

Lesson Plan

Subject Engg. Mechanics (Code) TH-4 Name of faculty Satyabrata Khillari
 Semester 2nd Class allotted 4 P/W (50%) Branch Mechanical engineering
 Session: _____

| Discipline | Semester | From Date: | To date: | Teaching Aid |
|------------|----------------------|--|----------|----------------------|
| Subject: | No. of days/per week | Theory / Practical-topics / Lesson | | |
| Week | Date/Period | | | |
| 1 | 20.03.23 | Fundamentals - Definition of mechanics | | White board & Marker |
| | to | Statics, Dynamics force system - Definition, Clarification, Characteristics, Transmissibility Superposition. | | |
| | 25.03.23 | | | |
| 2 | 27.03.23 | Concept of FBD, Resolution of force | | White board & Marker |
| | to | Defn, Method, Types of Component of force. Composition of forces Defn, Resultant law of parallelogram & Resolution | | |
| | 31.03.23 | | | |
| 3 | 03.04.23 | Graphical method → Introduction, Space diag, vector diag, Polygon law | | Whiteboard & Marker |
| | to | Resultant of Concurrent, Non Concurrent, Parallel force system by Analytical & Graphical method. | | |
| | 08.04.23 | | | |
| 4 | 10.04.23 | Moment of force → Defn, Meaning | | Whiteboard & Marker |
| | to | Clarification, law of moments, Varignon's theorem, Properties of Couple. | | |
| | 15.04.23 | Eq ^m defn, Condition. Analytical & Graphical Representation. | | |
| 5 | 17.04.23 | Lami's theorem → Statement | | White board & Marker |
| | to | Applications for solving engineering problem. | | |
| | 22.04.23 | Friction → Definition, Frictional force. | | |
| 6 | 24.04.23 | Limiting of frictional force, Coefficient of angle of friction | | White board & Marker |
| | to | Repose. Law of friction, Advantage & disadvantages of friction. | | |
| | 29.04.23 | - Eq ^m of bodies on level plane. | | |
| 7 | 01.05.23 | Force applied on horizontal | | White board & Marker |
| | to | " | | |
| | 06.05.23 | Inclined Plane (up & down) | | |
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Signature of HOD



Signature of Faculty

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|------|----------------|--|----------------------------|
| 8 | 08-05-23 | • Ladder | White board & Marker |
| | to 13-05-23 | • Wedge friction • Centroid → Definition Moment of Inertia about any axis | |
| 9 | 15-05-23 | Centroid of square, rectangle, Triangle, Circle, | White board & Marker |
| | to 20-05-23 | Semi Circle, Quarter circle, Centroid of Composite figures. | |
| 10 | 22-05-23 | Moment of Inertia → Definition | White board & marker |
| | to 27-05-23 | • Parallel axes theorem " Perpendicular axis theorem. | |
| 11 | 29-05-23 | MOI of Plane lamina Different engineering sections | White board & Marker |
| | to 03-06-23 | Problems of MOI | |
| 12 | 05-06-23 | Simple Mechanics, Velocity Ratio of Simple gear, Compound gear, Define M.A. | White board & Marker |
| | to 10-06-23 | VR & efficiency & relation between them | |
| 13 | 12-06-23 | State law of machine & Reversibility Self locking machine, Simple and Purchase Crab winch & double Purchase Crab winch → Worms Wheel, Screw Jack | White board & Marker |
| | to 17-06-23 | | |
| 14 | 19-06-23 | Types of hoisting machine line, drum, their use & working Principle. (No Problem) | White board & Marker |
| | to 24-06-23 | → Dynamics, Kinematics & Kinetics. Principle of dynamics, Newton's law. | |
| 15 | 25-06-23 | Eqs of motion, De-Moivre's Principle Work, Power, energy & Application. | White board & Marker |
| | to 27-06-23 | → Kinetics & Potential energy, Momentum & Impulse, Conservation of energy → Linear momentum, Collision of bodies. | |



Signature of HOD

J. Khatun

Signature of Faculty