The following are examples of situations that are considered plagiarism:

- Using ideas that are not your own by changing the wording or giving credit to the source.
- Using someone else’s work and submitting it as your own.
- Submitting work that is the same or very similar to work submitted by another student.
- Using someone else’s ideas or data and not giving credit to the source.

If you violate the plagiarism policy, you will be held accountable.

Please review the Graduate School’s Academic Integrity policy at:

https://www.gsu.edu/graduate/academic-integrity-policy.html

If you believe you have been plagiarized, you may file a complaint with the Graduate School’s Academic Integrity Committee. If you have any questions about what constitutes plagiarism, please contact the Graduate School’s Academic Integrity Committee. They can provide guidance on how to properly cite sources and avoid plagiarism.

The purpose of this policy is to maintain a high standard of academic integrity and to ensure that all students are evaluated on the basis of their own work. By adhering to this policy, we can ensure that all students are treated fairly and that the academic community is a safe and respectful environment for all.

DEPARTMENT OF MATERIALS SCIENCE & ENGINEERING

POLICY ON RESEARCH ETHICS

Pursuant to the Department of Materials Science & Engineering's policy on research ethics, individuals are expected to:

- Maintain academic integrity.
- Fulfill their academic responsibilities in a responsible and ethical manner.
- Follow all university policies and procedures related to research.
- Comply with all applicable laws and regulations.

Failure to adhere to these guidelines may result in disciplinary action, including but not limited to suspension or expulsion from the program.

The Department of Materials Science & Engineering is committed to fostering an environment where all members of the community can thrive and contribute to the advancement of knowledge. By upholding high standards of ethical conduct, we can ensure that our research is conducted with integrity and that our findings are trustworthy and useful to society.
• 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 2016-2017 version of the MSEF Graduate Student Manual and agree to abide by all of the policies, procedures, and guidelines discussed herein.

[Signature]

[Date]

[Printed Name]

Materenis Science & Engineering
Department of

STATEMENT OF AGREEMENT
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This petition will be stored within their files.

Graduate Standards Committee: In charge of their graduation requirements to the new policies.
Change of student may petition in writing to both the graduate coordinator and the chair of the student is subject to the policies in effect at the time of beginning their program. If policies change, the student is subject to the policies in effect at the time of beginning their program. Each Graduate Faculty/Chair, Each Graduate Committee.

Inconsistencies of committees 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 suggestions or comments are welcome.

Every month, the Graduate Committee meets to discuss new policies to help students. Specific implications are announced each meeting. Dates and times of publication meetings are announced each meeting. Dates and times of publication meetings are announced each.

All new students are required to attend the orientation sessions held by the Department of Materials Science & Engineering and the Graduate School. Information from these orientations will be updated on the MSEG website.

New students in this manual apply to students joining MSEG during the year for which this manual is valid.

The faculty of MSEG has adopted these policies. Since policies can be modified each year, the information on this page is updated regularly. Changes to departmental procedures and requirements that will affect graduate students. The//en/grad/announcements, which may be found on the Clemson Graduate School Website at www.clemson.edu/grad/announcements/, provide another source.

As such, it serves as an informational source and a catalogue of departmental procedures and requirements that will affect graduate students. The manual is intended to emphasize graduate student and their faculty advisor's roles.

Welcome to the Clemson University Department of Materials Science & Engineering!
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
technical assistance

administrative assistant - assists all departmental personnel with their responsibilities.

Ms. Diane Swope (161 Stine Hall, 656-7900, dswope@deanum.edu)

accounting in charge of payroll, travel vouchers, purchase orders/allocations for general

Ms. Tonya Jessie (161 Stine Hall, 656-6900, tjessee@deanum.edu)

Office Manager - assists the Department Chair of MSEF with his duties, coordinates fellowships, and manages conference room and directories.

Ms. Shelley Smith (161 Stine Hall, 656-3187, shsmith@deanum.edu)

Program Manager - manages, and maintains student records, coordinates student service and fellowships. Also serves as primary liaison with alumni and industry partners.

Ms. Heather Cox (162B Stine Hall, 656-1512, hcox@deanum.edu)

Graduate Program Coordinator - works with students, have been accepted and have completed prerequisite exams.

Pm. Cary Leland (161 Stine Hall, 656-7944, celand@deanum.edu)

Graduate Program Coordinator - makes recommendations to the Graduate Program Committee.

Pm. Robert Law (229 Stine Hall, 656-6941, rlaw@deanum.edu)

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Pm. Robert Law (229 Stine Hall, 656-6941, rlaw@deanum.edu)
support for faculty and students utilizing the analytical equipment. Performs outside industrial/contract laboratory analysis.

Dr. Kate Stevens (285 Srrine Hall, 656-5972, kstein@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 Srrine 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 Srrine Hall, jaelow@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 (Srrine, 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 Srrine Hall, rowlpn@clemson.edu)

Laboratory Specialist – supports research in Srrine 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 Srrine Hall, wdavid@clemson.edu)

Systems Programmer – provides Computer and Electronics support to MS&E faculty, staff and students (Srrine, 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 Srrine Hall, ribowen@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.
<table>
<thead>
<tr>
<th>Semester</th>
<th>Fall A Spring</th>
<th>Summer</th>
<th>6-Wk Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/3</td>
<td>6/9</td>
<td>6/9</td>
<td>6/3</td>
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<tr>
<td>12/6</td>
<td>15/6</td>
<td>15/9</td>
<td>12</td>
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<tr>
<td>Student Category</td>
<td>Full-time Students</td>
<td>Graduate Assistants</td>
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</tr>
</tbody>
</table>

