

ME 111 Engineering Graphics I (Credits: 3 (2-3-2))
TEP/TEPE, Faculty of Engineering, Thammasat University

Lecturers: Dr. Dulyachot Cholaseuk Room 410, Ext. 3149, cdulyach@engr.tu.ac.th
 Dr. Wiroj Limtrakarn Room 413, Ext. 3144, limwiroj@engr.tu.ac.th
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Objective:

1. To understand the fundamental of engineering graphics
2. To be able to draw and read correctly the engineering graphics
3. To be able to use the computer aided design software in engineering graphics

Course Description:

- The significance of graphics
- Instruments and their uses
- Lining and lettering
- Applied geometry
- Dimensioning and description
- Orthographic drawing
- Freehand sketching
- Computer aided drawing

Tentative Schedule:

Weeks	Topics	Date		Lecturer
		Lecture	Lab	
1	Introduction to drawing and its preparation. Drawing equipments. Scaling, lining and lettering.	20/06/06	21/06/06	Thira
2	Geometric construction. Lines. Bisecting a line. Bisecting an angle. Dividing a line. Drawing a polygon. Circles and arcs. Finding the center of a circle. Drawing a tangential arcs in various situations.	27/06/06	28/06/06	Thira
3	Dimensioning. Placement of dimension and extension lines. Dimensioning angles. Dimensioning arcs. Symbols.	04/07/06	05/07/06	Thira
4	Freehand sketch. (Isometric sketches and Oblique sketches)	11/07/06	12/07/06	Wiroj
5	Orthographic drawing. Types of projections. Production of a mechanical drawing.	18/07/06	19/07/06	Thira Thira
6	Isometric drawing. Oblique drawing.	25/07/06	26/07/06	Thira
7	Sectional drawing. Oblique sections.	01/08/06	02/08/06	
8	Discussion and Question.	08/08/06	No	Thira

9	Midterm Examination			
10	Assembly drawing. Introduction to tolerance.	22/08/06	23/08/06	Thira
11	Computer aided drawing. (Basic geometry, layers)	29/08/06	30/08/06	Dulyachot
12	Geometric construction and dimensioning	05/09/06	06/09/06	Dulyachot
13	Orthographic and isometric drawing.	12/09/06	13/09/06	Dulyachot
14	Data visualization (Graphs and charts).	19/09/06	20/09/06	Dulyachot
15	Data visualization (Engineering charts, vector plot)	26/09/06	27/09/06	Dulyachot
16	Final Examination			

- References:**
1. F. E. Giesecke *et. al. Engineering Graphics*, 7th edition, Prentice Hall, 2000.
 2. A. W. Boundy. *Engineering Drawing*, 6th edition, McGraw Hill, 2002.

Evaluations:

Assignments	25% (Hand) + 20% (Computer)
Attendance	5%
Midterm examination	25%
Final examination	25%

*** Minimum of 80% attendance is required to pass this course ***