# Graduate Student Handbook

School of Materials Science and Engineering
Oklahoma State University
700 N. Greenwood Avenue
Helmerich Advanced Technology Research Center
Tulsa, Oklahoma 74106-0700

# Welcome Letter

Dear Student:

Welcome to the Oklahoma State University School of Materials Science and Engineering (MSE) Graduate Program! You have joined a diverse, highly motivated group of faculty, staff, and students. The School of MSE includes scholars from across the world with a wide variety of background, skills, and ambitions. We anticipate your scholarship and determination will continue to add richness to our elite program.

Please use this handbook as a reference. This information has been compiled to provide a brief overview of Graduate requirements that will satisfy the university, Graduate College, Registrar, and the School of MSE.

As you pursue your graduate studies, you will find that University and departmental information is continually being changed and updated. These updates are often posted on web sites and bulletin boards outside offices such as the MSE office, the Graduate College, and the International Students and Scholars (ISS) office. Also, important information is occasionally delivered to students through e-mail or postal mail. For this reason, it is imperative that your local contact information be kept up-to-date with both the School of MSE and the university.

The School of Materials Science and Engineering will assist you in many areas of your graduate studies. However, please be aware that, ultimately, it is your responsibility to know and satisfy all MSE, Graduate College, university, and United State Citizenship and Immigration Services (USCIS) requirements (if applicable) for attaining your degree.

Sincerely,

Ranji Vaidyanathan, Ph.D., P.E.

Varnadow Professor of Materials Science and Engineering and Graduate Program Coordinator

# Table of Contents

# 1.0 M.S. Degree

The M.S. degree in Materials Science and Engineering (MSE) from Oklahoma State University has two options (1) M.S. with Creative Component (non-thesis) and (2) M.S. with Thesis. The main difference between the two is that in the Creative Component option, the student conducts critical review of the literature on an advanced topic in materials science and engineering, while in the Thesis option, the student conducts independent research on an advanced topic in materials science and engineering. In the Creative Component option, the student is required to submit a final report, while in the Thesis option the student is required to submit a thesis on his/her research as part of the degree requirements. In both options an oral presentation/defense is also mandatory. The details on the degree requirements and the suggested timeline for both these options are included in the following sections.

## 1.1 M.S. WITH CREATIVE COMPONENT

### 1.1.1 Degree Requirements

The Creative Component or non-thesis option will require a total of 35 credit hours, which includes 33 hours of formal coursework and 2 hours of creative component project. Formal coursework is defined as regularly scheduled classes, and independent study or seminar is not considered as a formal coursework.

#### 1.1.1.1 Courses

- ***Required Courses:*** The student must complete no less than 21 hours of MSE 5000- and 6000-level courses offered at Oklahoma State University. Refer Appendix A for list of courses.
- ***Project:*** A 2 credit hour independent study course under the selected graduate faculty advisor is required. The student may elect to register for this course during any semester. After the project is completed, the appropriate letter grade will be assigned corresponding to the quality of work as determined by the committee's assessment.
    - *Oral Presentation:* The student must make a thirty-minute oral presentation of the Creative Component, answer questions from the audience in an open session, and again later in a closed session with the Committee.
    - *Project Report:* The project report must be written and presented in a scientific style. Here are some requirements and guidelines.
        - File type: Microsoft Word or Adobe PDF
        - Suggested Fonts: Times New Roman, Arial, Georgia, Palatino Linotype
        - Font size: No smaller than 10-point
        - Margins: No smaller than 0.75"
        - Spacing: Single
        - Page headers: Student's last name in upper right corner
        - Cover Page (on a separate page): This should include the following
            - Title of the project
            - Name and E-mail address of the student

        - Names of Faculty Advisor and committee members
    - Abstract (on a separate page): A 300 word summary of the project.
    - Page limits: Minimum 10 pages, maximum 20 pages. The page limit is inclusive of all text as well as any graphs, charts, tables and figures.
    - Bibliography: A separate document listing the literature cited in the project report.
    - The Cover Page, Abstract, and Bibliography do not count towards the Page limit of 10-20 pages.
    - Besides what is stated above, follow scientific style used by most journals for your report.
- ***Elective Courses:*** The remainder formal coursework requirement can be fulfilled through MSE elective courses or their equivalent.
- ***MSE Seminar:*** In addition, the student must also register and attend all Materials Science and Engineering seminars and secure a passing grade.
- Please refer to the Table A1 in this handbook for a listing of Required Courses, Elective Courses in Materials Science and Engineering and in other departments at OSU, which are approved for fulfilling the course requirements for the MSE Creative Component degree option. The list of courses is meant to serve as a guide for elective course options. A course not listed in the table, but deemed relevant for the student's curriculum, may be considered with supporting letter from the advisor and at the discretion of the MSE graduate studies committee, with final approval from the Head of the Department of School of Materials Science and Engineering.

#### 1.1.1.2 Number of credit hours

- Total number of credit hours - 35
- 33 hours of formal coursework
    - 21 credit hours of required MSE courses (MSE 5000- and 6000-level courses through Oklahoma State University
    - 12 credit hours of elective MSE courses or equivalent courses (approved by MSE graduate studies committee and the student's advisor)
- 2 credit hours of literature research project under student's advisor

#### 1.1.1.3 Committee and Constitution

All M.S. graduate students in the MSE program are required to select a faculty advisor, and a Faculty Committee in consultation with their advisor at the onset of their program of study. The Faculty Committee for M.S. Creative Component candidates will consist of at least three members of the Graduate Faculty, two of whom must be members of the MSE faculty. The student has to include the list of members of the Faculty Committee in his/her Plan of Study to be submitted to the graduate school. This committee, which includes the student's advisor, has the following roles (a) approve the student's Plan of Study, (b) oversee the student's progress in the MSE graduate program, (c) serve as the examination committee for the student's Oral Presentation of the Project, and (d) grade the student's Project Report.

#### 1.1.1.4 Duration

The recommended duration for the completion of the M.S. degree in MSE with Creative Component option is four semesters or 2 years. The MSE department course offering schedule is designed to ensure that the students can fulfill the coursework requirements within the recommended duration.

#### 1.1.1.5 Seminar Attendance

Attendance and active participation in the MSE seminar is mandatory for all graduate students in the MSE program. Seminars by distinguished scientists/engineers from academia, industry and/or national laboratories will be arranged every semester by the MSE department.

### 1.1.2 Timeline

Following is recommended timeline for a graduate student's progress in the M.S. Creative Component program in the School of Materials Science and Engineering. Failure to comply with these requirements in a timely manner may result in an enrollment hold, payroll delay and/or delay in graduation.

#### 1.1.2.1 Faculty Advisor

Before the completion of your first semester in graduate school, the student must select his/her principal faculty advisor. Only members of the Graduate Faculty can serve as principal advisors and assign Independent Study credits towards Creative Component degree requirements.

#### 1.1.2.2 Faculty Committee

Before the completion of your first semester in graduate school, the student must select his/her Faculty Committee in consultation with the Faculty Advisor. The constitution of this committee is required to complete the student's Plan of Study requirements for graduate school.

#### 1.1.2.3 Plan of Study

- **M.S. students must have an approved Plan of Study on file before they have completed their first semester of coursework** or a future enrollment hold will be placed on their account. Plan of Studies must be completed electronically, and can be accessed through the Graduate College Web site at: http://gradcollege.okstate.edu. The student must complete the Plan of Study in consultation with his/her Faculty Advisor and approval requires signatures (in original) from (a) Faculty Advisor, (b) all Faculty Committee members, and (c) MSE Graduate Program Coordinator.
- Only the courses listed in the Table A1 in this Graduate Student Handbook are acceptable in the student's Plan of Study. Enrollment in any non-MSE courses not included in Table A1 requires *prior* approval of the Faculty Advisor and the MSE Graduate Program Coordinator. The Faculty Advisor must also approve any and every change to the student's Plan of Study *before* the student enrolls in any course not on the approved Plan of Study. *Approval WILL NOT be given retroactively.*
- The student must submit final/revised Plan of Study to the Graduate College using their forms and a copy to the MSE Graduate Program Coordinator by the end of the second week of classes

in the FINAL semester of graduation. All revisions, if any, must be approved by the student's Faculty Advisor, initialed by the MSE Graduate Program Coordinator.

#### 1.1.2.4 Research Project

The student may elect to register for this course during any semester.

#### 1.1.2.5 Project Report & Oral Presentation

- The final draft of the *Project Report* must be submitted to all members of the Faculty Committee two weeks prior to the *Oral Presentation*. The draft must be approved by the Faculty Advisor before submission to the Faculty Committee.
- Oral Presentation must be scheduled in consultation with the Faculty Advisor and the Faculty Committee members during the FINAL semester. Oral Presentations must not be scheduled during the finals week through the date on which final grades are due for the semester.
- The student must send an email (at least one week in advance) to the MSE Graduate Program Coordinator and MSE department including the time and location of the Oral Presentation and a PDF file of the Project Report so that the graduate students as well as the faculty in MSE and in the Helmerich Research Center can be notified of the presentation.

