Doctor of Engineering
in the field of
Engineering Management

Information Session – DN17
Wednesday, November 2nd

Classes Begin
January 2023

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Professor of Engineering Management and Systems Engineering
Director, SEAS Online Programs
Information Session Agenda

✓ Overview of The George Washington University

✓ Doctor of Engineering (D.Eng.) in Engineering Management
  • Overview
  • Academic Requirements
  • Application Information

✓ Q & A Session
The George Washington University

- Chartered in 1821 by an Act of Congress
- 10 colleges and schools, including the School of Engineering & Applied Science
- More than 15,000 graduate students
- Alumni network of over 300,000 living alumni in 134 countries
- Accredited by the Middle States Commission on Higher Education
- GW’s Online Graduate Engineering Programs ranked #16 by US News
- GW’s Online Graduate Engineering Programs Ranked #14 for Veterans by the US News
Our Online Program

• Online classes meet synchronously via Zoom and are recorded for viewing during the semester

• Supported by Blackboard, GW’s web-based course management software

• Exams are taken through a secure testing platform, Remote Proctor Now (RPNow)

• The degree and diploma are identical to that of the main campus
Engineering Management (EM) bridges the gap between engineering and management. EM enables engineers to work most effectively in the business environment. Candidates specialize in such areas as management of technology, product and process, quality, organizational management, operations management, program management, marketing and finance.
Program Overview

• Classroom Phase (1 year, 30 credit hours)
  • 10 graduate-level, 3-credit-hour courses

• Research Phase (1 year, 15 credit hours)
  • Minimum of 3 semesters of praxis research
  • Culminates in Praxis defense

• Total of 45 credit hours (minimum)

• Program Begins: January 2023

• Target Graduation Date: December 2024
Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>EMSE 6025</td>
<td>Entrepreneurship and Technology</td>
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<tr>
<td>EMSE 6420</td>
<td>Uncertainty Analysis in Cost Engineering</td>
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<tr>
<td>EMSE 6710</td>
<td>Applied Optimization Modeling</td>
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<tr>
<td>EMSE 6765</td>
<td>Data Analysis for Engineers and Scientists</td>
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<tr>
<td>EMSE 6769</td>
<td>Applied Machine Learning for Engineers</td>
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<tr>
<td>EMSE 6790</td>
<td>Logistics Planning</td>
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<tr>
<td>EMSE 6992</td>
<td>Special Topics: Emerging Technologies on Geopolitics</td>
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<tr>
<td>EMSE 8030</td>
<td>Risk Management Process for Engineering Managers</td>
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<tr>
<td>EMSE 8099</td>
<td>Survey of Research Formulation for Engineering Management</td>
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<tr>
<td>EMSE 8100</td>
<td>The Praxis Proposal</td>
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Schedules, regulations and policies subject to change; course substitution in the curriculum is usual and should be expected.
# Calendar

<table>
<thead>
<tr>
<th>Session</th>
<th>#Courses</th>
<th>#Credit Hours</th>
<th>Tentative Dates</th>
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<tbody>
<tr>
<td>Spring-1 2023</td>
<td>2</td>
<td>6</td>
<td>January 7 — March 11, 2023</td>
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<tr>
<td>Spring-2 2023</td>
<td>2</td>
<td>6</td>
<td>March 18 — May 20, 2023</td>
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<tr>
<td>Summer 2023</td>
<td>2</td>
<td>6</td>
<td>June 3 — August 5, 2023</td>
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<tr>
<td>Fall-1 2023</td>
<td>2</td>
<td>6</td>
<td>August 12 – October 14, 2023</td>
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<tr>
<td>Fall-2 2023</td>
<td>2</td>
<td>6</td>
<td>October 21 — January 13, 2024</td>
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*No classes on Memorial Day, Thanksgiving, Christmas, and New Year Weekends*

- 2 courses per session
- Each session has 10 class meetings
- Classes meet on Saturdays
  - Morning Class 9:00a-12:00p (Eastern)
  - Afternoon Class 1:00p-4:00p (Eastern)
Research Phase

- After completion of the classroom phase with a GPA of 3.2 or higher, and no grade below B-, students begin praxis research

- Praxis Research
  - Minimum half-hour individual research meetings initially every other week
  - During this stage, students will develop and write a praxis
  - Praxis defenses are scheduled for the end of the final semester of research

- Research course EMSE 8199 Praxis Research
  - Session I: Spring 2024, 6 credit hours
  - Session II: Summer 2024, 3 credit hours
  - Session III: Fall 2024, 6 credit hours

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<tr>
<th>Grade</th>
<th>GPA Pts</th>
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<tr>
<td>A</td>
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<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
</tr>
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Praxis Research Areas:

Sample Praxis Titles from Previously Published D.Eng. in Engineering Management Praxis Papers

• A Technology Maturity Assessment of Sustainment-Dominated Systems under the Influence of Obsolescence

• A Generalized Approach to Measure and Predict Innovation Maturity Progression Aligned to Business Objectives

• Reducing Time and Cost Overruns for Aerospace Development Programs Using Precedence Networks Patterns

• Identifying and Overcoming the Barriers to Cloud Adoption within the Government Space

• A Decision Support Tool for Designing Energy-efficient Residential Buildings at the Early Planning and Design Stage
Admissions Requirements

• Bachelor’s and master’s degrees in engineering, applied science, mathematics, computer science, information technology or related field from accredited institutions

• A minimum graduate level GPA of 3.2

• Relevant professional experience

• A minimum of two college-level calculus courses
  • Applicants who do not have a grade of C or better in two calculus courses but are otherwise qualified for admission will required to take an additional course EMSE 4197
  • Offered November 14-December 19, 2022 on Monday & Wednesday (8-10pm) and Saturday (1-4pm); no class on Nov. 26
Application Process

Online Application Form, available at:
https://seasonline.gwu.edu/apply/doctor-of-engineering-em/

Official Academic Transcripts:

- Send Electronic Transcripts to seasdeng@gwu.edu

- Send Paper Transcripts to SEAS Online Programs Office
  The George Washington University
  170 Newport Center Drive, Suite 260
  Newport Beach, CA 92660

All Transcripts must be sent directly from the institution

All submitted materials remain property of SEAS Online Programs
Final Application Deadline:

**November 15, 2022**
Admitted Students

- Admission decisions are communicated via email.
- Admitted applicants must return a reply card and a non-refundable tuition deposit of $995 (applied to the first session’s tuition) in order to secure their slot in the cohort.
- Tuition for 2022-2023 Academic Year is $1,625 per credit
Contact Information

SEAS Online Programs Office
Shahram Sarkani, Ph.D., P.E., Director
Thomas A. Mazzuchi, D.Sc., Co-Director

- **Admissions Team**
  - seasdeng@gwu.edu
  - Tel: 833-330-1454

- **Doctoral Administrative Team**
  - seasdoc@gwu.edu

- **Online Technical Support Team**
  - seasonline@gwu.edu
  - Tel: 202-422-2806
Answers to Frequently Asked Questions

• Transfer credit is not allowed toward doctoral programs.
• Students should expect to spend approximately 20 hours a week on coursework/research, including class attendance.
• Your research topic will be finalized during your last session (EMSE 8100)
• Your research advisor will be assigned by the SEAS Online Programs Office after the successful completion of your coursework.
Any Questions?

To protect your privacy, questions regarding individuals’ specific application, degrees, background, or experience will not be answered during this Q&A session.