

**Department of Mechanical Engineering**

**School of Engineering**

**Course Outline**

Course code: ME-121L Course Title: Applied Mechanics (LAB)

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| **Program**  | **BSEE** |
| Credit Hours | 1 |
| Duration | One Semester |
| Prerequisites | None |
| Recourse Persons | Engr. Aziz SarwarEngr. Muhammad Yasir |
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**Learning Objectives**

This course aims to introduce the basic principles of Applied Mechanics to Electrical Engineering students. Students will be able to get in depth knowledge of all practical demonstrations related to Applied Mechanics Principles.

**Learning Methodology**

Lab demonstrations, Practical performance and manual.

**Grade Evaluation Criteria**

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| **Components** | **Marks** |
| Viva, quizzes and Manual Evaluation | 40 |
| Final Viva | 60 |
| Total | 100 |

**Applied Mechanics Lab ME-121L**

 **Spring 2016**

**List of Experiments**

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| **Sr #** | **Experiments** |
| 1 | Introduction to Engineering Mechanics and Draw the Layout of Engineering mechanics Lab |
| 2 | To Determine the Forces in the Members of a Simple Tie and Jib Crane apparatus. |
| 3 | To Find the Center of Gravity of Various Shapes Using Plumb Line Method |
| 4 | To Determine Tension in Various Points of a Hanging Rope Loaded At Different Points |
| 5 | To Verify Principal of Moments. |
| 6 | To Determine the Forces in the Members of Roof Truss. |
| 7 | To determine the radius of gyration of a Rolling Disc on an Inclined Plane |
| 8 | To Verify the Law of Conservation of Energy of a Rolling Disc on an Inclined Plane |
| 9 | To Determine the Coefficient of Friction considering various Contacting Surfaces. |
| 10. | To perform absolute motion analysis from slider crank mechanism, slotted link mechanism and quick return mechanism and plot displacement ,velocity and acceleration diagram of slotted link mechanism ... |
| 11 | To verify the polygon law of forces for a system in equilibrium, both analytically and graphically. |
| 12 | Determine the position and velocity of particles undergoing absolute dependant motion |