

ME 555 - Material Handling Equipment

Hour: Lecture: 2 Hrs.

Tutorial: 2 Hrs.

Credit: 3.

Coordinator Mostafa Rostom:

Reference Books:

- J. Rodenko," Material Handling Equipment ", Mir publication, 1966, 1st edition

Specific course information

- a. Introduction to hoisting machinery. Cranes (types, drives, and design considerations). Elevators and miscellaneous types of hoisting machinery. Introduction to conveying machinery. Belt conveyors, bucket and cradle conveyors. Introduction to land reclamation machinery. Loaders, Bulldozers, shovels and gradess theory and practice. Maintenance and safety measures.
- b. Prerequisite: 126 Credit hours
- c. Designation: Selected Elective

Specific goals for the course:

- Understand global effects of practices, products, and events, and the impact of engineering solutions on society
- Know about contemporary socio-economic issues relevant to relevance to mechanical engineering.
- 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 material handling equipment, its role in production and application in engineering practice.

Topics Covered:

- Introduction to Hoisting Machinery
- Cranes (Types, Drives, and Design Considerations)
- Elevators (Drive, Design Considerations)
- Miscellaneous Types of Hoisting Machinery
- Introduction to Conveying Machinery
- Belt Conveyors
- Screw Conveyors

- Bucket and Cradle Conveyors
- Introduction to Land Reclamation Machinery
- Loaders Theory and Practice
- Bulldozers Theory and Practice
- Shovels and Graders
- Operation of the Various Types of Material Handling Machinery
- Maintenance of Material Handling Machinery
- Safety Measures for Different Types of Machinery

Course / credit hours	Math & Basic Sciences	Engineering Topics	General Education
Material Handling Equipment (ME555)/3		3	