Dual Bachelor of Science with a Major in Systems Engineering and Master of Science in the Field of Systems Engineering

Overview

The School of Engineering and Applied Science offers the combined five-year B.S. and M.S. degree program that provides an opportunity for students to complete a conventional four-year Bachelor of Science degree in Systems Engineering with one additional year of study to earn a Master of Science degree in Systems Engineering. This is an accelerated program intended for full-time on-campus students.

Visit the program website for additional information: https://www.emse.seas.gwu.edu/sites/www.emse.seas.gwu.edu/files/downloads/five_year_BS-MS_in_EMSE.pdf

Requirements

Students will take 3 graduate level courses in EMSE as technical electives during their undergraduate programs. These will be applied towards the MS degree. After completing the BS degree, students will take 9 courses to complete the MS program. These 9 courses must be completed within one and one half years after graduation from the BS program. This is an accelerated program intended for full time on campus students.

During the undergraduate program, students will be required to take the following 3 courses:

EMSE 6020  Decision Making with Uncertainty
EMSE 6801  Systems Engineering I
EMSE 6805  Systems Engineering II

Then in the Summer, Fall and Spring Semester following the completion of the BS degree, students will make their schedules so as to include the following courses:

Two Additional Core Course Requirements:
EMSE 6001  The Management of Technical Organizations
EMSE 6410  Survey of Finance and Engineering Economics*

Four Additional Focus Course Requirements:
EMSE 6820  Program and Project Management*
EMSE 6850  Quantitative Models in Systems Engineering*
EMSE 6810  Systems Analysis and Management I
EMSE 6099  Problems in Engineering Management and Systems Engineering**

Three Additional Approved electives, at least two from the following list:
EMSE 6540  Management of Information and Systems Security
EMSE 6740  Systems Thinking and Policy Modeling I
EMSE 6580  Information and Software Engineering
EMSE 6825  Project Cost and Quality Management
EMSE 6830  Human Factors Engineering
EMSE 6840  Applied Enterprise Systems Engineering
EMSE 6855  Reliability Analysis and Infrastructure Systems
EMSE 6023  Technology Issue Analysis
EMSE 6992  Special Topics (as approved by advisor)

*Undergraduate Systems Engineering majors may substitute a course for EMSE 6410, EMSE 6820, and EMSE 6850

** Must be taken in the final semester of study