



## 41 Course Specification of Civil Drawing

I. Course Identification and General Information:					
1	Course Title:	<i>Civil Drawing</i>			
2	Course Code & Number:	CE 213			
3	Credit hours:	C.H			Credit Hours
		Th.	Tu.	Pr.	Tr.
		1	2		
4	Study level/ semester at which this course is offered:	3 <sup>rd</sup> level / 2 <sup>nd</sup> semester (Sixth semester)			
5	Pre –requisite (if any):	Engineering Drawing class			
6	Co –requisite (if any):	None			
8	Program (s) in which the course is offered:	Civil Engineering			
9	Language of teaching the course:	English + Arabic			
10	Location of teaching the course:	Class room with Drawing tables			
11	Prepared By:	Lecturer: Sami Al-Haddad			
12	Date of Approval				

Prepared by Head of Department  
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Yahya Al khattabi

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## II. Course Description:

Civil drawing course aims to help students to enhance their civil drawing skills and improve their imagination needed for design and technical drawings in the field of Civil Engineering.

This course **focuses on** the detailed drawing of the different types of walls, and the different reinforced concrete sections such as: columns, beams and footings. Also, **it includes** the detailed drawing of steel structures.

III. Course Intended learning outcomes (CILOs) of the course		Referenced PILOs
a.1	Define the basic concepts of civil drawing and describe the major civil drawing plans.	A2
a.2	Describe procedures to draw plan, elevation and side view for civil engineering objects.	A3
b.1	Explore sections of plan, elevation, or side view for different civil engineering objects.	B1
c.1	Apply procedures to draw plan, elevation and side view for civil engineering objects.	C2
c.2	Employ the concepts and terminology of civil drawing in civil engineering projects.	C2
d.1	Work within teams in doing some of the assignments and communicate effectively using oral and graphical skills.	D1

### (A) Alignment Course Intended Learning Outcomes of Knowledge and Understanding to Teaching Strategies and Assessment Strategies:

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
a1- Define the basic concepts of civil drawing and describe the major civil drawing plans.	Lectures Discussion	Exam Participation

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<b>a2-</b> Describe procedures to draw plan, elevation and side view for civil engineering objects.	Lectures Discussion Tutorial – problem solving	Drawing Assignment Exam Participation
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**(B) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:**

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
<b>b1.</b> Explore sections of plan, elevation, or side view for different civil engineering objects.	Lectures Discussion Tutorial – problem solving	Drawing Assignment Exam Participation

**(C) Alignment Course Intended Learning Outcomes of Professional and Practical Skills to Teaching Strategies and Assessment Strategies:**

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
<b>c1.</b> Apply procedures to draw plan, elevation and side view for civil engineering objects.	Lectures Discussion	Drawing Assignment Exam and Participation
<b>c2.</b> Employ the concepts and terminology of civil drawing in civil engineering projects.	Lectures Discussion	Drawing Assignment Exam and Participation

**(D) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:**

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
<b>d1.</b> Work within teams in doing some of the assignments and communicate effectively using oral and graphical skills.	Lectures Discussion & problem solving	Drawing Assignment Exam and Participation

**IV. Course Content:**

**A – Theoretical Aspect:**

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Order	Units/Topics List	Learning Outcomes	Sub Topics List	Number of Weeks	Contact Hours
1	Introduction and basic concepts	a1, a2	Introduction to civil drawing. Basic concepts of civil drawing and components of civil engineering structures.	2	2
2	Bricks walls	a1, a2	Drawing plans for walls built using bricks different layouts.	1	1
3	Masonry walls	a1, a2, b1	Drawing plan, elevation, and side view for masonry walls	1	1
4	Concrete footings	a1, a2, b1	Finding the dimensions of concrete footings for different walls and drawing plan, elevation, and side view for them	1	1
5	Retaining walls	a1, a2, b1	Finding the dimensions of different types of retaining walls and drawing plan, elevation, and side view for them	1	1
6	Masonry Arches	a1, a2, b1	Drawing the different types of masonry arches	1	1
7	Masonry Arch Bridges	a1, a2, b1	Designing and drawing details (plan, elevation and side view with cross section) for masonry arch bridges	1	1
8	Details of Reinforced Concrete Sections	a1, a2, b1	Drawing of Reinforced Concrete Columns Drawing of Reinforced Concrete Beams Drawing of Reinforced Concrete Footings	3	3
9	Details of Steel Construction	a1, a2, b1	Drawing of plan, elevation and side view of steel connections and details of steel construction	3	3

