

Semester:	6																													
Course Code:	ME3080																													
Course Name:	Mechanical Engineering Laboratory I																													
Credits Value:	1 (Notional hours: 50)																													
Pre-requisites:	ME3010 and ME3040 and ME3030																													
Core/ Optional:	Core																													
Hourly Breakdown	Lectures (hours)	Tutorials (hours)	Practical classes (hours)	Assignments (hours)	Independent Learning & Assessment (hours)																									
			26	04	20																									
<p>Course Aim: To provide the opportunity to engage in self-directed learning to solve as a team an open-ended problem in the areas of vibrations, rigid body mechanics, control systems and thermal fluids so that the students will be able to formulate an experiment to scientifically analyze and discuss the outcomes.</p> <p>Intended Learning Outcomes: On successful completion of the course, the students should be able to;</p> <ul style="list-style-type: none"> ➤ hypothesize and test viable solutions ➤ work as a team to resolve conflicting requirements ➤ acquire new knowledge on their own to determine a viable solution ➤ communicate professionally through viva voce and reports 																														
<p>Course Content:</p> <ul style="list-style-type: none"> ➤ Balancing & Vibration (specific lab/labs to be decided and announced at the beginning of the class) ➤ Heat exchanger and Heating Ventilation and Air Conditioning systems (specific lab/labs to be decided and announced at the beginning of the class) ➤ Control Systems (specific lab/labs to be decided and announced at the beginning of the class) 																														
<p>Teaching/ Learning Methods: Classroom lectures, and in-class exercises and assignments</p>																														
<p>Assessment Strategy:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Continuous Assessment</th> <th colspan="3" style="text-align: center;">Final Assessment</th> </tr> <tr> <td colspan="2" style="text-align: center;">70%</td> <td colspan="3" style="text-align: center;">30%</td> </tr> </thead> <tbody> <tr> <td colspan="2">Details:</td> <td style="text-align: center;">Theory (%)</td> <td style="text-align: center;">Practical (%)</td> <td style="text-align: center;">Other (%) (Viva)</td> </tr> <tr> <td>Assignments/Quizzes/Practicals/Reports</td> <td style="text-align: center;">40%</td> <td></td> <td></td> <td style="text-align: center;">30%</td> </tr> <tr> <td>Viva</td> <td style="text-align: center;">30%</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						Continuous Assessment		Final Assessment			70%		30%			Details:		Theory (%)	Practical (%)	Other (%) (Viva)	Assignments/Quizzes/Practicals/Reports	40%			30%	Viva	30%			
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<p>Recommended Reading:</p>																														

- Will be provided at the beginning of the course depending on the lab/labs chosen for the given semester.