DEPARTMENT OF MECHANICAL ENGINEERING

FAST-TRACK MASTER OF SCIENCE PROGRAM

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FAST-TRACK MASTER OF SCIENCE PROGRAM

High-achieving Texas A&M mechanical engineering undergraduate students have an opportunity to significantly reduce the time required to obtain their Master of Science (MS) in Mechanical Engineering following completion of their bachelor of science engineering (BSE) degree. Here’s how it works:

1. There are 32 credit hours required to satisfy an MS degree. Of these 32 credits, 24 hours are course work (eight classes), one hour is a seminar class, and seven hours are thesis research hours.

2. If planned well, you could take at least four classes during your undergraduate studies that count toward your graduate degree. Two of these four courses could also count toward your undergraduate degree, if selected from the “stacked course” list.

3. If #2 is satisfied, then your remaining requirements for the MS degree consist of:
   (a) Four courses (12 credit hours) toward your graduate degree.
   (b) One hour seminar course toward your graduate degree.
   (c) A minimum of seven credit hours of thesis research toward your graduate degree.
   (d) Completion of your thesis performed in (c).

WHAT ARE THE BENEFITS?

1. You could effectively decrease your time to get a graduate degree by approximately 1 year.

2. Once a graduate student, you would be eligible to compete for graduate assistant teacher (GAT) or graduate assistant researcher (GAR) appointments, which provide the following:
   (a) A monthly stipend of around $1500 / month,
   (b) Tuition, and
   (c) Health insurance.

3. Professors generally prefer fast-track committed undergraduate students when hiring for lab assistant positions. You can begin research work as an undergraduate student in a faculty member’s lab that builds knowledge and interest in what could become your thesis research project.

4. You are eligible to apply for University based Graduate Merit and/or Diversity based Fellowships (http://ogs.tamu.edu/funding-information/fellowships/faculty-nominated-fellowships/) which have significant stipend, insurance and tuition benefits. The application must be submitted during the Fall semester of your senior year and a faculty advocate is required.

Here’s what you need to do to increase your chances of completing an MS within approximately one year of graduation of your BSE:

1. In your third undergraduate year (around 30 hours to graduation), apply to the Fast Track program. Applications are available in the Advising Office. There are two basic criteria: Overall GPA must be greater than or equal to 3.5, and you must be within 30 hours to graduation.

2. You must meet with an academic advisor prior to registering for classes.
3. When registering for your second-to-last semester courses:
   (a) Register for a graduate course that is also stacked with an undergraduate course; the graduate course will satisfy a course requirement for your graduate degree while your undergraduate course requirement will be satisfied with credit by examination (NOTE: Credit-by-exam will be awarded when final course grade is posted. See advisor for more details). The undergraduate course will satisfy one of your technical elective course requirements for your BSE.
   (b) Register for any number, but at least one, of other graduate level courses (including required graduate-level math courses such as Math 601, Math 603, or Stat 601), or for an additional 400 level elective that will count towards your MS degree.

4. Ideally identify a faculty member to begin working within your final two semesters of undergraduate studies; this is meant to help you establish a project for your graduate student year’s thesis research. Professors generally hire lab assistants at a fixed hourly rate.

5. When registering for your last undergraduate semester:
   (a) Register for a graduate course that is also stacked with an undergraduate course; the graduate course will satisfy a course requirement for your graduate degree while your undergraduate course requirement will be satisfied with credit by examination (NOTE: Credit-by-exam will be awarded when final course grade is posted. See advisor for more details). The undergraduate course will satisfy one of your technical elective course requirements for your BSE.
   (b) Register for any number, but at least one, of other graduate level courses (including required graduate-level math courses such as Math 601, Math 603, or Stat 601), or for an additional 400 level elective that will count towards your MS degree.

6. Apply to graduate school in Department of Mechanical Engineering at Texas A&M.

7. As a graduate student, take four additional courses and one seminar course, and conduct your minimum of seven credit hours of thesis research.

NOTE:

1. It is not required that you take 2 graduate-level courses per semester in your final year of undergraduate studies; it just maximizes your capability to finish your MS within one year of BSE graduation.

2. The department is ever-seeking to expand its stacked course offering. These are the current stacked courses, organized by the typical semester they are offered (please note these courses and when they are offered are subject to change). If you wish to have a stacked course count toward both your BSE and MS degrees, you must register for the graduate-level course and use credit-by-examination to satisfy the undergraduate stacked course.
FALL (subject to change)

MEEN 612 (Mechanics of Robot Manipulators) / MEEN 408 (Introduction to Robotics)
MEEN 634 (Dynamics and Modeling of Mechatronic Systems) / MEEN 434 (Dynamics and Modeling of Mechatronic Systems)
MEEN 657 (Viscoelasticity of Solids and Structures) / MEEN 451 (Viscoelastic Materials)
MEEN 667 (Mechatronics) / MEEN 433 (Mechatronics)
MEEN 685 (Independent Study) / MEEN 485 (Independent Study) – maximum 3 credit hours

SPRING (subject to change)

MEEN 625 (Mechanical Behavior of Materials) / MEEN 467 (Mechanical Behavior of Materials)
MEEN 646 (Aerothermodynamics of Turbomachines) / MEEN 414 (Principles of Turbomachinery)
MEEN 659 (Vibration Measurement in Rotating Machinery and Machine Structures) / MEEN 459 (Sound and Vibration Measurements)
MEEN 685 (Independent Study) / MEEN 485 (Independent Study) – maximum 3 credit hours

For more information contact:

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