

ME 542 – Maintenance Planning

Hour: Lecture: 2 Hrs.

Tutorial: 2 Hrs.

Credit: 3.

Coordinator: Sameh Shabaan

Text Book:

- Maintenance Planning Prepared by Eng. Nabil El Khouly

Reference Books:

- Patlon Joseph D. Preventive Maintenance, Penctice – Hall, Latest Edition
- John M. Gross Fundamentals of Preventive Maintenance, NY.

Specific course information

- a. Maintenance definition, concept, objectives, Management functions, Types of maintenance, maintenance cycle, construction of maintenance planning system, computer management maintenance system, diagnostic capabilities of Predictive maintenance, Economic aspects of maintenance engineering, Investigation of failure, statistical techniques, Reliability, availability, system redundancy.
- b. Prerequisite: 126 credit hours
- c. Designation: Required

Specific goals for the course:

- Use oral, written, and audio-visual techniques effectively for successful communication.
- Understand global effects of practices, products, and events, and the impact of engineering solutions on society
- Recognize the need for and demonstrate ability to engage in lifelong learning.
- Ability to put forward the design requirements and considerations and manage the different design steps for any mechanical systems.

Course instruction outcomes:

- The students will be able to understand maintenance concept and types. The importance of maintenance planning & control to judge choose, and adapt maintenance system, which provide optimum solution to maintenance problems with the minimum expenditure.

Student outcomes:

F, G, I

Topics Covered:

- Maintenance situation.
- Maintenance cycle

- Lab View – Lab View Tutorial
- Working examples on cycle schedule
- Computer aided maintenance
- Economic aspects of maintenance engineering
- Diagnostic capabilities of Predictive maintenance
- Vibration Analysis (introduction, Types of Equipment, system Applications.
- Motor Analysis ((introduction, Types of Equipment, system Applications, case study)
- Organization of different maintenance type
- Reliability in maintenance
- Case Study

Course / credit hours	Math & Basic Sciences	Engineering Topics	General Education
Maintenance Planning (ME542)/3		3	