

## MSEM Degree Requirements

### **General Core Area** - Four required courses

*NOTE: The Capstone course EIN 6183 must be taken after all core requirements are fulfilled.*

- EIN 5182 Principles of Engineering Management
- EIN 6386 Management of Technological Change
- EIN 5350 Technology & Finance
- EIN 6183 Engr. Mgmt. Policy & Strategies (Capstone)

### **Quantitative Core Area**

*NOTE: An undergraduate statistics course (EGN 3343), or equivalent, is a prerequisite.*

One quantitative core course must be selected from the following three courses:

- ESI 5306 Operations Research for Engineering Managers
- ESI 6247 Statistical Design Models
- EIN 6934 **Engineering** Analytics 1

### **Workforce Management Core Area**

One course must be selected from the following:

- EIN 6108 Engineering Management: Human Relations
- EIN 6319 Work Design & Productivity Engineering

### **Electives** - 4 courses must be taken from the following electives:

- Systems Integration (**EIN 6518**)
- Computer Simulation (ESI 5522)
- Stochastic Decision Models (ESI 6213)
- Engr. the Supply Chain (EIN 6324)
- Linear Programming & Network Optimization (ESI 6491)
- Technical Entrepreneurship (EIN 6154)
- Strategic Market Assessment (EIN 6935)
- New Product Development (EIN 6392)
- Technical Venture Strategies (EIN 6934)
- Venture Capital & Private Equity (EIN 6935)
- Overview of Regulated Industries (EIN 6430)
- International Regulations for Medical Devices (EIN 6435)
- Human Error & Patient Safety (EIN 6936)
- Total Quality Mgmt Concepts (EIN 5174)
- ISO 9000/14000 (EIN 6178)
- Lean Six Sigma (EIN 6935)
- Advanced Lean Six Sigma (EIN 6936)
- Reliability Engineering (ESI 5236)
- Systems Safety Engineering (EIN 6215)
- Occupational Safety Engineering (EIN 6216)
- Construction Safety Engineering (EIN 6217)
- Technology and Law (EIN 6106)
- Project Management (EIN 6145)
- Creativity in Technology (EIN 5201)