultation with research advisor and committee</td>
</tr>
<tr>
<td>Apply for Graduation and Diploma</td>
<td>(Current deadlines can be found on the Graduate School website)*</td>
<td>By student via iRoar</td>
</tr>
<tr>
<td>Cap and Gown Rental</td>
<td>Early during semester in which degree is to be conferred (see website)*</td>
<td>By student</td>
</tr>
<tr>
<td>Submittal of Thesis</td>
<td>Submit your draft thesis to advisor for revision and approval before submission to the advisory committee. (Allow sufficient time; In consultation with advisor)</td>
<td>By student with review by research advisor</td>
</tr>
<tr>
<td>Submittal of Thesis</td>
<td>Submit a semi-final version of thesis (approved by the advisor) to the committee at least two weeks before final examination or consult your advisory committee</td>
<td>By student with review by research advisor GS7-M Form to be filed by advisor after examination is completed</td>
</tr>
<tr>
<td>Graduation School Deadlines Website: <a href="http://WwW.ClemsonEdu/Graduate/Students/Deadlines.html">WwW.ClemsonEdu/Graduate/Students/Deadlines.html</a></td>
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</tr>
<tr>
<td>By Student</td>
<td>(see website)</td>
<td>*thesis defense of at least two weeks before graduation</td>
</tr>
<tr>
<td>By Student</td>
<td>(see website)</td>
<td>Before leaving Clemson before graduation of at least two weeks</td>
</tr>
<tr>
<td>By Student</td>
<td>(see website)</td>
<td>Approval of Thesis</td>
</tr>
<tr>
<td>By Student</td>
<td>(see website)</td>
<td>Degree is expected prior to date on which at least three weeks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thesis Defense</td>
</tr>
</tbody>
</table>
# Ph.D. Student Checklist

If you are in the Ph.D. program, please complete/update the following table.

<table>
<thead>
<tr>
<th></th>
<th>WHAT</th>
<th>WHEN</th>
<th>HOW/WHO</th>
<th>DATES (fill these in yourself, for your own record)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Selection of research advisor</td>
<td>Before the end of the 1st semester</td>
<td>Notify Graduate Program Coordinator</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>and Program Manager</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Appointment of advisory</td>
<td>Before the beginning of the 3rd semester</td>
<td>In consultation with research advisor and</td>
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<td></td>
<td>committee</td>
<td></td>
<td>committee</td>
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<tr>
<td>3</td>
<td>Preparation of plan of study</td>
<td>Before the beginning of the 3rd semester</td>
<td>In consultation with research advisor and</td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td>committee</td>
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<tr>
<td>4</td>
<td>Filing of plan of study</td>
<td>Before the beginning of the 3rd semester</td>
<td>Student submit GS2 via iRoar</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Comprehensive exam: written proposal</td>
<td>After completion of four (4) core classes (see page 22)</td>
<td>Apply to Graduate Standard Committee Chair who will appoint Comprehensive Exam Committee to be responsible for proposal review.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Comprehensive exam: oral exam</td>
<td>After written proposal is accepted</td>
<td>Comprehensive Exam Committee</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Admission to Doctoral</td>
<td>After completion of Comprehensive Exam</td>
<td>GS5 Form to be completed by Comprehensive Exam Committee</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Candidacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Dissertation committee</td>
<td>Typically ~12 months (at least six months) before final examination (or consult your dissertation committee)</td>
<td>In consultation with research advisor and committee</td>
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<tr>
<td></td>
<td>meeting before defense</td>
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<td>9</td>
<td>Apply for Graduation</td>
<td>(Current deadlines can be found on the Graduate School website)*</td>
<td>By student via iRoar</td>
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<tr>
<td></td>
<td>and Diploma</td>
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<tr>
<td>10</td>
<td>Cap and Gown Rental</td>
<td>Early in semester during which degree is expected to be conferred (see website)*</td>
<td>By student</td>
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</tr>
<tr>
<td>Event</td>
<td>Due Date</td>
<td>Description</td>
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<tr>
<td>Degree conferred</td>
<td>Final Checkpoint</td>
<td>On or before final checkpoint.</td>
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<tr>
<td>Dissertation approval</td>
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<td>On or before final checkpoint.</td>
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<tr>
<td>Dissertation defense</td>
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<td>2 weeks before final checkpoint.</td>
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<tr>
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<td>5 weeks before final checkpoint.</td>
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<td>Degree conferred</td>
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<td>8 weeks before final checkpoint.</td>
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<td>Dissertation defense</td>
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<td>9 weeks before final checkpoint.</td>
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<tr>
<td>Degree conferred</td>
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<td>10 weeks before final checkpoint.</td>
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*Graduate School Deadlines Website: www.clemson.edu/graduate/students/deadlines.html*