

M.S. in Engineering Management

The Master of Science in Engineering Management blends advanced technical expertise with key leadership skills to prepare graduates for in-demand roles in project management. Developed in collaboration with leading industry experts, the program delivers a powerful blend of a foundational High-Reliability Organization (HRO) principles, specialized core modules and a personalized certificate tailored to each student's career aspirations. Through advanced training in risk management, mitigation strategies and organizational resilience, you are ready to lead in complex, fast-paced environments.

At the **Worldwide Campus**, the Master of Science in Engineering Management focuses on technical operations and the application of project management principles. The program addresses leadership of technical teams and the management of productivity, efficiency, and operational outcomes. The program is offered in an online format that accommodates varied schedules and locations. Students may customize the degree by selecting from the following certificate options: Business Intelligence and Analytics; Finance; Human Resources; Information Systems Security; Information Technology Management; International Business; Leadership; Marketing; Project Management; and Systems Engineering. The Engineering Management program with the Project Management certification is accredited by the PMI Global Accreditation Center for Project Management Education Programs (GAC). For further information, visit www.gacpm.org (<http://www.gacpm.org>).

Program-Level Student Learning Outcomes

Students will:

- Apply management techniques tailored to the STEM environment.
- Perform financial analysis for engineering projects and ongoing technical operations.
- Employ quantitative analysis to solve engineering management problems.
- Evaluate the role of ethics and professional responsibility in engineering management.
- Appraise quality management systems.
- Develop plans for global STEM projects and operations.

Worldwide Program Requirements

Core Requirements	24
Certificate Option	12
Non-Certificate Option	6
Total Credits	30-36

Program Details

The Master of Science in Engineering Management requires successful completion of a minimum of 30 credit hours for the non-certificate option or 36 credit hours for the certificate option. Students enrolled in the Worldwide Graduate Online program may complete the degree in six terms, or approximately two years, assuming full-time enrollment and continuous progress. Students pursuing this graduate degree must earn a minimum cumulative grade point average (CGPA) of 3.00 for all work completed at the University. The courses required to earn this degree are listed below.

Students should be aware that many courses have prerequisites and/or corequisites. Students are responsible for ensuring that all prerequisite and degree requirements are satisfied prior to enrollment in advanced coursework. The suggested plan of study is provided as a guide. A student's actual plan of study may vary based on term of admission, course availability, transfer credit, and other academic considerations.

Students should consult with their academic advisor to develop an individualized plan of study.

Students may complete either the non-certificate option or the certificate option. Students selecting the certificate option must complete one approved graduate certificate as part of the degree requirements. Students pursuing the non-certificate option may complete approved graduate coursework, including the Engineering Management capstone (EMGT 690), other Embry-Riddle graduate courses, or approved transfer credit. Students should consult with their academic advisor to determine the option that best aligns with their academic and professional goals.

Core Requirements

High Reliability Organization Core

HRM 510	Enterprise Risk Management	3
HRM 520	Organizational Resilience	3
HRM 530	Modeling and Decision-Making	3

Total Credits 9

Engineering Management Core

EMGT 500	Managing in the STEM Environment	3
EMGT 520	Quality for Projects and Operations	3
EMGT 530	Project Scheduling and Risk Management	3
EMGT 620	Technology and Innovation Management	3
FINE 610	Budgeting and Finance for STEM Research and Design	3

Total Credits 15

Certificate Option

Certificate Options: (Choose from list)	12
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Total Credits 12

- Advanced Airline Management (<https://catalog.erau.edu/programs/graduate/gr-cert/advanced-airline-management/>)
- Advanced Airport Management (<https://catalog.erau.edu/programs/graduate/gr-cert/advanced-airport-management/>)
- Agile Project Management (<https://catalog.erau.edu/programs/graduate/gr-cert/agile-project-management/>)
- Airworthiness Engineering (<https://catalog.erau.edu/programs/graduate/gr-cert/airworthiness-engineering/>)
- Business Intelligence and Analytics (<https://catalog.erau.edu/programs/graduate/gr-cert/business-intel-analytics/>)
- Finance (<https://catalog.erau.edu/programs/graduate/gr-cert/finance/>)
- Human Resources (<https://catalog.erau.edu/programs/graduate/gr-cert/human-resources/>)
- International Business (<https://catalog.erau.edu/programs/graduate/gr-cert/international-business/>)
- Leadership (<https://catalog.erau.edu/programs/graduate/gr-cert/leadership/>)
- Marketing (<https://catalog.erau.edu/programs/graduate/gr-cert/marketing/>)
- Project Management (<https://catalog.erau.edu/programs/graduate/gr-cert/project-mgmt/>)
- Systems Engineering (<https://catalog.erau.edu/programs/graduate/gr-cert/systems-engineering/>)

Non-Certificate Option

Non-Certificate Option:	6
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6 credit hours of graduate level course work options include the capstone (EMGT 690), ERAU courses, or transfer credit.

Total Credits 6

Suggested Plan of Study

One Year Plan - Non-Certificate Option

Year One

Requirements	Credits
HROM 510 - Enterprise Risk Management	3
HROM 520 - Organizational Resilience	3
Semester Hours	6

Requirements	Credits
HROM 530 - Modeling and Decision-Making	3
EMGT 500 - Managing in the STEM Environment	3
Semester Hours	6

Requirements	Credits
EMGT 520 - Quality for Projects and Operations	3
EMGT 530 - Project Scheduling and Risk Management	3
Semester Hours	6

Requirements	Credits
EMGT 620 - Technology and Innovation Management	3
FINE 610 - Budgeting and Finance for STEM Research and Design	3
Semester Hours	6

Requirements	Credits
Transfer/Elective	3
Capstone/Elective	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 30

Two Year Plan - Certificate Option

Year One

Requirements	Credits
HROM 510 - Enterprise Risk Management	3
Semester Hours	3

Requirements	Credits
HROM 520 - Organizational Resilience	3
Semester Hours	3

Requirements	Credits
HROM 530 - Modeling and Decision-Making	3
Semester Hours	3

Requirements	Credits
EMGT 500 - Managing in the STEM Environment	3
Semester Hours	3

Requirements	Credits
EMGT 530 - Project Scheduling and Risk Management	3
Certificate Course	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 18

Year Two

Requirements	Credits
EMGT 520 - Quality for Projects and Operations	3
Certificate Course	3
Semester Hours	6

Requirements	Credits
EMGT 620 - Technology and Innovation Management	3
Semester Hours	3

Requirements	Credits
FINE 610 - Budgeting and Finance for STEM Research and Design	3
Semester Hours	3

Requirements	Credits
Certificate Course	3
Semester Hours	3

Requirements	Credits
Certificate Course	3
Semester Hours	3

Total Credits

Total Hours for All Requirements: 18

Estimated Cost of Attendance

Estimated Cost of Attendance: California Student Information (<https://catalog.erau.edu/student-life/student-affairs/california-student/>)