






# MASTER OF SCIENCE IN ENGINEERING MANAGEMENT

in collaboration with the George Washington University (USA)

Degree Level: Postgraduate

THE GEORGE  
WASHINGTON  
UNIVERSITY

WASHINGTON, DC

 Qualification Type	 Delivery Mode	 Study Mode	 Delivery Language	 Duration
Master of Science	Ahlia University	Full Time	English	18 Months

## KEY FACTS

### Accredited by



Computing &  
Engineering  
Accreditation  
Commissions

### Contact Persons

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## OVERVIEW

The Engineering Management and Systems Engineering (EMSE) Off-Campus programs office at the George Washington University (GWU) in the US offers the Master of Science in Engineering Management (MSEM) in Bahrain at Ahlia University.

The program is designed with a focus on Engineering and Technology Management, providing students with an interdisciplinary understanding of leadership skills. Specifically, the skills needed to become effective managers in technology-driven organizations and government entities. Throughout the program, students acquire knowledge of technical engineering principles and engineering contracts within a management context.

Graduates of this program are equipped with the skills to effectively lead diverse engineering teams, oversee complex projects, implement innovative strategies, and drive organizational success. In addition, our graduates are prepared to take the Project Management Professional Examination (offered by the Project Management Institute) to receive the PMP certification.

The program consists of 12 courses (three credit hours each), totaling 36 required credit hours. Students can expect to graduate within 18 months upon enrolment. Students will benefit from the expertise of GWU's leading faculty, with select courses delivered by GWU approved faculty from Ahlia University. In this way, students in Bahrain and the region can gain access to one of GWU's time-honored programs which is offered at a convenient location in the Middle East.

## PROGRAM LEARNING OBJECTIVES

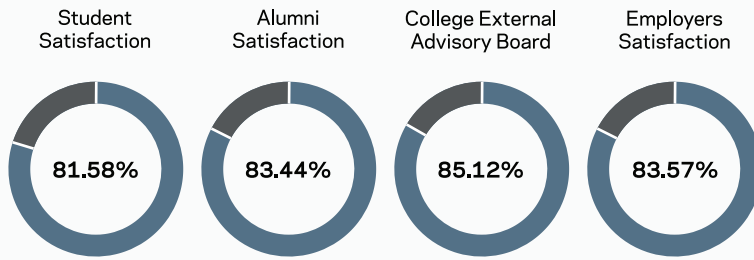
- Apply principles of engineering management effectively in a business setting, particularly in organizations focused on manufacturing, construction, engineering, technology, or production, to lead and work efficiently.
- Manage key organizational aspects—such as organizational management and behavior, operations, project management, marketing, cost and quality control, finance, personnel, technical requirements, and engineering contract management—and oversee technical progress while ensuring optimal performance.
- Prepare for the Project Management Professional (PMP) exam, a certification provided by the Project Management Institute, to enhance professional standing and credentials.

## EMPLOYABILITY & CAREER PATHWAYS

The MSEM degree combines core business analytical skills with specialist skills in engineering subfields including systems analysis and operations research. The degree produces graduates suitable for positions with technical organizations. Large manufacturing enterprises, increasingly relying on automated assembly lines, as well as resource extractive enterprises, particularly value the skill mix afforded by newly minted MSEM graduates:

- Engineering Manager
- Technology Manager
- Product Development Manager
- Project Manager
- Systems Engineering Manager
- Operations Manager
- Hardware Engineer
- Quality Assurance Manager
- Process Improvement Manager
- Supply Chain Manager
- R&D (Research and Development) Manager
- Technical Program Manager

## GENERAL STATISTICS



## ENTRY REQUIREMENTS

Admission to the MSEM program is based on the George Washington University requirements. Applicants applying for the MSEM Program must meet the current entry requirements of GWU's School of Engineering and Applied Science (SEAS).

Eligible candidates for the program will meet the following requirements:

- Minimum grade point average of B (3.0 on a 4.0 scale) or higher in the last two years of undergraduate study.
- Grade of C or better in the two college calculus courses - this is a prerequisite to all graduate programs in the EMSE department. Applicants who do not meet this requirement in full but are otherwise qualified may be conditionally admitted and required to take an additional 3-credit hour course, EMSE 197 - Special Topics: Quantitative Methods in Engineering Management, during the first year of graduate study at Ahlia University. If required, EMSE 197 counts as the 13<sup>th</sup> course and the student's program then requires 39 credit hours.
- Bachelor's degree in engineering, physical sciences, mathematics, computer science, business administration, or information technology from an accredited institution.

**Note:** GWU considers a candidate's entire background, and all submitted materials when reaching an admission decision.

### Application Procedure

The following documents should be submitted to Ahlia University Admission and Registration Office in line with Higher Education Council requirements prior to forwarding it to GWU for processing and final admission decision:

- Completed graduate application form (with a non-refundable application/ registration fees)
- Official transcripts from all colleges and universities attended
- Resume / CV
- Any evidence provided by applicants from countries where English is not the official language to demonstrate proficiency in English will be helpful; for example, scores on the Test of English as a Foreign Language (TOEFL) or other appropriate English examinations
- A personal interview

## FEES

The Master of Science in Engineering Management consists of 36 credit-hours covering 12 courses, including a capstone project. The program is 1.5 years in duration. The cost of one credit-hour is BD 285 and therefore one course (consisting of 3 credit-hours) cost BD 855.

Application Fee	BD 40
Registration Fee	BD 300
HEC ID Fee	BD 30
Tuition fees (12 Courses)	BD 10,260
<b>SUB-TOTAL</b>	<b>BD 10,630</b>
Foundation Courses (if required)	BD 855

## PROGRAM CONTENT AND STRUCTURE

The curriculum of the MSEM Program consists of **12 courses** totaling **36 American semester credit-hours (144 NQF credits)**. This includes 6 core courses (18 credits), 5 focus courses (15 credits) and one capstone project (3 credits).

Course Title	Credit Hrs	Credit Hrs
Foundation Courses* (If Required)	3	1
Core Courses	18	6
Focus Courses	15	5
Capstone Project	3	1
<b>Total</b>	<b>36</b>	<b>12</b>

\* Not counted towards the 36 credit-hours necessary for the Master of Science in Engineering Management Degree

Course Code	Course Title	Credit Hrs
<b>Core Courses</b>		
EMSE 001	The Management of Technical Organizations	3
EMSE 020	Decision Making with Uncertainty	3
EMSE 410	Survey of Finance and Engineering Economics	3
EMSE 692	Negotiation and Conflict Resolution	3
EMSE 695	Special Topics: Research Methods For The Em	3
EMSE 801	Systems Engineering I	3
<b>Total</b>	<b>Six Courses</b>	<b>18</b>
<b>Focus Courses</b>		
EMSE 005	Organizational Behavior for The Engineering Manager	3
EMSE 026	Technical Enterprises	3
EMSE 035	Marketing of Technology	3
EMSE 505	Knowledge Management I	3
EMSE 770	Techniques of Risk Analysis And Management	3
EMSE 790	Logistics Planning	3
EMSE 820	Program and Project Management	3
EMSE 850	Quantitative Models in Systems Engineering	3
<b>Total</b>	<b>Five Of The Above Courses</b>	<b>18</b>
<b>Research Project</b>		
EMSE 609	Problems in Engineering Management & Systems Engineering Capstone	3
<b>Total Credit Hours</b>		<b>36</b>