Enrollment Limits/Maximum/Minimum Credit Hours

The Office of Registration Services provides an online guide: www.registrar.olemiss.edu/Registration Procedures

Personnel for current Coordinator and will help them plan their initial program of study. See Graduate Program Coordinator 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 Register for New Students
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>MSE 8400</th>
<th>MSE 8620</th>
<th>MSE 8410</th>
<th>MSE 8510</th>
<th>MSE 8270</th>
<th>MSE 8260</th>
<th>MSE 8250</th>
<th>MSE 8220</th>
<th>MSE 8210</th>
<th>MSE 8190</th>
<th>MSE 8100</th>
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</thead>
<tbody>
<tr>
<td>MSE 4610</td>
<td>MSE 4600</td>
<td>MSE 410</td>
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<tr>
<td>Polymer &amp; Fiber Science III</td>
<td>Introduction to Polymer Sci &amp; Eng</td>
<td>Introduction to Polymer Sci &amp; Eng</td>
<td>Introduction to Polymer Sci &amp; Eng</td>
<td>Introduction to Polymer Sci &amp; Eng</td>
<td>Introduction to Polymer Sci &amp; Eng</td>
<td>Introduction to Polymer Sci &amp; Eng</td>
<td>Introduction to Polymer Sci &amp; Eng</td>
<td>Introduction to Polymer Sci &amp; Eng</td>
<td>Introduction to Polymer Sci &amp; Eng</td>
<td>Introduction to Polymer Sci &amp; Eng</td>
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</tbody>
</table>

**RECOMMENDED PRE-REQUISITES**

**GRADUATE COURSES**
POLICIES AND PROCEDURES FOR THESIS MASTER’S DEGREES

Important: Please follow the “Thesis M.S. Student Checklist” on page 59 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 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 Put together with my advisor
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 non-tenure-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 an emphasis in another field, at least one of the committee must be from the faculty of the program of the emphasis area.

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.
Manditory Courses:

MSE 8270 Kinetics of Phase Transformations (3 credits)
MSE 8269 Phases Equilibrium in Mixed-Crystal Systems (3 credits)
MSE 8010 Fundamentals of Materials Science (3 credits)

Graduate Student Seminar in Materials Research

Students must enroll in MSE 8010 Graduate Student Seminar every semester, with the exception of the semester they present in Materials Research Seminar, with the exception of the semester they present in Materials Research Seminar. All students must also enroll in MSE 8000 Seminar in Graduate Writing I. All students must achieve a minimum 3.0 overall GPA in order to graduate with a MS degree. Students are required to maintain a minimum 3.0 overall GPA in order to graduate. Students must also complete a minimum of six (6) courses which are required core courses which are chosen by the student in consultation with their advisor and advisor. Students are required to take at least six (6) of their credit (8) courses from MSE 8010 Graduate Student Seminar.

Core Courses

OT MSE 8010 (required for graduation)

*OT MSE 8010 (required for graduation)

**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>Presentation</th>
<th>Seminar</th>
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<tbody>
<tr>
<td>Thesis Defense</td>
<td>Exam</td>
</tr>
</tbody>
</table>

- Thesis Defense
  - A minimum of 30 credit hours past the Bachelor's
  - Plus Thesis completion

- Exam
  - Master's Research MSE 8910
  - Core + Other courses Required

- Credit Directed to be a "Terminal or Entry-Level" Program

Minimum Degree Requirements for MS in MSE:

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Course Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>Core Courses</td>
<td>24 Hours</td>
</tr>
<tr>
<td></td>
<td>4 Core + 4 Other = 8</td>
</tr>
<tr>
<td></td>
<td>6 Hours (Grad School Requirement)</td>
</tr>
<tr>
<td></td>
<td>Master's Research MSE 8910</td>
</tr>
<tr>
<td></td>
<td>Core + Other courses Required</td>
</tr>
</tbody>
</table>

Minimum Degree Requirements for MS in MSE
Analytical and Characterization Courses (choose one):
  MSE 8400 Analytical Methods in Textile and Polymer Science (4 credits) (3,0)
  MSE 8190 Inorganic Materials Characterization Techniques (4 credits) (3,0)

Additional Recommended Courses from MS&E:
  MSE 8200 Deformation Mechanisms in Solids (3 credits) (3,0)
  MSE 8210 Fracture and Fatigue (3 credits) (3,0)
  MSE 8250 Solid State Materials Science (3 credits) (3,0)
  MSE 8280 Phase Transformations in Materials Science (3 credits) (3,0)
  MSE 8510 Polymer Science I (3 credits) (3,0)
  MSE 8520 Polymer Science II (3 credits) (3,0)
  MSE 8610 Fiber Physics I (3 credits) (3,0)
  MSE 8620 Fiber Physics II (3 credits) (3,0)
  MSE 8660 Fiber Formation (3 credits) (3,0)
Planning and Development - Program of Study - G52 Form

Curriculum Development - Plan of Study - G52 Form

1. Log into the system.
2. Choose the “Student” tab.
3. Under the “Registration” drop down, select “G52 Committee Section.”
4. Fill out the form with your Committee Chair’s information along with your advisor’s.
5. Once the form is approved, log back into the system.
6. Using the student’s approved graduation date for completion of research hours, their plan of study.
7. Once completed, the form will be electronically submitted to the necessary parties for approval.