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Number of Weeks /and Units Per Semester	14	14
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<b>B -Tutorial Aspect:</b>				
Order	Tasks/ Experiments	Number of Weeks	contact hours	Learning Outcomes
1	Introduction and basic concepts	1	2	c1
2	Bricks walls	1	2	c1, c2
3	Masonry walls	1	2	b1, c1, c2, d1
4	Concrete footings	1	2	b1, c1, c2, d1
5	Retaining walls	1	2	b1, c1, c2, d1
6	Masonry Arches	1	2	b1, c1, c2, d1
7	Masonry Arch Bridges	1	2	b1, c1, c2, d1
8	Details of Reinforced Concrete Sections – Columns	1	2	b1, c1, c2, d1
9	Details of Reinforced Concrete Sections – Beams	1	2	b1, c1, c2, d1
10	Details of Reinforced Concrete Sections – Footings	1	2	b1, c1, c2, d1
11	Details of Steel Construction	1	2	b1, c1, c2, d1
12	Details of Steel Construction	1	2	b1, c1, c2, d1
13	Details of Steel Construction	2	4	b1, c1, c2, d1
Number of Weeks /and Units Per Semester		14	28	

<b>V. Teaching strategies of the course:</b>	
Lectures Discussion Tutorial – problem solving	

<b>VI. Assignments:</b>				
No	Assignments	Aligned CILOs(symbols)	Week Due	Mark

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1	Drawing Assignment 1 (Bricks walls)	c1, c2	Week 4	1
2	Drawing Assignment 2 (Masonry walls)	b1, c1, c2, d1	Week 5	1.5
3	Drawing Assignment 3 (Retaining walls)	b1, c1, c2, d1	Week 7	1.5
4	Drawing Assignment 4 (Masonry Arch Bridges)	b1, c1, c2, d1	Week 9	1.5
5	Drawing Assignment 5 (R.C.Beams & Columns)	b1, c1, c2, d1	Week 12	1.5
6	Drawing Assignment 6 (R. Concrete Footings)	b1, c1, c2, d1	Week 13	1.5
7	Drawing Assignment 7 (Steel Construction)	b1, c1, c2, d1	Week 15	1.5

VII. Schedule of Assessment Tasks for Students During the Semester:					
No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Drawing Assignments (1 through 7)	4, 5, 6, 9, 11, 13, 15	10	10%	b1, c1, c2, d1
2	participation	All lectures	10	10%	a1, a2, b1, c1, c2, d1
3	Midterm Exam	9	20	20%	a1, a2, b1, c1, c2, d1
4	Final exam	16	60	60%	a1, a2, b1, c1, c2, d1
Total			100	100%	

VIII. Learning Resources:
<ul style="list-style-type: none"> <li>Written in the following order: (Author - Year of publication – Title – Edition – Place of publication – Publisher).</li> </ul>
<b>1- Required Textbook(s) (maximum two ).</b>
1- د. محمد رشاد الدين مصطفى حسين و د. محمود حسني عبد الرحيم (1985) – الرسم المدني – دار الراتب الجامعية
<b>2- Essential References.</b>
1- Jan A. Westhuizen (2017) – Drawing for Civil Engineering – 2 <sup>nd</sup> edition

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2- David L. Goetsch (2017) – Structural, Civil, Pipe Drafting
3- Handouts, notes and assignments
<b>3- Electronic Materials and Web Sites etc.</b>
1- تقنية مدنية – الرسم الانشائي – 203 مدن – المملكة العربية السعودية

