

March 31, 2012

Undergraduate Bridge Plan for MSEE Program Applicants

Some applicants to DeVry University's Master of Science in Electrical Engineering (MSEE) program may be informed through the admission process that they must complete undergraduate bridge coursework to qualify for admission to the MSEE program. The purpose of this supplement is to explain the admission requirements, the rationale for requiring individualized Bridge Plans for undergraduate coursework, and specify the conditions bridge students must meet to gain admission to the MSEE program.

Prior Education Requirement for MSEE Admission

DeVry's MSEE program is specifically designed for students who have earned a Bachelor of Science degree in Electrical Engineering or Computer Engineering in a program accredited by the Engineering Accreditation Commission (EAC) of ABET, or a recognized equivalent.

EAC of ABET is the recognized U.S. accreditation body for engineering programs. DeVry University will be eligible to apply for EAC of ABET accreditation for the MSEE program once the first class of students has graduated. One of the requirements in applying for EAC of ABET program accreditation is that students entering the MSEE program have prior preparation that meets the criteria for an accredited baccalaureate engineering degree. The general criteria include:

- 30 Semester-Credit Hours of College-Level Mathematics and Science

The mathematics coursework must be in the areas of differential calculus, integral calculus, differential equations, linear algebra, complex variables, discrete mathematics, and probability and statistics. The science coursework must include a two-course sequence in calculus-based physics with laboratory.

- 45 Semester-Credit Hours of Engineering Sciences and Engineering Design

A minimum of 45 semester-credit hours of engineering science (may include computer science) and engineering design culminating in a major design project at the advanced undergraduate level is required. This project must be based upon the knowledge and skills acquired in earlier course work and it must incorporate engineering standards and realistic constraints. These courses typically will be in areas such as electrical circuits, electronics, electromagnetics, communications, control systems, and/or digital computers.

Bridge Plan Philosophy

DeVry recognizes that students who have baccalaureate degrees other than those listed above may also wish to pursue the MSEE degree. These students include graduates of DeVry's Electronics Engineering Technology (EET), Engineering Technology – Electronics (ET–E), Computer Engineering Technology (CET), Engineering Technology – Computers (ET – C), and Biomedical Engineering Technology (BMET) programs, as well as graduates of other institutions' closely related programs, such as Computer Science, Physics, Mathematics, and all other Engineering or Engineering Technology programs. To provide an opportunity for these students, an evaluation of their academic preparation is carried out, which may result in an individual Bridge Plan. The plan includes the list of undergraduate courses required to supplement the applicant's degree in order to meet general undergraduate engineering criteria, as well as initial program course prerequisites for MSEE.

DeVry offers a number of specially-developed bridge courses, listed below, that were designed to provide the necessary material in an efficient manner to recent graduates from DeVry's engineering technology baccalaureate degree programs. Graduates of other institutions or programs may require a combination of these specialized courses in addition to other DeVry undergraduate courses. Students seeking to satisfy their Bridge Plan will need to enroll as non-matriculating undergraduate students.

Undergraduate Admission Requirements

MSEE applicants requiring bridge coursework have met DeVry's general undergraduate admission requirements for non-matriculating students. An official transcript of the qualifying undergraduate degree including the grade point average (GPA) and graduation date must be provided for the student's file by the end of the first semester of bridge coursework. Because bridge coursework has an online component, applicants must also own or have off-site access to a PC or laptop computer that meets location- or program-based requirements, including Internet access.

Prior to beginning their Bridge Plan, nonnative speakers of English must meet the requirements outlined in the Admission of Nonnative Speakers of English section of the undergraduate academic catalog.

Tuition – Effective Beginning July 2012

Students enrolled in undergraduate Bridge Plan courses will be charge as follows:

Tuition for credit hours 1-6: \$609

Tuition for credit hours 7+: \$365

A non-refundable student services charge of \$20 per session is applied to all students.

Standards of Academic Progress for Bridge Plan Students

Each course in a student's Bridge Plan may be attempted no more than twice, and a grade of B or above must be earned in order for a student to remain enrolled in bridge coursework. Academic standing is calculated at the conclusion of each semester.

If a Bridge Plan course is attempted for the first time and is not passed with a grade of B or above, the student is placed on academic probation. If a Bridge Plan course is retaken and a grade of B or above is not earned, the student is dismissed.

