

MASTER OF SCIENCE IN ENGINEERING MANAGEMENT

COURSE DETAILS



INTRODUCTION TO M.S.E.M

This unique program combines several modules from traditional business & management program with courses bringing the latest techniques and concepts in 'Engineering Management' including but not limited to Project Management, Decision Making, Engineering Optimization and Management for Technical Organizations. The mix of management, engineering and technical concepts focused in this Program are meant to prepare working professionals to thrive in the increasingly complex managerial environment of today's technology-based organizations.

OBJECTIVES

This thirty credit hour graduate program is conducted in the evening and weekends and has specifically been designed to accommodate working engineers and technical professionals, who are seeking to advance to positions of a greater managerial and technical responsibility. It is purposely designed to benefit top executives such as CEOs, MDs, and DGs, Production/Operation Managers, GMs, Technocrats, Manufacturers, Consultants, Entrepreneurs, Engineers, Technological Experts, Scientists and Technical Managers.

SCOPE REGARDING MARKET, SOCIAL AND EMPLOYMENT PERSPECTIVE OF PROGRAM:

This program is unique as it prepares the future technical leadership of Pakistan for challenging roles throughout the technical domains. Be it Government organizations or private corporate technical concerns, you always require a blend of sound technical knowledge and savvy business acumen to steer the organizations forward. The role of technocrats in Pakistan is now swiftly changing from mere technical management to providing leadership and vision to Pakistani industry. This course has a proven track record of nearly two decades which speaks of its alumni being currently serving at key decision making positions throughout Pakistan and abroad.

STUDY PLAN FOR M.S.E.M

PROGRAM DURATION

Minimum: 1.5 years (3 semesters)

Maximum: 3.5 years (extendable to 6 month) (Total 4 Years)

PROGRAM DURATION

CATEGORY	CREDIT REQUIREMENT (WITH THESIS OPTION)	CREDIT REQUIREMENT (WITH NON-THESIS OPTION)
CORE COURSES	15	15
OPTIONAL COURSES	09	15
POSTGRADUATE RESEARCH THESIS	06	0
TOTAL HOURS REQUIRED	30	30

DEGREE REQUIREMENTS WITH THESIS OPTION

1. Completion of course work with minimum 2.5 CGPA.
2. Qualifying MSc Thesis Proposal Defense.
3. Successful MSc Final Defense of thesis written in the prescribed format.

DEGREE REQUIREMENTS WITH NON-THESIS OPTION

1. Completion of 30 credits hours of course work with minimum 2.5 CGPA.

STUDY PLAN FOR M.S.E.M

CURRICULUM OF THE PROGRAM:

- (All courses other than research thesis carry 3 credit hours; Research Thesis carries 6 credit hours)

CORE COURSES

EM6101	RESEARCH METHODOLOGY FOR ENGINEERING MANAGERS
EM6102	TOTAL QUALITY MANAGEMENT
EM6103	ENGINEERING PROJECT MANAGEMENT
EM6104	FINANCE FOR TECHNICAL MANAGERS
EM6105	PRODUCTION AND OPERATION MANAGEMENT

STUDY PLAN FOR M.S.E.M

OPTIONAL COURSES

EM6106	QUANTITATIVE DECISION MAKING AND PROBLEM SOLVING
EM6107	HUMAN RESOURCE MANAGEMENT
EM6108	ENGINEERING ECONOMIC DECISION ANALYSIS
EM6109	ENERGY RESOURCES MANAGEMENT AND UTILIZATION
EM6110	MARKETING MANAGEMENT
EM6111	ENTREPRENEURSHIP AND INNOVATIONS FOR ENGINEERS
EM6112	RELIABILITY AND MAINTENANCE MANAGEMENT
EM6113	MANUFACTURING STRATEGY
EM6114	TELECOM BUSINESS MANAGEMENT
EM6115	E-COMMERCE TOOLS PRODUCTIVITY
EM6116	KNOWLEDGE MANAGEMENT
EM6117	SYSTEM SAFETY ENGINEERING
EM6118	ENVIRONMENTAL ENGINEERING MANAGEMENT
EM6119	GLOBAL SUPPLY CHAIN MANAGEMENT
EM6120	LOGISTICS MANAGEMENT
EM6121	ENGINEERING BUSINESS LAW
EM6122	TECHNOLOGY MANAGEMENT
EM6123	STRATEGIC MANAGEMENT
EM6999	MS RESEARCH THESIS

- ****Policy for Registration in PhD Courses**
- **MSc students may register in PhD. EM courses with the written endorsement of his/her Supervisor as an optional subject.**
- **Note: Students can take these courses subject to department guidelines issued every semester within timetable.**