Procedure to Complete G52:

Due at the beginning of the second semester:
- The planned course of study, once approved, must be submitted to the Graduate School via the student’s advisor committee.
- The student’s advisor committee must approve all the courses by electronically submitting the graduation form.
- If changes are necessary, a revised G52 must be filed. This form may be found in the student’s local course catalog via the Graduate/Advisor Committee.
- It is important to note that any class listed on one’s G52 must be completed before moving to the next level of the degree requirements.
MASTER'S THESIS
The purpose of the M.S. thesis is to demonstrate the capability of the student to:

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

Selecting a Research Topic
Research advisors will assist students in the selection of an appropriate topic for their thesis. Students are expected to have selected a thesis topic by the end of their first semester of graduate study.

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

- *How to Publish a Scientific Paper* by Robert A. Day;
- *The ACS Style Guides: a Manual for Authors and Editors* edited by Janet S. Dodd.

Pre-Defense Advisory Committee Meeting
Approximately six months before the expected final oral defense, an advisory committee meeting should be held. The purpose of this meeting is for the candidate and the committee to discuss the expectations for graduation.

Thesis Text

Introduction
The introduction to the thesis should include some brief introductory remarks and a review of the literature that is relevant to the stated objectives. The literature review should be current and organized to support the research objectives.

Research Objective
This section should contain a paragraph summarizing the major objective of the research. The major objective, whenever possible, should be stated as a hypothesis with tasks outlined for testing the hypothesis. *It is often suggested that this section be written first.*

Research Methodology
This section should outline the experimental/theoretical/computational approach that has been used to accomplish the tasks listed in the objectives section. The approach should include the experimental/theoretical/computational design and a matrix of experiments conducted. The methodology should include procedures and analytical protocol or information about the development of those procedures. Information about the data collection and the use of the data should be provided, as well as final evaluation approaches.

Results and Discussion
In this section, the results have to be presented in a comprehensive and clear form. The analysis of the results has to be given and discussed. The student has to demonstrate the ability to analyze results based on the materials science & engineering fundamentals.
Final Oral Examination

Specific Requirements:
- A first draft of the thesis should be completed well before the date of the final oral examination.

Deadline:
- The final oral examination is given at least three weeks before the date on which the degree is conferred.

For any student intending to graduate, not just students planning to walk at graduation:
- Consult your advisory committee for the Graduate Diploma Application process under the "Student Records" menu.
- Choose the "Apply for Graduation" through their Home Account option.
- Students must apply for graduation through their Home Account.

Graduate Diploma Application

Helpful Hints:
- Avoid starting sentences with numbers, number less than or equal to ten should be spelled out.
- Avoid starting sentences with "the" more than once.
- Avoid starting sentences with "an" more than once.
- Avoid starting sentences with "A" more than once.
- When possible, use active voice as the use of the first person is generally discouraged in technical writing.
- Use clear and concise language.
- Students should use the recommended Graduate School forms designed for this purpose.

Research Question:
- What is the significance of the proposed research?
- What will be the impact of the proposed research?

Research Proposal:
- What is the significance of the proposed research?
- What will be the impact of the proposed research?

Significance:
- Explain why the proposal is significant.
- Describe the potential impact of the proposed research.

Conclusions:
- Summarize the main findings of the research.
- Discuss the implications of the findings.
- Suggest areas for future research.
- Conclude the main points of the research.
The results of the oral defense are submitted to the Graduate School via the GS7-M form. This form must be filled out and taken to the defense by the student and signed by the Committee. Once complete, the form should be submitted to both the MS&E Program Manager and to the Graduate School.

Unsatisfactory performance on the final examination, as determined by the advisory committee, will result in at least one of the following actions to be taken:

1. Additional work on the thesis and resubmission of the thesis to the advisory committee for further review; or
2. Additional study in their area of specialty.

In case of failure, the advisory committee is required to submit the GS7-M form to the MS&E 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 MS&E at Clemson University.
Initiate recommendation to the Graduate School for awarding of the degree.

- Approve the student's publishable report when requirements are met and.

- Meet with the student six months prior to the final oral examination to review progress.

- Assist in supervision of the student's research program.

- Provide advice and counsel in the selection of course work by the student.

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

One of the committee must be from the faculty of the Program of the emphasis area.

In any case, at least one member of the committee must have a Ph.D. in a field other than the student's course of study.

The committee members will consist of at least five members who hold the student's academic degrees, the advisor, and two others.

Advisory Committee

For non-thesis masters, no additional committee members are required. If the student and their advisor agree, the non-thesis option will require a minimum of 30 credit hours (exclusive of seminar hours).

Introduction

All beginning M.S. students are asked to confer with their M.S. EE faculty advisor in whose field they have an interest, upon having done so, the student selects a research advisor.

Research Advisor

The non-thesis option will require a minimum of 30 credit hours (exclusive of seminar hours).

Introduction

Please follow the "Non-Thesis M.S. Student Checklist" on page 61 to make sure that you are on the track to complete your degree requirements.

