**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 Shoaib  Muhammad Arif Saeed |
| Counseling Timing  (Room# 510 - 2 SEN Building ) | As on display on the office door |
| Contact | [Muhammad.shoaib@umt.edu.pk](mailto:Muhammad.shoaib@umt.edu.pk)  Arif.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 | Introduction  Preview  Learning Objectives  Engineering | Ch-1 |
| 2 | Management  A synthesis of Engineering Management  Historical Development of Enginering Management | Ch-1&2 |
| 3 | Management philosophy  The industrial revolution  Scientific Management  Administrative Management | Ch-2 |
| 4 | Nature of Planning  The foundation of planning  Some planning concepts | Ch-3 |
| 5 | Planning tools | Ch-3 |
| 6 | Forecasting  Strategies for managing technologies  Nature of decision making  Management Sciences | Ch-3,4 |
| 7 | Tools of decision making  Computer based information system  Implementation | Ch-4 |
| 8 | **Mid Term Examination** |  |
| 9 | Nature of organizing  Traditional organizing theory  The technology and modern organization structures | Ch-5 |

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| --- | --- | --- |
| 10 | Some human aspects of organizing  Staffing technical organizations  Authority and power  Delegation | Ch-6 |
| 11 | Committees and meetings  Leadership , 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 |