



Course Specification :Engineering Drawing PDE041



1. Basic Information

Program Title	Biomedical Engineering
Department offering the Program	Biomedical Engineering
Department Responsible for the Course	Production and Mechanical Design Engineering
Course Code	PDE041
Year/ Level	Level 000
Specialization	Minor
Prerequisite	None
Authorization data of course specification	

Teaching Hours	Lectures	Tutorial	Practical
	1	0	3

2. Course Aims

No.	Aims
1	Apply the principles of drawing and body's projection.
3	Acquire the required knowledge and skills related to design and apply them to contemporary engineering issues.

3. Intended Learning Outcomes (ILOs)

a. Knowledge and Understanding:

No.	Knowledge and Understanding
A1	Demonstrate concepts and theories of geometries appropriate to the drawing.
A12	Describe contemporary engineering topics especially new drawing tools and drawing software.

b. Intellectual Skills

No.	Intellectual Skills
B1	Select appropriate solutions for engineering drawing problems based on analytical thinking.
B4	Assess different ideas, views, and knowledge from a range of examples and exercises.

c. Professional Skills

No.	Professional Skills
C6	Apply a wide range of analytical tools and software packages related to drawing.
C11	Exchange knowledge and skills with engineering community and industry especially related to mechanical and constructional fields.

d. General Skills

No.	General Skills
D3	Communicate effectively

4. Course Contents

No.	Topics	Weeks
1	Introduction to Engineering Drawing	1-2
2	Instrumental Drawing	3-4
3	Geometric Constructions	5-6
4	Representation by Plane Images	7,9
5	Representation by Stereographic Images	10-11
6	Dimensioning	12-13
7	Intersections of Engineering Solids and Developments	14

5. Teaching and Learning Methods

No.	Teaching Method
1	Lectures



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2	Discussion Sessions
3	Practical

6. Teaching and Learning Methods for Disabled Students

No.	Teaching Method	Reason
1	Extra discussions	To allow them finish the assigned tasks

7. Student Evaluation

7.1 Student Evaluation Methods

No.	Evaluation Method	ILOs
1	Mid Term Examination	A1, A12, B4
2	Semester work	A1, A12, B1, B4, C6,C11 ,D3
3	Final exam	A1, A12, B1, B4

7.2 Evaluation Schedule

No.	Evaluation Method	Weeks
1	Mid Term Examination	8
2	Semester work	Every week
3	Final Exam	15

7.3 Weighting of Evaluations

No.	Evaluation Method	Weights
1	Mid Term Examination	20
2	Semester work	30
3	Final exam	50
Total		100%

8. List of References

No.	Reference List
1	P. Smith, Drawing for Engineering, Juta Co. Ltd., Kenwyn, 1999.
2	Branoff, Theodore J. Interpreting engineering drawings. Stamford, CT: Cengage Learning, 2014.
3	K.V. Reddy, Text Book of Engineering Drawing, BS Publications, India, 2008.
4	H. Simmons, D.E. Maguire, and N. Phelps, Manual of Engineering Drawing, Elsevier Newnes, MA, 2009.
5	Davis, Paige R., and Frederick E. Giesecke. Engineering drawing problems workbook, series 4 to accompany Technical drawing with engineering graphics [14th edition. City: Prentice Hall, 2012.

9. Facilities Required for Teaching and Learning

No.	Facility
1	Lecture Classroom
2	Lab Facilities
3	White Board
4	Data Show System
5	Sound System

10. Matrix of Knowledge and Skills of the Course



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No.	Topic	Aims	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
1	Introduction to Engineering Drawing	1	A1, A12			
2	Instrumental Drawing	1,3	A1, A12	B4		D3
3	Geometric Constructions	1,3	A1, A12	B4		D3
4	Representation by Plane Images	1,3	A12		C6	
5	Representation by Stereographic Images	1	A12			
6	Dimensioning	1	A12	B1	C6, C11	D3
7	Intersections of Engineering Solids and Developments	1,3	A1, A12	B1	C6, C11	D3

Course Coordinator: Prof. Dr.

Head of Department: Assoc. Prof. Hossam Eldeen Moustafa

Date of Approval: