



THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE

Department of Mechanical Engineering

MEE 101 – Engineering Drawing I

COURSE PARTICULARS

Course Code: MEE 101

Course Title: Engineering Drawing I

No. of Units: 3

Course Duration: One hour of theory and six hours of practical per week for 15 weeks.

Status: Compulsory

Course Email Address:

Course Webpage: <http://www.mee.futa.edu.ng/courseschedule.php?coursecode=MEE%202>

Prerequisite:

COURSE INSTRUCTORS

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COURSE DESCRIPTION

This course is designed primarily for all students admitted into the Federal University of Technology, Akure. It provides a comprehensive knowledge and insight into engineering drawing as a basic tool of engineering. Topics to be covered include: Instruments for engineering drawing and their uses. Drawing Paper Sizes; Margins; and Title Blocks. Lettering and types of line. Geometrical construction: bisection of lines and angles and their applications. Polygon, tangency, locus of simple mechanisms. Pictorial drawing; Isometric, oblique and perspectives. Orthographic projection. Dimensioning and development of simple shapes. Assembly drawing of simple components. Conventional representation of common engineering features. Freehand sketching. Use of engineering drawing software of the department.

COURSE OBJECTIVES

The objectives of this course are to:

- Introduce students to details of engineering drawing as the engineers' language.
- Provide students with opportunities to have the basic knowledge of engineering drawing as the language of technology

COURSE LEARNING OUTCOMES / COMPETENCIES

Upon successful completion of this course, the student will be able to:

- Identify and use drawing instruments
- Sketch simple drawings for development
- Read and interpret simple drawings
- Use the Drawing software for drawing.

GRADING SYSTEM FOR THE COURSE

This course will be graded as follows:

Class work	20%
Test(s) and Assignments	20%
<u>Final Examination</u>	60%
<u>TOTAL</u>	100%

GENERAL INSTRUCTIONS

Attendance: It is expected that every student will be in class for lectures and also participate in all class works. Attendance records will be kept and used to determine each person's qualification to sit for the final examination. In case of illness or other unavoidable cause of absence, the student must communicate as soon as possible with any of the instructors, indicating the reason for the absence.

Academic Integrity: Violations of academic integrity, including dishonesty in assignments, examinations, or other academic performances are prohibited. You are not allowed to make copies of another person's work and submit it as your own; that is plagiarism. All cases of academic dishonesty will be reported to the University Management for appropriate sanctions in accordance with the guidelines for handling students' misconduct as spelt out in the Students' Handbook.

Assignments: Students are expected to submit assignments as scheduled. Failure to submit an assignment as at when due will earn you zero for that assignment. Only under justifying circumstances, for which a student has notified any of the instructors in advance, will late submission of assignments be permitted.

Code of Conduct in Lecture Rooms and Workshop: Students should turn off their cell phones during lectures. Students are prohibited from engaging in other activities (such as texting, chatting on phone, watching videos, *etc.*) during lectures. Food and drinks are not permitted in the workshop.

READING LIST

1. Engineering Drawing Manual 1 by Department of Mechanical Engineering, FUTA.
1. Engineering Drawing 1 with worked examples by M. A. Parker and F. Pickup
3. Geometrical and Engineering Drawing by K. Morling

COURSE OUTLINE

Week	Topic	Remarks
1 & 2	Introduction and Course Overview	During this first class, the expectation of the students from the course will also be documented.
3 & 4	<ul style="list-style-type: none"> • Instruments for engineering drawing and their uses. • Drawing Paper Sizes; Margins; and Title Blocks. • Lettering and types of line. 	
5 – 6	Geometrical construction: bisection of lines and angles and their applications.	
7	Polygons	
8	Tangency, locus of simple mechanisms.	
9	<ul style="list-style-type: none"> • Pictorial drawing; Isometric, oblique and perspectives. • Orthographic projection. 	
10	MID-SEMESTER TEST	
11	Dimensioning and development of simple shapes.	
12 - 13	<ul style="list-style-type: none"> • Assembly drawing of simple components. • Conventional representation of common engineering features. Freehand sketching.	
14	Use of engineering drawing software of the department.	
15	REVISION	This is the week preceding the final examination. At this time, evaluation will be done to assess how far the students' expectations for the course have been met.