

EEng2092: MICROPROCESSOR AND INSTRUMENTATION

Department of Textile Engineering Wollo University				
Course Number	EEng2092			
Course Title	Microprocessor and Instrumentation			
Degree Program	B. Sc. in Textile Engineering			
Module	9: Basics of Electrical Engineering			
Module Coordinator	N.N.			
Lecturer	N.N.			
ECTS Credits	4			
Cr Hr	3			
Contact Hours (per week)	Lecture	Tutorial	Laboratory or Practice	Home study
	2	0	3	3
Course Objectives & Competences to be Acquired	<p>The students in this course will be able to master:</p> <p style="padding-left: 40px;">The principles of microprocessor operation</p> <p style="padding-left: 40px;">The basics of instrumentation and their working principle</p>			
Course Description/ Course Contents	<ul style="list-style-type: none"> ▪ Elementary Digital Electronics ▪ Sequential circuits ▪ Introduction to microprocessor Intel 8085 ▪ Instrumentation <ul style="list-style-type: none"> a. Measurement of common physical variables b. Study of basic logic functions c. Study of NAND, NOR and EXOR gates d. Verification of De Morgan's theorems e. Study of bistable flip flops 			

	<p>f. Measurement of displacement by potentiometer and LVDT</p> <p>g. Measurement of strain using strain gage</p> <p>h. Measurement of temperature using thermocouple and thermistor</p>
Pre-requisites	Eeng 2091: Fundamentals of Electrical Engineering
Semester	2nd Semester, 2nd year
Status of Course	Compulsory
Teaching & Learning Methods	Lecture, laboratory work, assignment, report writing
Assessment/ Evaluation & Grading System	<p>The Lecture and Lab/Practical parts of the course will each be evaluated separately for 100 % and the final marks will be arrived at by giving weights according to the hours allocated to the Lecture and Lab/Practical parts. The details are given below :</p> <p><u>Lecture Part (Weight 50%)Lab/Practical Part (Weight 50%)</u></p> <p>Mid-Term Examination: 40 % Lab/Practical Records: 30 %</p> <p>Final Examination: 60% Lab/Practical Written Examination: 40 %</p> <p>Total 100% Demonstration/ Defense: 30 %</p> <p style="text-align: center;">Total100%</p>
Attendance Requirements	<ol style="list-style-type: none"> 1. A minimum of 85 %attendance during lecture sessions 2. 100% attendance during lab/practical class sessions
Literature	-