

Combined Degree of Bachelor of Science and Master of Science in Materials Science and Engineering

The five-year BS-MS program in Materials Science and Engineering combines two degrees: a BS in MatSE with an MS (with thesis) in MatSE. Current University of Illinois MatSE students enrolled in the College of Engineering who maintain *superior academic performance* are eligible to apply for this program. Students admitted to the program will receive both degrees once all requirements for the 5-Year BS-MS degree program have been successfully completed but will be permitted to participate in the Graduation Ceremonies with their class if they have completed 128 hours.

DEADLINE: Completed application and reference letters must be returned to the MatSE Office, 201 MSEB, 2 months before the end of the Fall semester of the student's Junior year. Application and letter of reference forms for the BS/MS Program are available from the MatSE department office.

Admission to the Program

- Current Illinois MatSE students with Junior standing with an overall grade point average (GPA) of at least 3.5/4.0 may apply for provisional admission to the program. The 5-year program is highly competitive. Admission is based on overall academic performance, letters of reference, and statement of purpose.
- The GRE General Test is not required.
- Students provisionally admitted to the program:
 - are assigned a graduate academic advisor when admitted.
 - must maintain an overall GPA of 3.5 through completion of the BS component of the program in order to remain in the program
 - may register for graduate courses and earn graduate credit hours, with approval from their graduate academic advisor, even if they are more than 10 hours from completing the BS component
 - must earn at least 120 hours of undergraduate credit, 9 hours of graduate credit in advanced level area courses, and satisfy all BS requirements to be officially admitted to the Graduate College.
- Upon successful completion of the BS component, with grades of B or better in the advanced area coursework, an overall GPA of at least 3.0 in all graduate coursework, submission of official Graduate College application and application fee students:
 - will be officially admitted into the Graduate College- will be issued letters of admission from the Office of Admissions and Records and the MatSE Department, at which time they will be considered graduate students and assessed graduate tuition the following semester
 - may apply or be considered for graduate research or teaching assistantships, and tuition waivers, as well as fellowships and scholarships available to graduate students.
 - must continue to maintain a graduate GPA of 3.0 or better in order to remain in the combined program.

- Students in the program are eligible to apply for the PhD program in MatSE near completion of the MS component. If admitted, the combined degree will count as Stage 1 of the PhD program, as if the student is admitted with a master's degree.

University Residency Requirements

Undergraduate residency requirements include a student spending either the first three years, earning not less than 90 semester hours, or the last year (two semesters or the equivalent), earning not fewer than 30 hours, in residence at the Urbana-Champaign campus, uninterrupted by any work in another institution. Graduate residency requirements include that half or more of the graduate hours applied toward the degree must be earned in courses counted for residence credit. Consult the University of Illinois Programs of Study book for addition details about university residency requirements.

Course Requirements

BS component (GPA of 3.5 required)

Requirements	Non-Biomaterials	Biomaterials
Credit Hours	Hours	Hours
Total Credit required	120	120
Orientation Courses (Eng 100, MSE 182)	0	0
Foundational Math & Science Math 221, 225, 231, 241 & 285 (16 hours: Calc I, II, III, Matrix Theory & Diff Eq) Chem 102, 103, 104 & 105 (8 hours: Gen. Chem.) Phys 211, 212 & 214 (10 hours: Mech, E&M, Quantum)	34	34
Core Technical Courses for All Conc. (CS101, ECE205, IE300 & MSE 182, 201, 206, 307, 308, 401, 402, 406) – <u>MSE395 not required</u>	34	34
Additional Core Technical Courses	6 (MSE 304 & 405)	13 (CHEM232 & MCB 150, 450, 252)
Area Specialty Courses*	12	8
Other Area Specialty Courses*	0	3
Tech. Electives*	6	0
Liberal Education Courses (GenEd Social & Behav. Sci.: 6 hours, Hum. & Arts: 6 hours, Other: 6hours)	18	18
Composition (Rhet 105)	4	4
Free Electives (MSE499 recommended)	1	1
MSE 499 (Thesis)	5	5

*Three of these courses (9 hours) are to be taken at the graduate level (i.e., the students will be held to the course and grading requirements of a graduate student).

MS component

Credit Hours	Hours
<i>Total Credit for the Degree</i>	32
Thesis Research (min-max applied toward the degree)	8
Course Work	24
MSE 492 (credit does not apply toward the degree)	0
MSE 595	0-2
Advisor group meetings (MSE 590) and area seminars (MSE 529, MSE 559) (subject to Other Requirements and Conditions below)	0-4
Elective courses – chosen in consultation with advisor (subject to Other Requirements and Conditions below)	18-24
Other Requirements and Conditions (may overlap):	
A minimum of 10 hours of MSE course work.	
A minimum of 14 500-level credit hours applied toward the degree.	
MSE 595 (0 or 1 hour) must be taken every semester in the first two years of residence. A maximum of 2 hours may be applied toward the degree. [†]	
MSE 529 or MSE 559 (0 or 1 hour) must be taken every semester. A maximum of 4 hours may be applied toward the degree. [†]	
The minimum GPA for the MS component is 3.0.	
The completed masters thesis must be approved by the advisor and the department head.	

[†]Depending on time to graduation, the MSE 595/529/559 requirements may vary (maximum hours that may be applied toward the degree do not vary). Deviation from above requirements requires the approval of the Director of Graduate Studies.