Doctor of Engineering
in the field of
Engineering Management

Information Session
Thursday, May 26

Classes Begin
August 2022

Shahram Sarkani, Ph.D., P.E.
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)
D.Eng. Field of Study
Engineering Management

Bridges the gap between engineering and management. EM enables engineers to work most effectively in the business environment. A degree in EM provides a technical-based alternative to traditional business programs. Candidates specialize in such areas as management of technology, product and process, quality, organizational management, operations management, program management, marketing and finance.
Doctor of Engineering Program Overview

• 45 credit hours (minimum)

• Classroom Phase
  • 10 graduate-level, 3-credit-hour courses

• Research Phase
  • Minimum 15 credit hours of praxis development
  • Praxis defense

• Program Begins: August 2022

• Planned Program Completion: August 2024
# D.Eng. in Engineering Management 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.
D.Eng. in Engineering Management Course Schedule

<table>
<thead>
<tr>
<th>Session</th>
<th>#Courses</th>
<th>#Credit Hours</th>
<th>Tentative Dates</th>
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<tbody>
<tr>
<td>Fall-1 2022</td>
<td>2</td>
<td>6</td>
<td>August 13 – October 15, 2022</td>
</tr>
<tr>
<td>Fall-2 2022</td>
<td>2</td>
<td>6</td>
<td>October 22, 2022 – January 14, 2023</td>
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<tr>
<td>Spring-1 2023</td>
<td>2</td>
<td>6</td>
<td>January 21 – March 25, 2023</td>
</tr>
<tr>
<td>Spring-2 2023</td>
<td>2</td>
<td>6</td>
<td>April 1 – June 10, 2023</td>
</tr>
<tr>
<td>Summer 2023</td>
<td>2</td>
<td>6</td>
<td>June 17 – August 19, 2023</td>
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No classes on Thanksgiving, Christmas, New Year, and Memorial Weekends

• 2 courses per session
• Each session is 10 weeks long
• Classes meet on Saturdays
  • Morning Class 9:00a-12:00p (Eastern)
  • Afternoon Class 1:00p-4:00p (Eastern)
D.Eng. 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
  • During this stage, students will develop and defend praxis
  • Minimum half-hour individual research meetings initially every other week
  • Praxis defenses are scheduled for the end of the final semester of research

• Research course EMSE 8199 Praxis Research
  • Session I: Fall 2023, 6 credit hours
  • Session II: Spring 2024, 6 credit hours
  • Session III: Summer 2024, 3 credit hours
  • One semester extension through Fall 2024 (6 credit hours) may be granted if warranted.
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

• 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 be required to take an additional course, EMSE 4197, scheduled for July 11 through August 11, Mondays and Thursdays (7-9:30 pm ET), and Saturdays (1-3:30 pm ET)

• Relevant professional experience
Application Process

Application Packet requires:

- Online Application Form, Available at: https://seasonline.gwu.edu/apply-today/doctor-of-engineering-program/
- Current Resume
- Statement of Purpose
- Official Academic Transcripts

All submitted materials remain property of SEAS Online Programs
Application Process: Transcripts

Electronic Transcripts:
Send to: seasdeng@gwu.edu

Paper Transcripts:
Send 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*
Application Process

• Admission decisions are made on a rolling basis and communicated via email.

• Admitted applicants must complete and return a reply card and a non-refundable tuition deposit of $995 in order to secure their slot in the cohort. Tuition deposit is applied to the first session’s tuition.
Doctor of Engineering
Tuition

2022-2023 Academic Year:

$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, option #2

- **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 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.