Minimum Degree Requirements for M.S. in MS&E

<table>
<thead>
<tr>
<th>Course Credit Hours</th>
<th>24 Hours*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core + Other courses required</td>
<td>4 core + 4 other = 8</td>
</tr>
<tr>
<td>Master’s Research MSE 8910</td>
<td>6 hours (Grad School requirement) plus completion of a publishable report on an approved topic</td>
</tr>
<tr>
<td>Credit Requirement (Total Course Plus Research Credit Hours):</td>
<td>A minimum of 30 credit hours past the bachelors*</td>
</tr>
<tr>
<td>Exams</td>
<td>Publishable Report</td>
</tr>
<tr>
<td>Seminar</td>
<td>1 presentation**</td>
</tr>
</tbody>
</table>

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

Course Deficiencies
The MS&E Graduate Program is not designed to be a “remedial or entry-level” program; therefore, students are expected to have the appropriate technical background prior to entering these programs. If course deficiencies are identified and/or if remediation is specified as a condition of a student’s admission, it is important that the remediation requirements be met early in the program in order to provide the student with background for graduate level courses. Normally, these deficiencies are removed by taking and passing specified required courses during a normally scheduled course offering. However, these courses do not count toward the total number of semester hours of graduate credit (exclusive of MSE 8000/8010) required for graduation.

Core Courses
Students are required to take at least six (6) of their eight (8) courses from MS&E graduate courses which are chosen by the student in consultation with their advisor and advisory committee members. Of the six (6) MS&E courses, four are required core courses which are indicated below. Students are required to maintain a minimum 3.0 overall GPA in order to graduate with a M.S. degree. All students must also enroll in MSE 8000 Seminar in Materials Research every semester, with the exception of the semester they present in seminar and are enrolled in MSE 8010 Graduate Student Seminar in Materials Research.

Mandatory Courses:
MSE 8100 Fundamentals of Materials Science (3 credits) (3,0)
MSE 8260 Phase Equilibrium in Materials Systems (3 credits) (3,0)
MSE 8270 Kinetics of Phase Transformations (3 credits) (3,0)
Graduate Diploma Application

For any student intending to graduate, not just students planning to walk at graduation, the Graduation Application is required. Students apply for graduation through their IRIS account. Choose the "Apply for Graduation" link under the "Student Record" menu. The Graduation Application is found on page 16.

Curriculum Development — Plan of Study — GS2 Form

The student should develop a plan of coursework with the assistance of the research advisor. This plan should be done by the end of the first semester. This plan is formally submitted to the Graduate School via the GS2 Form (See Curriculum Development — Plan of Study — GS2 Form).

Curriculum Development — Plan of Study — GS2 Form

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSF 8800</td>
<td>Fiber Formation</td>
<td>3</td>
</tr>
<tr>
<td>MSF 8620</td>
<td>Polymer Physics II</td>
<td>3</td>
</tr>
<tr>
<td>MSF 8610</td>
<td>Fiber Physics</td>
<td>3</td>
</tr>
<tr>
<td>MSF 8280</td>
<td>Polymer Science II</td>
<td>3</td>
</tr>
<tr>
<td>MSF 8210</td>
<td>Polymer Science I</td>
<td>3</td>
</tr>
<tr>
<td>MSF 8200</td>
<td>Deformation Mechanisms in Solids</td>
<td>3</td>
</tr>
<tr>
<td>MSF 8290</td>
<td>Solid State Materials Science</td>
<td>3</td>
</tr>
<tr>
<td>MSF 8230</td>
<td>Phase Transformations in Materials Science</td>
<td>3</td>
</tr>
<tr>
<td>MSF 8180</td>
<td>Important Materials Characterization Techniques</td>
<td>4</td>
</tr>
</tbody>
</table>

Additional Recommended Courses from MSSE:

- MSF 8400 Analytical Methods in Textile and Polymer Science (4 credits)
- Analytical and Characterization Courses (choose one):
POLICIES AND PROCEDURES FOR PH.D. DEGREES

Important: Please follow the “Ph.D. Student Checklist” on page 62 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 16).
One additional MSE 8000 level course.

MSE 8190 Inorganic Materials Characterization Techniques
MSE 8400 Analytical Methods in Textile and Polymer Science
Analytical and Characterization Courses (choose one):
MSE 8270 Kinetics of Phase Transformations
MSE 8260 Phase Equilibria in Materials Systems
MSE 8100 Introduction to Materials Science

Mandatory Courses:

Your (4) of their core courses. Four (4) of these courses must have been taken at least
years. In order to be qualified to take the Comprehensive Exam, they must have taken at least
end of their third fall/spring semester and all five (5) core courses within their first two (2)
and of their fourth fall/spring semester. Further, students are required to complete the first
and of their fifth fall/spring semester. Further, students are required to complete the first
and of their sixth fall/spring semester. Further, students are required to complete the first

Core Courses

<table>
<thead>
<tr>
<th>2 Presentations**</th>
<th>Seminar</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student must register for MSE 8010 to receive credit for seminar presentations</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exams</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Final Examination) Comprehensive and Dissertation Defense past the masters</td>
</tr>
<tr>
<td>A minimum of 60 credit hours past the masters or a minimum of 90 credit hours</td>
</tr>
<tr>
<td>Credit Requirement (Total Course Plus</td>
</tr>
<tr>
<td>Doctoral Research)</td>
</tr>
<tr>
<td>18 hours (Grad School)</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>Doctoral Research - MSE 9910</td>
</tr>
<tr>
<td>Core Courses Required</td>
</tr>
<tr>
<td>16 hours</td>
</tr>
</tbody>
</table>

Minimum Degree Requirements for the Ph.D. in MSEF
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 the MSE 8000 Seminar in Materials Research every semester 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 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.
Master and to the Graduate School.

Committee chairmen must be advised no earlier than two months prior to advisory committee's meeting. Committee members must be advised no later than one month prior to advisory committee's meeting. Committee members must also be advised of all evidence of the candidate's academic progress, research, and other relevant information. The candidate must submit a written report to the advisory committee at least one month prior to the advisory committee's meeting. The candidate must also be advised of all evidence of the candidate's academic progress, research, and other relevant information.

