Philadelphia University

Faculty of Engineering and Technology
Department of Civil Engineering
First Semester 2025/2026

Course Details:

Title:	Statics (0670211)
Prerequisite:	Calculus II (0250102)
Credit Hours:	3 credit hours (15 weeks per semester, approximately 45 contact hours)
Textbook:	Engineering Mechanics – Statics, SI Edition, 13th edition, Vol. 1, R. C. Hibbeler and Kai Beng Yap, PEARSON, 2013
References:	Engineering Mechanics – Statics, 7th edition, Vol. 1, J. L. Meriam and L.G. Kraige, John Wiley and Sons, 2012 Engineering Mechanics – Statics, 3rd edition, A. Pytel and J. Kiusalaas, Cengage Learning, 2010.
Course Description:	The main purpose of this course is to provide the student with a clear view of the theory and applications of engineering mechanics. This includes the force vector, force system resultants, free body diagram of forces and equilibrium of particles and rigid bodies, moment of a force about a point and about an axis, equilibrium of rigid bodies, analysis of trusses and frames, shear forces and bending moment diagrams, center of area and moment of inertia of a composite area.
Website:	http://www.philadelphia.edu.jo/academics/salkhawaldeh/
Instructor:	Dr.Amged Osman Abdelatif **Email**:a.mohammed@ philadelphia.edu.jo **Office**: Engineering Building, Room E724 **Class hours**: Sun, Tues: 09:45- 11:00 **Classroom:** 6701 **Office hours**: Sat, Tues: 12:00 - 13:00

Course Outlines:

Week	Topic
1 , 2	Introduction (general principles)
3 , 4	Force vectors
5 , 6	Equilibrium of a particle
7 , 8 , 9	Force system resultants
10 , 11	Equilibrium of a rigid body
12 , 13	Structural analysis of Trusses
14 , 15	Internal forces (Shear and moment diagrams)

Course Learning Outcomes with reference to ABET Student Outcomes:

Upon successful completion of this course, student should:

1.	Understand force vector, components and resultants.	[1, 6 , 7]
2.	Determine the moment of a force about a point.	[1, 6 , 7]
3.	Replace and move forces out of their line of action	[1, 6 , 7]
4.	Calculate the reactions of a rigid body	[1, 6, 7]
5.	Perform analysis of trusses and frames	[1, 6, 7]
6.	Draw shear and moment diagrams of a beam	[1, 6, 7]

Assessment Guidance:

Evaluation of the student performance during the semester (total final mark) will be conducted according to the following activities:

Sub-Exams:	The students will be subjected to one scheduled midterm exam during the semester. This exam will cover materials given in lectures in the previous 3-4 weeks.
Quizzes:	(2-4) Quizzes of (15-20) minutes will be conducted during the semester. The materials of the quizzes are set by the lecturer.
Homework and projects:	Tutorials sheets will be handed out to the students and homework should be solved individually and submitted before or on a set agreed date. Cheating by copying homework from others is strictly forbidden and punishable by awarding the work with zero mark.
Collective Participation:	Brainstorming and collective discussions will be carried out during any lecture. Individual student will be assessed accordingly.
Final Exam:	The students will undergo a scheduled final exam at the end of the semester covering the whole materials taught in the course.

Grading policy:

Midterm Exam	30%
Semester works	30%
Final Exam	40%
Total:	100%

Attendance Regulation:

The semester has in total 45 credit hours. Total absence hours from classes and tutorials must not exceed 15% of the total credit hours. Exceeding this limit without a medical or emergency excuse approved by the deanship will prohibit the student from sitting the final exam and a zero mark will be recorded for the course. If the excuse is approved by the deanship the student will be considered withdrawn from the course.

Philadelphia University

Faculty of Engineering & Tech. - Civil Engineering Department
Second Semester 2025/2026

Course Details:

Title:	Surveying ,0670261
Prerequisite:	250102
Credit Hours:	3 credit hours (16 weeks per semester, approximately 45 contact hours)
Textbook:	Elementary surveying. 12th edition Galini and Wolf (USA 2008).
References:	Surveying principles and practices, 5th edition , Nathenson,Lanzafama and Kissam,USA 2005
Course Description:	The course is a requirement for all Civil Engineering students. It introduces the basic principles of fundamentals of surveying. Principle of surveying , distance measurements (direct , optical and electronic methods), leveling ; contouring , angle measurements, traverse survey ,coordinate geometry , areas and volumes, setting out horizontal and vertical curves.
Website:	http://www.philadelphia.edu.jo
Instructor:	Dr. Ala Obaidat **Email**: aobaidat@philadelphia.edu.jo **Class hours**: Sun, Tue: 09:45-11:00 **Office hours**: Sat, Mon: 09:00-11:00 and 12:00-13:00 Sun, Tue: 13:00-15:00

Course Outlines:

Week	Topic
1	Introduction
2	Distance Measurements
3	Directions
4	Angles
5,6,7	Traverse &Applications (Open, Closed, Loop and ,Link)
8,9	Leveling , Methods & Applications
10,11	Contouring
12,13	Cross Sections
14,15	Earth Works Computations
16	General Review, and Final Examination

Course Learning Outcomes with reference to ABET Student Outcomes:

Upon successful completion of this course, student should:

1.	Be able to learn the basic of surveying equipment	[1, 2,]
2.	Recognize and apply trigonometric formulas to solve variety of practical problems	[2, 6]
3.	Learn value of measurements	[1 ,2, 6]
4.	Ability to solve most of the surveying problems	[1 , 2]
5.	Analyzing surveying data effectively	[1 , 2 ,6]
6.	Determine and define results	[1]

Assessment Guidance:

Evaluation of the student performance during the semester (Total Final Grade) will be conducted according to the following activities:

Sub-Exams: The students will be subjected to two scheduled written exams, first exam and second exam during the semester. Each exam will cover materials given in lectures in the previous 4 – 5 weeks.

Quizzes: (3-5) quizzes of (10-15) minutes will be conducted during the semester. The materials of the quizzes are set by the lecturer.

Homework and projects: Tutorials sheets will be handed out to the students and homework should be solved individually and submitted before or on a set agreed date. Student may be assigned to present project(s).

Cheating by copying homework from others is strictly forbidden and punishable by awarding the work with zero mark.

Collective Participation: Brain storming and collective discussions will be carried out during any lecture. Individual student will be assessed accordingly.

Final Exam: The students will undergo a scheduled final exam at the end of the semester covering the whole materials taught in the course.

Grading policy:

Mid Term Exam	30%
Quizzes and participation	30%
Final Exam	40%
Total:	100%

Attendance Regulation:

The semester has in total 45 credit hours. Total absence hours from classes and tutorials must not exceed 15% of the total credit hours. Exceeding this limit without a medical or emergency excuse approved by the deanship will prohibit the student from sitting the final exam and a zero mark will be recorded for the course. If the excuse is approved by the deanship the student will be considered withdrawn from the course.