<b>IX. Course Policies:</b>	
Unless otherwise stated, the normal course administration policies and rules of the Faculty of Engineering apply. For the policy, see: -----	
<b>1</b>	<b>Class Attendance:</b> The students should have more than 75% of attendance according to the rules and regulations of the Faculty of Engineering.
<b>2</b>	<b>Tardy:</b> The students should respect attending the lectures on time. They should attend within 10 minutes from starting time of the lectures.
<b>3</b>	<b>Exam Attendance/Punctuality:</b> The students should attend the exam on time. The punctuality should be implemented according to the rules and regulations of the Faculty of Engineering for both midterm exam and final exam.
<b>4</b>	<b>Assignments &amp; Projects:</b> The assignment is given to the students after finishing each major unit and they should submit it on the due date.
<b>5</b>	<b>Cheating:</b> If any cheating occurred during the examination, the student is not allowed to continue the exam and he/she has to face the examination committee for <b>enquiries</b> .
<b>6</b>	<b>Plagiarism:</b> The student will be terminated from the faculty, if he/she attends the exam on behalf of another student according to the policy, rules and regulations of the university.
<b>7</b>	<b>Other policies:</b> All the teaching materials should be kept out of the examination hall. All mobile/cell phones are not allowed when the student attends the exam. Students should deal with their professors with respect and they should maintain professional attitude.

<b>Reviewed By</b>	<b><u>Vice Dean for Academic Affairs and Post Graduate Studies</u></b>
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Prepared by	Head of Department Dr. Abdulkareem Yahya Al khattabi	Quality Assurance Unit Ass. Prof. Dr. Mohammad Algorafi	Dean of the Faculty Prof. Dr. Mohammed AL-Bukhaiti	Academic Development Center & Quality Assurance Ass. Prof. Dr. Huda Al-Emad
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	<b><u>Dr. Tarek A. Barakat</u></b> <b><u>Dr. Mohammad Algorafi</u></b>
	<b><u>Deputy Rector for Academic Affairs Dr. Ibrahim AlMutaa</u></b> <b><u>Dr. Ahmed mujahed</u></b> <b><u>Dr. Munaser Alsubri</u></b>

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## Course Plan (Syllabus) of Civil Drawing

I. Information about Faculty Member Responsible for the Course:						
Name of Faculty Member	Lecturer: Sami Ali Al-Haddad	Office Hours				
Location & Telephone No.	Sana'a (772001622)	SAT	SUN	MON	TUE	WED
E-mail	<a href="mailto:samialhaddad@gmail.com">samialhaddad@gmail.com</a>					

II. Course Identification and General Information:						
1-	Course Title:	Civil Drawing				
2-	Course Number & Code:	CE 213				
3-	Credit hours:	C.H				Credit Hours
		Th.	Tu.	Pr.	Tr.	
		1	2			
4-	Study level/year at which this course is offered:	3rd level / 2nd semester (Sixth semester)				
5-	Pre –requisite (if any):	Engineering Drawing class				
6-	Co –requisite (if any):	None				
7-	Program (s) in which the course is offered	Civil Engineering				
8-	Language of teaching the course:	English + Arabic				
9-	System of Study:	Regular				
10-	Mode of delivery:	Lecture				
11-	Location of teaching the course:	Class room with drawing tables				

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### III. Course Description:

Civil drawing course aims to help students to enhance their civil drawing skills and improve their imagination needed for design and technical drawings in the field of Civil Engineering.

This course **focuses on the** detailed drawing of the different types of walls, and the different reinforced concrete sections such as: columns, beams and footings. Also, **it includes** the detailed drawing of steel structures.

### IV. Intended learning outcomes (ILOs) of the course:

- Brief summary of the knowledge or skills the course is intended to develop:**

- a.1** Define the basic concepts of civil drawing and describe the major civil drawing plans.  
A2
- a.2** Describe procedures to draw plan, elevation and side view for civil engineering objects.  
A3
- b.1** Explore sections of plan, elevation, or side view for different civil engineering objects.  
B1
- c.1** Apply procedures to draw plan, elevation and side view for civil engineering objects.  
C2
- c.2** Employ the concepts and terminology of civil drawing in civil engineering projects.  
C2
- d.1** Work within teams in doing some of the assignments and communicate effectively using oral and graphical skills. D1

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## V.Course Content:

- Distribution of Semester Weekly Plan Of course Topics/Items and Activities.

