

**PROGRESSIVE DEGREE PROGRAM
COURSE PLAN TEMPLATE**

USC SCHOOL

Viterbi School of Engineering

ACADEMIC DEPARTMENT

Daniel J. Epstein Department of Industrial & Systems Engineering

GRADUATE PROGRAM

Master of Science in Engineering Management

POST CODE

324

TERM EFFECTIVE DATE

Fall 2023

PROGRAM DESCRIPTION

A brief description of the graduate program.

The MS in Engineering Management program (MSEMT) is designed for students with undergraduate degrees in engineering or related sciences to prepare them for management responsibilities. As an MSEMT student, you will learn how to lead technology projects as well as manage teams, engineering functions, and companies. In addition, you will gain an understanding of the economic decision making processes. More than just theory, the MSEMT program offers real-world examples provided by instructors who have years of relevant industry experience, covering topics such as technology creation, management of invention, information systems, managerial accounting, and quantitative methods.

COMMON BACHELOR DEGREE PROGRAM PATHWAYS

A list of common bachelor's degrees that undergraduate students pursue in advance of pursuing a progressive degree option with this graduate program. Some programs are restricted to certain majors while others are open to all students.

Engineering	

PREPARATORY UNDERGRADUATE COURSES

A list of courses at the undergraduate level that prepare students for the graduate program. Required coursework is listed first, followed by recommended courses. If not applicable, this section will be blank.

Dept. Prefix - Course #	Course Title	Required or Recommended	Units
	Calculus I, Calculus II, Calculus III	Required	
	Linear Algebra	Required	

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UNDERGRADUATE COURSES USED TO REDUCE GRADUATE LEVEL UNITS

A list of undergraduate level courses that may be used to reduce the number of graduate level units required for the graduate program. If there are none, that is specified instead.

Dept. Prefix - Course #	Course Title	Units
	NONE	

CORE GRADUATE PROGRAM REQUIREMENTS (# units required)

A list of all required graduate courses for the graduate program. None of these courses may be used toward satisfying undergraduate degree requirements.

If special exceptions for any of these courses are made by the academic department, the course # is marked with an asterisk () and the exception is explained in the "Department Notes" section at the end of this course plan template.*

Dept. Prefix - Course #	Course Title	Units
Required Courses		16
ISE 500	Statistics for Engineering Managers	4
ISE 515	Engineering Project Management	4
ISE 544	Leading and Managing Engineering Teams	4
ISE 561	Economic Analysis of Engineering Projects	4
Technology (choose one)		4
CE 576	Invention & Technology Development	3
ISE 445	Technology Development & Implementation	4
ISE 501	Innovative Conceptual Design for New Product Development	4
ISE 585	Strategic Management of Technology	4
	Minimum number of units required	20

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PRE-APPROVED ELECTIVE COURSEWORK

Elective coursework is approved at the discretion of the academic department. Note the following details about the total number and units required of elective coursework.

<input type="text" value="8"/>	TOTAL ELECTIVE UNITS REQUIRED FOR THE TRADITIONAL GRADUATE DEGREE
<input type="text" value="0"/>	TOTAL ELECTIVE UNITS REQUIRED FOR THE PROGRESSIVE GRADUATE DEGREE

TOTAL UNIT COUNTS AND REQUIRED GRADUATE UNITS

<input type="text" value="28"/>	TOTAL UNITS REQUIRED FOR THE TRADITIONAL GRADUATE DEGREE
<input type="text" value="8"/>	TOTAL GRADUATE UNITS THAT MAY BE WAIVED (IF ANY)
<input type="text" value="16"/>	MINIMUM NUMBER OF GRADUATE UNITS THAT MUST BE AT THE 500 LEVEL OR ABOVE

NOTES FROM THE DEPARTMENT

This section highlights any unique considerations, exceptions, or requirements for the graduate program. If a program has specific restrictions (courses, majors, etc.), they are detailed below.

Courses cannot be double counted and you must have least 16 ISE units

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Authorizing Dean's Name	Date Approved
<input type="text" value="Senior Associate Dean, Viterbi School of Engineering"/>	
Authorizing Dean's Title	

**PROGRESSIVE DEGREE PROGRAM
COURSE PLAN TEMPLATE**

**Master's Degree – Engineering Management
Progressive Degree Option**

The MS in Engineering Management program (MSEMT) is designed for students with undergraduate degrees in engineering or related sciences to prepare them for management responsibilities. As an MSEMT student, you will learn how to lead technology projects as well as manage teams, engineering functions, and companies. In addition, you will gain an understanding of the economic decision-making processes. More than just theory, the MSEMT program offers real-world examples provided by instructors who have years of relevant industry experience, covering topics such as technology creation, management of invention, information systems, managerial accounting, and quantitative methods. This is also a suitable program to help prospective technical entrepreneurs understand the enterprise creation process.

Required Courses (16 Units)

- ISE 500 Statistics for Engineering Managers Units: 4
- ISE 515 Engineering Project Management Units: 4
- ISE 544 Leading and Managing Engineering Teams Units: 4
- ISE 561 Economic Analysis of Engineering Projects Units: 4

Technology Course (4 units) Select one.

- CE 576 Invention & Technology Development Units: 3
- ISE 501 Innovative Conceptual Design for New Product Development: 4
- ISE 545 Technology Development and Implementation Units: 4
- ISE 585 Strategic Management of Technology Units: 4

Minimum number of units required for the degree: 20

****Courses cannot be double counted and you must have at least 16 ISE units.****