



رفاه انٹرنیشنل یونیورسٹی



MS IN ENGINEERING MANAGEMENT (MS-EM)

To Develop Technical Leaders for Engineering Enterprises

Introduction

Riphah International University is one of the top rated amongst Pakistan's private institutions of higher learning. **Riphah School of Leadership (RSL) at Faculty of Management Sciences (FMS)** is one of the best and prominent in the constellations of very fine constituent programs of Riphah. **FMS Al Mizan Campus** is certified to ISO 9000:2015 Quality Management System Standards. FMS faculty and graduates won laurels for the institution by winning different scholarships besides proving their mettle in both public and private sector organizations of the country.

Genesis - Engineering Management (EM)

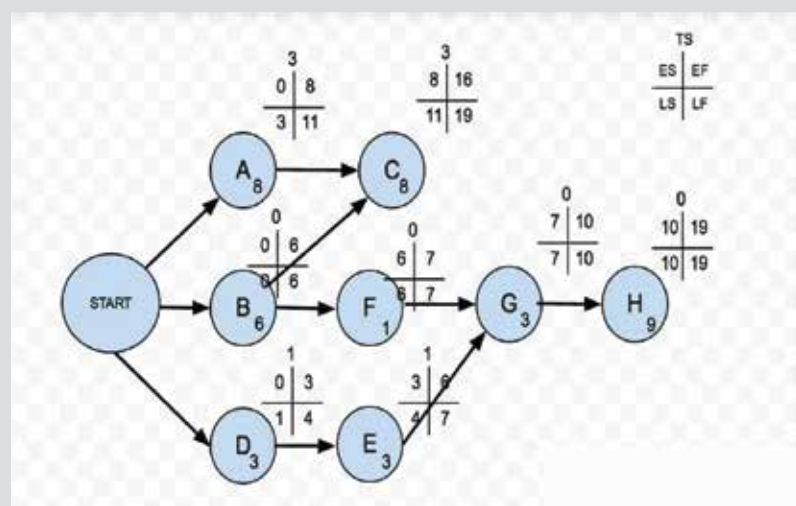
Seats of higher learning like Universities endeavor to produce quality graduates in various disciplines including Engineering. Apart from technical skills, these young engineers are educated and trained to multitask; focus on details, interpret requirements, make good judgments and educated decisions, perform in team, listen to others' opinions, brainstorm and whittle down to viable options in their career pursuits. However, there is much more than these traits as far as management of a technical enterprise is concerned – the business bottom line. Technical managers must be fast thinkers, skilled negotiators, good planners, efficient marketers, smart entrepreneurs and strong on human relations. They shall have financial acumen and the skill to get things done by utilizing the resources available at their disposal.

Most of the engineering graduates, after completing their bachelor's degree, enter the job market in their respective hardcore engineering discipline and are involved in technical work. Within 3-5 years of their employment, they are lesser involved into their technical fields and more into management aspects of technical enterprises. Keeping in view this phenomenon and the requirement of specialized management skills for engineers, leading universities of the

world started MS and PhD Programs in Engineering Management.

Riphah International University being one of the premier educational institution in the private sector of the country also realized this need and started MS in Engineering Management in addition to MS and PhD in Management Sciences.

Effective and efficient management is one of the important aspects in career progression of every engineer, irrespective of his/her discipline of engineering, organization of employment and position in organization's hierarchy. Presently, the need for **Engineering Management (EM)** has been felt at all levels of managers, particularly in the professional management environment in Pakistan. Keeping this in view, MS in Engineering Management was started in Fall 2013 at the **Riphah School of Leadership (RSL) at Faculty of Management Sciences (FMS) in Al-Mizan Campus**. This program endeavors to transform its students, who are already graduate engineers with a diversified engineering discipline into visionary leaders, skillful communicators and high achievers.