Jan, 2026

Philadelphia University

Faculty of Engineering & Technology

Department of Civil Engineering

Second Semester 2025/2026

Course Information

Course Title:	**0670261, Surveying**
Prerequisite:	250102, Calculus 2
Credit Hours:	3 credit hrs
Textbook:	Elementary surveying. 12th edition Galini and Wolf (USA 2008).
References:	Structural Analysis- 8th edition, by R.C Hibbeler, Pearson Prentice Hall; 2012
Website:	Surveying principles and practices, 5th edition , Nathenson,Lanzafama and Kissam,USA 2005
Course Description:	The course is a requirement for all Civil Engineering students. It introduces the basic principles of fundamentals of surveying. Principle of surveying , distance measurements (direct , optical and electronic methods), leveling ; contouring , angle measurements, traverse survey ,coordinate geometry , areas and volumes, setting out horizontal and vertical curves.
Instructors:	Dr. Ala' T. Obaidat
Course Coordinator:	Dr. Ala' T. Obaidat
Technology Requirements:	• Personal computer, laptop, or mobile phone. • Internet Connection. • Access to Philadelphia University E-Learning Portal (MS Teams and Moodle)
Learning Style:	Face to face
Communication:	• Announcement: the announcements will be posted in MS Teams or Moodle on a regular basis. • Email. • MS Teams or Moodle chats.
Course Objectives:	1. Be able to learn the basic of surveying equipment 2. Recognize and apply trigonometric formulas to solve variety of practical problems 3. Learn value of measurements 4. Ability to solve most of the surveying problems 5. Analyzing surveying data effectively 6. Determine and define results

Course Learning Outcomes (CLO) and Relation to ABET Student Outcomes		
CLOs	**Outcomes**	**ABET PLOs**
K1,K2,K4	المعرفة والفهم للرياضيات اللازمة لتوضيح المفاهيم الفيزيائية وتطبيقها على الهندسة المدنية . معرفة المفاهيم والمبادئ والنظريات الأساسية للعلوم الهندسية ذات الصلة بالهندسة المدنية معرفة وفهم الطرق التحليلية والتصميمية المستخدمة في الهندسة المدنية والإنشائية، و استخدام التكنولوجيا والحساب للتحليل والتصميم والإدارة.	[1, 2]

K3,K4	التعرف على المعدات والأدوات المخبرية المستخدمة لأجراء التجارب وجمع البيانات . معرفة وفهم الطرق التحليلية والتصميمية المستخدمة في الهندسة المدنية والإنشائية، و استخدام التكنولوجيا والحساب للتحليل والتصميم والإدارة	[2, 6]
K1,K2,K3,K4	المعرفة والفهم للرياضيات اللازمة لتوضيح المفاهيم الفيزيائية وتطبيقها على الهندسة المدنية . معرفة المفاهيم والمبادئ والنظريات الأساسية للعلوم الهندسية ذات الصلة بالهندسة المدنية التعرف على المعدات والأدوات المخبرية المستخدمة لأجراء التجارب وجمع البيانات . معرفة وفهم الطرق التحليلية والتصميمية المستخدمة في الهندسة المدنية والإنشائية، و استخدام التكنولوجيا والحساب للتحليل والتصميم والإدارة	[1 ,2, 6]
K1,K2,K4	المعرفة والفهم للرياضيات اللازمة لتوضيح المفاهيم الفيزيائية وتطبيقها على الهندسة المدنية . معرفة المفاهيم والمبادئ والنظريات الأساسية للعلوم الهندسية ذات الصلة بالهندسة المدنية معرفة وفهم الطرق التحليلية والتصميمية المستخدمة في الهندسة المدنية والإنشائية، و استخدام التكنولوجيا والحساب للتحليل والتصميم والإدارة.	[1 , 2]
K1,K2,K3,K4	المعرفة والفهم للرياضيات اللازمة لتوضيح المفاهيم الفيزيائية وتطبيقها على الهندسة المدنية . معرفة المفاهيم والمبادئ والنظريات الأساسية للعلوم الهندسية ذات الصلة بالهندسة المدنية التعرف على المعدات والأدوات المخبرية المستخدمة لأجراء التجارب وجمع البيانات . معرفة وفهم الطرق التحليلية والتصميمية المستخدمة في الهندسة المدنية والإنشائية، و استخدام التكنولوجيا والحساب للتحليل والتصميم والإدارة	[1 , 2 ,6]
K1,K2	المعرفة والفهم للرياضيات اللازمة لتوضيح المفاهيم الفيزيائية وتطبيقها على الهندسة المدنية . معرفة المفاهيم والمبادئ والنظريات الأساسية للعلوم الهندسية ذات الصلة بالهندسة المدنية	[1]

Grading Policy and Assessment Instruments

Graded Item	**Marks**	**Topic (s)**	**CLO(s)**	**Learning Portal** (Teams/ Moodle/ F2F/ Others)	**Week**
Quiz 1	5%	Distance Measurements	K1, K2	F2F	3
Quiz 2	5%	Traverse &Applications (Open, Closed, Loop and ,Link)	K1, K2	F2F	10
Quiz 2	5%	Leveling , Methods & Applications	K1,K2	F2F	12
H.W	5%	Contouring	K1,K2,K3,K4	Team	14
Project	10%	Cross Sections Earth Works Computations	K1,K2,K3,K4	Teams	12
Mid Exam	30%	Weeks 1-8	K1,K2,K3,K4	F2F	8
Final Exam	40%	Week 1-15	K1,K2,K3,K4	F2F	16
Total Marks	**100%**				
Notes:	• Two written exams will be given. • Copying homework is forbidden, any student caught copying the homework or any part of the homework will receive zero marks for that homework. • Quizzes: 10-minute quizzes will be given to the students during the semester. These quizzes will cover material discussed during the previous lecture(s). • Homework: Problem sets will be given to students. Homework should be solved individually and submitted before the due date. • One project and one report will be assigned, each has a specific subject. • The final exam will cover all the class material.				

Course Content: Learning Resources/ References/ Activities/ Assessment Methods							
Week	**Lecture**	**Topic**	**CLOs**	**Learning Resources/ References/ Activities/ Assessment Method**	**Learning Style** (F2F, Synchronous, Asynchronous)	**Learning & Teaching Methods**	**Assessment Method**
1	L1	Introduction	K1	Text book	F2F	PPT in class	Mid
	L2	Introduction	K1	Text book	F2F	PPT in class	Mid
2	**L1**	Introduction	K2	Text book	F2F	PPT in class	Quiz 1, Mid
	L2	Distance Measurements	K1,K2,K3,K4	Text book	F2F	PPT in class	Quiz 1, Mid
3	**L1**	Distance Measurements	K1,K2,K3,K4	Text book	F2F	PPT in class	Mid
	L2	Distance Measurements	K1,K2,K3,K4	Text book	F2F	PPT in class	Mid
4	**L1**	Distance Measurements	K1,K2,K3,K4	Text book	F2F	PPT in class	Mid
	L2	Distance Measurements	K1,K2,K3,K4	Text book	F2F	PPT in class	Mid
5	**L1**	Directions	K1,K2,K3,K4	Text book	F2F	PPT in class	Mid
	L2	Directions	K1,K2,K3,K4	Text book	F2F	PPT in class	Mid
6	**L1**	Directions	K1,K2,K3,K4	Text book	F2F	PPT in class	Quiz 2, Mid
	L2	Directions	K1,K2,K3,K4	Text book	F2F	PPT in class	Mid
7	**L1**	Angles	K2,K3K4	Text book	F2F	PPT in class	Final
	L2	Angles	K2,K3K4	Text book	F2F	PPT in class	Final
8	**L1**	Angles	K2,K3K4	Text book	F2F	PPT in class	Final
	L2	Traverse &Applications (Open, Closed, Loop and ,Link	K2,K3K4	Text book	F2F	PPT in class	Final
9	**L1**	Traverse &Applications (Open, Closed, Loop	K2,K3K4	Text book	F2F	PPT in class	Final, Project