#### 1.1.2.6 Paperwork for approval of degree

***Clearance Form***

The student must submit the completed MSE Graduate Student Clearance Form with all the necessary approvals with the MSE Department Office before leaving the campus. If the student chooses to leave the MSE Graduate Program before completing the degree requirements, the Clearance Form still *must* be completed before leaving the campus either when graduating or dropping out of school, or continuing on for a Ph.D. degree at another institution. *It is the responsibility of the student to complete and return the Clearance Form. Failure to do so will result in a hold being placed on the student's graduation and/or the student's transcript.*

***Diploma Application***

The student must file the diploma application on the Student Information System (SIS) in the final semester of graduation. The deadline is set by the Registrar's office. The student should file the diploma application as soon as possible during the semester he or she plans to graduate. More information about the diploma application can be found at:

http://registrar.okstate.edu/index.php?option=com_content&view=article&id=26&Item id=18

***Exit Interview***

The Exit Interview is an approximately 15 -20 minute interview with the Head of School of Materials Science and Engineering prior to the student's leaving campus. The student should schedule the interview with the Department secretary. The interview can be scheduled as soon as the Oral Presentation has been passed. The student does not need to wait until the final Project Report has been deposited to schedule the interview – but the student must have passed the Oral Examination. This is an opportunity for the Head of the MSE program to hear from the graduating

students concerning how they feel about their time at OSU, what they liked, what could have been better and a time for students to reflect on the fact that a major life goal has been achieved.

## 1.2 M.S. WITH THESIS

### 1.2.1 Degree Requirements

The M.S. with Thesis Option will require a total of 30 credit hours, which includes 24 hours of formal coursework and 6 hours of thesis research. Formal coursework is defined as regularly scheduled classes, and independent study or seminar is not considered as a formal coursework.

#### 1.2.1.1 Courses

- ***Required Courses:*** The student must complete no less than 15 hours of MSE 5000- and 6000-level courses offered at Oklahoma State University. Refer to Appendix A.
- ***Thesis:*** The student is required to complete 6 hours of thesis research (MSE-5000) with the selected graduate faculty advisor. The student may elect to register for these credit hours during any semester. Successful thesis defense includes submission of the final thesis document as well as successful oral defense of the thesis as determined by the Faculty Committee.
    - *Oral Presentation:* The student must make a thirty-minute oral presentation of his/her M.S. thesis, answer questions from the audience in an open session, and again later in closed session with the Faculty Committee.
    - *Thesis:* The M.S. Thesis must be written and presented in a scientific style. The graduate college guidelines are applicable for the formatting of the M.S. Thesis. They can be accessed at the following URL:

    https://gradcollege.okstate.edu/sites/default/files/Thesis%20Template%2010-12-12.docx

- ***Elective Courses:*** The remainder formal coursework requirement can be fulfilled though MSE elective courses or their equivalent.
- ***MSE Seminar:*** In addition, the student must also register and attend for all Materials Science and Engineering seminars and secure a passing grade.
- Please refer to the Table A1 in this handbook for a listing of Required Courses, Elective Courses in Materials Science and Engineering and in other departments at OSU, which are approved for fulfilling the course requirements for the M.S. degree with Thesis Option in MSE. The list of courses is meant to serve as a guide for elective course options. A course not listed in the table, but deemed relevant for the student's curriculum, may be considered upon approval by the thesis advisor and at the discretion of the MSE graduate studies committee, with final approval from the Head of the Department of School of Materials Science and Engineering.

#### 1.2.1.2 Number of credit hours

- Total number of credit hours - 30
- 24 hours of formal coursework

- 15 credit hours of required MSE courses (MSE 5000- and 6000-level courses through Oklahoma State University
- 9 credit hours of elective MSE courses or equivalent courses (approved by MSE graduate studies committee and the student's advisor)

➢ 6 credit hours of thesis research under student's advisor

#### 1.2.1.3 Committee and Constitution

All M.S. graduate students in the MSE program are required to select a faculty advisor, and a Faculty Committee in consultation with their advisor at the onset of their program of study. The Faculty Committee for M.S. with Thesis Option will consist of at least three members of the Graduate Faculty, two of whom must be members of the MSE faculty. The student has to include the list of members of the Faculty Committee in his/her Plan of Study to be submitted to the graduate school. This committee, which includes the student's advisor, has the following roles (a) approve the student's Plan of Study, (b) oversee the student's progress in the MSE graduate program, (c) serve as the examination committee for the student's thesis defense, and (d) provide grade for the student's M.S. Thesis.

#### 1.2.1.4 Duration

The recommended duration for the completion of the M.S. degree in MSE with Thesis option is four semesters or 2 years. The MSE department course offering schedule is designed to ensure that the students can fulfill the coursework requirements within the recommended duration.

#### 1.2.1.5 Seminar Attendance

Attendance and active participation in the MSE seminar is mandatory for all graduate students in the MSE program. Seminars by distinguished scientists/engineers from academia, industry and/or national laboratories will be arranged every semester by the MSE department.

### 1.2.2 Timeline

Following is recommended timeline for a graduate student's progress in the M.S. with Thesis Option in the School of Materials Science and Engineering. Failure to comply with these requirements in a timely manner may result in an enrollment hold, payroll delay and/or delay in graduation.

#### 1.2.2.1 Faculty Advisor

Before the completion of your first semester in graduate school, the student must select his/her principal faculty advisor. Only members of the Graduate Faculty can serve as principal advisors and assign MSE 5000 credits towards M.S. with Thesis degree requirements.

#### 1.2.2.2 Faculty Committee

Before the completion of your first semester in graduate school, the student must select his/her Faculty Committee in consultation with the Faculty Advisor. The constitution of this committee is required to complete the student's Plan of Study requirements for the graduate school.

### 1.2.2.3 Plan of Study

- **M.S. students must have an approved Plan of Study on file before they have completed their first semester of coursework** or a future enrollment hold will be placed on their account. Plan of Studies must be completed electronically, and can be accessed through the Graduate College Web site at: http://gradcollege.okstate.edu. The student must complete the Plan of Study in consultation with his/her Faculty Advisor and approval requires signatures (in original) from (a) Faculty Advisor, (b) all Faculty Committee members, and (c) MSE Graduate Program Coordinator.
- Only the courses listed in the Table A1 in this Graduate Student Handbook are acceptable in the student's Plan of Study. Enrollment in any non-MSE courses not included in Table A1 requires *prior* approval of the Faculty Advisor and the MSE Graduate Program Coordinator. The Faculty Advisor must also approve every change to the student's Plan of Study *before* the student enrolls in any course not on the approved Plan of Study. *Approval WILL NOT be given retroactively.*
- The student must submit final/revised Plan of Study to the Graduate College using their forms and a copy to the MSE Graduate Program Coordinator.

### 1.2.2.4 Thesis Research

The student may elect to register for the thesis research course (MSE 5000) with their graduate advisor during any semester.

### 1.2.2.5 Thesis Defense & Submission

- The student must follow the specific Thesis deadlines outlined in the Academic Calendar and the Graduation Checklist located on the Graduate College Web site. There are no exceptions to the dates listed.
- The student must submit a final draft, approved by the Faculty Advisor to each member of your Faculty Committee at least 2 weeks in advance of the thesis defence. The student is responsible for obtaining necessary paperwork from the Graduate Academic Secretary before the final examination.
- The student is also responsible for scheduling a meeting with the appropriate Graduate College personnel or attending a Thesis draft workshop put on by the Graduate College. Please visit their Web site for workshop details.
- The student must send an email (at least one week in advance) to the MSE Graduate Program Coordinator and Department Academic Assistant including the time and location of the defense and a PDF of the thesis abstract so the MSE Graduate Students as well as the MSE faculty and other faculty and graduate students in the Helmerich Research Center can be notified of the presentation.
- Final approved copy of the thesis should be submitted to graduate college following their guidelines.

### 1.2.2.6 Paperwork for approval of degree

***Clearance Form***

The student must submit the completed MSE Graduate Student Clearance Form with all the necessary approvals with the MSE Department Office before leaving the campus. If the student chooses to leave the MSE Graduate Program before completing the degree requirements, the Clearance Form still *must* be completed before leaving the campus either when graduating or dropping out of school, or continuing on for your Ph.D. degree at another institution. *It is the responsibility of the student to complete and return the Clearance Form. Failure to do so will result in a hold being placed on your graduation and/or the student's transcript.*

***Diploma Application***

The student must file the diploma application on the Student Information System (SIS) in the final semester of graduation. The deadline is set by the Registrar's office. You should file the diploma application as soon as you can during the semester you plan to graduate. After we have entered the Graduation Clearance form in the system, you will be able to file your diploma application. More information about the diploma application can be found at:

http://registrar.okstate.edu/index.php?option=com_content&view=article&id=26&Item id=18

***Exit Interview***

The Exit Interview is an approximately 15 -20 minute interview with the Head of School of Materials Science and Engineering prior to the student's leaving campus. The student should schedule the interview with the Department secretary. The interview can be scheduled as soon as the Oral Presentation has been passed. The student does not need to wait until the final Project Report has been deposited to schedule the interview – but the student must have passed the Oral Examination. This is an opportunity for the Head of the MSE program to hear from the graduating students concerning how they feel about their time at OSU, what they liked, what could have been better and a time for students to reflect on the fact that a major life goal has been achieved.

