

Department of Materials Science & Engineering

B.S./M.S. Program Handbook

2007-2008

University of Utah Department of Materials Science & Engineering
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1. Program Description

For Undergraduate students interested in vigorous pursuit of research, the Department of Materials Science & Engineering offers a combined B.S./M.S. degree program intended to foster undergraduate research and to accelerate progress toward the M.S. degree. The combined program is designed to be completed in five years and to culminate with the simultaneous conferral of the Bachelor of Science and Master of Science degrees. This is one year shorter than a traditional sequential B.S. – M.S. program as described in the General Catalog. The B.S. degree portion of the combined degree requires the completion of 123 semester credit hours. The M.S. degree requires the completion of 30 additional hours. The standard B.S. degree requires 133 hours.

Students in the B.S./M.S. program would begin research during the senior year. The M.S. thesis topic is expected to be an outgrowth of the required senior project. The advisor for the Senior Project will be the same advisor for the M.S. Thesis. Upon completion of both degree requirements, you will receive both degrees at the next appropriate graduation ceremony. DO NOT apply for graduation for the undergraduate degree before you will complete both BOTH degrees.

2. Application to the B.S./M.S. Program

Applicants for admission to the B.S./M.S. program must have major status in Materials Science & Engineering at the University of Utah. Applications for admission to the combined degree program should be submitted by March 1 of the spring semester of junior year (when taking MSE 5090) and are available from the Academic Program Specialist. A minimum GPA of 3.0 is required for admissions to the combined program. Students will be notified of decisions by May 1.

2.1 Application Requirements

Undergraduate status is maintained until the mid-program review; however, students are able to take graduate-level credit at any time. Students should plan to have a total of two to three semesters in graduate status and may begin the process at the completion of 123 semester credit hours.

Along with the B.S./M.S. application, applicants should also submit the following supporting material:

- 1) Current Degree Audit Report (DARS)
- 2) Three recommendation letters
 1. One of the three recommendation letters must come from a Materials Science faculty member expressing a commitment to serve as the M.S. thesis advisor. The M.S. thesis advisor must confirm in the recommendation letter that he or she has read and agreed to the brief description of the master's thesis project.
- 3) Personal statement

1. The applicant must indicate clearly at the beginning of the personal statement that the application is for the B.S./M.S. program.
2. The applicant must provide a brief description of the master's thesis project in the personal statement.

A separate application for Graduate School Admissions will not be required until the mid-program progress review (at 123 hours).

Only full-time students currently enrolled in major status in Materials Science & Engineering program are admitted to the program. **International students are not eligible for the combined program.**

Students who are working on extramurally funded research projects may be eligible for the University of Utah's Graduate Tuition Benefit Program (TBP) for 6000-level and above courses once they obtain graduate status. TBP guidelines are posted at <http://www.utah.edu/gradschool>. Note that while students are enrolled with graduate status, all rules of the Graduate School apply (graduate tuition structure, graduate tuition benefit program, graduate student health insurance program, etc.)

2.2 Admissions to the Graduate School

A student may request transfer to the graduate status after the completion of 123 semester credit hours of qualified studies. The student follows regular University of Utah Graduate School application procedures. [Note: On the referral sheet that the department returns to graduate admissions office, the department will note that the student has been accepted to the B.S./M.S. program. Graduate Admissions will then approve admission without the B.S. having been completed.]

Before being formally admitted to the Graduate School (and therefore, obtain the status of a graduate student), the following items need to be fulfilled:

- Choose a supervisory committee, the student's research advisor will be the Chair
- Submit a combined degree program of study (the B.S. degree must be completed within one year of admission to the Graduate School)

Admission into the combined degree program guarantees admission to the Graduate School as long as a minimum GPA of 3.3 is maintained, so this step is simply a matter of some additional paperwork. Application deadlines:

- Fall Semester: April 1
- Spring Semester: October 1
- Summer Semester: March 15

The application is processed and decisions are made by the Materials Science & Engineering Graduate Committee. Entrance criteria for the B.S/M.S. program consistent with criteria for the traditional M.S. program.

3. B.S./M.S. Program Requirements

During the first semester of the program, students must complete a combined degree program of study and have your B.S. program of study and your Master's Degree program checked off by the Academic Program Specialist. Forms are available from the Academic Program Specialist.

3.1 B.S. and M.S. Requirements

Students must complete a minimum of 153 semester credit hours total of qualified studies. A minimum of 123 semester credit hours must meet the B.S. requirements of the department. A minimum of 30 semester credit hours must meet the M.S. requirements of the department.

Students must complete all the courses in the revised B.S. program of study. Students still are required to complete and present Senior Design/Thesis project. In addition students must fulfill the complete M.S. program as stated in the Graduate Handbook of the year they entered the combined program.

