Materials Science and Engineering

Doctor of Philosophy entry with Master's Degree (64 hr Ph.D.)

[1]Required 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 *(Minimim 2cr - Maximum 3 cr)*			
MSEN 681 – Seminar			
MSEN Core Courses *(9 cr)*			
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 *(choose one, 3-4 cr)*			
4. MATH 601-604, STAT 601, STAT 630, PHYS 615, PHYS 616			
[2]**MSEN Electives** *(Minimum of 9 cr **or** 3 graduate MSEN courses)*			
5. MSEN			
6. MSEN			
7. MSEN			
[3]**Free Electives** *(Minimum of 3 cr, any engineering or science 400 level course or above)*			
8.			
[4]**Research Credit** (typically 32 – 42)			
[4]**"Extra" Courses** *(optional, not required)*			
Comments:			
Degree Plan must equal 64 hours — Total:			

Committee: Minimum 4 members consisting of **2** full-time core/joint MSEN faculty 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 (**64 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 Requirments:

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 3.5 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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