# 2.0 Ph.D. Degree

The Ph.D. degree program in Materials Science and Engineering at Oklahoma State University is designed to train the candidate as an independent, self-directed, creative, productive accomplished professional in the field. A Ph.D. student is required to complete a carefully prescribed "core" of class work. Additional courses may be selected by the candidate and/or prescribed by the Faculty Advisor to assist in improving the candidate's fundamental knowledge base and/or to allow the candidate to acquire specialized knowledge to be successful for the dissertation research project. A formal "Qualifying Examination" is administered to determine the student's readiness to undertake the research component of the Ph.D. program. Subsequently, the Ph.D. candidate is required to develop and demonstrate the ability to: independently identify an area in which research is needed; assemble the relevant existing knowledge; develop the requisite experimental; computational or theoretical skills; synthesize the existing knowledge, available skills and facilities into a scientifically defensible research plan; pursue the plan in an efficient and timely manner to realize a significant result; and organize and communicate his/her ideas and results in a professionally acceptable manner. Successful passing of the Progress Review examination, and a Final Defense of dissertation in a public forum is required to earn a Ph.D. degree in MSE at OSU.

The minimum University requirements for the Ph.D. degree are determined by the Graduate College and can be found in the University Catalog (http://registrar.okstate.edu/University-Catalog). MSE program has additional requirements in several areas. The details on the degree requirements and the suggested timeline for the Ph.D. degree are included in the following sections.

## 2.1 Degree Requirements

Contingent on their educational qualifications, students enrolled in the Ph.D. program in MSE at OSU are identified as: **Group I**, *i.e. students with a B.S. degree in Materials Science and Engineering, or in other engineering disciplines, physics, chemistry, or applied sciences*; **Group II**, *i.e. students with an M.S. degree in Materials Science and Engineering, or in other engineering disciplines, physics, chemistry, or applied sciences from another university*; or **Group III**, *i.e. students with an M.S. degree in Materials Science and Engineering from OSU.* The degree requirements differ for the above three groups primarily in the coursework to be completed and in the recommended timeline. Formal coursework is defined as regularly scheduled classes, and independent study or seminar is not considered as a formal coursework. The details on the courses that will be considered towards the degree requirements for each group are detailed in Table A1 in this handbook. These details are summarized below:

- **Group I** student will require a total of 90 credit hours, which includes at least 36 hours of formal coursework and up to 54 credit hours (minimum 36 credit hours and remaining course work) of dissertation research, to complete their Ph.D. degree requirements.
- **Group II** student will require a total of 60 credit hours, which includes 30 hours of formal coursework and 30 credit hours of dissertation research, to complete their Ph.D. degree requirements.

- **Group III** student will require a total of 60 credit hours, which includes at least 12 hours of formal coursework and at least 30 credit hours of dissertation research, to complete their Ph.D. degree requirements. The remaining credits can be taken through additional courses and dissertation research.

In the case of students entering the graduate program without an undergraduate/graduate degree in Materials Science and Engineering or related degree, they will be required to complete the ENSC 3313 Materials Science (undergraduate course) with an "B" grade or better in their first year at OSU.

### 2.1.1 Courses

- ***Required Courses:***
    - **Group I** student must complete no less than 21 hours of MSE 5000- and 6000-level courses offered at OSU.
    - **Group II** student must complete no less than 21 hours of MSE 5000- and 6000-level courses offered at OSU.
    - **Group III** student must meet the Required Course requirements of MSE 5000- and 6000-level courses offered at OSU. The student in this Group III should have already completed at least five of the seven required courses for the Ph.D. program during his/her M.S. degree in Materials Science and Engineering at OSU. If any of the remaining two Required Courses were taken as an Elective by the student during his/her M.S. degree, they will not be required to take them again. However, if the student had not completed any of the remaining two Required Courses during his/her M.S. degree in Materials Science and Engineering at OSU, the student must take them to complete the Required Course requirements for Ph.D. degree in MSE at OSU.
- ***Elective Courses:*** The remainder formal coursework requirement can be fulfilled though MSE elective courses or their equivalent.
    - **Group I** student must complete a minimum of 15 hours of MSE 5000- and 6000-level courses offered at OSU. The student will be allowed to use a maximum of 33 hours of elective courses towards his/her Ph.D. degree in MSE at OSU.
    - **Group II** student must complete 9 hours of MSE 5000- and 6000-level courses offered at OSU.
    - **Group III** student must complete a minimum of 12 hours of coursework for his/her Ph.D. degree in MSE at OSU. This includes the hours for any Required Courses taken after enrollment in the MSE Ph.D. program at OSU. Elective Courses taken by the student at OSU *which were used towards fulfilling his/her M.S. degree requirements in MSE at OSU*, will not be considered towards his/her Ph.D. degree in MSE. The student will be allowed to use a maximum of 24 hours of coursework towards his/her Ph.D. degree in MSE at OSU.
- ***MSE Seminar:*** In addition, the student must also register and attend for all Materials Science and Engineering seminars and secure a passing grade.
- Please refer to the Table A1 in this handbook for a listing of required and elective courses in

Materials Science and Engineering and in other departments at OSU, which are approved for fulfilling the course requirements for the Ph.D. degree in MSE. The list of courses is meant to serve as a guide for elective course options. A course not listed in the table, but deemed relevant for the student's curriculum, may be considered at the discretion of the MSE graduate studies committee, with final approval from the Head of the Department of School of Materials Science and Engineering.

- ***Thesis Research:*** The student in **Group I** is required to complete a minimum of 36 hours up to a maximum of 54 hours of thesis research (MSE-6000) with the selected graduate faculty advisor. The student in **Group II** is required to complete 30 hours of thesis research (MSE-6000) with the selected graduate faculty advisor. The student in **Group III** is required to complete a minimum of 30 hours up to a maximum of 48 hours of thesis research (MSE-6000) with the selected graduate faculty advisor. The student may elect to register for these credit hours during any semester however, the student will be assigned a grade of "R" until successful defense of the thesis, and a grade in the final semester. Successful defense includes submission of the final thesis document as well as successful oral defense of thesis with the Faculty Committee.
    - *Oral Presentation:* The student must make an oral presentation of Ph.D. dissertation, answer questions from the audience in an open session, and again later in closed session with the Faculty Committee.
    - *Dissertation:* The Ph.D. Dissertation must be written and presented in a scientific style. The graduate college guidelines are applicable for the formatting of the Ph.D. Dissertation. They can be accessed at the following URL:

https://gradcollege.okstate.edu/sites/default/files/Thesis%20Template%2010-12-12.docx

### 2.1.2 Number of credit hours

- Total number of credit hours for (a) Group I students - 90; (b) Group II and Group III students – 60
- Number of credit hours of formal coursework for (a) Group I students – minimum 36 and a maximum of 54; (b) Group II students – 30; and (c) Group III students – minimum 12 and a maximum of 30.
    - Group I and Group II students - 21 credit hours of Required MSE courses (MSE 5000- and 6000-level courses through OSU
    - Group III student - a minimum of 12 hours of coursework for his/her Ph.D. degree in MSE at OSU. This includes the hours for any Required Courses taken after enrollment in the MSE Ph.D. program at OSU.
    - Elective MSE courses or equivalent courses (approved by MSE graduate studies committee and the student's advisor) for (a) Group I students – minimum of 15 credit hours, and a maximum of 33 credit hours; (b) Group II students - 9 credit hours; and (c) Group III students - minimum of 12 credit hours, and a maximum of 24 credit hours, which includes any Required Courses taken by the student after enrollment in the Ph.D. program.
- The student must complete Dissertation research under Faculty advisor for the following number of credit hours: (a) Group I students – minimum of 36 credit hours, and a maximum

of 54 credit hours; (b) Group II students - 30 credit hours; and (c) Group III students - minimum of 30 credit hours and a maximum of 48 credit hours.

### 2.1.3 Committee and Constitution

All Ph.D. students in the MSE program are required to select a faculty advisor, and a Faculty Committee in consultation with their advisor at the onset of their program of study. The Faculty Committee for Ph.D. candidates will consist of at least four members of the Graduate Faculty, and majority must be members of the MSE faculty with greater than 50% appointments. At least two members of the Faculty Committee must be tenured. The student has to include the list of members of the Faculty Committee in his/her Plan of Study to be submitted to the graduate school. This committee, which includes the student's advisor, has the following roles (a) approve the student's Plan of Study, (b) oversee the student's progress in the MSE graduate program, (c) serve as the examination committee for the student's Dissertation defense, and (d) grade the student's Ph.D. Dissertation.

### 2.1.4 Qualifying Examination

Every student enrolled in the Ph.D. program has to pass a Qualifying examination to satisfy eligibility requirements for the Ph.D. degree program in MSE at OSU. The objective of the Qualifying Examination is to assess the student's ability to critically review the literature on a specific topic in materials science and engineering, and demonstrate understanding and competence in fundamental topics of materials science and engineering. Student's Faculty Advisor may mentor the student in preparation for the Qualifying Examination but he/she will not be a part of the committee examining the student. The Examination Committee will be set up by the Graduate Program Coordinator and may include 2-3 MSE faculty members. Qualifying Examination for Ph.D. candidacy will be offered by the department once during the Fall and Spring semesters. The dates for the Qualifying examination will be announced at the beginning of each semester. The Qualifying Exam is structured into the following three parts:

**Part I.** Written Literature Review:

The critical review must be written and presented in a scientific style. Here are some requirements and guidelines.

