

## Faculty of Engineering & Technology

### Project Management

**Information :**

**Course Code :** MAN 592

**Level :** Undergraduate

**Course Hours :** 2.00- Hours

**Department :** Department of Mechanical Engineering

**Instructor Information :**

| Title              | Name                                   | Office hours |
|--------------------|--|--------------|
| Professor          | Ibrahim Mahmoud Mahdi Mostafa          | 1            |
| Lecturer           | HOSAM MOSTAFA MAHMOUD EID HEGAZY       | 1            |
| Teaching Assistant | Mohamed Fathy Salem Mohamed            |              |
| Teaching Assistant | Fady Ayman Mohamed Naguib Mahmoud Noah | 1            |

**Area Of Study :**

- Enrich the students understanding of the different aspects of project management.
- Develop the students ability to apply the different principles and practices of project management.
- Enhance the students ability to integrate the different principles and practices of project management in a group project.

**Description :**

Modeling of projects, tasks and sub tasks as activity networks, Principles and practices of critical path methodology under conditions of certainty (CPM) and uncertainty (PERT), Resource loading and cost crashing concepts, Project control, and extensive use of computer programs used in managing.

**Course outcomes :**

**a. Knowledge and Understanding: :**

|     |  |
|-----|--|
| 1 - | Comprehend the different knowledge areas of project management |
| 2 - | List project constraints                                       |
| 3 - | Define project, project players and project deliverables       |
| 4 - | Define and describe project lifecycle                          |
| 5 - | Describe quality and quality management tasks                  |
| 6 - | Define the four cost categories related to quality management  |
| 7 - | Understand the critical path method                            |
| 8 - | Estimate the duration of the stochastic activity duration      |
| 9 - | Understand the team and communication management.              |

**b. Intellectual Skills: :**

|     |   |
|-----|---|
| 1 - | Identify and analyse risks associated with an engineering project |
|-----|---|

|     |   |
|-----|---|
| 2 - | Evaluate the impact of the resources limitation on the duration of the project. |
| 3 - | Develop the activity on arrow, activity on node, and Gantt charts for projects  |
| 4 - | Determine the crashed duration of a project.                                    |
| 5 - | Determine the cost profile for a project.                                       |
| 6 - | Evaluate the duration of the project under uncertainty of activity durations.   |

**c. Professional and Practical Skills: :**

|     |   |
|-----|---|
| 1 - | Utilize computer programs such as Microsoft project to perform time management for a project. |
| 2 - | Select an engineering project and collect the information about its activities.               |
| 3 - | Apply project management principles and procedures on an engineering project                  |
| 4 - | Prepare and present a project technical report.   |

**d. General and Transferable Skills: :**

|     |  |
|-----|--|
| 1 - | Estimate duration, cost, resources for different activities for an engineering project |
| 2 - | Work in a group project  |
| 3 - | Submit on time assignments and project.  |
| 4 - | Utilize computer software such as Microsoft project for time management                |
| 5 - | Conduct appropriately course project presentation using power point.                   |

**Course Topic And Contents :**

| Topic                                    | No. of hours | Lecture | Tutorial / Practical |
|--|--------------|---------|----------------------|
| Course Outline                           | 4            | 2       | 2                    |
| Introduction to Project Management       |              |         |                      |
| Project Life Cycle                       | 8            | 4       | 4                    |
| Scope Management                         |              |         |                      |
| Time Management                          | 8            | 4       | 4                    |
| Quality Management                       | 4            | 2       | 2                    |
| Risk Management                          | 8            | 4       | 4                    |
| Resources Management                     | 4            | 2       | 2                    |
| Teamwork and Communication Management    | 2            | 2       | 2                    |
| Cost Management                          | 2            | 2       | 2                    |
| Project description and phases follow up | 6            | 2       | 4                    |
| Midterm Exams                            | 4            | 4       | 0                    |
| Project Presentations                    | 6            | 2       | 4                    |

**Teaching And Learning Methodologies :**

|                       |
|-----------------------|
| Interactive Lecturing |
| Problem solving       |
| Project               |
| Research              |

**Course Assessment :**

| Methods of assessment              | Relative weight % | Week No | Assess What |
|------------------------------------|-------------------|---------|-------------|
| 1st Midterm                        | 15.00             | 6       |             |
| 2nd Midterm                        | 15.00             | 11      |             |
| Assignments, & Quizzes             | 10.00             |         |             |
| Attendance and class participation | 10.00             |         |             |
| Final Exam                         | 40.00             | 16      |             |
| Project                            | 10.00             |         |             |

**Recommended books :**

Kerzner, Harold R. %Project Management: A Systems Approach to Planning, Scheduling, and Controlling-4 1  
 th  
 edition,  
 John Wiley & Sons Inc., 2013.  
 A Guide to Project Management Body of Knowledge (PMOK  
 Guide)-4 4  
 th  
 edition, Project Management Institute (PMI), 2008.