

Materials Science and Engineering

Doctor of Philosophy entry with Bachelor's Degree (96 Ph.D.)

¹Required Background "Leveling" Courses	Semester	Grade	Credits
MSEN 601: Fundamental Materials Science and Engineering			3
MSEN 603: Fundamental Soft & Biomaterials Materials Science & Engineering			3
Seminar Requirement (<i>Minimum 2cr - Maximum 3 cr</i>)			
MSEN 681 – Seminar			
MSEN Core Courses (<i>9 cr</i>)			
1. MSEN 602 – Physics of Materials Science & Engineering			3
2. MSEN 620 – Kinetic Processes Materials Science & Engineering			3
3. MSEN 640 – Thermodynamics Materials Science & Engineering			3
Math Requirement (<i>choose one, 3-4 cr</i>)			
4. MATH 601-604, STAT 601, STAT 630, PHYS 615, PHYS 616			
²MSEN Electives (<i>Minimum of 9 cr <u>or</u> 3 graduate MSEN courses</i>)			
5. MSEN			
6. MSEN			
7. MSEN			
³Free Electives (<i>Minimum of 9 cr, any engineering or science 400 level course or above</i>)			
8.			
9.			
10.			
⁴Research Credit (<i>typically between 57 – 67</i>)			
MSEN 691- Research (taken under faculty advisor's name)			
⁴"Extra" Courses (<i>optional, not required</i>)			
Comments:			
<u>Degree Plan must equal 96 hours — Total:</u>			

Committee: Minimum 4 members consisting of **2** [full-time core/joint MSEN faculty](http://ogsdpss.tamu.edu) and **1** outside member (who may be non-affiliated or [affiliated MSEN faculty](#)).

Chair _____

Co-chair or Member _____

Member _____

Outside Member _____

Degree plans must be submitted electronically at <http://ogsdpss.tamu.edu> during your fourth semester of registration or you may be blocked from further registration. You must establish a committee before submitting a degree plan.

Notes:

1. **Required Background “Leveling” Courses** are MSEN 601, MSEN 603. Any student who *does not* have a degree in Materials Science and Engineering *must* take these two courses— they will be counted as Free Electives. Any student who *does* have a degree in Materials Science & Engineering is not required to take those courses— they are automatically waived.
2. **MSEN Electives** are graduate-level Materials Science & Engineering courses frequently referred to as technical electives.
3. **Free Electives** are any 400 level or above engineering and science course. The Background Leveling Courses (MSEN 601 & 603) can be used to fulfill this requirement— (see note 1).
4. **Remaining credit** hours to fulfill the minimum credit hour requirement (**96 cr**) may be taken from other courses, including Internship (MSEN 684), Directed Studies (MSEN 685), and Research (MSEN 691), subject to Departmental rules.
 - Limitations on the use of certain courses to fulfill credit hour requirements ([See Graduate Catalog](#))
 - Not more than 12 credits may be used in any combination of the following categories:
 - MSEN 681 (Seminar) does not count as MSEN Elective or Free Electives— maximum 3 cr
 - MSEN 684 (Internship) does not count as MSEN Elective or Free Electives— maximum 8 cr
 - MSEN 685 (Directed Studies) may be used as MSEN Elective or Free Elective— maximum 8 cr
 - MSEN 691 (Research) does not count as MSEN Elective or Free Electives
 - A maximum of 9 hours of advanced undergraduate courses (300- or 400-level).
 - The maximum number of credit hours considered for transfer credit is 12 cr as per University Rules.
 - * Courses for which transfer credits are sought must have been completed with a grade of “B” or greater and cannot have been used to earn a previous degree— must have instructor, graduate director, chair, committee, and Graduate Professional School approval.

Doctoral Requirements:

1. You must maintain satisfactory academic progress by completing MSEN academic degree milestones to avoid probation:
 - a. Before end of 1st Semester— Finding a Faculty Advisor/Supervisor
 - b. After 2nd Semester— Qualifying Exams
 - c. During 4th Semester— Establish a Dissertation/Thesis Committee
 - d. Before 5th Semester— Degree Plan Submission (before completing 36 credits)
 - e. Before end of 6th Semester— Preliminary Exam
 - f. Before end of 6th Semester— Research Proposal
 - g. Oral Defense— Dissertation/Thesis Submission (average completion 5 years)
2. You must maintain an overall, semester, and degree plan grade point average of 3.0 or higher for all of the classes that you take at Texas A&M University.
3. You must perform your assigned duties and research satisfactorily.

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