- *File type:* Microsoft Word or Adobe PDF
- *Suggested Fonts:* Times New Roman, Arial, Georgia, Palatino Linotype
- *Font size:* No smaller than 12-point
- *Margins:* No smaller than 1-inch
- *Spacing:* Single
- *Cover Page* (on a separate page): This should include the following
    - Title of the literature review
    - Name and E-mail address of the student
    - Names of Faculty Advisor and plan of study ?committee members
- *Abstract* (on a separate page): A 200 word summary of the project.
- *Page limits:* 20 pages. The page limit is inclusive of all text as well as any graphs, charts, tables and figures.
- *Bibliography:* A separate document listing the literature cited with title in the critical review. This should include all details on the cited source following the guidelines of either

of the following: (a) American Institute of Physics (b) American Chemical Society (c) American Society of Mechanical Engineers or (d) Journal of the American Ceramic Society.

- The Cover Page, Abstract, and Bibliography do not count towards the Page limit of 20 pages.
- Besides what is stated above, follow scientific style used by most journals for your review.

**Part II.** Oral defense of Critical Literature Review:

You must make a thirty-minute oral presentation of your Critical Literature Review to the Examination Committee, and answer any questions.

**Part III.** Oral examination on fundamental topics in Materials Science and Engineering:

This is a thirty minute oral examination to test the comprehension of the fundamental topics in materials science and engineering. The student will have the option to be examined in any three of the following five subject areas:

i. Advanced Thermodynamics of Materials

First and second laws of thermodynamics, property relationships, equilibrium, chemical equilibrium, solutions, phase diagrams, electrochemical thermodynamics and statistical thermodynamics.

ii. Diffusion and Kinetics

Topics on irreversible thermodynamics, diffusion and interdiffusion, models of diffusion, activated processes and kinetics, nucleation and growth, coarsening and grain growth, spinodal decomposition, reactions involving solid with solids, gases and liquids, and phase transformation.

iii. Composite Materials

Topics on the need for composites, fundamental principles controlling strength and mechanical properties of composites, toughening mechanisms, reinforcing fibers their properties and processing, matrix materials, interfaces in composites, processing and properties of composites, micromechanics of composites, strength, fracture and design of composites.

iv. Advanced Materials Characterization

This includes important techniques and their principles which are used to characterize materials and their properties from atomic to macro-scales. This includes methods/instruments such as SEM, TEM, x-ray diffraction, FTIR, AFM, thermal analysis methods (DSC/TGA/DTA/DMA etc.), and Nanoindentation.

v. Advanced Ceramic Processing

Ceramic Powder Production (Ceramic Raw Materials, Beneficiation Process, Materials Characterization); Forming Operations (Wet Forming Processes, Dry Forming Processes); Finishing Operations (Drying, Firing, Machining and Polishing): Sintering Mechanisms.

The student will have to specify the topics for their examination at the time of submission of the Qualifying Examination request form.

The student will be graded for each of the above parts separately. There are three possible grades for each part: (a) Pass, (b) Conditional Pass, and (c) Fail. The students have to get a "Pass" grade in all the three parts to successfully complete the Qualifying Examination. If the student gets a "Fail" grade in any one of the Parts, the student will have to repeat that part at the next earliest offering of the Qualifying Examination. If the student gets "Fail" in more than one Part, the student will be required to repeat the entire Qualifying Exam. If the student receives a "Conditional Pass" grade in any of the parts, he/she will be required to do additional work on the recommendation of the Examination Committee and secure a "Pass" grade within the timeframe specified by the committee. The student will be given a maximum of two attempts to pass the Qualifying Examination. Failure to meet this requirement will lead to termination from the Ph.D. program.

Successful completion of the Qualifying Examination requirement makes a student eligible for Ph.D. Candidacy.

### 2.1.5 Progress Review

All Ph.D. candidates must pass a "Progress Review" examination covering the student's proposed Ph.D. thesis research. This examination will be administered by the Faculty Committee. The student's faculty advisor will normally chair the committee, but if that person is not a member of the Graduate Faculty and/or the department, the Graduate Program Coordinator will act as the chair. The Progress Review examination will have the following two sections:

***Section 1. Progress Review Report***

The student will write a Progress Review Report and submit it to each member of his/her Faculty Committee *at least two weeks before the examination*. The progress review must be done at least 6 months before the final Dissertation defense. The report must be written and presented in a scientific style. Here are some requirements and guidelines.

- *File type:* Microsoft Word or Adobe PDF
- *Suggested Fonts:* Times New Roman, Arial, Georgia, Palatino Linotype
- *Font size:* No smaller than 12-point
- *Margins:* No smaller than 1-inch
- *Spacing:* Single
- *Cover Page* (on a separate page): This should include the following
    - Title of the literature review
    - Name and E-mail address of the student
    - Names of Faculty Advisor and committee members
- *Abstract* (on a separate page): A 300 word summary of the project.
- *Page limits:* 30 pages. The page limit is inclusive of all text as well as any graphs, charts, tables and figures.
- *Bibliography:* A separate document listing the literature cited in the critical review. This should include all details on the cited source and titles of the papers following the guidelines of either of the following: (a) American Institute of Physics (b) American Chemical Society (c) American Society of Mechanical Engineers or (d) Journal of the American Ceramic Society.
- The Cover Page, Abstract, and Bibliography do not count towards the page limit of 30 pages.

- Besides what is stated above, follow scientific style used by most journals in the materials science and engineering.
- The main section of the Progress Review Report should include the following sections.
    i.) Statement of the problem to be solved, i.e., the ways in which the leading edge of knowledge will be advanced by this thesis research.
    ii.) Literature review that summarizes the present state of knowledge and the key unknowns in the proposed research area.
    iii.) Work performed by other students in the group, if any, should be identified as such.
    iv.) Results obtained to date by the student.
    v.) Proposed work, including the methods to be used and discussion of how and why the methods are expected to solve the problem defined in (i). It is important that the proposed work be carefully thought through; it is understood that not every detail can be anticipated.
- Due to the length limitation, the statements will need to be highly focused. It is not acceptable to use the manuscript of a publication as the proposal document.

***Section 2. Oral Examination***

The second part of the Progress Review is an Oral Examination in which the student will be required to give a presentation, not to exceed 20 slides / 30 minutes in length. The presentation should have a clear statement of the problem, include key results from the literature and from the student's preliminary work, and present the proposed work. The source of all the figures, tables, or other data presented, i.e. whether they are derived from the literature or from the student's own results, should be clearly referenced in compact format at the bottom of the slide. The Faculty Committee members will discuss both the presentation and related knowledge in the field with the student during this part of the Progress Review examination.

The unanimous approval of the members of the Faculty Committee is required for the student to pass the Progress Review and be eligible to defend his/her Ph.D. dissertation.

### 2.1.6 Dissertation Defense & Submission

All Ph.D. candidates must pass a final oral examination (Dissertation Defense) and successfully submit their Ph.D. dissertation with the Graduate College (Dissertation Submission) before receiving the Ph.D. degree. The oral examination will be administered by the Faculty Committee. The student must present a final unbound copy of the Ph.D. thesis to each member of the committee at least 2 weeks prior to the examination. The student's faculty advisor will normally chair the oral examination committee, but if that person is not a member of the Graduate Faculty and/or the department, the Graduate Program Coordinator will act as the chair. The oral examination will be based on, but not limited to, the research reported in the thesis. It will consist of an oral presentation by the student, approximately 30-40 minutes in length and will be open to public. Following the candidate's presentation, both the general audience and the Faculty Committee members will be permitted to ask questions for a period of time deemed reasonable by the Chair of the Faculty Committee. After the public questioning, the audience will be excused, and the Faculty Committee will pursue any further lines of questioning deemed appropriate. The candidate will then be excused during deliberations of the Faculty Committee. All members of the committee need not be present but encouraged to do so; those not present must participate via

video conferencing. Passing the "Dissertation Defense" exam requires the unanimous consent of the faculty committee

Decisions that the Faculty Committee may reach include, but are not limited to:

1 The candidate has successfully defended the Ph.D. dissertation

2 The candidate must revise the Ph.D. dissertation to the satisfaction of the Faculty Committee, with possible reexamination, or

3 The candidate has failed the dissertation defense and is dismissed from the Ph.D. program; alternatively, the Faculty Committee may offer the candidate the option to convert to an M.S. degree program.

The Ph.D. Dissertation must be written and presented in a scientific style. The graduate college guidelines are applicable for the formatting of the Ph.D. Thesis. They can be accessed at the following URL:
https://gradcollege.okstate.edu/sites/default/files/Thesis%20Template%2010-12-12.docx

### 2.1.7 Duration

The recommended duration for the completion of the PhD. degree in MSE is ten semesters or 5 years or less. The MSE department course offering schedule is designed to ensure that the students can fulfill the coursework requirements within the recommended duration.

### 2.1.8 Seminar Attendance

Attendance and active participation in the MSE seminar is mandatory for all graduate students in the MSE program. Seminars by distinguished scientists/engineers from academia, industry and/or national laboratories will be arranged every semester by the MSE department.

## 2.2 Timeline

Following are the recommended steps to pursue for a graduate student's progress in the Ph.D. program in the School of Materials Science and Engineering.