		and ,Link					
	L2	Traverse &Applications (Open, Closed, Loop and ,Link	K2,K3K4	Text book	F2F	PPT in class	Final, Project
10	**L1**	Leveling , Methods & Applications	K2,K4	Text book	F2F	PPT in class	Final
	L2	Leveling , Methods & Applications	K1,K2	Text book	F2F	PPT in class	Final
11	**L1**	Leveling , Methods & Applications	K1,K2	Text book	F2F	PPT in class	Final
	L2	Contouring	K1,K2	Text book	F2F	PPT in class	Final
12	**L1**	Contouring	K1,K2	Text book	F2F	PPT in class	Final
	L2	Cross Sections	K1,K2	Text book	F2F	PPT in class	Final
13	**L1**	Cross Sections	K1,K2	Text book	F2F	PPT in class	Final
	L2	Cross Sections	K1,K2	Text book	F2F	PPT in class	Final
14	**L1**	Earth Works Computations	K1,K2	Text book	F2F	PPT in class	Final
	L2	Earth Works Computations	K1,K2	Text book	F2F	PPT in class	Final
15	**L1**	Earth Works Computations	K1,K2	Text book	F2F	PPT in class	Final
	L2	Earth Works Computations	K1,K2	Text book	F2F	PPT in class	Final

Notes:
For F2F Courses: L1 & L2 each 1.5 hour.
For Blended and Online Course: L1 and L2 each 1hours.

Credit Hours Distribution Report	
Learning Style	**Credit Hours**
F2F	48
Synchronous	0
Asynchronous	0
Total	48

Academic Honesty/ Student Conduct	○ As a student at Philadelphia University, you are expected to follow the university regulations and guidelines for academic honesty/student conduct found in student handbook. ○ This means that you should not cheat, plagiarize and let another student use your account in LMS learning portals.
Attendance Policy	Absence from classes and/or tutorials 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 relevant college/faculty, 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.

January, 2026

Philadelphia University

Faculty of Engineering and Technology
Department of Civil Engineering
Second Semester 2025/2026

Course Details:

Title:	Structures 1 (0670311)
Prerequisite:	Strength of materials (0670212)
Credit Hours:	3 credit hours (15 weeks per semester, approximately 45 contact hours)
Textbook:	Structural Analysis- 8th edition, by R.C Hibbeler, Pearson Prentice Hall; 2012
References:	Fundamentals of Structural analysis-2nd edition, by K.M. Leet, McGraw Hill, 2005
Course Description:	Classification of Structures and Loads; Analysis of Statically Determinate Structures and Trusses (Idealized Structures, Principal of Superposition, Equations of Equilibrium, Determinacy and Stability, Application of the Equations of Equilibrium, Common Types of Trusses, Classification of Coplanar Trusses, and Methods of Joints and Sections), Internal Loadings Developed in Structural Members (Internal Loadings at a Specified Point, Shear and Moment Functions, Shear and Moment Diagrams for Beams and Frames, and Moment Diagrams Constructed by the Method of Superposition); Influence Lines for Statically Determinate Structures (Influence Lines for Beams, Qualitative Influence Lines, Influence Lines for Trusses, and Maximum Influence at a Point due to a Series of Concentrated Loads); Deflections (Deflection Diagrams and the Elastic Curve, Elastic-Beam Theory, The Double Integration Method, Moment-Area Theorems, Conjugate-Beam Method); Deflections Using Energy Methods.
Website:	http://www.philadelphia.edu.jo/academics/aobaidat/
Instructor:	Dr. Ala Obaidat **Email**: aobaidat@philadelphia.edu.jo **Class hours**: Sun, Tue: 11:15-12:30 **Office hours**: Sat, Mon: 09:00-11:00 and 12:00-13:00 Sun, Tue: 13:00-15:00

Course Outlines:

Week	Topic
1	Introduction
2	Chapter 1: Classification of structures and loads
3,4	Chapter 2: Analysis of statically determinate structures (equilibrium, superposition and determinacy)
5,6	Chapter 3: Analysis of statically determinate trusses
7,8	Chapter 4: Internal loadings in structural members
10,11	Chapter 8: Deflections
12,13	Chapter 9: Deflections using energy methods
14,15	Chapter 6: Influence lines for determinate structures

Course Learning Outcomes with reference to ABET Student Outcomes:

Upon successful completion of this course, student should:

1.	Provide a thorough understanding and practical applications of structural analysis theories	[1]
2.	Develop the skills to analyze the behavior and response of structures to various loads and constraints.	[1]
3.	Analyze determinate structures (truss, beam and frame) under various loading conditions.	[1, 2]
4.	Determine internal loads (axial, shear and moment) in structural members using equilibrium and compatibility equations.	[1 , 2]
5.	Determine reactions and internal loading in structural elements due to moving (dynamic) loads.	[1 , 2]
6.	Employ deflection methods for calculation of deflection.	[1, 2]

Assessment Guidance:

Evaluation of the student performance during the semester (total final mark) will be conducted according to the following activities:

Sub-Exams: The students will be subjected to two scheduled written exams, first exam and second exam during the semester. Each exam will cover materials given in lectures in the previous 3-4 weeks.

Quizzes: (3-5) quizzes of (10-15) minutes will be conducted during the semester. The materials of the quizzes are set by the lecturer.

Homework: Tutorials sheets will be handed out to the students and homework should be solved individually and submitted before or on a set agreed date.

Cheating by copying homework from others is strictly forbidden and punishable by awarding the work with zero mark.

Collective Participation: Brain storming and collective discussions will be carried out during any lecture. Individual studentwill be assessed accordingly.

Final Exam: The students will undergo a scheduled final exam at the end of the semester covering the whole materials taught in the course.

Grading policy:

First Exam	20%
Second Exam	20%
Homework and Quizzes	20%
Final Exam	40%
Total:	100%

Attendance Regulation:

The semester has in total 45 credit hours. Total absence hours from classes and tutorials must not exceed 15% of the total credit hours. Exceeding this limit without a medical or emergency excuse approved by the deanship will prohibit the student from sitting the final exam and a zero mark will be recorded for the course. If the excuse is approved by the deanship the student will be considered withdrawn from the course.