3.2 Program of Study

The following is the program of study for undergraduates admitted into the combined B.S./M.S. program. Students will take an additional 10 credit hours of coursework in the fifth year of the combined program that is closely related to their area of research along with 10 credit hours of thesis research.

FIRST YEAR		SECOND YEAR	
Autumn Semester	Spring Semester	Autumn Semester	Spring Semester
CHEM 1210 (4)	CHEM 1220 (4)	CHEM 2310 (4)	MSE 3011 (4)
CHEM 1215 (1)	CHEM 1225 (1)	MSE 2010 (4)	MSE 3310 (3)
MATH 1210 (4)	MATH 1220 (4)	MATH 2210 (3)	MATH 2250 (3)
MSE 1800 (1)	CP SC 1000 (3)	Am. Institutions (3)	ME EN 1300 (4)
Gen Ed (3)	Gen Ed (3)	PHYS 2210 (4)	PHYS 2220 (4)
WRTG 2010 (3)			
<i>Total Credits- 16</i>	<i>Total Credits- 15</i>	<i>Total Credits- 18</i>	<i>Total Credits- 18</i>
THIRD YEAR		FOURTH YEAR	
Autumn Semester	Spring Semester	Autumn Semester	Spring Semester
MSE 3410 (3)	MSE 3010 (3)	MSE 6032 (4)	MSE6034 (3)
MSE 3210 (3)	MSE 5090 (3)	MSE 5098 (2)	MSE 5099 (2)
MATH 3150 (2)	MSE 5025 (3)	Tech Electives (3-4)	MSE 6061 (3)
CHEM 3060 (4)	CHEM 3070 (4)	Gen Ed. (3)	Tech Electives (3-4)
ECE 2210 (3)	Gen Ed (3)	Gen Ed. (3)	Tech Electives (3-4)
Gen Ed (3)			
<i>Total Credits- 18</i>	<i>Total Credits- 16</i>	<i>Total Credits- 15-16</i>	<i>Total Credits- 14-16</i>

3.3 M.S. Research Supervisory Committee

Filing the Request for Supervisory Committee Form

Upon official admissions to the graduate program, the student must form an M.S. research supervisory committee and submit the *Request for Supervisory Committee* to the Academic Program Specialist. The research supervisory committee must consist of three University of Utah faculty members. The chair of the committee must have a faculty appointment in the Department of Materials Science & Engineering and at least one member must be a tenure track member of the Materials Science & Engineering faculty. The advisor and committee must be approved by the Department chairman. [Note: the department will submit to the Graduate Records Office this completed and signed Supervisory Committee Form.]

3.4 M.S. Application for Admissions to Candidacy

Filing the Application for Admission to Candidacy for the Master's Degree Form

Within one semester after official admission to the graduate program, the student must submit an M.S. Program of Study to the Academic Program Specialist. This form must first be approved and signed by the M.S. research supervisory committee. [Note: The department will submit to the Graduate Records Office this completed and signed M.S. Candidacy form showing all the courses taken or to be taken, for the M.S. component of the combined program.]

3.5 Graduation from the B.S./M.S. Program

Upon successful completion of the combined degree program, both the Bachelor's and Master's degrees are awarded simultaneously. Students must apply for graduation to the Registrar's Office for the Bachelor's degree to be awarded in the appropriate semester, and the Department submits the necessary paperwork for awarding of the Master's degree in the same semester. Students must satisfy all the department and University requirements for each degree. Coursework may not be applied to more than one degree.

4. Typical Student Timeline for the B.S./M.S. Program

Junior – Spring Semester

Enroll in MSE 5090

Choose graduate advisor (M.S.)

Apply for combined status

Senior – Fall Semester

Enroll in MSE 5098

Undergraduate (+ graduate) coursework

Develop B.S. and M.S. programs of study

Form Supervisory Committee (M.S.)

Senior – Spring Semester

Enroll in MSE 5099

Undergraduate (+ graduate) coursework

Mid-program progress review (at 123 hours)

Complete B.S. requirements
Apply for graduate status
Graduate – Fall Semester
Enroll in MSE 6001
Graduate coursework
Application for Admissions to Candidacy
Graduate – Spring Semester
Enroll in MSE 6970
Graduate coursework
Thesis defense (M.S.)

5. Exiting the B.S./M.S. Program

Students wishing to exit the combined program can apply qualified coursework toward the traditional B.S. and M.S. degree requirements without penalty. In addition, admitted students who decide to receive the B.S. degree prior to completion of the B.S./M.S. program requirements must exit the combined program, but are given the option to enroll in the traditional M.S. program and are allowed to transfer eligible work not needed to meet the standard B.S. requirements to the standard M.S. requirements. No student will be awarded a separate M.S. degree without satisfying all requirements for the B.S. degree.