### 2.2.1 Faculty Advisor

Before the completion of the first semester in graduate school, the student must select his/her principal faculty advisor. Only members of the Graduate Faculty can serve as principal advisors and assign MSE 6000 credits towards Ph.D. degree requirements.

### 2.2.2 Faculty Committee

Before the completion of the first semester in graduate school, the student must select his/her Faculty Committee in consultation with the Faculty Advisor. The constitution of this committee is required to complete the student's Plan of Study requirements for graduate school. Any changes to this committee should be done using form at graduate college.

### 2.2.3 Plan of Study

- **Ph.D. students must have an approved Plan of Study on file before they have completed their first semester of coursework** or a future enrollment hold will be placed on their account.

Plan of Studies must be completed electronically, and can be accessed through the Graduate College Web site at: http://gradcollege.okstate.edu. The student must complete the Plan of Study in consultation with his/her Faculty Advisor and approval requires signatures from (a) Faculty Advisor, (b) all Faculty Committee members, and (c) MSE Graduate Program Coordinator.

- Only the courses listed in Appendix A of this Graduate Student Handbook are acceptable in the student's Plan of Study. Enrollment in any non-MSE courses not included in the Table A1 requires *prior* approval of the Faculty Advisor and the MSE Graduate Program Coordinator. The Faculty Advisor must also approve any and every change to the student's Plan of Study *before* the student enrolls in any course not on the approved Plan of Study. *Approval WILL NOT be given retroactively.*
- The student must submit final/revised Plan of Study to the Graduate College and a copy to the MSE Graduate Program Coordinator and Department Academic Assistant by the end of the second week of classes in the FINAL semester of graduation. All revisions, if any, must be approved by the student's Faculty Advisor and the MSE Graduate Program Coordinator.

### 2.2.4 Qualifying Examination

A student enrolled in the Ph.D. degree program in MSE at OSU must pass the Qualifying Examination to be eligible for Ph.D. Candidacy. The student will be given a maximum of two attempts to pass the Qualifying Examination. The following timelines are mandated for first attempt to take the Qualifying Examination by students in different groups in the Ph.D. program.

- **Group I** students must take their first attempt to pass the qualifying examination no later than the end of the fourth semester after commencing their Ph.D. program in MSE at OSU.
- **Group II** students must take their first attempt to pass the qualifying examination no later than the end of the third semester after commencing their Ph.D. program in MSE at OSU.
- **Group III** students must take their first attempt to pass the qualifying examination no later than the end of the first semester after commencing their Ph.D. program in MSE at OSU.

If a second attempt is required by the student to pass the Qualifying Examination, he/she will be required to do so in the semester immediately following semester when he/she took the Qualifying Examination for the first time.

### 2.2.5 Progress Review

It is strongly suggested that the "Progress Review" is completed by student before the end of the sixth semester (counting only fall and spring terms) since starting in the Ph.D. program in MSE at OSU. The Progress Review requirements must be completed by the student at least six months before the Dissertation Defense. The student must submit the Progress Review Report to each member of his/her Faculty Committee *at least two weeks* before the oral examination.

### 2.2.6 Dissertation Defense & Submission

The student may elect to register for the dissertation research course (MSE 6000) with their graduate advisor during any semester, however, the student will be assigned a grade of "R" until successful oral defense and submission of the Ph.D. thesis, and graded in the final semester. The

student MUST register for the MSE 6000 Ph.D. Dissertation research course in the FINAL semester before graduation. In addition, the following requirements apply:

- The student must follow the specific dissertation deadlines outlined in the Academic Calendar and the Graduation Checklist located on the OSU's Graduate College web site. There are no exceptions to the dates listed.
- The student must submit a final draft of the Ph.D. dissertation, after approval from the Faculty Advisor, to each member of the Faculty Committee. The student is responsible for obtaining necessary paperwork from the Graduate Academic Secretary before the final examination.
- The student's Faculty Advisor will schedule the examination. Exams will not be scheduled during pre-finals week through the date on which final grades are due for the semester.
- The student must send an email (at least one week in advance) to the MSE Graduate Program Coordinator and Department Academic Assistant including the time and location of the defense and a PDF of the dissertation abstract so the MSE Graduate Students as well as the MSE faculty and other faculty and graduate students in the Helmerich Research Center can be notified of the presentation.

### 2.2.7 Paperwork for approval of degree

***Clearance Form***

The student must submit the completed MSE Graduate Student Clearance Form with all the necessary approvals with the MSE Department Office before leaving the campus. If the student chooses to leave the MSE Graduate Program before completing the degree requirements, the Clearance Form still *must* be completed before leaving the campus either when graduating or dropping out of school. *It is the responsibility of the student to complete and return the Clearance Form. Failure to do so will result in a hold being placed on your graduation and/or the student's transcript.*

***Diploma Application***

The student must file the diploma application on the Student Information System (SIS) in the final semester of graduation. The deadline is set by the Registrar's office. The student should file the diploma application as soon as possible during the semester he or she plans to graduate. After we have entered the Graduation Clearance form in the system, the student will be able to file his or her diploma application. More information about the diploma application can be found at:

http://registrar.okstate.edu/index.php?option=com_content&view=article&id=26&Item id=18

***Exit Interview***

The Exit Interview is an approximately 15 -20 minute interview with the Head of School of Materials Science and Engineering prior to the student's leaving campus. The student should schedule the interview with the Department secretary. The interview can be scheduled as soon as the Dissertation has been successfully defended. The student does not need to wait until the Dissertation submission to schedule the interview. This is an opportunity for the Head of the MSE program to hear from the graduating students concerning how they feel about their time at OSU,

what they liked, what could have been better and a time for students to reflect on the fact that a major life goal has been achieved.

# 3.0 Common Rules and Requirements

## 3.1 Minimum Credit for Tuition Waiver

Need to fill form each semester to get this credit.

## 3.2 Enrollment requirement, tuition waiver & qualifying coursework

You are required to be enrolled in at least **SIX (6)** qualifying graduate credit hours throughout the entire session (*enrollment exception of **TWO (2)** hours minimum for Graduate College approved, official, doctoral candidates*). The nonresident and resident tuition for all qualifying courses taken will be waived on your behalf **(*pre-admission, leveling, audit, undergraduate, correspondence or "600" outreach section courses are not eligible*)**. Courses must be required by the graduate degree program you are admitted and enrolled in, be included on your approved Plan of Study, and be within the credit hour limits of your degree program. Tuition and fees are separate; you are responsible for the fees associated with your enrollment. Please refer to graduate college website for more up-to-date information.

## 3.3 Ethics Statement and Code of Conduct Policies

Each student is required to follow university guidelines on Responsible Conduct of Research (RCR) policy 4-0201

## 3.4 Title IX

Both Title IX and University Policy prohibit discrimination in services or benefits offered by the University based upon gender. Graduate students will be required to undertake training related to these university policies. Sexual harassment is a form of gender discrimination and therefore prohibited under Title IX. Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature.

## 3.5 Procedure for Petition/Complaints

Any issues and complaints related to graduate education of students in MSE should be presented to the graduate studies committee of the MSE department through the Graduate Program Coordinator. This committee will report the recommendations or finding to the student and department.

## 3.6 Changes to Faculty Committee

If for any reason the Faculty Committee composition has to be changed from the people listed on the student's Plan of Study, the student must document these changes by having each previous and new committee member sign the appropriate Committee Change Request form. This form can be accessed through the Graduate College website (http://gradcollege.okstate.edu) and must be filed with the Graduate College at the earliest possible and notified to the department and Graduate Program Coordinator.

## 3.7 Graduate Studies Committee

This committee will be Chaired by the department graduate studies coordinator and comprised of 2 additional faculty as appointed by the Head of the School of MSE.

## 3.8 Timeline

All items related to graduate studies of students must follow the timelines established in the graduate handbook and program of study documents. Any changes to timelines must be approved by the MSE graduate studies committee as well as the other committees involved in the program of study.

## 3.9 Safety

All graduate students engaged in research are required to take appropriate annual safety trainings established by the MSE department, HRC and CEAT. This may also include students taking safety seminars on a regular basis offered by MSE or HRC or CEAT.

## 3.10 Transfer of credits

Only from OSU: Up to nine hours of graduate level coursework taken at an accredited university can be transferred to a master's degree at Oklahoma State University. The courses must have been completed with a letter grade of 'B' or better. The courses must be less than ten years old at the time of your graduation. And please remember that any transfer credits must be approved by the student's advisory committee, just like the rest of his or her plan of study.

A doctoral student who wishes to transfer coursework from a similar doctoral program at an accredited university is not limited to nine hours. There is no official maximum limit on transfer credit hours for a student in this situation. But they must complete a minimum of thirty credit hours at OSU. The request for such transfers must be approved by the department Graduate Studies Committee.

## 3.11 Minimum GPA

All graduate students must maintain a minimum GPA of 3.00 to graduate.

Any time the GPA falls below this minimum level may place the student in a probationary period per OSU policies. There are also university policies on grades lower than the "B" grade for graduate studies and student are encouraged to familiarize with these policies in order to successfully complete their graduate education. Student unable to maintain a GPA of 3.0 or above and securing 2 "C" Grade will be suspended from the graduate program.

Students are encouraged to learn more about this policy at the Graduate College web site.