Philadelphia University

Faculty of Engineering & Technology

Department of Civil Engineering

Second Semester 2025/20026

Course Information

Course Title:	**Structure one**
Prerequisite:	Strength of Materials
Credit Hours:	3 credit hrs
Textbook:	Structural Analysis- 8th edition, by R.C Hibbeler, Pearson Prentice Hall; 2012
References:	Fundamentals of Structural analysis-2nd edition, by K.M. Leet, McGraw Hill, 2005
Website:	https://www.philadelphia.edu.jo/academics/aobaidat/
Course Description:	Classification of Structures and Loads; Analysis of Statically Determinate Structures and Trusses (Idealized Structures, Principal of Superposition, Equations of Equilibrium, Determinacy and Stability, Application of the Equations of Equilibrium, Common Types of Trusses, Classification of Coplanar Trusses, and Methods of Joints and Sections), Internal Loadings Developed in Structural Members (Internal Loadings at a Specified Point, Shear and Moment Functions, Shear and Moment Diagrams for Beams and Frames, and Moment Diagrams Constructed by the Method of Superposition); Influence Lines for Statically Determinate Structures (Influence Lines for Beams, Qualitative Influence Lines, Influence Lines for Trusses, and Maximum Influence at a Point due to a Series of Concentrated Loads); Deflections (Deflection Diagrams and the Elastic Curve, Elastic-Beam Theory, The Double Integration Method, Moment-Area Theorems, Conjugate-Beam Method); Deflections Using Energy Methods
Instructors:	Dr. Ala' T. Obaidat
Course Coordinator:	Dr. Ala' T. Obaidat
Technology Requirements:	• Personal computer, laptop, or mobile phone. • Internet Connection. • Access to Philadelphia University E-Learning Portal (MS Teams and Moodle)
Learning Style:	Face to face
Communication:	• Announcement: the announcements will be posted in MS Teams or Moodle on a regular basis. • Email. • MS Teams or Moodle chats.
Course Objectives:	• Provide a thorough understanding and practical applications of structural analysis theories • Develop the skills to analyze the behavior and response of structures to various loads and constraints. • Analyze determinate structures (truss, beam and frame) under various loading conditions. • Determine internal loads (axial, shear and moment) in structural members using equilibrium and compatibility equations. • Determine reactions and internal loading in structural elements due to moving (dynamic) loads. • Employ deflection methods for calculation of deflection.

Course Learning Outcomes (CLO) and Relation to ABET Student Outcomes

CLOs	Outcomes	ABET PLOs
K1	المعرفة والفهم للرياضيات اللازمة لتوضيح المفاهيم الفيزيائية وتطبيقها على الهندسة المدنية	1
K2	معرفة المفاهيم والمبادئ والنظريات الأساسية للعلوم الهندسية ذات الصلة بالهندسة المدنية	1
S1	معرفة وفهم الطرق التحليلية والتصميمية المستخدمة في الهندسة المدنية والإنشائية، و استخدام التكنولوجيا والحساب للتحليل والتصميم والإدارة	1,2
K4	معرفة وفهم الطرق التحليلية والتصميمية المستخدمة في الهندسة المدنية والإنشائية، و استخدام التكنولوجيا والحساب للتحليل والتصميم والإدارة	1,2
K2	التعرف والتعامل بطرق منطقية مع القضايا الأخلاقية في مشاريع الهندسة المدنية	1,2
S1	توسيع فهم مبادئ الهندسة المدنية وتطبيقها لحل المشاكل الهندسية والتعامل معها ، والقدرة على تقييم المعيقات والمحددات في حالات معينة	1,2

Grading Policy and Assessment Instruments

Graded Item	Marks	Topic (s)	CLO(s)	Learning Portal (Teams/ Moodle/ F2F/ Others)	Week
Quiz 1	5%	Analysis of statically determinate structures	K1, K2	F2F	3
Quiz 2	5%	Analysis of statically determinate trusses	K1, K2	F2F	10
Quiz 2	5%	Shear moment diagrams	K1,K2	F2F	12
H.W	5%	Analysis of structure	K2, S1,C2	Team	14
Project	10%	Shear moment diagrams and deflection for Frame	K4,S1	Teams	12
Mid Exam	30%	Weeks 1-8	K2, C2	F2F	8
Final Exam	40%	Week 1-15	K2, S1,C2	F2F	16
Total Marks	**100%**				
Notes:	• Two written exams will be given. • Copying homework is forbidden, any student caught copying the homework or any part of the homework will receive zero marks for that homework. • Quizzes: 10-minute quizzes will be given to the students during the semester. These quizzes will cover material discussed during the previous lecture(s). • Homework: Problem sets will be given to students. Homework should be solved individually and submitted before the due date. • One project and one report will be assigned, each has a specific subject. • The final exam will cover all the class material.				

Course Content: Learning Resources/ References/ Activities/ Assessment Methods

Week	Lecture	Topic	CLOs	Learning Resources/ References/ Activities/ Assessment Method	Learning Style (F2F, Synchronous, Asynchronous)	Learning & Teaching Methods	Assessment Method
1	L1	1- Chapter 1-Introduction	K1	Text book	F2F	PPT in class	Mid
	L2	2- Determinacy	K1	Text book	F2F	PPT in class	Mid
2	L1	2- Determinacy	K2	Text book	F2F	PPT in class	Quiz 1, Mid
	L2	3- Sign conventions and Types of Structures	K2	Text book	F2F	PPT in class	Quiz 1, Mid
3	L1	3- Sign conventions and Types of Structures	K2	Text book	F2F	PPT in class	Mid
	L2	4- Determinacy of Structures and Idealized Structures	K2	Text book	F2F	PPT in class	Mid
4	L1	4- Determinacy of Structures and Idealized Structures	K2	Text book	F2F	PPT in class	Mid
	L2	5- Application of Equilibrium Equations	K2,S1	Text book	F2F	PPT in class	Mid
5	L1	5- Application of Equilibrium Equations	K2,S1	Text book	F2F	PPT in class	Mid
	L2	6- Internal Loading Developed in Structural members	K2,S2	Text book	F2F	PPT in class	Mid
6	L1	6- Internal Loading Developed in Structural members	K2,S1	Text book	F2F	PPT in class	Quiz 2, Mid
	L2	7-Shear-Moment Daigrams for Beams	K2,S1	Text book	F2F	PPT in class	Mid
7	L1	7-Shear-Moment Daigrams for Beams	K2,S2	Text book	F2F	PPT in class	Final
	L2	7-Shear-Moment Daigrams for Beams	K2,C2	Text book	F2F	PPT in class	Final
8	L1	8- Trusses	K2,S1	Text book	F2F	PPT in class	Final
	L2	8- Trusses	K2,S1	Text book	F2F	PPT in class	Final
9	L1	9- Cables and Arches	K2,S2	Text book	F2F	PPT in class	Final, Project
	L2	10- Deflection - Conjugate Beam Method	K2,C2	Text book	F2F	PPT in class	Final, Project
10	L1	10- Deflection - Conjugate Beam Method	K2,S1	Text book	F2F	PPT in class	Final
	L2	11- Deflection - Vertiual work mothod-Truss	K2,S1	Text book	F2F	PPT in class	Final

11	**L1**	12- Deflection - Vertiual work mothod-Beams and Frames	K2,S2	Text book	F2F	PPT in class	Final
	L2	12- Deflection - Vertiual work mothod-Beams and Frames	K2,C2	Text book	F2F	PPT in class	Final
12	**L1**	12- Deflection - Vertiual work mothod-Beams and Frames	K2,S1	Text book	F2F	PPT in class	Final
	L2	13- Deflection - Virtual Strain Energy Caused by Axial Load, Shear, Torsion, and Temperature	K2,S1	Text book	F2F	PPT in class	Final
13	**L1**	13- Deflection - Virtual Strain Energy Caused by Axial Load, Shear, Torsion, and Temperature	K2,S2	Text book	F2F	PPT in class	Final
	L2	14- Influence lines	K2,C2	Text book	F2F	PPT in class	Final
14	**L1**	14- Influence lines	K2,S1	Text book	F2F	PPT in class	Final
	L2	15- Influence lines-Floor Girder	K2,S1	Text book	F2F	PPT in class	Final
15	**L1**	16- Influence lines-Trusses	K2,S2	Text book	F2F	PPT in class	Final
	L2	Questions	K2,C2	Text book	F2F	PPT in class	Final

Notes:
For F2F Courses: L1 & L2 each 1.5 hour.
For Blended and Online Course: L1 and L2 each 1hours.