The comprehensive examination will consist of:

(1) a written dissertation

(2) a defense of the dissertation

These students not meeting this time deadline will be:

1. Required to complete the M.S. degree in MSE before seeking re-admission to the program.

2. Dismissed from the Ph.D. program if they have already earned the M.S. degree.

Ph.D. Program:

Students must submit a written defense of the dissertation within two (2) months of the submission of the dissertation. All defenses must be completed by the end of the semester in which the dissertation is submitted. The comprehensive examination will consist of:

(1) an oral examination
(2) a written examination

The candidate's comprehensive examination will consist of:

(1) a written dissertation
(2) an oral examination

Qualification and Eligibility Requirements for Students to Take Comprehensive Examination

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 29) must be presented to the MS&E Graduate Standards Committee Chair with a printed copy to the Program Manager: before **August 15**

- 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 34) to the Graduate Standards Committee Chair (the 1st attempt): before **September 15**

- 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 15**

- Feedback to the student on the written proposal by the Graduate Standards Committee Chair: by **October 15**

- The student should meet with each member of the examination committee for additional comments concerning the written proposal and topics: before **November 15**

- 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 15**
  - Receive feedback from committee members/external reviewer (of the 2nd attempt of the written proposal): before **February 15**
  - Schedule the Oral exam – the first attempt (if the student receives a “pass” in the written exam in the 2nd attempt): before **March 15**

- 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 15** 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 29) must be presented to the MS&E Graduate Standards Committee Chair: before **December 15**

- Electronic submission of a written proposal (PDF file), exam statement (form “Ph.D. Comprehensive Examination Statement of Topical Areas and Personal Contribution to the
Candidates should submit their dissertation to the full faculty for approval.

The Graduate Committee chair will assemble all examination topics for all feedback of the written proposal by October 15th of February 15th.

Then the examination committee, led by the external chair, will discuss and conclude.

By September 15th or January 15th the initial oral examination topics, and submit them along with the written proposal.

The student's work with the major advisor and advisory committee is selected.

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

- Start date (to satisfy a Graduate School Regulation): January 15th of the following year, or less than one year from the second attempt.

If the student receives a "Pass" in the first attempt of the oral exam, the time for the second attempt must be September 15th.

- Prepare for the oral exam.
- Before September 15th, receive feedback from committee members/external reviewer (of the 2nd attempt).
- Both the written proposal: before May 15th.
- If the student receives a "Fail" in the second attempt, the written proposal, he/she should complete the following:
  - Before April 15th: Before May 15th.
  - Before March 15th: Before May 15th.

Oral examination is to be scheduled for the first attempt (if "Pass" the written exam in the examination committee to the Graduate Standards Committee.

Feedback to the student on the written proposal by the Graduate Standards Committee.

Candidate by February 15th.

Assignment: Before January 15th.

Formulation of ideas for Research (found on page 34 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

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Formatting and editing for clarity of the content within the document. The advisor must provide meaningful guidance regarding the one responsible for the final product. Specifically, the student is responsible for the document and the student is responsible for the advisor's work with the student on the direction of research. Points of clarification of the direction of research, points of clarification of the direction of research. The candidate's research proposal cannot be identical to a research proposal by the candidate's advisor. The candidate's research proposal cannot be identical to a research proposal by the candidate's advisor. The candidate's research proposal cannot be identical to a research proposal by the candidate's advisor. To ensure this, the doctoral committee will be expected to provide feedback on the student's research direction.

The written document should reflect an effort on the part of the student and not the work of the student. The written document should reflect an effort on the part of the student and not the work of the student.

The external evaluator will collect and verify all scores. A proposal will receive a "Pass" if:

- 8 pts. possible

Technical Writing Quality:

- 7 pts. possible

Reference:

- 10 pts. possible

Potential Original Contributions and Impacts on Science & Engineering:

- 40 pts. possible

Research Plan Section:

- Results and showed critical analysis;

- Concluded a literature review, preliminary experiments, analysis of preliminary experiments;

- Research plan identifies the student's specific research questions or hypothesis;

- 15 pts. possible

Background Section:

- Motivation statement and links;

- Introduction section;

- Additional comments. Each committee member is asked to use the following outline when evaluating the proposal and provide a numerical score (0-100) and optional comments on the student's research direction (including the research advisor), as well as

- Guidelines for the Ph.D. Research Proposal:
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
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Padmore, which could have been shortened or omitted.

Proposals longer than those specified may be penalized, especially if concern is justified to be
unrelated to or insignificant of other proposal. Although to provide a proposal of a specified length
is unimportant, it is desirable to have all proposals of a similar length. This should be
considered in preparing the final output.

Microsoft Word (approx. 15 pages long). This length is determined excluding appendices.
The proposal has a basic format and should be no more than 5,000 words as determined by
Graduate Standards Committee Chair, electronically.

This form can be found on page 4 and should be submitted with the written proposal to the
Proposal of Research Proposal, to the ideas of others should be noted elsewhere where the student
Statement on Personal Contribution to the Formulation of Ideas and Plan of Research

The student may adopt a common reference style in the field (please check
inclusion).

The full title of the article should not
be included.

Any references to books, journals, patents, and these must be referenced. References
should be located for reference.

Phenomena in science and engineering,
Proposals on how this particular work enhances our understanding of natural

The proposal should indicate the student's potential for an original

This section should contain original research and potential scientific merits and

D. Research Plan

and provide additional motivation for the project.

