



## **MODULE OUTLINE**

Module Name	<b>Engineering Drawing</b>		
Module Code	ME2031	Version No.	2019-1
Year/Level	2	Semester	1
Credit Points	4		
Pre-requisites	None		
Co-requisites	None		
Methods of Delivery	Lectures (Face-to-face) Laboratory work	2 Hours/Week 4 Hour/Week	
Course Web Site	<a href="http://courseweb.sliit.lk">http://courseweb.sliit.lk</a>		
Date of Original Approval	September 2012		
Date of Next Review	September 2019		

## **MODULE DESCRIPTION**

Introduction	This module develops knowledge on drawing standards and 1st-angle and 3rd-angle projections, knowledge to draw and interpret multi-view engineering drawings and working drawing with dimensioning and tolerance, knowledge and skills to produce 2D drawings and 3D computer models using SolidWorks.																														
Learning Outcomes	At the end of the module student will be able to:																														
	<b>LO1:</b>	Demonstrate knowledge of using 1st-angle and 3rd-angle projections in 2D Engineering drawing.																													
	<b>LO2:</b>	Produce and interpret multi-view engineering drawings, including sectional and auxiliary views.																													
	<b>LO3:</b>	Use proper standards in expressing dimensions and tolerances for working drawings.																													
	<b>LO4:</b>	Produce 2D drawings and 3D computer models using SolidWorks																													
Assessment Criteria	<ul style="list-style-type: none"> <li>Continuous assessments will carry 100% of the total marks. Continuous assessments include laboratory practical sessions, take home assignments, and midterm test. Number of practical sessions and assignments required will be decided by the lecturer in charge.</li> </ul> <table> <tr> <td>Continuous Assessment</td> <td></td> <td></td> <td></td> </tr> <tr> <td>• Laboratory sessions</td> <td>27%</td> <td>LO1 – LO4</td> <td></td> </tr> <tr> <td>• Take Home Assignments</td> <td>15%</td> <td>LO1 – LO4</td> <td></td> </tr> <tr> <td>• In Class Tests</td> <td>8%</td> <td>LO1 – LO4</td> <td></td> </tr> <tr> <td>• Midterm Assembly</td> <td>10%</td> <td>LO1 – LO4</td> <td></td> </tr> <tr> <td>• Final Assembly</td> <td>40%</td> <td>LO1 – LO4</td> <td></td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>100%</b></td> <td></td> <td></td> </tr> </table>			Continuous Assessment				• Laboratory sessions	27%	LO1 – LO4		• Take Home Assignments	15%	LO1 – LO4		• In Class Tests	8%	LO1 – LO4		• Midterm Assembly	10%	LO1 – LO4		• Final Assembly	40%	LO1 – LO4		<b>TOTAL</b>	<b>100%</b>		
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Estimated Student Workload	<table> <tr> <td>Contact Hours</td> <td></td> <td></td> </tr> <tr> <td>• Lecture</td> <td>16 hours</td> <td></td> </tr> <tr> <td>• Laboratory</td> <td>40 hours</td> <td></td> </tr> <tr> <td>Time Allocated for Assessments</td> <td></td> <td></td> </tr> <tr> <td>• Take home assignments</td> <td>40 hours</td> <td></td> </tr> <tr> <td>• Midterm assembly</td> <td>4 hours</td> <td></td> </tr> <tr> <td>• Final assembly</td> <td>4 hours</td> <td></td> </tr> <tr> <td>Practice and independent study</td> <td>46 hours</td> <td></td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>150 hours</b></td> <td></td> </tr> </table>			Contact Hours			• Lecture	16 hours		• Laboratory	40 hours		Time Allocated for Assessments			• Take home assignments	40 hours		• Midterm assembly	4 hours		• Final assembly	4 hours		Practice and independent study	46 hours		<b>TOTAL</b>	<b>150 hours</b>		
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Module Requirement	"To pass this module students are required to obtain a pass mark for continuous assessment and final examination respectively and overall mark that would qualify for a "C" grade or above."
Learning Resources	Solid works online guides.

### **MODULE ADMINISTRATION PROCEDURE**

#### **Contact Information**

Lecturer-in-charge	Mr. Thilina Weerakkody & Mr. Kulunu Samarawickrama	
Telephone		E-mail <a href="mailto:thilina.w@sliit.lk">thilina.w@sliit.lk</a> , <a href="mailto:kulunu.s@sliit.lk">kulunu.s@sliit.lk</a>
Location	Staff Room, 5 <sup>th</sup> Floor, Engineering building, SLIIT.	
Consultation Time	Monday 12.30-13.30, Tuesday 12.30-13.30	

### **CONTENTS OF THE MODULE**

#### **Lecture Outline**

1. Introduction & Freehand sketching
2. Drawing standards
3. Geometric Dimensions & Tolerances
4. Multi view Drawings
5. Pictorial Drawings
6. Auxiliary & Sectional views
7. Threaded Fasteners & Drawings
8. Engineering Metrology

#### **Laboratory Outline**

1. Introduction, sketches and features I
2. Features II and Assembly I
3. Assembly II
4. Advance features - Sheet metal & hole wizard
5. Sketches – Relations
6. Assembly III
7. Complicated Assembly
8. Design of Mechanical Components I
9. Design of Mechanical Components II
10. Stress & Dynamic Analysis using SolidWorks

### **GENERIC INFORMATION**

Any type of plagiarism is not allowed.

Plagiarism: Academic honesty is crucial to a student's credibility and self-esteem, and ultimately reflects the values and morals of the Institute as a whole. A student may work together with one or a group of students discussing assignment content, identifying relevant references, and debating issues relevant to the subject. Plagiarism occurs when the work of another person, or persons, is used and presented as one's own.

End of Module Outline