

# Engineering Management and Science Management (MS)



## CAREERS WITH OPPORTUNITIES

*The Engineering Management and Science Management (ESM) programs are designed for graduate engineers and scientists who will hold executive or managerial positions in engineering, construction, industrial, or government organizations. The programs address human relations, financial, economic, quantitative, technical, and legal subjects useful in solving problems of management.*

## Educational Pathway Options

### Associate's Degrees

**2-3 Years**

Students with an associate's degree may pursue a baccalaureate degree in an engineering, science, or equivalent area.

### Bachelor of Science (BS)

**4-5 Years**

A baccalaureate degree in an engineering discipline for the Engineering Management (MS) degree.

A baccalaureate degree in any science discipline for the Science Management (MS) degree.

### Master of Science (MS)

**2-3 Years**

**Engineering Management  
Science Management**

- CAREER CONNECTIONS**
- Architecture & Construction
  - Information Technology
  - Business, Management, & Administration
  - Science, Mathematics, Engineering, & Research
  - Transportation, Distribution, & Logistics
  - Natural Resources & Environmental Sciences
  - Law, Government, & Public Safety

## APPLICATION PROCESS

### ENROLLMENT SERVICES

- 1 Apply for admission at [www.uaa.alaska.edu/admissions](http://www.uaa.alaska.edu/admissions).
- 2 Submit official transcripts reflecting:
  - Completion of an undergraduate or MS degree in engineering (for Engineering Management) or any science discipline (for Science Management) from a regionally accredited institution
  - Statistics courses
  - All graduate-level credit
- 3 Contact 907.786.1924 or visit [soe.uaa.alaska.edu/espm](http://soe.uaa.alaska.edu/espm) for additional information.

*The University of Alaska Anchorage has been continuously accredited by the Northwest Commission on Colleges and Universities since 1974. This brochure is for information purposes only and does not constitute a contract. UAA is an EO/AA employer and educational institution.*

### PROGRAM SPECIFIC

Applicants must have on-the-job experience in engineering or science.

No more than nine semester credits of appropriate graduate-level coursework completed at other institutions with a grade of 'B' or higher may be transferred. Both substitutions and transfer credits must be approved by the department.

## PROGRAM HIGHLIGHTS

- Began in 1961
- Oldest graduate program at UAA
- Over 500 graduates
- Courses are taught by a strong team of faculty and instructors who bring extensive academic and professional experience to each course
- Strong ties to Project Management program
- Diverse and accomplished student body
- ESM graduates hold leadership positions in the public and private sectors
- Student-conducted research opportunities
- Program-sponsored volunteer and community service activities

## ENGINEERING MANAGEMENT AND SCIENCE MANAGEMENT (MS)

### ▶ COMPLETE THE CORE CURRICULUM (21 credits)

ESM A601	Engineers in Organizations (3)
ESM A605	Engineering Economy (3)
ESM A608	Legal Environment for Engineering Management (3)
ESM A610	Cost Estimating (3)
ESM A620	Statistics for ESM or equivalent (3)
ESM A621	Operations Research (3)
PM A601*	Project Management Fundamentals (3)

\*PM fee applies

### ▶ COMPLETE THE ELECTIVE CURRICULUM (6 credits)

Any ESM, PM, Engineering, Science, Business Administration or other courses approved by ESM advisor.

ESM A606	Advanced Engineering Economy (3)
ESM A613	Management of Technical People (3)
ESM A617	Technology Management (3)
ESM A619	Computer Simulation of Systems (3)
ESM A623	Total Quality Management (3)
ESM A625	Marketing of Business Products and Services (3)
ESM A694G	Management System Dynamics (3)
ESM A694H	Value Engineering (3)
ESM A698	Individual Research (3)

### ▶ COMPLETE A THESIS OPTION

Both options require a defense.

- **Non-Thesis**  
Complete ESM A684 (ESM Project)
- **Thesis**  
Complete 6 to 9 credits of ESM A699 (ESM Thesis)

*A minimum of 30 credits is required for the degree.*

- As a prerequisite for ESM A684 or ESM A699, students must have a cumulative 3.0 GPA or better in courses listed on their official graduate studies plan.
- Project Management courses charge an additional per-credit program fee equivalent to the per-credit graduate, resident tuition.

