**Engineering management**

**Course Description Form**

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| 1. Course Name: | | | | | | | | |
| Engineering management | | | | | | | | |
| 1. Course Code: | | | | | | | | |
|  | | | | | | | | |
| 1. Semester / Year: | | | | | | | | |
| First semester / Third year | | | | | | | | |
| 1. Description Preparation Date: | | | | | | | | |
| 1/10/2024 | | | | | | | | |
| 1. Available Attendance Forms: | | | | | | | | |
| In class | | | | | | | | |
| 1. Number of Credit Hours (Total) / Number of Units (Total) | | | | | | | | |
| The. 2 hr Tut.1 hr / 3 Units | | | | | | | | |
| 1. Course administrator's name (mention all, if more than one name) | | | | | | | | |
| Name: Makarim Nori Ali  Email: makarim.noori@muc.edu.iq | | | | | | | | |
| 1. Course Objectives | | | | | | | | |
| **Course Objectives** | | | | 1. Introduce fundamental concepts and definitions of Engineering Management. 2. Explore project planning methods, including Bar Charts, Network Analysis, and Grid Methods. 3. Develop skills in resource allocation for efficient project execution. 4. Enhance understanding of project management tools and techniques. 5. Equip students with the ability to analyze and optimize engineering projects. | | | | |
| 1. Teaching and Learning Strategies | | | | | | | | |
| **Strategy** | | To equip students with practical knowledge and tools for effective project planning, management, and resource allocation, ensuring they can successfully lead engineering projects and make data-driven decisions. | | | | | | |
| 1. Course Structure | | | | | | | | |
| **Week** | **Hours** | | **Required Learning Outcomes** | | **Unit or subject name** | | **Learning method** | **Evaluation method** |
|  | 5 | | Define key concepts and principles of Engineering Management | | Engineering Management Definitions | | 1. Interactive Learning 2. Experimental Learning 3. Collaborative Learning 4. Technology-enhanced 5. Learning Problem-based Learning | Several Ways (Exams + Assignments) |
|  | 5 | | Engineering Management Definitions | | Several Ways (Exams + Assignments) |
|  | 5 | | Engineering Management Definitions | | Several Ways (Exams + Assignments) |
|  | 5 | | Apply project planning methods, including Bar Charts, Network Analysis, and Grid Methods. | | Project Planning Methods | | Several Ways (Exams + Assignments) |
|  | 5 | | Bar Chart | | Several Ways (Exams + Assignments) |
|  | 5 | | Analyze project schedules and identify critical paths using advanced techniques.. | | Bar Chart | | Several Ways (Exams + Assignments) |
|  | 5 | | Network Analysis | | Several Ways (Exams + Assignments) |
|  | 5 | | Network Analysis | | Several Ways (Exams + Assignments) |
|  | 5 | | Evaluate and optimize engineering project performance. | | Grid Methods | | Several Ways (Exams + Assignments) |
|  | 5 | | Grid Methods | | Several Ways (Exams + Assignments) |
|  | 5 | | Resources Allocation. | | Several Ways (Exams + Assignments) |
|  | 5 | | Allocate resources effectively to meet project objectives | | Resources Allocation. | | Several Ways (Exams + Assignments) |
|  | 5 | | Resources Allocation. | | Several Ways (Exams + Assignments) |
|  | 5 | | preparation | | Several Ways (Exams + Assignments) |
|  | 5 | | exam | | Several Ways (Exams + Assignments) |
| 1. Course Evaluation | | | | | | | | |
| 1. Final Exam: 60% 2. Monthly Exams: 15% 3. Reports and Assignments: 10% 4. Attendance and Daily Participation: 10% 5. Oral Evaluation: 5% | | | | | | | | |
| 1. Learning and Teaching Resources | | | | | | | | |
| Required textbooks (curricular books, if any) | | | | | | "Project Management: A Systems Approach to Planning, Scheduling, and Controlling" by Harold Kerzner | | |
| Main references (sources) | | | | | | "Engineering Management" by Robert E. Shannon and Cesar Augusto Gonzalez | | |
| Recommended books and references (scientific journals, reports...) | | | | | |  | | |
| Electronic References, Websites | | | | | |  | | |