Credit Hours Distribution Report	
Learning Style	**Credit Hours**
F2F	48
Synchronous	0
Asynchronous	0
Total	48

Academic Honesty/ Student Conduct	○ As a student at Philadelphia University, you are expected to follow the university regulations and guidelines for academic honesty/student conduct found in student handbook. ○ This means that you should not cheat, plagiarize and let another student use your account in LMS learning portals.
Attendance Policy	Absence from classes and/or tutorials 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 relevant college/faculty, 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.

January 2026

Philadelphia University

Faculty of Engineering and Technology
Department of Civil Engineering
1st Semester 2025/2026

Course Details:

Title:	Structure II (0670312)
Prerequisite:	Structure I (0670311)
Credit Hours:	3 credit hours (16 weeks per semester, approximately 44 contact hours)
Textbook:	Structural Analysis- 8th edition, by R.C Hibbeler, Pearson Prentice Hall; 2012
References:	Fundamentals of Structural analysis-2nd edition, by K.M. Leet, McGraw Hill, 2005
Course Description:	Analyzing the statically indeterminate beams, trusses and frames using the force method. Analyzing the statically indeterminate beams and frames using displacement methods: slope-deflection method and moment distribution method. Analyzing of trusses and beams using the stiffness method.
Website:	http://www.philadelphia.edu.jo/academics/salkhawaldeh/
Instructor:	Dr. Sawsan Alkhawaldeh **Email**: salkhawaldeh@ philadelphia.edu.jo **Office**: Engineering building **Class hours**: Sat, Mon: 11:15-12:30 **Classroom:** 6704 **Office hours:** Sat, Mon: 12:30-13:30 Sun, Tues: 10:00-11:00

Course Outlines:

Week	Topic
1, 2, 3	Analysis of Statically Indeterminate Structures by the Force Method
4, 5, 6	Displacement Method of Analysis: Slope-Deflection Equations
7, 8, 9	Displacement Method of Analysis: Moment Distribution
10, 11, 12	Beams and Frames having Non-prismatic Members
13, 14	Truss Analysis using the Stiffness Method
15, 16	Beam Analysis using the Stiffness Method

Course Learning Outcomes with reference to ABET Student Outcomes:

Upon successful completion of this course, student should:

1.	Evaluate Statically Indeterminate Structures by the Force Method.	[1, 2, 6, 7]
2.	Analyze statically Indeterminate Structures using Displacement Method of Analysis: Slope-Deflection Equations.	[1, 2, 6, 7]

3.	Apply Displacement Method of Analysis: Moment Distribution to analyze statically Indeterminate Structures.	[1, 2, 6, 7]
4.	Understand and analyze statically Indeterminate Structures having non-prismatic Members.	[1, 2, 6, 7]
5.	Use Stiffness method to analyze statically Indeterminate trusses.	[1, 2, 6, 7]
6.	Apply Stiffness method to Understand and analyze statically Indeterminate beams.	[1, 2, 6, 7]

Assessment Guidance:

Evaluation of the student performance during the semester (total final mark) will be conducted according to the following activities:

Exams: The students will be subjected to one scheduled exam during the semester.

Quizzes: (2-4) quizzes of (10-15) minutes will be conducted during the semester. The materials of the quizzes are set by the lecturer.

Homework: Tutorials sheets will be handed out to the students and homework should be solved individually and submitted before or on a set agreed date.

Cheating by copying homework from others is strictly forbidden and punishable by awarding the work with zero mark.

Collective Participation: Brainstorming and collective discussions will be carried out during any lecture. Individual student will be assessed accordingly.

Final Exam: The students will undergo a scheduled final exam at the end of the semester covering the whole materials taught in the course.

Grading policy:

Midterm Exam	30%
Semester works	30%
Final Exam	40%
Total:	100%

Attendance Regulation:

The semester has in total 45 credit hours. Total absence hours from classes and tutorials must not exceed 15% of the total credit hours. Exceeding this limit without a medical or emergency excuse approved by the deanship will prohibit the student from sitting the final exam and a zero mark will be recorded for the course. If the excuse is approved by the deanship the student will be considered withdrawn from the course.

Philadelphia University

Faculty of Engineering & Technology

Department of Civil Engineering

First Semester 2025/2026

Course Information

Course Title:	Pavement Design (0670323)
Prerequisite:	Geometric Design of Highways (0670324)
Credit Hours:	3 credit hours (16 weeks per semester, approximately 44 contact hours)
Textbook:	Traffic and Highway Engineering by Nicholas J. Garber, Laster A. Hoel, 4 ed.
References:	Wright, Paul H., Highway Engineering, Seventh Edition, John Wiley, New York, 2004. Principles of pavement design by Yoder Witczak, 2nd ed., 1975 Pavement design ,by Huang, 2nd ed., 2012
Website:	http://www.philadelphia.edu.jo/academics/alaa
Course Description:	This course is designed for civil engineering students in their third year. This course introduces students to the pavement materials, flexible pavement mix design and construction, highway drainage and drainage facilities, and rehabilitation of roads.
Instructors:	Dr. Ala'a Alshdiefat
Course Coordinator:	Dr. Ala'a Alshdiefat
Technology Requirements:	• Personal computer, laptop, or mobile phone. • Internet Connection. • Access to Philadelphia University E-Learning Portal (MS Teams and Moodle)
Learning Style:	F2F
Communication:	• Announcement: the announcements will be posted in MS Teams or Moodle on a regular basis. • Email. • MS Teams or Moodle chats.
Course Objectives:	This course aims to: • Enhance students' understanding know the Properties of materials used in highway pavements. • Provide students with essential knowledge of different pavement types. • Design the thicknesses of the layers composing the highway pavements.

Course Learning Outcomes (CLO) and Relation to ABET Student Outcomes		
CLOs	**Outcomes**	**ABET PLOs**
K2	Understand specifications in construction projects and be familiar with Jordanian specifications	**1**
K2	Understand construction contracts' characteristics and features	**6**
K4	Be familiars with Jordanian construction contracts for construction projects	**2**

Grading Policy and Assessment Instruments					
Graded Item	**Marks**	**Topic (s)**	**CLO(s)**	**Learning Portal** (Teams/ Moodle/ F2F/ Others)	**Week**
Reports 1	10	Explore Pavement Types	K2,K4	Moodle	7
Report 2	20	Define the design factors for case study	K2,K4	Moodle	15
Mid Exam	30%	Weeks 1-8	K2,K4		8
Final Exam	40%	Week 1-15	K2,K4		16
Total Marks	**100%**				
Notes:	• Reports • The final exam will cover all the class material.				