Requirements While on Academic Warning/Probation

If any Bridge Plan course attempted while the student is on warning / probation status that is not passed with a grade of B or above, will result in dismissal. Otherwise, the student will return to good standing.

Effect of Incompletes

A designator of I is counted in attempted hours but is not used in GPA computations. An I in a prerequisite course does not satisfy the course requirement; thus, the student is administratively dropped from the course for which the prerequisite course was required. Students are notified of dropped courses by email. A reduction in enrolled hours may affect financial aid eligibility and/or awards.

Academic Appeal

A student who has been dismissed for failing to meet standards of academic progress may appeal the action by submitting an academic appeal to the appropriate academic administrator prior to the established deadline. The appeal must explain the verifiable mitigating circumstances that contributed to poor academic performance, show how the circumstances have been overcome, provide any required documentation and present a realistic plan for meeting requirements to return to good standing.

A student informed of the dismissal after beginning the session immediately following the dismissal may remain enrolled while the appeal is processed by the appropriate academic administrator. A student continuing in a course(s) while the appeal is processed and whose appeal is subsequently denied may not continue and is administratively dropped from the class(es). A student not currently enrolled whose appeal is approved may enroll for the current semester, provided the registration deadline has not passed, and is subject to probation conditions in *Requirements for Students Starting the Semester on Academic Warning or Probation*. Failure to meet specified conditions results in a second dismissal; appeals of such dismissals are not normally approved.

Denied appeals may be presented to the dean of academic affairs or academic review committee for additional review within two business days of notification of the denial.

If an appeal is not submitted within six sessions after dismissal, the student must request readmission through standard admission procedures as well as submit an appeal to the appropriate academic administrator.

Admission to MSEE

Upon completion of all Bridge Plan courses with a grade of B or above, students may request that the MSEE application be reactivated and a new decision will be made by the appropriate MSEE administrator.

Administrative Policies and Details

Students who do not begin the MSEE program within six sessions after successfully completing their Bridge Plan must request readmission through standard admission procedures.

DeVry reserves the right to cancel specialized bridge courses. If this occurs, applicants will be given a full refund, within 30 days, of the application fee and prepaid tuition. In the event that a continuing program or class is cancelled, students will be offered the opportunity to transfer within the DeVry system with full credit for all coursework completed. Not all programs are offered at all locations, and some courses may not be offered every semester.

Descriptions of Specialized Bridge Courses

Each course is four semester-credit hours. Descriptions for non-specialized bridge courses that may be assigned as part of the individual Bridge Plan requirements are found in DeVry's undergraduate academic catalog.

EE486 Engineering Design

This course addresses key tools and processes used to analyze engineering problems and develop robust solutions for designs that are producible, supportable, reliable and repeatable. An embedded systems project is used to apply design concepts and tools.

Prerequisite: MATH451

EE490 Signals and Systems

This course addresses engineering fundamentals required for analyzing and designing signals and linear, time-invariant (both continuous and discrete) systems. Topics include applications of Fourier series, as well as Fourier, LaPlace and z-transforms.

Prerequisite: MATH451

EE494 Data Structures and Algorithms with Lab

This course introduces data structures (lists, strings, stacks, queues and trees), data encapsulation, as well as algorithms for recursion, sorting and searching. A high-level language such as C++ or Java is used. Students who received credit for CET375 or ECET370 may not complete this course for credit

Prerequisite: successful completion of one semester of object-oriented programming coursework

EE496 Operating Systems and Interfacing with Lab

This course introduces basic operating system concepts such as process states and synchronization, multiprocessing, multiprogramming, processor scheduling, resource management, static and dynamic relocation, virtual memory, logical and physical input/output, device allocation, disk scheduling and file management. Also introduced are techniques required to develop device drivers. Computer software is used throughout the course. Students who received credit for CET421 or ECET360 may not complete this course for credit.

Prerequisites: successful completion of one semester of computer architecture coursework and one semester of object-oriented programming coursework

MATH450 Advanced Engineering Mathematics I

This course, the first in a two-course sequence, addresses ordinary differential equations, the Laplace transform, and complex numbers and functions. Computer software tools are used to support concepts presented.

Prerequisite: successful completion of two semesters of undergraduate calculus coursework

MATH451 Advanced Engineering Mathematics II

This course, the second in a two-course sequence, addresses linear algebra; vector differential and integral calculus; and Fourier series, Fourier integral and Fourier transform. Computer software tools are used to support concepts presented.

Prerequisite: MATH450

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