

MASTER OF SCIENCE IN ENGINEERING MANAGEMENT

Curriculum Structure

The Program (Total 45 Cr Hrs)

Curriculum Components	Total Courses	Total Cr Hrs
Major Core	6	18
Focus Area	3	9
Track Based	1	3
Thesis or (Project + course)	2	6
Total	12	36

Thesis Option Requirement (6 Cr Hrs)

Thesis course	
Course ID	Course Title
EMP 695	Master Thesis I
EMP 696	Master Thesis II

Project Option Requirement (6 Cr Hrs)

Thesis course	
Course ID	Course Title
EMP 691	Master Project

Core Requirements (18 Cr Hrs)

Core courses	
Course ID	Course Title
EMP 603	Business Fundamentals for Engineering Managers
EMP 604	Process Improvement Techniques
EMP 605	Project Management
EMP 606	Production and Operations Management
EMP 607	Enterprise Information Analysis and Business Applications
EMP 608	Decision Techniques and Data Analysis

Focus Areas

Logistics & Supply Chain Focus Area (9 Cr Hrs)

Logistics & Supply Chain Focus Area Courses	
Course ID	Course Title
EMP 611	Physical Distribution Management
EMP 612	Procurement Management
EMP 613	Suppliers Management
EMP 614	Supply Chain Management
EMP 615	Materials & Logistics Management

Operations Focus Area Package (9 Cr Hrs)

Operations Focus Area Package Courses	
Course ID	Course Title
EMP 621	Facility Planning and Layout
EMP 622	Service Operations Management
EMP 623	Six Sigma & Strategic Quality Management
EMP 624	Systems Analysis and Design
EMP 625	Manufacturing & Enterprise Resource Planning
EMP 626	Innovation and Technology Management

Construction Focus Area Package (9 Cr Hrs)

Construction Focus Area Package Courses	
Course ID	Course Title
EMP 631	Construction Engineering Management
EMP 632	Estimating & Financial Analysis for Construction
EMP 633	Construction Equipment Management
EMP 634	Construction Contracts & Legal Concepts in Construction
EMP 635	Concrete Formwork Design
EMP 636	Project Planning, Scheduling, and Control
EMP 637	Engineering and Construction Materials and Methods



STUDY PLAN

Thesis Option

First Year (18 Cr Hrs)		
Fall Semester		
Course #	Course Title	Cr Hrs
EMP 603	Business Fundamentals for Engineering Managers	3
EMP 604	Process Improvement Techniques	3
EMP 607	Enterprise Information Analysis and Business Applications	3
Spring Semester		
Course #	Course Title	Cr Hrs
EMP 605	Project Management	3
EMP 606	Production and Operations Management	3
EMP 608	Decision Techniques and Data Analysis	3

Second Year (18 Cr Hrs)		
Fall Semester		
Course #	Course Title	Cr Hrs
EMP XXX	Focus Area Course I	3
EMP XXX	Focus Area Course II	3
EMP 695	Master Thesis I	3
Spring Semester		
Course #	Course Title	Cr Hrs
EMP XXX	Focus Area Course III	3
EMP XXX	Focus Area Course IV (free)	3
EMP 696	Master Thesis II	3

Project Option

First Year (18 Cr Hrs)		
Fall Semester		
Course #	Course Title	Cr Hrs
EMP 603	Business Fundamentals for Engineering Managers	3
EMP 604	Process Improvement Techniques	3
EMP 607	Enterprise Information Analysis and Business Applications	3
Spring Semester		
Course #	Course Title	Cr Hrs
EMP 605	Project Management	3
EMP 606	Production and Operations Management	3
EMP 608	Decision Techniques and Data Analysis	3

Second Year (18 Cr Hrs)		
Fall Semester		
Course #	Course Title	Cr Hrs
EMP XXX	Focus Area Course I	3
EMP XXX	Focus Area Course II	3
EMP 695	Focus Area Course IV (free)	3
Spring Semester		
Course #	Course Title	Cr Hrs
EMP XXX	Focus Area Course III	3
EMP XXX	Focus Area Course V (free)	3
EMP 691	Master Project	3