Course Content: Learning Resources/ References/ Activities/ Assessment Methods							
Week	**Lecture**	**Topic**	**CLOs**	**Learning Resources/ References/ Activities/ Assessment Method**	**Learning Style** (F2F, Synchronous, Asynchronous)	**Learning & Teaching Methods**	**Assessment Method**
1	L1	Introduction to Pavement design	K2	Text Books	F2F	PPT	Mid Exam
	L2	Introduction to Pavement design	K2	Text Books	F2F	PPT	Mid Exam
2	L1	Pavement types	K2	Text Books	F2F	PPt	Mid Exam
	L2	Pavement types	K2	Text Books	F2F	PPt	Mid Exam
3	L1	Highway Materials-Soils	K2	Text Books	F2F	PPt	Mid Exam
	L2	Highway Materials-Soils	K2	Text Books	F2F	PPt	Mid Exam
4	L1	Highway Materials - Aggregates	K4	Text Books	F2F	PPt	Mid Exam Report 1
	L2	Highway Materials - Aggregates	K4	Text Books	F2F	PPt	Mid Exam Report 1
5	L1	Highway Materials – Asphalts	K4	Text Books	F2F	PPt	Mid Exam Report 1
	L2	Highway Materials - Asphalts	K4	Text Books	F2F	PPt	Mid Exam Report 1
6	L1	Bases Subbases & Low Cost	K4	Text Books	F2F	PPt	Mid Exam Report 1
	L2	Bases Subbases & Low Cost	K4	Text Books	F2F	PPt	Mid Exam Report 1
7	L1	Highway Type Bituminous Pavements	K2	Text Books	F2F	PPt	Mid Exam Report 1
	L2	Highway Type Bituminous Pavements	K2	Text Books	F2F	PPt	Final Exam Report 2
8	L1	HMA Construction and Placement	K2	Text Books	F2F	PPt	Final Exam Report 2
	L2	HMA Construction and Placement	K2	Text Books	F2F	PPt	Final Exam Report 2
9	L1	Flexible Pavement design	K2, K4	Text Books	F2F	PPt	Final Exam Report 2
	L2	Flexible Pavement design	K2, K4	Text Books	F2F	PPt	Final Exam Report 2
10	L1	Flexible Pavement design	K2, K4	Text Books	F2F	PPt	Final Exam Report 2
	L2	Flexible Pavement design	K2, K4	Text Books	F2F	PPt	Final Exam Report 2

11	L1	Rigid Pavement Design	K2, K4	Text Books	F2F	PPt	Final Exam Report 2
	L2	Rigid Pavement Design	K2, K4	Text Books	F2F	PPt	Final Exam Report 2
12	L1	Rigid Pavement Design	K2, K4	Text Books	F2F	PPt	Final Exam Report 2
	L2	Rigid Pavement Design	K2, K4	Text Books	F2F	PPt	Final Exam Report 2
13	L1	Rehabilitations	K2, K4	Text Books	F2F	PPt	Final Exam Report 2
	L2	Highway maintenance	K2, K4	Text Books	F2F	PPt	Final Exam Report 2
14	L1	Drainage	K2	Text Books	F2F	PPt	Final Exam and
	L2	Drainage design	K2	Text Books	F2F	PPt	Final Exam Report 2
15	L1	Review& Final exam			F2F		
	L2	Review& Final exam			F2F		
16	L1	Final Exam			F2F		
	L2	Final Exam			F2F		

Notes:
For Blended and F2F Courses: L1 & L2 each 1 hour.
For Online Course: L1 and L2 each 1.5 hours.

Credit Hours Distribution Report	
Learning Style	**Credit Hours**
F2F	48
Synchronous	0
Asynchronous	0
Total	48
Academic Honesty/ Student Conduct	o As a student at Philadelphia University you are expected to follow the university regulations and guidelines for academic honesty/student conduct found in student handbook. o This means that you should not cheat plagiarize and let another student use your account in LMS learning portals.
Attendance Policy	Absence from classes and/or tutorials 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 relevant college/faculty 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.

October 2024

Philadelphia University

Faculty of Engineering
Department of Civil Engineering
1st Semester 2025/2026

Course Details:

Title:	Transportation and Traffic Engineering (0670422)
Prerequisite:	**Highway Geometric Design (0670324)**
Credit Hours:	3 credit hours (15 weeks per semester, approximately 45 contact hours)
Textbook:	"***Traffic and Highway Engineering***", Forth Edition, Nicholas J. Garber, Laster A. Hoel, 2009.
References:	Highway Capacity Manual 2000, **HCM**, Transportation Research Board, National Research Council.
Course Description:	Concepts, fundamental parameters of traffic (Speed, volumes, density, time headway, gap and follow-up time and examples), fundamental of transportation (car following theory, queuing theory), capacities and level of service (multilane highways, unsignalized intersections, signalized intersections, roundabouts, pedestrians facilities).
Website:	http://www.philadelphia.edu.jo/academics/salkhawaldeh/
Instructor:	Dr. Sawsan Alkhawaldeh **Email**: salkhawaldeh@ philadelphia.edu.jo **Office**: Engineering building, Room 114 **Class hours**: Sun, Tues: 12:40 - 13:40 **Classroom:** 6704 **Office hours**: Sat, Mon: 12:30-13:30 Sun, Tues: 10:00-11:00

Course Outlines:

Week	Topic
1,2	Fundamental parameters of traffic
3.4	Introduction to queuing theory
5,6	Highway Capacity & level of service
7, 8,9	- Two lane highway -Multilane highways -Freeway
10,11	Unsignalized intersections Roundabouts
12,13	Signalized intersections
14,15	Traffic Studies
16	Final exam

Course Learning Outcomes with reference to ABET Student Outcomes:

Upon successful completion of this course, student should:

1.	Understanding of choosing the best transportation planning	[1, 2]
2.	Understanding transportation models	[1,2, 6]
3.	Understanding fundamental parameters of traffic flow	[1, 6]
4.	Understanding capacities and level of services of various road elements	[1, 6]
5.	Design the traffic signal	[1, 2]

Assessment Guidance:

Evaluation of the student performance during the semester (total final mark) will be conducted according to the following activities:

Sub-Exams: The students will be subjected to two scheduled written exams, first exam and second exam during the semester. Each exam will cover materials given in lectures in the previous 3-4 weeks.

Quizzes: (3-5) quizzes of (10-15) minutes will be conducted during the semester. The materials of the quizzes are set by the lecturer.

Homework and projects: Tutorials sheets will be handed out to the students and homework should be solved individually and submitted before or on a set agreed date. Students may be assigned to present project(s).

Cheating by copying homework from others is strictly forbidden and punishable by awarding the work with zero mark.

Collective Participation: Brainstorming and collective discussions will be carried out during any lecture. Individual student will be assessed accordingly.

Final Exam: The students will undergo a scheduled final exam at the end of the semester covering the whole materials taught in the course.

Grading policy:

Mid Term Exam	30%
Quizzes and Homework	30%
Final Exam	40%
Total:	100%

Attendance Regulation:

The semester has in total 45 credit hours. Total absence hours from classes and tutorials must not exceed 15% of the total credit hours. Exceeding this limit without a medical or emergency excuse approved by the deanship will prohibit the student from sitting the final exam and a zero mark will be recorded for the course. If the excuse is approved by the deanship the student will be considered withdrawn from the course.