## 3.12 Continuous Enrollment

All policies of OSU will apply to students enrolled in MSE graduate program in order to maintain the graduate student status. Students are encouraged to follow these guidelines throughout their program of study in MSE.

A student who interrupts enrollment for one year (i.e., a consecutive period of one spring semester plus one summer semester plus one fall term) must re-apply for admission, and will then be subject to the regulations in effect at the time of reapplication.

## 3.13 Preparatory Courses

If the student's B.S. or M.S. degree is not in engineering, but in the sciences, the student will have to complete ENSC 3313 Materials Science course in their first semester at OSU and complete it with at least a "B" grade or better.

## 3.14 Annual Review of Graduate Student

A Ph.D. Student is required to meet with his/her Graduate Studies Committee at least once a year to review the student's progress in graduate studies:

- The review process will deal with both research and course work requirements.
- The student is expected to update the plan of study to reflect the current opinion of the Graduate Studies Committee.
- The student will be responsible for facilitating this process
- Failure to meet this requirement will result in blocked enrollment.

## 3.15 Medical situations

If a student has a diagnosed medical issue that may affect performance in the program, he/she should inform the Graduate Program Coordinator. This is asked so that accommodations, if needed, can be implemented ahead of time.

# Appendix A

**Table A1.** Table of Courses and Credit Hours requirements for graduate degrees in Materials Science and Engineering at Oklahoma State University

| Course # | Course Title | M.S. *(Creative Component Option)* | M.S. *(Thesis Option)* | Ph.D. Group I *(with B.S.)* | Ph.D. Group II *(M.S. from outside OSU)* | Ph.D. Group III *(M.S. from OSU)* |
|---|---|---|---|---|---|---|
| ***Materials Science and Engineering*** | | | | | | |
| MSE 5013 | Advanced Thermodynamics of Materials | Required | Required | Required | Required | Required |
| MSE 5023 | Diffusion and Kinetics | Required | Required | Required | Required | Required |
| MSE 5033 | Composite Materials | Required | Required | Required | Required | Required |
| MSE 5043 | Advanced Materials Characterization | Required | Required | Required | Required | Required |
| MSE 5083 | Advanced Ceramic Processing | Required | Required | Required | Required | Required |
| MSE/ MAE 5693 | Phase Transformations in Materials | Elective | Elective | Required | Required | Required |
| MSE/MAE 5113 | Diffraction in Materials | Elective | Elective | Required | Required | Required |
| MSE 5010 | MSE Seminar | Required | Required | N/A | N/A | N/A |
| MSE 6010 | MSE Seminar | N/A | N/A | Required | Required | Required |
| MSE XXXX | Independent Study | Required | N/A | N/A | N/A | N/A |
| MSE 5000 | M.S. Thesis | N/A | Required | N/A | N/A | N/A |
| MSE 6000‡ | Ph.D. Thesis/Dissertation | N/A | N/A | Required | Required | Required |
| MSE 5053 | Smart Materials | Elective | Elective | Elective | Elective | Elective |
| MSE 5123 | Composite Manufacturing: Materials, Methods and Applications | Elective | Elective | Elective | Elective | Elective |
| MSE 5153 | Crystal Physics and Materials Properties | Elective | Elective | Elective | Elective | Elective |
| MSE 5063 | Biomedical Materials | Elective | Elective | Elective | Elective | Elective |
| MSE 5073 | Tissue Engineering | Elective | Elective | Elective | Elective | Elective |
| MSE 5103 | Electrical and Optical Properties of Ceramics | Elective | Elective | Elective | Elective | Elective |
| MSE 5133 | Solid Oxide Fuel Cells | Elective | Elective | Elective | Elective | Elective |
| MSE 5143 | Batteries and Supercapacitors for Energy Storage | Elective | Elective | Elective | Elective | Elective |
| MSE/MAE 5583 | Corrosion Engineering | Elective | Elective | Elective | Elective | Elective |
| MSE/MAE 5683 | Thermodynamics and Thermostatistics of Materials | Elective | Elective | Elective | Elective | Elective |
| MSE/EEE 5200 | Applied Innovations I | Elective | Elective | Elective | Elective | Elective |
| MSE 5223 | Additive Manufacturing: Materials, Methods and Applications | Elective | Elective | Elective | Elective | Elective |
| ***Chemical Engineering*** | | | | | | |
| CHE 5413 | Fundamentals of Polymer Engineering | Elective | Elective | Elective | Elective | Elective |
| ***Electrical and Computer Engineering*** | | | | | | |
| ECEN 5843 | Microelectronic Fabrication | Elective | Elective | Elective | Elective | Elective |
| ECEN 6843 | Advanced Microelectronic Fabrication. | Elective | Elective | Elective | Elective | Elective |
| ***Mechanical and Aerospace Engineering*** | | | | | | |
| MAE 5133 | Mechanical Behavior of Materials | Elective | Elective | Elective | Elective | Elective |
| MAE 5503 | Mechanics of Advanced Composites for Structural Design | Elective | Elective | Elective | Elective | Elective |
| MAE 5543 | Modern Materials | Elective | Elective | Elective | Elective | Elective |

**Summary of Credit Hours requirements or graduate degrees in Materials Science and Engineering at Oklahoma State University**

| | | | | | |
|---|---|---|---|---|---|
| Required Coursework Credit Hours | 21 | 15 | 21 | 21 | 12 to 24 |
| Elective Coursework Credit Hours | 12 | 9 | 15 to 33 | 9 | |
| Independent Study Coursework Credit Hours | 2 | N/A | N/A | N/A | N/A |
| Thesis Dissertation Credit Hours | N/A | 6 | 36 to 54 | 30 | 30 to 48 |
| **TOTAL CREDIT HOURS for DEGREE** | **35** | **30** | **90** | **60** | **60** |

‡ With approval of the student's advisory committee, additional elective courses may be taken, with a corresponding reduction in required credits in MSE 6000.

**Notes:**

1. Upon approval by the committee, students may choose other appropriate elective courses from engineering, physics and chemistry departments.
2. Requirement for taking the "Required" courses for Group III Ph.D. students will be waived if they have taken that course while doing their M.S. degree at OSU. The same course however, cannot be counted towards fulfilling the credit hour requirements for two degrees (M.S. and Ph.D.) at OSU. The student will be required to fulfill the remaining coursework credit hour requirement for the Ph.D. degree by taking "Elective" courses.
3. Students entering the Ph.D. program without an undergraduate/graduate degree in Materials Science and Engineering or related degree will be required to complete the ENSC 3313 Materials Science (undergraduate course) with an "A" grade or better in their first year at OSU. This will not be counted towards their degree requirements.

# Appendix B

**Commonly used forms for MSE graduate students included in this handbook:**

**OSU Graduate College Forms** *(Please refer to the Graduate College website for most up-to date forms)*

1. Request for Extension to Submit Plan of Study (1 page)
2. Committee Change Request (1 page)
3. Admission to Doctoral Candidacy (2 pages)
4. Thesis/Dissertation Oral Defense Results (1 page)

**MSE Forms**

1. Graduate Student Form to Request Examination Scheduling (1 page)
2. Committee's Evaluation of the Master Candidate's Report (M.S. degree with Creative Component (non-thesis)) (1 page)
3. Committee's Evaluation of the Master Candidate's Thesis Defense (M.S. degree with Thesis) (1 page)
4. Committee's Evaluation of the Graduate Student's Ph.D. Qualifying Examination (1 page)
5. Committee's Evaluation of the Ph.D. Candidate's Progress Review Examination (1 page)
6. Committee's Evaluation of the Ph.D. Candidate's Final Examination (1 page)
7. Graduate Student Request Form (2 pages)
8. MSE Graduating Student Information Form (a.k.a. Clearance Form) (2 pages)

**Oklahoma State University**
**Graduate College**

# REQUEST FOR EXTENSION TO SUBMIT A PLAN OF STUDY

CWID number _____ Today's date _____

Last Name _____ First name _____ Middle initial _____

Which degree are you pursuing? *(check one)* ☐ **MASTER'S** ☐ **ED. SPECIALIST** ☐ **DOCTORATE**

Please release the enrollment hold for *(check one)*: ☐ **FALL** ☐ **SPRING** ☐ **SUMMER** _____ **YEAR**

A Plan of Study (POS) is a contract between the university and a student, stipulating requirements for completion of a graduate degree. Thus, it is in my best interest to submit and receive approval for a POS early in my program of study. I, the student, understand that by the end of this semester I will have completed my second semester toward completion of a master's degree or my third semester towards a doctoral or education specialist's degree. I request an extension to submit my POS, with the reasons stated below. I am aware that I must submit a POS to the Graduate College before I will be allowed further enrollment. I understand that this extension will be granted one time only.

