

GUJARAT TECHNOLOGICAL UNIVERSITY (GTU)**VI- SEMESTER****Course Title: Material Handling**

(Course Code: 1363403)

Diploma Programme in which this course is offered	Semester in which offered
Mechanical (Manufacturing Technology)	Sixth Semester

Module.	Topics	Hours
Module 1	Conveyors 1.1 Belt Conveyors 1.2 Chain Conveyor 1.3 Roller Conveyors 1.4 Slat Conveyor 1.5 Chute Conveyor 1.6 Trolley Conveyor 1.7 Power and Free Conveyor 1.8 Pipe line Conveyor 1.9 Elevating Conveyor	5 h
Module 2	Industrial vehicles 2.1 Hand truck 2.2 Pallet jack 2.3 Walkie Stacker 2.4 Pallet Truck 2.5 Platform Truck 2.6 Tractor Trailer 2.7 Forklift Truck	4 h
Module 3	Automated vehicles 3.1 AGV 3.1.1 Tow AGV 3.1.2 Unit load AGV 3.1.3 Assembly AGV	2 h
Module 4	Positioning equipments 4.1 Pick and Place manipulator 4.2 Turn table 4.3 Turn over table	2 h
Module 5	Rack 5.1 Pallet racks 5.2 Push back rack 5.3 Flow through rack 5.4 Drive in drive through Cantilever rack 5.5 Sliding rack	3 h
Module 6	Hoist and Cranes 6.1 Hoist 6.2 Monorail 6.3 Jib Crane 6.4 Gantry Crane	2 h

	6.5 Overhead Crane	
Module 7	Automatic Identification and Communication equipment 7.1 Bar coding 7.2 Optical Character Recognition	2 h
Module 8	Criteria for selection of Material handling equipment	2 h
Module 9	Study of Material handling equipments at Plant	2 h