Systems Engineering and Management Fast Track Program

In response to the need for advanced education in systems engineering and management, a *Fast Track* program is available to well-qualified UT Dallas undergraduate students. The *Fast Track* program is designed to accelerate a student's education so that both the BS degree and the Master's Degree in Systems Engineering and Management (MS-SEM) can be earned in approximately five years of full-time study. The *Fast Track* program in Systems Engineering and Management enables exceptionally gifted undergraduate students in their senior year to include approved master's level courses as part of an undergraduate degree plan. When *Fast Track* students graduate with a bachelor's degree, they are automatically admitted to graduate school at UT Dallas without need to take the Graduate Record Exam (GRE). Qualified students may take up to 15 graduate semester credit hours that may be used to complete the baccalaureate degree and also to satisfy requirements for the master's degree if these courses are completed with grades of B or better[1]. So, for example, a *Fast Track* undergraduate who passed 15 semester credit hours of well-chosen graduate coursework with grades of B or better would have only 18 semester credit hours of graduate coursework still needed to complete the MS degree.

This document explains the qualifications necessary to enter the program, the requirements to successfully complete the program, and the procedures to be followed by *Fast Track* students.

Cross-Tracking into the MS-SEM Program

Undergraduate students who are enrolled in other BS programs in Biomedical Engineering, Computer Science, Computer Engineering, Software Engineering, Telecommunications Engineering, Electrical Engineering, or Mechanical Engineering may request admission to the *Fast Track* MS-SEM program. *Fast Track* in this case is really *Cross-Track* because Systems Engineering currently does not offer an undergraduate program. Admission into the MS-SEM program, offered in equal partnership with the Jindal School of Management, requires a BS degree from an accredited program in engineering, mathematics, physics, chemistry, economics or finance, in order to ensure adequate fundamental skills in mathematics. Therefore, the requirements for the *Fast Track* to MS-SEM program differ slightly from other *Fast Track* programs that are offered in more narrow disciplines.

Since *cross-tracking* into the MS-SEM program requires additional courses that might not be required by the student's BS major, careful and advanced planning is pertinent. The student should initiate an appointment with the Graduate Director of the MS-SEM program to understand the MS requirements. The eligible student must obtain the approval from the Graduate Director of the MS-SEM program on the *Fast Track* application. Similarly, if a student is accepted into a *Fast Track* program but decides to change the program, he/she must reapply for admission to the new program. Students planning to *cross-track* should select appropriate courses from the list of prerequisites and core courses for the MS-SEM degree. Note that these graduate prerequisites or core courses may also have prerequisites. A complete list of these dependencies must be considered before the student can be sure of the cost of cross-tracking.

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[1] Once a student transitions into the graduate degree program, all university and department rules and policies are applied just as for a normally admitted graduate student. *Fast Track* credits cannot be applied to more than one master's degree program.

This research can easily be completed by studying the online catalog at http://www.utdallas.edu/student/catalog/.

Admission Requirements

An undergraduate student cross-tracking from another BS degree program qualifies to be admitted to the Systems Engineering and Management *Fast Track* program if he or she meets *all* of the following qualifications:

- Has completed at least 15 semester credit hours at UT Dallas.
- Has repeated no more than 3 courses at UT Dallas and has repeated no course more than once.
- Has an overall GPA for all college courses of at least 3.33.
- Has completed at least six benchmark courses with an average six course GPA of at least 3.5 and the combined GPA in all benchmark courses should be at least 3.33. These six courses must be chosen from any of the *Fast Track* benchmark courses listed for the undergraduate degree programs in the Erik Jonsson School of Engineering and Computer Science. Upon approval by the SEM Graduate Admissions Committee, up to two of the six benchmark courses may come from outside this list, provided
  1. one (or both) course(s) is (are) at least at 3000 level and from a UT Dallas engineering program; or/and
  2. one course is at least at 3000 level and from a UT Dallas undergraduate program in mathematics, physics, chemistry, economics, or finance.

Application to the *Fast Track* Program

In order to ensure that all requirements are met, admission to the *Fast Track* program is facilitated and administered by the Office of the Associate Dean for Undergraduate Education (ADU). Download the appropriate application (corresponding to your intended MS degree), or obtain the application from the ECS Office of Undergraduate Advising (OUGA); submit the completed form to your undergraduate advisor by the posted deadline of your intended start term. After the deadline, *Fast Track* applications will be circulated for review by the ECS ADU, the Graduate Director or Associate Department Head for Graduate Studies related to the intended MS degree, the ECS Associate Dean for Academic Affairs, and the Dean of Graduate Studies. After the review is complete, you will receive an e-mail indicating the decision of the Graduate Program and a signed copy of the decision will be inserted in your file.