Philadelphia University

Faculty of Engineering and Technology
Department of Civil Engineering
1st Semester 2025/2026

Course Details:

Title:	Hydraulics (0670441)
Prerequisite:	Fluid Mechanics 760381
Credit Hours:	3 credit hours (16 weeks per semester, approximately 44 contact hours)
Textbook:	Fundamentals of Hydraulic Engineering Systems, Hwang & Houghtalen. , 4th Edit ion, Prentice Hall, 2006.
References:	• Civil Engineering Hydraulics, by R. E. Featherstone & C. Nalluri, 3rd Edition, 1995. • Fluid Mechanics, Douglas, Swaffield and Gasiorek. 4th Edition, 2001. • Water Distribution Modeling, Walsky, Chase and Slavic. 1st Edition, 2001 • Roberson, J.A., Cassidy J.J., Chaudhry, M.H., Hydraulic Engineering, 2nd edition, John Wiley & sons, inc.,1997.
Course Description:	Flow in pipes, Pipes Networks Analysis, Open Channel Fundamentals, Open Channel Flow Analysis, Classification of Flow,(Uniform Flow), Critical Flow (Supercritical, Subcritical), Gradually Varied Flow, Water Surface Profile Analysis, Rapid Varied Flow (Hydraulic Jump), Pumps.
Website:	http://www.philadelphia.edu.jo/academics/salkhawaldeh/
Instructor:	Dr. Sawsan Alkhawaldeh **Email**: salkhawaldeh@ philadelphia.edu.jo **Office**: Engineering building **Class hours**: Sat, Mon: 9:45 – 11:00 **Classroom:** 6739 **Office hours**: Sat, Mon: 12:30-13:30 Sun, Tues: 10:00-11:00

Course Outlines:

Week	Topic
1 ,2,3	Ch(1) Introduction (revision) Ch(2) Units and dimension, review of fluid mechanics
4 ,5,6,7	Ch(3) Water Flow in Pipes, Description of Pipe Flow, Continuity Equation, Forces, In Pipe Flow, Energy Loss Due to Friction, Empirical Formulas for Friction Head, Local (Minor)
8 ,9,10,11	Ch(4) Pipelines and pipe networks, Pipelines connecting two reservoirs, pipelines with negative pressure or pumps, branching pipe systems, pipe networks.
12 ,13	Ch(5) Water pumps, Centrifugal, propeller and jet pumps, pump selection, pumps in parallel or in series, specific speed and pump similarity.

14 ,15	Ch(6) Open Channel Fundamentals, Open Channel Flow Analysis, Classification of Flow,(Uniform Flow), Critical Flow (Supercritical, Subcritical), Gradually Varied Flow, Water Surface Profile Analysis

Course Learning Outcomes with reference to ABET Student Outcomes:

Upon successful completion of this course, student should:

1.	Be able to solve specific engineering problems related with Hydraulics	[1, 6]
2.	Be able to develop methods to solve an engineering problem like network	[1, 2]
3.	Have the ability to read and understand pumps problems	[1, 6]
4.	Understand the basics of Bernoulli's theorem	[1, 7]
5.	Understand the concept of open channel	[1, 2, 6]
6.	Understand Hydraulic jump	[1]

Assessment Guidance:

Evaluation of the student performance during the semester (total final mark) will be conducted according to the following activities:

Exams: The students will be subjected to one scheduled exam during the semester.

Quizzes: (2-4) quizzes of (10-15) minutes will be conducted during the semester. The materials of the quizzes are set by the lecturer.

Homework: Tutorials sheets will be handed out to the students and homework should be solved individually and submitted before or on a set agreed date.
Cheating by copying homework from others is strictly forbidden and punishable by awarding the work with zero mark.

Collective Participation: Brainstorming and collective discussions will be carried out during any lecture. Individual student will be assessed accordingly.

Final Exam: The students will undergo a scheduled final exam at the end of the semester covering the whole materials taught in the course.

Grading policy:

Midterm Exam	30%
Semester works	30%
Final Exam	40%
Total:	100%

Attendance Regulation:

The semester has in total 45 credit hours. Total absence hours from classes and tutorials must not exceed 15% of the total credit hours. Exceeding this limit without a medical or emergency excuse approved by the deanship will prohibit the student from sitting the final exam and a zero mark will be recorded for the course. If the excuse is approved by the deanship the student will be considered withdrawn from the course.

Philadelphia University

Faculty of Engineering and Technology

Department of Civil Engineering

Second Semester 2025/2026

Course Details:

Title: Sanitary Engineering (067044300)

Prerequisite: Environmental Engineering (067034300)

Credit Hours: 3 credit hours

Textbook: "Water and Wastewater Technology", 6th Edition, Mark J. Hammer & Mark J. Hammer Jr., Prentice Hall, 2007

References: Water Supply and Pollution Control, 7th Edition, Warren Viessman & Mark J. Hammer, Pearson Prentice Hall.
Wastewater Engineering, Treatment and reuse, Metcalf and Eddy, McGraw-Hill Education, 2003

Course Description: Sources of water, Population estimation, water demand and type of waste water, hydraulic of sewage systems and design principles, water distribution systems, sewer water collection system design and principles, biological and chemical wastewater quality Unit operations and processes. Basics in water and wastewater engineering design; Wastewater generation and collection, Biological wastewater treatment and reuse including activated sludge

Instructor: **Dr.** Amged Osman Abdelatif
Email:a.mohammed@philadelphia.edu.jo
Office: E724, ext:2121
Office hours: Saturday:13:00-14:00

Course Outlines:

Week	Topic
1	Fundamental Concepts and Overview
2	Water demand and population forecast
3	Water distribution
4,5	wastewater generation and collection
6,7	Wastewater treatment (physical and chemical)
8	Biological wastewater treatment process and concepts

Course Learning Outcomes with reference to ABET Student Outcomes:

Upon successful completion of this course, student should:

1.	Determine up to dated knowledge of water quality parameters and its application in water and wastewater treatment.	[1;2]
2.	Understand the main concepts of water engineering design	[1;2]
3.	Determine the basic requirement for waste water management and collection system design.	[1;2]
4.	Understand the best available technologies for physical, chemical and biological treatment of wastewater	[1;2]
5.	Determine common water pollutants, and their pathways, and the various technologies available for waste water control	[1;7]

Assessment Guidance:

Evaluation of the student performance during the semester (total final mark) will be conducted according to the following activities:

Sub-Exams: The students will be subjected to Mid written exams, first exam and second exam during the semester. Each exam will cover materials given in lectures in the previous 3-4 weeks.

Quizzes: (3-5) quizzes of (10-15) minutes will be conducted during the semester. The materials of the quizzes are set by the lecturer.

Homework and projects: Tutorials sheets will be handed out to the students and homework should be solved individually and submitted before or on a set agreed date. Student may be assigned to present project(s).

Cheating by copying homework from others is strictly forbidden and punishable by awarding the work with zero mark.

Collective Participation: Brain storming and collective discussions will be carried out during any lecture. Individual student will be assessed accordingly.

Final Exam: The students will undergo a scheduled final exam at the end of the semester covering the whole materials taught in the course.

Grading policy:

Mid Exam	30%
Homework and projects	12%
Quizzes and participation	8%
Final Exam	50%
Total:	100%

Attendance Regulation:

The semester has in total 45 credit hours. Total absence hours from classes and tutorials must not exceed 15% of the total credit hours. Exceeding this limit without a medical or emergency excuse approved by the deanship will prohibit the student from sitting the final exam and a zero mark will be recorded for the course. If the excuse is approved by the deanship the student will be considered withdrawn from the course.