Following the literature review, the author should present preliminary data and

Papers are well read in the subject and can critically review the works of other

approaches described in the research plan. This section should show evidence that
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.
Submit to the current Graduate Committee Chair along with copy of proposal by

__________________________
Advisor's Signature

__________________________
Advisor's Name (please print)

Confirmed by:

__________________________
Date

__________________________
Student Signature

__________________________
Student Full Name

(I insert and describe contributions to proposal development).

My most significant contributions were (insert faculty, staff, collaborators who aided)

I, (type name), developed the submitted research proposal with the help of

1. Insert description

2. Insert description

3. Insert description

They are:

Topical areas selected for my comprehensive exam were completed by me after discussion with

Personal Contribution to the Formulation of Ideas & Research

Ph.D. Comprehensive Examination Statement of
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)
An oral examination, if given at least three weeks before graduation, will serve to

Final Oral Examination

specific requirements. Committee members should be notified of the date of the final oral
examination. A written report (approved by the advisor) should be presented to the advisory
committee at least 2 weeks before the oral exam. Consult your advisory committee for

Dissertation

Graduation under the "Student Record" menu. Students apply for graduation through the "Student Record" menu. Apply for
Application for Graduation and Diploma

committee to discuss the expectations for graduation. This meeting should be held. The purpose of this meeting is for the candidate and the committee to discuss the expectations for graduation. The committee may advise the candidate on the final oral

Pre-Defense Advisory Committee Meeting

October 1st, following the results of written exam.

The written proposal will be submitted to the chair of the Advisory Committee and the three examination topics will be agreed upon by October 1st.

Finally, the three examination topics should be forwarded to GSC Chair along with

The PhD student should begin work with this research advisor to assemble the

Committee members other than the research advisor and the examination chair/external evaluator to

Committee members other than the research advisor and the examination chair/external evaluator to

Examination topics to be covered in addition to research

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

The committee (plus the chair of the Examination Committee) will then vote by secret ballot

The advisor committee may divide OTE into different sections or condense them into any

order that the committee sees appropriate.
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: wwww.clemson.edu/graduate.

Dissertations usually take no longer than one week. Duplication usually takes no longer than one week. The cost for duplication depends on the length and the number of copies requested. Duplication is usually served on the request or a receipt for full payment to the Printing Services Center. The cost for duplication depends on the length and the number of copies requested. The instructor of the course, the advisor, or the head of the department may request additional copies. Additional copies must be made for the research advisor. A minimum of one bound copy must be made for the research advisor. Additional copies made to the thesis or dissertation.

Examination: The committee members will provide any comments or corrections that must be revised. The final revised version must be reviewed by the director of the dissertation prior to submission. The director of the dissertation must be reviewed by the director of the dissertation before submission.

Proofreading and Approval:

www.clemson.edu/graduate/students/theses-and-dissertations/index.html

Formatting details that should be followed are outlined at the following website: www.clemson.edu/graduate/students/theses-and-dissertations/index.html

Writing the Thesis of Dissertation

Learning the University:

Experience shows it is very difficult to complete a thesis or dissertation after the first semester. The student is expected to complete his thesis/dissertation before leaving. The deadlines for the thesis depend on the date of anticipated graduation and are posted at the following website: www.clemson.edu/graduate/graduation/graduation/timeline.html

Preparation of Thesis or Dissertation

Preparation of Thesis or Dissertation
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 enter a graduate program in the Department of MSE must enroll in assistantships (Summer Enrollment).

Students without assistantships need not register for any of these sessions. Only students not enrolled in assistantships and/or without University Housing (including any student actively working on a thesis or dissertation) are eligible to register for the summer session. Any student not in an assistantship or fellowship must enroll in a minimum of six credits.

Vacations

Who violate the vacation policy, as stated above, in the section on “Vacations,” may be subject to suspension or non-renewal of any pay received in the pay period following the violation. If the amount of time worked by the student is determined to be excessive, the student’s pay will be reduced by 20% per week effective the pay period in which the relevant violation occurred.

Normal pay rate is 20% of the formal pay rate. Normal hours of work are 20 hours per week, except during the pay period following the vacation period, when the student receives 100% of the formal pay rate for 20 hours per week.

Recovery of Pay

If an assistant’s pay is reduced due to violation of the vacation policy, the assistant may appeal the decision to the Student’s advisor or to the Department Chair. The appeal process will be outlined in the section on “Appeals.”

Termination of Pay

For complete information on employment regulations for international students, make an appointment at the Office of International Services (656-3614, Long Hall) or visit their website: http://www.clemson.edu/admissions/Services/international.

For complete information on employment regulations for international students, make an appointment at the Office of International Services (656-3614, Long Hall) or visit their website: http://www.clemson.edu/admissions/Services/international.

Students should complete prior to the appointment.

When making the appointment, students should ask what forms they should complete prior to the appointment.

International students should have their offer letter with them upon arrival. The student assistant must report to a departmental administrative assistant and complete necessary paperwork to get on payroll.
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 stairs whenever possible. Do not use the elevators.

In case of tornado warning, take appropriate shelter. Use stairwells. Do not use the elevators.

Emergencies:
The University Police Department (656-2272) is to be called for all major
incidents.

Parking Services (656-2270):

Ample parking is available. Parking on campus requires a permit that can be purchased at the
lockers when unoccupied.

Ensure that the outside doors remain locked. The computer rooms and labs should always be
locked and should not be propped open. All students enrolled or leaving the building should
leave the building after all classes or实验室. All other times all outside doors will remain
locked.