Students who are denied admission to the *Fast Track* program may apply to the graduate programs through the normal admission process. All necessary fees, test requirements, and any other admission criteria will apply.

Fast Track application deadlines:

        Summer and **Fall Terms** – March 21   **Spring Term** – October 21

Choice of Graduate Courses

Fast Track courses taken during the undergraduate senior year must be well chosen so that they satisfy the requirements of the BS degree AND those of the intended MS degree (note that many of the MS programs have tracks or concentration areas with different core requirements). It is important to note that all students interested in the *Fast Track* SEM program must have completed the stated prerequisites (or their equivalents), or obtain permission from their advisor and course instructor, for any graduate SEM class in which they enroll.

Prior to registration in master's level courses, all newly admitted *Fast Track* students must attend a New *Fast Track* Student Orientation session organized by the chosen graduate program. Notice of the orientation dates will be emailed to newly admitted *Fast Track* students by the graduate program upon admission to the *Fast Track* program. The department will conduct two fast track graduate student orientations. In Spring for students entering the fast track program in Summer and Fall terms and in Fall for students entering the fast track program in Spring term.

Each semester thereafter, *Fast Track* undergraduate students must consult the ECS ADU and the Graduate Director or Associate Department Head of the graduate program before deciding on their graduate courses. Students will be permitted to take approved graduate courses that may be used to satisfy both BS and MS degree requirements. Only organized 5000 and 6000 level courses that are used for credit towards the MS degree can be used as *Fast Track* courses. An organized course is one that is posted in the schedule for classroom (or online) delivery. Independent study courses do not qualify.

Fast Track students may, with the advice of the ADU, fulfill some of their major course requirements, their undergraduate guided electives and/or their free electives by taking graduate-level courses. Those graduate courses should also be core or elective courses for the intended MS major.

Students should not take more than one 5000-level course because of limits on the number of 5000-level courses that can be used to satisfy the requirements of the corresponding MS degree. (Consult with an appropriate graduate adviser to ensure that the classes you plan to take can be used.)

Remaining in the *Fast Track* Program

In order to remain in good standing, a *Fast Track* student must fulfill the requirements.

1. Must maintain a GPA of at least 3.5 overall and at least 3.0 for graduate courses taken as an undergraduate *Fast Track* student.
2. Must earn a grade of B or better in all graduate courses. Courses in which a student earns a passing grade below B shall only count towards the BS degree and will not count for the MS degree.
3. Must not repeat more than three courses, and must not repeat any course more than once.

If, at any time these requirements are not fulfilled, the student will be dropped from the *Fast Track* program. Any graduate credits successfully earned can be applied to the BS degree only, and the benefits of the *Fast Track* program will not apply. A student dropped from the *Fast Track* program shall not use these graduate courses towards a future graduate degree.

Matriculating to the Master's Degree

Upon successful completion of the BS degree a *Fast Track* student will transition to the appropriate MS degree program if they are in good standing. A graduate matriculation will be created for these students so that they can continue their studies towards their MS degree without any additional documentation or fees. Subsequently, students must meet with an MS degree graduate advisor and complete any necessary degree plan requirements by the end of the first semester in graduate school.

Taking a Break Between the Two Degrees

The rules for re-admission apply to students that wish to take a break between their completion of the BS degree and continuation of their graduate studies. Students that take off three long semesters (or more - not counting summers) need to reapply for admission to the graduate program and will lose their *Fast Track* privileges (including waiver of the GRE requirement). As per the UT Dallas Graduate Catalog, a new review will be made to determine eligibility of enrollment under current standards for admission. If accepted, the readmitted student will be bound by all conditions of the catalog in force at the time of readmission. For instances in which students must reapply, their graduate course requirements must be discussed and approved by the corresponding graduate program.

Taking Breaks During Graduate Studies; Minimum Course Load

Once you are a graduate student, you are governed by the rules for all graduate students. There is no minimum course load, and you can take breaks, as outlined in the graduate catalog, but you must complete your MS degree within six years. Consult a graduate advisor for more details.