### A – Theoretical Aspect:

Order	Topics List	Sub Topics List	Week Due	Contact Hours
1	Introduction and basic concepts	Introduction to civil drawing. Basic concepts of civil drawing and components of civil engineering structures.	1,2	2
2	Bricks walls	Drawing plans for walls built using bricks different layouts.	3	1
3	Masonry walls	Drawing plan, elevation, and side view for masonry walls	4	1
4	Concrete footings	Finding the dimensions of concrete footings for different walls and drawing plan, elevation, and side view for them	5	1
5	Retaining walls	Finding the dimensions of different types of retaining walls and drawing plan, elevation, and side view for them	6	1
6	Masonry Arches	Drawing the different types of masonry arches	7	1
7	Mid-term Exam		8	1
8	Masonry Arch Bridges	Designing and drawing details (plan, elevation and side view with cross section) for masonry arch bridges	9	1
9	Details of Reinforced Concrete Sections	Drawing of Reinforced Concrete Columns Drawing of Reinforced Concrete Beams Drawing of Reinforced Concrete Footings	10,11,12	3
10	Details of Steel Construction	Drawing of plan, elevation and side view of steel connections and details of steel construction	13,14,15	3
11	Final Exam		16	1
Number of Weeks /and Units Per Semester			16	16

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<b>B -Tutorial Aspect:</b>			
<b>Order</b>	<b>Topics List</b>	<b>Week Due</b>	<b>Contact Hours</b>
1	Introduction and basic concepts	1	2
2	Bricks walls	2	2
3	Masonry walls	3	2
4	Concrete footings	4	2
5	Retaining walls	5	2
6	Masonry Arches	6	2
7	Masonry Arch Bridges	7	2
8	Details of Reinforced Concrete Sections – Columns	8	2
9	Details of Reinforced Concrete Sections – Beams	9	2
10	Details of Reinforced Concrete Sections – Footings	10	2
11	Details of Steel Construction	11	2
12	Details of Steel Construction	12	2
13	Details of Steel Construction	13,14	4
<b>Number of Weeks /and Units Per Semester</b>		<b>14</b>	<b>28</b>

<b>VI. Teaching strategies of the course:</b>
Lectures Discussion Tutorial – Problem solving

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VII. Assignments:				
No	Assignments	Aligned CILOs(symbols)	Week Due	Mar k
1	Drawing Assignment 1 (Bricks walls)	c1, c2	Week 4	1
2	Drawing Assignment 2 (Masonry walls)	b1, c1, c2, d1	Week 5	1.5
3	Drawing Assignment 3 (Retaining walls)	b1, c1, c2, d1	Week 7	1.5
4	Drawing Assignment 4 (Masonry Arch Bridges)	b1, c1, c2, d1	Week 9	1.5
5	Drawing Assignment 5 (R.C.Beams & Columns)	b1, c1, c2, d1	Week 12	1.5
6	Drawing Assignment 6 (R. Concrete Footings)	b1, c1, c2, d1	Week 13	1.5
7	Drawing Assignment 7 (Steel Construction)	b1, c1, c2, d1	Week 15	1.5

VIII. Schedule of Assessment Tasks for Students During the Semester:				
Asses sment	Type of Assessment Tasks	Week Due	Mark	Proportion of Final Assessment
1	Drawing Assignments (1 through 7)	W4, W5, W7, W9, W12, W13, W15	10	10%
2	participation	All lectures	10	10%
3	Midterm Exam	9	20	20%
4	Final Exam	16	60	60%
<b>Total</b>			<b>100</b>	<b>100%</b>

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## IX. Learning Resources:

- Written in the following order: (Author - Year of publication – Title – Edition – Place of publication – Publisher).

### 1- Required Textbook(s) ( maximum two ).

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### 2- Essential References.

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- 3- Handouts, notes and assignments

### 3- Electronic Materials and Web Sites *etc.*

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<b>4</b>	<b>Assignments &amp; Projects:</b> - The assignment is given to the students after finishing each major unit and they should submit it on the due date.
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