Please initial your acceptance of this statement here: _____

I expect to submit my POS by the following date _____

Reason for the request: _____

_____

_____

_____

_____

_____

**Approval Signatures**

_____ _____

Student signature Date Advisor signature Date

_____ _____

Graduate Coordinator/Department Head Date Graduate Dean Date

# OSU GRADUATE COLLEGE
## COMMITTEE CHANGE REQUEST

**TO**: Dean of the Graduate College

**FROM**: _____

**DATE**: _____

**RE**: Change in Advisory Committee for _____, ID#_____,

who is seeking a _____ degree in _____ (major)

Please change the advisory committee for the above named student as noted below. All current and new committee members have acknowledged this change with their initials.

| | **Present Committee** | **Department** | **Initials** |
|---|---|---|---|
| Committee Chair | | | |
| Advisor (if different) | | | |
| Member | | | |
| Member | | | |
| Member | | | |
| Outside Member | | | |

| | **New Committee** | **Department** | **Initials** |
|---|---|---|---|
| Committee Chair | | | |
| Advisor (if different) | | | |
| Member | | | |
| Member | | | |
| Member | | | |
| Outside Member | | | |

**Reasons for changes**_____

_____

_____

_____ _____

**Student Signature** **Date**

_____ _____

**Approval: Department Head** **Date**

_____ _____

**Approval: Graduate Dean** **Date**

GRADUATE COLLEGE
OKLAHOMA STATE UNIVERSITY

## ADMISSION TO DOCTORAL CANDIDACY

To be admitted to candidacy, a doctoral student must have (1) an approved Plan of Study on file with the Graduate College, (2) a dissertation proposal approved by the student's graduate advisory committee and, if required, (3) successful completion of comprehensive or qualifying examinations.

There are two options for fulfilling the candidacy requirements for degree completion. Students who began their doctoral degree program in Fall 2013 or later, must follow path #2. Students who began their doctoral program before Fall 2013 can select to use either path.

**Please indicate here which candidacy requirement you are using.**
☐ **#1 Dissertation Hours** ☐ **#2 Six Months** **Initials:_____** **Date:_____**

1) A Ph.D. student must successfully complete (grades of 'SR') at least 10 hours of dissertation (6000) coursework **after** being admitted to candidacy; an Ed.D. student must successfully complete at least 7 hours of dissertation (6000) coursework **after** being admitted to candidacy.
2) A doctoral student (either Ph.D. or Ed.D.) must be admitted to candidacy no less than six months prior to graduation, and must maintain continuous enrollment in every fall and spring semester until graduation. Two graduate credit hours qualifies as full-time enrollment for doctoral candidates under this option.

Date _____ Degree being sought (check one): ☐ **EdD** ☐ **PhD**

Candidate name _____

Student 8-digit CWID number _____

Department _____

Degree Program _____

---

Anticipated graduation date _____

Date Plan of Study was approved by the Graduate College _____

Date dissertation proposal was approved by the advisory committee _____

Title of approved dissertation proposal _____

_____

_____

---

Will this study require IRB/IACUC approval*? ☐ **YES** ☐ **NO**

If YES, IRB/IACUC approval has been or will be received by this date _____

* Dissertations that require approval for data collection from human/animal subjects that have NOT received approval by the IRB/IACUC prior to data collection will not be accepted by the Graduate College.

The student has passed the comprehensive or qualifying examination(s) required by his/her home academic department. ☐ **YES** ☐ **NO**

Date student passed the exam(s) _____

☐ **Not Required** Check here if the department does not require completion of comprehensive or qualifying exam(s) for a student to be eligible to enter doctoral candidacy.

**STUDENT SECTION:**

I hereby certify that I have met the requirements on the reverse page, and I apply for admission to doctoral candidacy. I am aware that, in order to graduate, I must meet the candidacy requirements as stipulated on the first page of this form. I am also aware that if my study requires approval to collect data from human/animal subjects, that I must secure IRB/IACUC approval prior to collecting any data. Data collected without such approval cannot be used in my dissertation. I further understand that I must submit a Graduation Clearance Form with the Graduate College and file a diploma application with the Registrar's Office by the published deadlines of the semester in which I intend to graduate. Failure to do so may result in a postponement of my graduation.

_____ Date _____

Student Signature

We recommend the above named student be admitted to doctoral candidacy.

**COMMITTEE SIGNATURES:**

Committee Chair _____

Dissertation Advisor (if different) _____

Outside Committee Member _____

Committee Member _____

Committee Member _____

Committee Member _____

_____ Date _____

Graduate Coordinator Signature

_____ Date _____

APPROVED: Dean, Graduate College

Graduate College

# Thesis/Dissertation Oral Defense Results

To the Dean of the Graduate College:

The following student appeared for his/her defense:

Name _____ CWID# _____

On the following date: _____ Upon the degree/major given below:

Degree _____

Major _____

Please sign below whether the student has or has not passed the defense:

| Student **has** satisfactorily completed the final defense: | Student **has not** satisfactorily completed the final defense: |
|---|---|
| _____ Chair | _____ Chair |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

(Must be signed and returned to the Graduate College **immediately following** defense)

NOTE: At the close of the defense, after the candidate has been excused, the members of the Committee should discuss the student's defense of the research associated with his/her thesis or dissertation. Each member of the Committee must sign under one of the above statements recommending either a satisfactory or unsatisfactory defense. Refer to the OSU Catalog (*Advisory Committee Decisions*) regarding criteria for successfully passing an Oral Defense. The result of this defense neither approves nor disapproves the thesis/dissertation document, but only the oral defense of the student's work.

Revised: 5/18/2010

**SCHOOL OF MATERIALS SCIENCE AND ENGINEERING**
**OKLAHOMA STATE UNIVERSITY**

# GRADUATE STUDENT FORM TO REQUEST EXAMINATION SCHEDULING

Contact MSE Graduate Program Coordinator with any questions regarding this form. Completed forms should be submitted to the MSE Administrative Assistant

Date:_____

**STUDENT INFORMATION**

| | |
|---|---|
| **Name:** | **CWID:** |
| **Email:** | **Phone:** |
| **Degree in Progress:** | **Expected Graduation Term:** |

**REQUEST TO SCHEDULE THE FOLLOWING EXAMINATION (Check the appropriate box)**

| | |
|---|---|
| ☐ MS Creative Component Oral Examination | ☐ Ph.D. Progress Review Examination |
| ☐ MS Thesis Oral Examination | ☐ Ph.D. Final Defense Examination |

| | |
|---|---|
| Date of examination: _____ | Faculty Advisor:_____ |
| Thesis/Report Title: _____ _____ | |
| Location (Room#, and Building): _____ | |

**Approval from Committee Members for scheduling examination:**

1 _____
*Faculty Advisor (Signature/Date)*

2 _____
*Committee Member (Signature/Date)*

3 _____
*Committee Member (Signature/Date)*

4 _____
*Committee Member (Signature/Date)*

5 _____
*Committee Member (Signature/Date)*

6 _____
*Committee Member (Signature/Date)*

**SCHOOL OF MATERIALS SCIENCE AND ENGINEERING**
**OKLAHOMA STATE UNIVERSITY**

## COMMITTEE'S EVALUATION OF THE MASTER CANDIDATE'S REPORT

We have reviewed the following student's report which he/she is submitting to meet the requirements for the ***M.S. degree with Creative Component (non-thesis)*** in Materials Science and Engineering.

**Name of Student:** _____ **Student CWID:**_____

**Report Title:** _____

_____

The following is our assessment of the M.S. Program Outcomes for this student.

**Oral Presentation (Please circle one):** Satisfactory Unsatisfactory

**REPORT (Please circle one):** Acceptable as is Acceptable with rewrite Unacceptable

**GRADE (Please circle one):** (A) (B) (C) (D) (F) (I)

**ADDITIONAL REMARKS:**

_____

_____

_____

_____

_____

**COMMITTEE MEMBERS:** (Please have committee members sign below)

| | | | |
|---|---|---|---|
| 1 | _____ *Faculty Advisor Name* | _____ *Faculty Advisor Signature* | _____ *Date* |
| 2 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 3 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 4 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 5 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 6 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |

**SCHOOL OF MATERIALS SCIENCE AND ENGINEERING**
**OKLAHOMA STATE UNIVERSITY**

## COMMITTEE'S EVALUATION OF THE MASTER CANDIDATE'S THESIS DEFENSE

We have reviewed the following student's report which he/she is submitting to meet the requirements for the ***M.S. degree (with Thesis)*** in Materials Science and Engineering.

**Name of Student:** _____ **Student CWID:**_____

**Thesis Title:** _____

_____

The following is our assessment of the M.S. Thesis Program Outcomes for this student.

**Oral Presentation (Please circle one):** Satisfactory Unsatisfactory

**THESIS (Please circle one):** Acceptable as is Acceptable with rewrite Unacceptable

**GRADE (Please circle one):** (A) (B) (C) (D) (F) (I)

**ADDITIONAL REMARKS:**

_____

_____

_____

_____

**COMMITTEE MEMBERS:** (Please have committee members sign below)

| | | | |
|---|---|---|---|
| 1 | _____ *Faculty Advisor Name* | _____ *Faculty Advisor Signature* | _____ *Date* |
| 2 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 3 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 4 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 5 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 6 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |

**Ph.D. RECOMMENDATION (Please circle one):** Highly Recommended Recommended Not Recommended

**SCHOOL OF MATERIALS SCIENCE AND ENGINEERING**
**OKLAHOMA STATE UNIVERSITY**

# COMMITTEE'S EVALUATION OF THE GRADUATE STUDENT'S Ph.D. QUALIFYING EXAMINATION

The following student appeared for his/her Qualifying Examination/Reexamination for eligibility requirements for the ***Ph.D. degree*** program in Materials Science and Engineering on _____:
*(Date)*

**Name of Student:** _____ **Student CWID:**_____

**Faculty Advisor:** _____

**Part I. Written Literature Review** *(please circle one)* Pass Conditional Pass Fail

***Title of Critical Review of Literature:*** _____

_____

**Part II. Oral defense of Critical Research Review** *(please circle one)* Pass Conditional Pass Fail

**Part III. Oral Examination of fundamental topics in Materials Science and Engineering** *(please check one)*

☐ Pass ☐ Conditional Pass ☐ Fail

***Subject 1.***_____ ***Subject 2.***_____ ***Subject 3.***_____

Based on the results of this Qualifying Examination, the Committee recommends:

- ☐ Eligibility of the student for Ph.D. Candidacy in MSE.
- ☐ Additional work in Part(s)_____ to be eligible for Ph.D. Candidacy *(see comments below)*.
- ☐ Reexamination of Part_____ in the next earliest offering of the Qualifying Examination.
- ☐ Repeating the entire Qualifying Examination at the next earliest offering.
- ☐ Terminating the student's continuation in the Ph.D. program.

