



PHILADELPHIA UNIVERSITY

Faculty of Art and Design

Interior Design Department

First Semester 09/10

Course Syllabus

Course Details

Course Title:	Engineering Drawing Basics
Course Code:	190101
Course Level:	First year
Course Prerequisite:	None
Lecture Time:	Monday & Wednesday (11:15 - 12:45) Studio 338
Credit Hours:	3 credit hours

Academic Staff Details

Instructor:	Dr. Feda Salah
Rank:	Assistant Professor
Office Number:	Room 410, fourth floor, Al Burj Building
Office Hours:	Sunday & Tuesday (9:00 – 10:00) Thursday (11:00 - 12:00) Monday & Wednesday (12:45 – 2:15)
E-mail Address:	fsalah@philadelphia.edu.jo

Course Module Description

This course covers engineering drawing basics and techniques. It introduces the students to the drawing tools, materials, and the techniques in using them to produce high quality technical drawings. Furthermore, it familiarizes the students with the required techniques in arranging their drawings for presentation and discusses the construction of oblique and isometric 3D drawings using the 2D plans, sections, and elevations and vice versa.

Course Module Objectives

- Mastering the use of various technical drawing tools to produce high quality final drawings.
- Developing the students' skills in producing professional engineering drawings to present their design ideas.
- Increasing the students' imaginary design thinking and expanding their design visual language proficiency.
- Focusing on producing high quality, professional, and neat drawings in short lead time.

Course Module Components

- **Books**
 - Jensen, C. (2008), *Engineering drawing and design*, McGraw-Hill, Boston. (Call number 604.2 JEN)
 - Anwani, M. L. and Anwani, I. (1994), *Basic engineering drawing*, Dhanpat Rai and Sons, Delhi. (Call number 604.2 ANW)
 - Porter, T. (1991) *Design drawing techniques for architects, graphic designer and artists*, Architectural Press, Oxford. (Call number 720.284 POR)
 - Lasear, P. (1975), *Graphic problem solving* CBI Pub.Co.Inc., Boston (Call number 720.28 LAS)
- مصطفى، عباس – جمعة، عبد الحميد (1985)، *أساسيات الرسم الهندسي*، دار الراتب الجامعية، لبنان
- **Study Guides**
 - Written notes during the studio work
 - Applied exercises

Teaching Methods

- Lectures
- Practical Applications During the studio work
- Studio Exercises
- Home Assignments

Learning Outcomes

- **Knowledge and Understanding**
 - Understand the basics of engineering drawings.
 - Understand the use of drawing tools.
 - Understand the concepts of isometric and oblique drawings.

- **Cognitive Skills (Thinking and Analysis)**
 - Develop a good foundation of technical drawings techniques.
 - Develop the drawing skills of the various design elements.
 - Enhance design imagination accompanied by the suitable techniques to create 3D drawings for various design elements.
- **Communication Skills (Personal and Academic)**
 - Enhance the communication skills by using professional representational drawings to present the design ideas and concepts and to communicate with customers, suppliers, and partners.
- **Practical and subject specific skills (Transferable Skills)**
 - Comprehend easily any engineering drawing and what it presents.
 - Create and draw professional 2D and 3D drawings for interior projects.
 - Represent drawings graphically and apply visual styles, and materials as a final stage.

Assessment Policy

Assessment will be determined through class work, individual contribution to class discussions, participation, assignments (homework) and exams. Assignment for the week is due the following week. Each assignment receives a grade. At the end of the semester the grades are all added and averaged and combined with your attendance, participation and class contribution. Late work may be downgraded. If you are absent, you are still responsible for all your assignments. Any missing assignment must be submitted before the last week of the semester or they will become an F. The course grades are distributed as follows:

First Exam:	20 Marks
Second Exam:	20 Marks
Course Work and Attendance:	20 Marks
Final Exam:	40 Marks

Total:	100 Marks
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Course Topics

- Engineering Drawings
 - Drawing conventions
 - Drawing Techniques
 - Orthographic Projection
 - Isometric Projection
 - Oblique Projection
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Course/Module Academic Calendar

WEEK	Topics to be covered	Assignments and their due dates
Week 1 11/10 - 15/10	Engineering Drawings • Course description • Introduction • Drawing tools and their proper utilization • Drawing types • Drawing sheets and layouts • Orthographic scale	
Week 2 18/10 – 22/10	Drawing conventions • The convention of line • Sectional cuts • Symbols (doors, windows, staircases, ramps...etc.) • North points and graphic scales • Codes for materials • Furniture and Features • Dimensioning	Submission of 1st assignment
Week 3 25/10 – 29/10	Drawing Techniques • Drawing lines ○ Parallel lines ○ Perpendicular lines ○ Angled lines • Drawing shapes ○ Squares and rectangles ○ Circles and arcs ○ Hexagons ○ Triangles ○ Spirals	Submission of 2nd assignment
Week 4 1/11- 5/11	Orthographic Projection • Drawing plans and elevations	
Week 5 8/11 – 12/11	• Applying drawing conventions on plans and elevations	Submission of 3rd assignment
Week 6 15/11 – 19/11	First Exam	
Week 7 22/11 – 26/11	• Drawing sections	

Week 8 29/11 – 3/12	Applying drawing conventions on sections	Submission of 4th assignment
Week 9 6/12 – 10/12	Isometric Projection - Types of Isometric drawings - Techniques of Isometric drawings	
Week 10 13/12 – 17/12	Applications on Isometric Drawings	Submission of 5th assignment
Week 11 20/12 – 24/12	Second Exam	
Week 12 27/12 – 31/12	Oblique Projection - Types of Oblique projection - Techniques of Oblique projection	
Week 13 3/1 – 7/1	Applications on Oblique Drawings	Submission of 4th assignment
Week 14 10/1 – 14/1	Revision and discussions of the covered material	
Week 15 17/1 – 21/1	Final Exam	
Week 16 24/1 – 28/1	Final Exam Submission	

Expected Workload

On average students need to spend 3 hours of applied practice for each studio session.

Attendance Policy

Classes are not optional. Absence from studio sessions shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the Faculty of Art and Design shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course. Class begins on time and students are required to be on time. Eating or headphones are not permitted during class. Cell phones must be turned off or set to silent vibrate.

Module References

- Books
 - Jensen, C. (2008), *Engineering drawing and design*, McGraw-Hill, Boston.

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- Anwani, M. L. and Anwani, I. (1994), **Basic engineering drawing**, Dhanpat Rai and Sons, Delhi. (Call number 604.2 ANW)
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