It is necessary to maintain the security of the buildings at all times. During normal working
hours, the key(s) issued to students are for their use only. Keys must never be loaned to anyone
university.

Action is mandatory! New students Booth on the police for the first time may have a one-

The department

Notes

The Graduate Program Coordinator is to assist students with such questions.

Students should not hesitate to ask questions concerning MSSE 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 course each semester.
Recycling and Resource Recovery

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

Administrative Assistant Recycling Supplies are available with the permission of the appropriate advisor. Students are encouraged to check them in the student's name will be indicated on the outside of the package. If helpful to the supplies, students may be delivered to 161 Shriver Hall. When they are checked in, the

Receiving Supplies

use by all students, staff and faculty of the Department of MISSE.

MISSE 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 MISSE Directory.

Photos

Graduate Students should not access department files. Students should contact the Program Manager if they need information from an MISSE file.

Files

Student Locator (Eagle Brown University Union)
Campus Police (Converse Administration, near Case 10)
CIT Computing Center (Ground Floor of Student Union)
Graduate Student Office (702 Eagle Brown University Union)
Graduate Development (707 Eagle Brown University Union)
Graduate Office (Administration, Stikes Hall)
Registration Services (E-205 Marton Hall)

Telephone Numbers to Know

Personal calling card
distance telephone calls only with the permission of the appropriate advisor or with their own
search student database, make sure to have the appropriate advisor

Telephones

with authorization from their advisor.

Students may use the department fax machine for official MISSE business purposes.

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](http://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.

If an individual is not entitled to receive reimbursement for meals, this amount
will be allowed provided that a receipt and proper explanation for the
excess charge is provided within the scope of official travel within the State of South Carolina. See the administrative assistant for current, applicable maximums.

Maximum expense reimbursement rates are variable. There are two maximums: first, for

Travel Meals

The per diem limit for meals is exceeded due to the cost of an official banquet, the excess
exceeds $75.00. When the daily limit for meals is exceeded, the excess shall be
charged back to the individual. See the administrative assistant for current, applicable maximums.

Travel Meals

Exceedance of meal cost charged to an official credit card will be made up to employee prior to the

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

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

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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 Sponsoring 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 impending departure and schedule an exit interview.

Return all books and journals to the department's 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").

Graduate students leaving for any reason should do as follows:

Final Checkouts
Voucher When it is Submitted.

Vouchers, approved at the next level in the approval process, must accompany the leave request. All expenses and paid bills should be refundable. If funds are not available, a proper receipt must accompany the leave request. Students must submit a receipt per expenditure of $5 or more, except for meals, tolls, and
taxable parking.

Receipts
Completed.

Paid at the time of the meeting registration reimbursement will be made after the trip is completed.

Conference/Convention Registration Fees

Do NOT obtain additional coverage while in travel status.

Liability insurance for reimbursement will be included on the automatic rental agreement submitted with the rental agreement. The rates and the
costs charged for collision damage waiver insurance be obtained. The charge and the
recommended collision damage waiver insurance be obtained. The charge and the

methods of transportation, in the only practical means of transportation.

Rental Car Rates

The contract for Rental Car rates from year to year. Please check with the administrative
agency in charge of travel services for rental car rates. If there is no rental agency on site,
travelers are encouraged to shop cost effectively for a rental car just like for anything

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agency in charge of travel services for rental car rates. If there is no rental agency on site,
travelers are encouraged to shop cost effectively for a rental car just like for anything

transportation is the only practical means of transportation.

extra charges for automatic rental are allowed when it is more economical than alternative

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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.
Hazards Waste Management

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

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

Additional PPE may be required based on the hazards present. All PPE must meet OSHA requirements. Additional PPE is used in the lab and should be based on the hazardous materials present. All PPE is provided by the university when required for lab work.
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.
Purchase Orders and Purchase Requisitions

In accordance with VWR Scientific Products and Fisher Scientific Company (limited items), the State of South Carolina has awarded contracts for laboratory equipment and supplies to primary vendors.

Primary Vendors

University Purchasing Department: All chemicals or supplies are to be ordered from primary vendors. If possible, orders must be placed on a Quantity Request (PURCHASE REQUEST). Quantity requests must exceed $200 (excluding tax and handling) and be placed by the order. 

Purchase orders (telephone orders are limited to information from approved vendors in order to obtain prices, availability, technical help, or other assistance. Advisers must approve orders for all research supplies and equipment required by MSEF.

Introduction to Purchasing

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

Purchasing Procedures
Once a student's needs are assessed and a consultation and psychological assessment is through the Center for Personal Counseling (CPAS), students may purchase season tickets for athletics and basketball games.

Upcoming Events

Fees vary for each discipline with the university. To see the ticket office online via MyLibrary login, you can search either from within the catalog or through MyLibrary. The library is open from 9 a.m. to 3 a.m. at 200 Jay St, which is open 6 days a week. To avoid late fees, books can be returned within 2 weeks. For more information, please contact your library branch. R.M. Cooper Library is located on campus adjacent to the Recreational Park, the main library (R.M. Cooper Library) is.

Research Society. The biweekly seminars are open to all graduate students.

The University's Graduate Student Government (GSG) is the official representative body. The Graduate Student Government (GSG) is the official representative body. The Graduate Student Government (GSG) is the official representative body. The Graduate Student Government (GSG) is the official representative body.
Services, located in G-01, Deerfield University Union (656-2270).

Parking on campus is restricted, and requires a permit that can be purchased at Parking Services, located in G-01, Deerfield University Union (656-2270).

Campus Parking

Graduate School is to be excused from the continuous enrollment provision.

Six weeks to attend summer camp must obtain written permission from the Dean of the six weeks to attend summer camp must obtain written permission from the Dean of the six weeks to attend summer camp must obtain written permission from the Dean of the

Administration Assistant of the Graduate Dean. Short periods of approximately one week can be taken as regular vacation with no interruption in pay. Students leaving the campus for

Department of Higher Education. Students planning to take military leave should notify the

Military Leave

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

NESC is committed to assisting all students in making their college experience successful problems.
**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>
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<tbody>
<tr>
<td>1. been able to learn effectively, efficiently and independently</td>
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<td>2. been able to understand, analyze and synthesis substantial amounts of information</td>
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<tr>
<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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<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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<td>8. been able to make well-founded judgments on the application of my knowledge</td>
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<td>9. been able to cooperate in team work</td>
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<td>10. been able to become confident in the use of IT as required for the academic discipline</td>
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<tr>
<td>11. Comment on the overall performance as either Excellent, Very good, Satisfactory, Poor, or Very Poor</td>
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</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 Seminar (Minimum requirements: 1 for M.S.; 2 for Ph.D.) — Please list catherine:

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<thead>
<tr>
<th>Course Core Courses (must &lt; 3.45)</th>
<th>Overall GPA:</th>
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</table>

Grade: Semester Taken

Start Date:

Ph.D.

M.S.

Program (please select):

CUID:

Date:

Signature:

Name Print:

************************************************************************************************************
For 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:
(date)  
Signature of student

Signature of research advisor

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.

WSGF Graduate Student Annual Progress Report (Section 3)
**Thesis M.S. Student Checklist**

If you are in the MS 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 and Program Manager</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Appointment of advisory committee</td>
<td>By the end of the 1st semester</td>
<td>In consultation with research advisor</td>
<td></td>
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<tr>
<td>3</td>
<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>
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<tr>
<td>4</td>
<td>Filing of plan of study</td>
<td>By the end of the 1st semester</td>
<td>Student submit GS2 via iRoar</td>
<td></td>
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<tr>
<td>6</td>
<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>
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<td>7</td>
<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>
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</tr>
<tr>
<td>8</td>
<td>Cap and Gown Rental</td>
<td>Early during semester in which degree is to be conferred (see website)*</td>
<td>By student</td>
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</tr>
<tr>
<td>9</td>
<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>
<td></td>
</tr>
<tr>
<td>10</td>
<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>
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</tr>
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<td>Stage</td>
<td>Description</td>
<td>Deadline</td>
<td>Notes</td>
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<td>Final Checkpoint</td>
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<td>Approval of Thesis</td>
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</tr>
<tr>
<td>3</td>
<td>Thesis Defense</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Non-Thesis M.S. Student Checklist

If you are in the MS 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 and Program Manager</td>
<td></td>
</tr>
<tr>
<td>2</td>
<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>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Filing of plan of study</td>
<td>By the end of the 1st semester</td>
<td>Student submit GS2 via iRoar</td>
<td></td>
</tr>
<tr>
<td>4</td>
<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>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Cap and Gown Rental</td>
<td>Early during semester in which degree is to be conferred (see website)*</td>
<td>By student</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Submittal of Publishable Paper</td>
<td>Submit your draft to your advisor for revision and approval. (Allow sufficient time; In consultation with advisor)</td>
<td>By student with review by research advisor</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Submission of GS7-M</td>
<td>About two weeks before graduation (see website)*</td>
<td>By student with review by research advisor GS7-M Form to be filed by advisor after all requirements are completed. Student should keep one copy, submit one to the Program Manager, and Enrolled Services.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Final Checkout (please refer to p. 48)</td>
<td>Before graduating or before leaving Clemson</td>
<td>By student</td>
<td></td>
</tr>
</tbody>
</table>

* Graduate School Deadlines website: www.clemson.edu/graduate/students/deadlines.html
<table>
<thead>
<tr>
<th>HOW</th>
<th>WHEN</th>
<th>WHAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>By student via Blackboard</td>
<td>School website</td>
</tr>
<tr>
<td>Committee</td>
<td>Committee and program coordinator</td>
<td>Examination</td>
</tr>
<tr>
<td>Committee</td>
<td>Committee and program coordinator</td>
<td>Admissions</td>
</tr>
<tr>
<td>Committee</td>
<td>Committee and program coordinator</td>
<td>Application</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<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>
</tr>
<tr>
<td>11</td>
<td>Completion of draft of dissertation</td>
<td>Submit your draft dissertation to advisor for revision and approval before submission to the advisory committee. (Allow sufficient time; In consultation with advisor)</td>
</tr>
<tr>
<td>12</td>
<td>Dissertation Defense</td>
<td>Submit a semi-final version of dissertation (approved by the advisor) to the committee at least two weeks before final examination or consult your advisory committee</td>
</tr>
<tr>
<td>13</td>
<td>Approval of dissertation by Graduate School</td>
<td>At least three weeks prior to date on which degree is expected (see website)*</td>
</tr>
<tr>
<td>14</td>
<td>Final Checkout (please refer to p. 48)</td>
<td>About two weeks before graduation (see website)*</td>
</tr>
<tr>
<td>15</td>
<td>Duplication of dissertation</td>
<td>Before graduating or before leaving Clemson</td>
</tr>
</tbody>
</table>

* Graduate School Deadlines website: www.clemson.edu/graduate/students/deadlines.html