Summarized Course Description

Course number: ISE 201	Course name: Engineering Drawing
Language: English	Pre-requisites: ---
Credit hours: 3 (1+4 +0)	Course level: Level 4

Course Description   وصف المقرر :

Introduction: Skills of freehand sketching. Methods of projection: orthographic, isometric. Dimensioning of views. Third view prediction. Primary and successive auxiliary views. Intersections of surfaces and bodies. Development of surfaces. Sectioning. Introduction to assembly drawings. Steel sections. Standards and conventions. Computer Aided Graphics using SOLIDWORK crafting package. Applications

Course objectives   أهداف المقرر :

- This course is intended to cover theory and practical techniques of engineering drawing. The course teaches the use of Solidworks as a CAD tool in making engineering drawings.

Course Outcomes   مخرجات التعليم:

Upon completing the course, the student should be able to:

1. Develop 3D solid models using modern engineering 3D software, through
   1.1 Using sketching commands and entities relationships,
   1.2 Using Extrude and Extrude Cut Commands,
   1.3 Using Revolve and Revolve Cut Commands,
   1.4 Using 3D sketch Commands,
   1.5 Using Sweep and Sweep Cut Commands,
   1.6 Using Loft and Loft Cut Commands,
   1.7 Using Assembly Commands to assemble several parts to create 3D assembled Models.
2. Use Drawing Sheet Commands to create:
   2.1 Orthographic and auxiliary views in 2D working drawings sheets.
   2.2 Section views in 2D working drawings sheets.

3. Conclude 3D models out of 2D models.
4. Use Sheet Metal Commands needed to develop sheet metals models.

Textbook and references　　　　　الكتاب المقرر والمراجع المساندة:

Book	Authors	Publisher	Publication year
Students Manual, Solid Works notes, prepared			
Technical Drawing with Engineering Graphics,14th Edition	Frederick E. Giesecke	Pearson	2014
Solidworks tutorials,		Solidworks Help	

Weekly breakdown of course topics

Topics	Duration in weeks
1. Introduction, Sketching commands	1
2. Sketching, entities relationships commands	1
3. Extrude and extrude cut commands	2
4 Drawing sheet, dimensioning and sectioning commands	2
5. Concluding 3D models out of 2D drawings	3
6. Assembly commands and Toolbox	1
7. Revolve and revolve cut commands	1
8. 3D sketch and sweep commands	1
9. Loft and loft cut commands	1
10. Sheet Metal commands	1