**COMMENTS:** _____

_____

_____

**COMMITTEE MEMBERS:** (Please have committee members sign below)

| | | | |
|---|---|---|---|
| 1 | _____ *Committee Chair Name* | _____ *Committee Chair Signature* | _____ *Date* |
| 2 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 3 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 4 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |

(To be signed and returned to the MSE Administrative Assistant after the examination)

**SCHOOL OF MATERIALS SCIENCE AND ENGINEERING**
**OKLAHOMA STATE UNIVERSITY**

## COMMITTEE'S EVALUATION OF THE Ph.D. CANDIDATE'S PROGRESS REVIEW EXAMINATION

The following student appeared for his/her Progress Review Examination to meet the requirements for the ***Ph.D. degree*** in Materials Science and Engineering on _____:
*(Date)*

**Name of Student:** _____ **Student CWID:**_____

**Proposed Title of Dissertation:** _____

_____

**Plan of Study submitted:** ____ Yes ____ No

Based on the results of this Progress Review Examination, the Committee recommends:

- ☐ Continuation of the student in the Ph.D. program.
- ☐ Conditional continuation of the student in the Ph.D. program, with a reevaluation.
- ☐ Terminating the student's continuation in the Ph.D. program.

**COMMENTS/REEVALUATION:** _____

_____

_____

_____

_____

**COMMITTEE MEMBERS:** (Please have committee members sign below)

| | | | |
|---|---|---|---|
| 1 | _____ *Committee Chair Name* | _____ *Committee Chair Signature* | _____ *Date* |
| 2 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 3 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 4 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 5 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 6 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |

(To be signed and returned to the MSE Administrative Assistant **immediately following** the examination)

**SCHOOL OF MATERIALS SCIENCE AND ENGINEERING**
**OKLAHOMA STATE UNIVERSITY**

## COMMITTEE'S EVALUATION OF THE Ph.D. CANDIDATE'S FINAL EXAMINATION

We have reviewed the following student's report which he/she is submitting to meet the requirements for the ***Ph.D. degree*** in Materials Science and Engineering.

**Name of Student:** _____ **Student CWID:**_____

**Dissertation Title:** _____

_____

The following is our assessment of the Ph.D. Program Outcomes for this student.

**ORAL PRESENTATION (Please circle one):** Satisfactory Unsatisfactory

**THESIS (Please circle one):** Acceptable as is Acceptable with rewrite Unacceptable

**GRADE (Please circle one):** (A) (B) (C) (D) (F) (I)

**ADDITIONAL REMARKS:**

_____

_____

_____

_____

_____

**COMMITTEE MEMBERS:** (Please have committee members sign below)

| | | | |
|---|---|---|---|
| 1 | _____ *Committee Chair Name* | _____ *Committee Chair Signature* | _____ *Date* |
| 2 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 3 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 4 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 5 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |
| 6 | _____ *Committee Member Name* | _____ *Committee Member Signature* | _____ *Date* |

**SCHOOL OF MATERIALS SCIENCE AND ENGINEERING**
**OKLAHOMA STATE UNIVERSITY**

# GRADUATE STUDENT REQUEST FORM

Contact MSE Graduate Program Coordinator with any questions regarding this form. Completed forms should be submitted to the MSE Administrative Assistant

Date:_____

**STUDENT INFORMATION**

| | |
|---|---|
| **CWID:** | |
| **Last Name:** | **First Name:** |
| **Email:** | **Phone:** |
| **Street Address:** | **City:** |
| **State:** | **ZIP:** |
| **Degree in Progress:** | **Expected Graduation Term:** |

**REQUEST TYPE (Check all that may apply)**

| | | |
|---|---|---|
| ☐ Policy Exception | ☐ Deadline Exception | ☐ Transfer Credit |
| ☐ Curriculum Change | ☐ Re-Entry | ☐ Other |

**PLEASE PROVIDE DETAILED EXPLANATION OF YOUR REQUEST:**

| |
|---|
| |

_____ _____
Student Signature Date

**FOR DEPARTMENTAL USE ONLY**

**Please provide comments regarding the student's request.**

Student's Adviser Comments and Recommendation

Name (print or type) Signature/Date

Graduate Program Coordinator Comments and Recommendation

Name (print or type) Signature/Date

Course Instructor's Comments and Recommendation

Name (print or type) Signature/Date

Other Comments and Recommendation

Name (print or type) Signature/Date

# MSE GRADUATING STUDENT INFORMATION FORM

(a.k.a MSE Clearance Form)

Today's Date _____ Date Graduated (Ex: Dec. 2010) _____ Date Dropped (if applicable) _____

Degree: ☐ M.S. ☐ Ph.D.

You are required to close out your business affairs with the School of Materials Science and Engineering at least three days before you leave, whether you receive a degree or not. Please complete this form and *obtain signatures*. A "hold" will be placed on your transcript if you do not comply.

CWID: _____

Name: _____
*Last* *First* *Middle* *Preferred Name*

E-mail Address: _____

Forwarding Address: _____
*Street Address (including Apt. # or P.O. Box #)* *City* *St* *Zip*

_____
*Phone Number (including Area Code)*

Did you have any office space during your time here? ☐ Yes ☐ No

If yes, what room? _____ Is it empty now? ☐ Yes ☐ No (If no, please empty now)

**All tools, equipment, instruments, chemicals must be returned to the appropriate lab/areas. Please obtain a signature from Julia Kacergis or Mark Owen.** You must obtain a signature even if you have not checked out anything from their office.

INSTRUMENT TECHNICIAN: _____

**All keys to rooms in HRC or the outlying laboratories must be returned to Julia Kacergis or Mark Owen.** Any outstanding financial matters (such as payroll) will also be cleared up at this time.

FINANCIAL ASSISTANT: _____

**HRC keys must be returned to Julia Kacergis.**

CEAT SUPPORT SERVICES: _____

**(CEAT Support Services requires that you collect all other signatures, with the *exception* of the Graduate Academic Secretary (see back) before they will sign this form.)**

**When all responsibilities to the Major Advisor have been satisfied, s/he will sign below:**

MAJOR ADVISOR: _____

**(Continued on reverse side)**

We need your help! We frequently need to contact our alumni, and we must have accurate addresses and phone numbers in order to do this! **The following information regarding employer and salary are kept strictly confidential. We use this information for comparison purposes with other degree programs and for recruiting.**

Place a check **only one** box that best describes your placement status and fill-in requested information where appropriate:

☐ Enrolled in Graduate School or ☐ Applied to Graduate School

School Name: _____

Area of study _____

☐ Awarded an assistantship in the amount of $_____ per month

☐ Accept employment: Industry _____ University _____ Government _____

☐ Return to home country of _____

☐ Not employed, still seeking employment in my field of study

☐ Not seeking employment

☐ Not employed / Not enrolled / Not seeking employment

☐ Other: _____

## ACCEPTED FULL-TIME POSITION:

Employer:_____ Position Title:_____

Location:_____

City State

Number of interviews on campus _____ Number of interviews at employer site _____

Number of job offers _____ Your yearly salary offers: $ _____, $ _____, $ _____

While at OSU, in which activities did you participate? (Check all that apply)

☐ Part-time technical job ☐ Internship ☐ Co-op ☐ None of these

Yearly salary accepted with full time employment: $ _____

Additional Bonus Total $ _____ ☐ Signing ☐ Relocation assistance ☐ Other _____

## OTHER INFORMATION

Did you utilize OSU Career Services (Main Hall) resources or activities? _____ yes _____ no

If yes, how? *(check all that apply)* ☐ OSU HIRE System ☐ On-campus interviews ☐ Career fairs ☐ Workshops

Did you utilize CEAT Career Services (102 EN) resources or activities? _____ yes _____ no

If yes, how? *(check all that apply)* ☐ Resume assistance ☐ Cover letter assistance ☐ Interview preparation help ☐ Career planning/job search advice ☐ Workshops or Events ☐ Other _____

Were you aware of the services provided by CEAT Career Services? _____ yes _____ no

How many internships or Co-ops have you completed? ____

With whom? _____

Upon completion, return this form to the MSE Graduate Secretary in HRC *no later than Friday of Finals Week*. Thank you!

The Graduate Secretary will check to ensure that you have met all the requirements of the School of Materials Science and Engineering before she signs this form.

GRADUATE SECRETARY: _____