|  |  |
| --- | --- |
|  | **King Saud University**  **College of Engineering**  **Department of Civil Engineering** |

**GE 404: ENGINEERING MANAGEMENT**

**1st Semester 1438/1439H (2017/2018)**

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Topic** | **Reading Assignment** | **Duration “Weeks”** |
| **INTRODUCTION & PROJECT ORGANIZING** | | | |
| 1a | Introduction for Engineering Management | Ch. 1 & Class Notes | 1 |
| 1b | Project Participants and Project Life Cycle | Class Notes | 0.5 |
| **PROJECT PLANNING** | | | |
| 2 | Project Time Planning:   * Processes, and * Bar (Gantt) Chart | Ch. 1 | 1 |
| 3 | Network Model:   * Activity-On-Node (AON), * Precedence Diagramming, and * Time\_scaled network | Ch. 2 (pp. 37-43)  Ch. 4 (pp. 93-107) | 2 |
| 4a | Resource Leveling and Allocation | Ch. 7 (pp. 191-210) | 1.5 |
| 4b | Resource Allocation | Class Note | 1 |
| 5 | Time-Cost Trade-Offs | Ch. 8 (pp. 237-249) | 1.5 |
| **PROJECT FINANCING AND CONTROL** | | | |
| 6 | Contractual and Organizational Approaches | Ch. 1 & Class Notes | 0.5 |
| 7 | Financial Management: Cashflow Forecasting | Class Notes | 1.5 |
| 8a | Time Control | Ch. 5 (pp. 133-163) & Class Notes | 1 |
| 8b | Cost Control | Ch. 5 (pp. 133-163) & Class Notes | 1 |
| 9 | Analysis of Scheduling Delay | Class Notes | 1.5 |

**Textbook:** Project Management with CPM, PERT, and Precedence Diagramming, 3rd Edition, by Moder J., Phillips, C., and Davis, E.

**Grading:** Mid-term Exams 50%

Assignments and Quizzes 10%

Final Examination 40%

**Mid Term Exams:**

**First Mid-Term** **Monday** **6 November 2017**  **6:00 – 7:30 pm**

(Week 8) (17 Safar 1439H)

**Second Mid-Term** **Monday** **4 December 2017**  **6:00 – 7:30 pm**

(Week 12) (16 Rabi I 1439H)

**Lecture Schedule**

**GE 404 Engineering Management**

**First Semester**

**1438-1439 (2017-2018)**

|  |  |  |
| --- | --- | --- |
| **Lecture #** | **Hours Required** | **Week**  **No.** |
| Lecture 1 (Course description and Introduction) | 2 | 1 |
| Lecture 2 (Project Life Cycle and Time Management Process) | 2 | 2 |
| Lecture 3(Scheduling and Bar Chart) | 2 | 3 |
| Lecture 4(Scheduling Networks-AON) | 3 | 4.5 |
| Lecture 5 (Scheduling Networks-Precedence Diagramming) | 2 | 5.5 |
| Lecture 6(Time-Scaled Diagram and Resource Leveling) | 3 | 7 |
| **FIRST MID TERM** | | |
| Lecture 7 (Limited Resource Allocation) | 2 | 8 |
| Lecture 8 (Time-Cost Trade-Offs) | 2 | 9 |
| Lecture 9(Project Management Organizational Structures) | 2 | 10 |
| Lecture 10(Cash Flow) | 3 | 11.5 |
| **SECOND MID TERM** | | |
| Lecture 11(Project Time-Control) | 1 | 12 |
| Lecture 12(Project Cost-Control) | 2 | 13 |
| Lecture 13(Analysis of Delay Schedule) | 2 | 14 |
| Lecture 14(Outlines of Microsoft Project) | 1 | 14.5 |