A. Basic Information

Course Title: Engineering drawing and isometric **Code**: MEC 001
Lecture: 1 **Tutorial**: 4 **Practical**: - No **Total:** 5
Program on which the course is given: B.Sc. Mechanical Engineering (Productions)
Major or minor element of program: Major
Department offering the program: Mechanical Engineering Department
Department offering the course: Physics and Sciences Department
Academic year / level: Prep Year / First Semester
Date of specifications approval: 25/12/2011

B. Professional Information

1. **Overall aims of course**
   By the end of the course the students will be able to:
   - The main purpose of this course is to introduce the principle of engineering drawing and develop the ability to visualize an object with physical and dimensional configurations.

2. **Intended Learning outcomes of Course (ILOs)**

a. Knowledge and Understanding:

a.2) Basics of information and communication technology (ICT).
a.3) Characteristics of engineering materials related to discipline.
a.8) Current engineering technologies as related to disciplines. retation.

b. Intellectual Skills

b.2) Select appropriate solutions for engineering problems based on analytical thinking.
b.3) Think in a creative and innovative way in problem solving and design..

c. Professional and Practical Skills

c.2) Professionally merge the engineering knowledge, understanding, and feedback to improve design, product and/or services.

d. General and Transferable Skills

d.2) Work in stressful environment and within constraints.

3. Contents

No	Topic	No. of hours	ILOs	Teaching / learning methods and strategies	Assessment method
1	Drawing instruments and its uses.	1	a.3), b.8)	Lec./Assign.	Assignment 1
2	Lettering	5	b.2), c.2)	Lec./Assign.	Assignment 2
3	Geometric Construction	5	a.3), b.8)	Lec./Assign.	Assignment 3
4	Geometric Construction	5	a.3), b.8)	Lec./Assign.	Assignment 4
5	Geometric Construction	5	a.3), b.8)	Lec./Assign.	Assignment 5
6	Dimensioning	5	a.3), b.8)	Lec./Assign.	Assignment 6
7	Axonometric projection	5	a.3), b.8)	Lec./Assign.	Assignment 7
8	Axonometric projection	5	a.3), b.8)	Lec./Assign.	Assignment 8
9	Axonometric projection	5	b.2), c.2)	Lec./Assign.	Assignment 9
10	Freehand Sketching	5	a.3), b.8)	Lec./Assign.	Assignment 10
11	Freehand Sketching	5	b.2), c.2)	Lec./Assign.	Assignment 11
12	Orthogonal Projection	5	a.3), b.8)	Lec./Assign.	Assignment 12
13	Orthogonal Projection	5	b.2), c.2)	Lec./Assign.	Assignment 13
14	Orthogonal Projection	5	a.3), b.8)	Lec./Assign.	Assignment 14
15	Mid term exam				
16					

4. Teaching and Learning Methods

Lectures
Practical training
Class activity
homework

5. Student Assessment Methods

Assignments to assess knowledge and intellectual skills.
Mid-term exam to assess knowledge, intellectual, professional and general skills.

6. Assessment schedule

Assessments on weeks 1-14
Mid-term exam on week 15

7. Weighting of Assessments

05% Home assignments
10% Mid-term examination
15% Total

8. List of References

8.1 Course Notes

- Course notes prepared by instructor and power point presentations.

8.2 Essential Books (Text Books)

- Colin H Simmons, Dennis E Maguire, â€oeManual of Engineering Drawing, Elsevier Newnes. ISBN 0 7506 5120 2
Recommended Books.

8.3 Periodicals Web sites, etc

- James H. Earle "Engineering Design Graphics", Eleventh Edition

9. Facilities Required for Teaching and learning

- Lecture room equipped with computer and data show Drawing Hall.

Course coordinator: Prof. Dr. Tarek Ahmed Fouad Khalifa
Course instructor: Assoc. Prof. Dr. Tamer Samir Mahmoud
Head of department: Prof. Dr. Maher Gamil Hegazi
Date: 25/12/ 2011