**University of Management and Technology**

**Course Outline**

Course code……MS 323………………… Course title……Engineering Management……………………

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| --- | --- |
| Program | BSEE |
| Credit Hours | 2 |
| Duration | One semester |
| Prerequisites | Nil |
| Resource Persons  | Muhammad ShoaibMuhammad Arif Saeed |
| Counseling Timing(Room# 510 - 2 SEN Building ) | As on display on the office door |
| Contact | Muhammad.shoaib@umt.edu.pkArif.saeed@umt.edu.pk |

**Chairman/Director signature………………………………….**

**Dean’s signature…………………………… Date………………………………………….**

**Learning Objective:**

This course deals with management techniques of the Engineering systems and Engineering Processes, management of new products, linkage between products and their manufacturing processes. It also deals with Engineering Project Management like project planning, Forecasting, Scheduling, Resource allocation etc.

**Learning Methodology:**

Lecture, interactive, participative, presentations

**Grade Evaluation Criteria**

Following is the criteria for the distribution of marks to evaluate final grade in a semester.

**Marks Evaluation Marks in percentage**

Quizzes , Assignments & presentations 25

Mid Term 25

Final exam 50

Total 100

**Recommended Text Books:**

Recommended Books:

1. **Text book:** Managing Engineering and Technology by Morse Babcock fourth edition

**Reference Books:**

1. Engineering Management by Fraidoon Mazda.
2. Business Forecasting eighth edition by John E. Hanke and Dean W. Wichern

**Calendar of Course contents to be covered during semester**

**Course code…MS323……………...... Course title: Engineering Management**

|  |  |  |
| --- | --- | --- |
|  **Week** |  **Course Contents**  | **Reference Chapter(s)** |
|  1 | IntroductionPreviewLearning ObjectivesEngineering | Ch-1 |
|  2 | ManagementA synthesis of Engineering ManagementHistorical Development of Enginering Management | Ch-1&2 |
|  3 | Management philosophy The industrial revolutionScientific ManagementAdministrative Management | Ch-2 |
|  4 | Nature of PlanningThe foundation of planningSome planning concepts | Ch-3  |
|  5 | Planning tools | Ch-3  |
|  6 | ForecastingStrategies for managing technologiesNature of decision makingManagement Sciences | Ch-3,4 |
|  7 | Tools of decision makingComputer based information systemImplementation | Ch-4  |
|  8 | **Mid Term Examination** |  |
|  9 | Nature of organizingTraditional organizing theoryThe technology and modern organization structures | Ch-5 |

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| --- | --- | --- |
|  10 | Some human aspects of organizingStaffing technical organizationsAuthority and powerDelegation | Ch-6  |
|  11 | Committees and meetingsLeadership , motivation | Ch-6&7 |
|  12 | Motivation and lading technical professionals | Ch-7 |
|  13 | The process control | Ch-8 |
|  14 | Financial control | Ch-8 |
|  15 | Presentations and case studies | General |