PROGRAMS OFFERED

The Program

The **Riphah School of Leadership (RSL) of FMS** is offering different MS and Doctoral Programs including MS in Engineering Management. This program is structured in accordance with the international standards and comparable with similar programs being offered at other reputed universities around the world and in Pakistan. This program is designed to equip professional engineers for top management positions in the industry. Latest courses and management tools are aimed to prepare the students with in-depth knowledge and skills in this field.

Degree Requirements

Each student for MS in Engineering Management degree is required to complete successfully the following courses:

S. No	Course Category	Cr Hrs	Total Cr Hrs
1.	Core Courses – 8	(3, 0)	24
2.	Elective Courses – 2	(3, 0)	6
3.	Research Thesis / Elective Courses – 2	(0,6) / (3,0)	6*
Total			36

* Can study two additional courses in lieu of research thesis

MS Engineering Management

Minimum Duration : 3 Semesters (1.5 years)

Total Credit Hours : 36

Selection Criteria:

Academic Qualification : 30%

Test/Interview : 70%

Eligibility Criteria

The candidate must have a Cumulative Grade Point Average (CGPA) of at least 2.0/4.00 or 50% aggregate marks in any **Engineering Discipline** (16 years of formal education) from a recognized institution.

Teaching and Coaching

The **RSL at FMS** is fully equipped to impart world class quality education and training to its students and is led by world class faculty. State of the art classrooms with multi media facilities, well stocked library, access to rich online research resources, like internet, digital library and research databases provides all the academic resource required for grooming students.

The courses are structured to provide a blend of conceptual knowledge and simulated practical situations which engineering managers' face in their daily professional routine. The students are generally required to take-up practical engineering management research issues individually as part of taught courses during a semester. The structuring of curriculum is done in close collaboration with the industry leaders both in public and private sectors.

Often, eminent experts from academia and engineering managers experienced in policy making, governance, operations and managerial roles in engineering enterprise are invited for talk and interactive sessions to share their wisdom and experiences with students. Similarly, subject specific seminars and workshops are also organized for the benefit of the students, faculty and researchers.

In addition to the formal class room lectures, there is a lot of emphasis on active training methods, such as case studies, projects, presentations and group work etc.



Course Work Requirement

Following courses are currently offered to MS in Engineering Management students.

Core Courses

Core courses are compulsory and can't be substituted with any other course.

1. Total Quality Management
2. Engineering Project Management
3. Operation Management
4. Marketing for Engineers
5. Advanced Research Methods
6. Finance for Engineers
7. HRM & Organization Behavior in Engineering Firms
8. Managerial Decision Making

Elective Courses

Students are required to take 6 credit hours of elective courses. The elective courses are offered by the university as deemed appropriate.

1. Technology Management
2. Supply Chain and Logistics Management
3. Industrial Management
4. Production Systems Design and Analysis
5. Engineering Ergonomics
6. Production Planning and Control
7. Design Patent, Trademarks, WTO, PEC Regulations
8. Engineering Management

9. Engineering Economic Analysis
10. Techniques of Risk Analysis and Management
11. Leadership and Team Building
12. Operation Research

The students have the choice to pursue their academics and research studies in any of the following specializations:

1. Total Quality Engineering
2. Supply Chain & Logistics Management
3. Energy Management
4. Manufacturing Management
5. Project Management
6. Environmental Management
7. Construction Management

Research Thesis

Upon completion of the course work, the students of MS Engineering Management program are required to write a 6 credit hours research thesis. The area of research is proposed by the student in consultation with his/her advisor. Selected research area is subject to approval of BASR. Non thesis option is also available by taking additional 6 credit hours of course work.

Research Thesis – (0, 6)



Focal Faculty

Brig (R) Dr Nawar Khan

PhD in Engg Management, MSc in Production Engineering
MBA (HRM), BSc Mechanical Engineering
ISO Standards Lead Auditor, PEC Accreditation Convener and Expert
HEC Approved Supervisor

Focus Area: Total Quality Management, Product and System Standards, Production Systems, Productivity Management, ISO Certifications and TQM Awards
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To Apply Online visit admissions.riphah.edu.pk

To download the application form visit our website www.riphah.edu.pk

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