Philadelphia University

Faculty of Engineering
Department of Civil Engineering
1st Semester 2025/2026

Course Information

Title:	Prestressed Concrete Design (0670517)
Prerequisite:	Reinforced Concrete Design II
Credit Hours:	3 credit hours (16 weeks per semester, approximately 44 contact hours)
Textbook:	1. PCI design handbook of "Precast and Prestressed Concrete" (7th Edition), 2010. 2. Nawy, Edward "Prestressed Concrete: A Fundamental Approach" (5th Edition), Prentice Hall, 2009.
References:	1. Naaman, A.E. "Prestressed Concrete Analysis and Design: Fundamentals" (2nd Edition), Techno Press 3000, 2004. 2. Nilson, A.H. "Design of Prestressed Concrete" (2nd Edition), Wiley, 1987.
Course Description:	This course covers the fundamental theories and principles of prestressed concrete members. This course includes design, investigation of beams, columns.
Website:	http://www.philadelphia.edu.jo/academics/salkhawaldeh/
Instructor:	Dr. Sawsan Alkhawaldeh **Email**: salkhawaldeh@philadelphia.edu.jo **Office**: Engineering building **Class hours:** Sun, Tues, 11:15-12:05 **Office hours**: Sat, Mon: 12:30-13:30 Sun, Tues: 10:00-11:00 • Open sessions in MS Teams. • Moodle chat. • MS Teams chat.
Technology Requirements	• Personal computer, laptop, or mobile phone. • Internet Connection. • Access to Philadelphia University E-Learning Portal (MS Teams and Moodle)
Learning Style	Blended
Communication	• Announcement: the announcements will be posted in MS Teams or Moodle on a regular basis. • Email. • MS Teams or Moodle chats.
Class Recording	• All Synchronous lectures will be recorded and will be available on MS Teams.

Course Objectives:

This course aims to:

- Introduce the basic concepts of prestressing.
- Understand the prestressing methods.
- Be familiar with materials and systems for Prestressing.
- Be able to calculate the Loss of Prestress.
- Be familiar with Flexural Analysis and Design.

Course Learning Outcomes (CLO) and Relation to ABET Student Outcomes

[1]	Be familiar with the prestressing methods	**[1, 6, 7]**
[2]	Understand the fundamental structural behavior of prestressed concrete members subjected to a variety of loading conditions.	**[1, 6, 7]**
[3]	Analyze prestressed concrete beams at release, service and ultimate.	**[1, 6, 7]**
[4]	Calculate prestressing loss.	**[1, 6, 7]**
[5]	Analyze and design prestressed concrete beams	**[1, 6, 7]**
[6]	Analyze and design composite beams	**[1, 6, 7]**

Grading Policy and Assessment Instruments

Evaluation of students' performance (final grade) will be based on the following categories

Graded Item	Marks	Topic (s)	Course LO (s)	Learning Portal: MS Teams/ Moodle/ F2F/Others	Week
Project	**30%**		**[1, 6, 7]**	**MS teams/ F2F**	**16**
Mid Exam	**30%**		**[1, 6, 7]**	**F2F**	**5**
Final Exam	**40%**		**[1, 6, 7]**	**F2F**	**16**
Total marks	**100%**				

- Two written exams will be given.
- Copying homework is forbidden, any student caught copying the homework or any part of the homework will receive zero marks for that homework.
- Quizzes: 10-minute quizzes will be given to the students during the semester. These quizzes will cover material discussed during the previous lecture(s).
- Homework: Problem sets will be given to students. Homework should be solved individually and submitted before the due date.
- The final exam will cover all the class material.

Course contents: Learning Resources/ References/ Activities/ Assessment Methods

Week	Lecture	Topic	CLO	Learning Resources/ References/ Activities/ Assessment Method	Learning Style	Learning Portal
					F2F/ Synchronous/ Asynchronous	On campus /MS Teams /Moodle /Others
1	1	Introduction	[1, 6, 7]	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	2	Basic concepts of prestressing	[1, 6, 7]	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	3	Basic concepts of prestressing	[1, 6, 7]	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
2	4	Pretensioning process	[1, 6, 7]	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	5	Pretensioning process	[1, 6, 7]	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	6	Pretensioning process	[1, 6, 7]	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
3	7	Post-tensioning process	[1, 6, 7]	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	8	Post-tensioning process	[1, 6, 7]	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	9	Post-tensioning process	[1, 6, 7]	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
4	10	Calculating stresses in PC members	[1, 6, 7]	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	11	Calculating stresses in PC members	[1, 6, 7]	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	12	Calculating stresses in PC members	[1, 6, 7]	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
5	13	Materials for prestressing-Steel	[1, 6, 7]	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	14	Materials for prestressing-Steel	[1, 6, 7]	Lecture notes/ Textbook/ F2F discussion	F2F	On campus

	15	Materials for prestressing-Steel	**[1, 6, 7]**	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
6	**16**	Materials for prestressing- Concrete	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	17	Materials for prestressing- Concrete	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	18	Materials for prestressing- Concrete	**[1, 6, 7]**	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
7	**19**	Prestressing systems	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	20	Prestressing systems	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	21	Prestressing systems	**[1, 6, 7]**	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
8	**22**	Prestressing loss- Introduction	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	23	Steel relaxation loss	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	24	Steel relaxation loss	**[1, 6, 7]**	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
9	**25**	Creep loss	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	26	Shrinkage loss	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	27	Shrinkage loss	**[1, 6, 7]**	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
10	**28**	Loss due to friction	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	29	Loss due to anchorage	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	30	Numerical examples	**[1, 6, 7]**	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
11	**31**	Step-by-step computations of prestressing loss	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	32	Introduction to flexural design	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	33	Introduction to flexural design	**[1, 6, 7]**	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
12	**34**	General design procedures	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus

	35	Beams with constant tendon eccentricity	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	36	Beams with constant tendon eccentricity	**[1, 6, 7]**	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
13	**37**	Beams with variable tendon eccentricity	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	38	Beams with variable tendon eccentricity	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	39	Numerical examples	**[1, 6, 7]**	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
14	**40**	Envelopes for tendon placement	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	41	Anchorage zone	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	42	Anchorage reinforcement	**[1, 6, 7]**	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
15	**43**	Flexural design of composite sections	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	44	Shoring of slab	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	45	Service load design	**[1, 6, 7]**	Illustrative examples/Illustrative videos/ Assignments	Asynchronous	MS Teams
16	**46**	Service load design	**[1, 6, 7]**	Lecture notes/ Textbook/ F2F discussion	F2F	On campus
	47	Projects and presentations	**[1, 6, 7]**	Presentations and F2F discussion	F2F	On campus
	48	Review and final exam	**[1, 6, 7]**		F2F	On campus

Credit hours contact

Credit Hours Distribution Report	
Learning Style	**Credit hours**
F2F	**2**
Synchronous	**0**
Asynchronous	**1**
Total	**3**

Academic Honesty/ student conduct

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Philadelphia University

Faculty of Engineering & Technology

Department of Civil Engineering

First Semester 2025/2026

Course Information

Course Title:	Project Management (0670571)
Prerequisite:	Reinforced Concrete 2 (0670412)
Credit Hours:	3 credit hours (16 weeks per semester, approximately 44 contact hours)
Textbook:	Project Management for Engineering and Construction
References:	Oberlender, G. D., &Oberlender, G. D. (2013, 3rd edition). *Project management for engineering and construction*., New York: McGraw -Hill Higher Education
Website:	http://www.philadelphia.edu.jo/academics/alaa
Course Description:	Planning, project management concepts, network analysis using arrow techniques network analysis. Overlapping networks, project monitoring, project control, time- cost trade off.
Instructors:	Dr. Ala'a Alshdiefat
Course Coordinator:	Dr. Ala'a Alshdiefat
Technology Requirements:	• Personal computer, laptop, or mobile phone. • Internet Connection. • Access to Philadelphia University E-Learning Portal (MS Teams and Moodle)
Learning Style:	F2F and Blended
Communication:	• Announcement: the announcements will be posted in MS Teams or Moodle on a regular basis. • Email. • MS Teams or Moodle chats.
Course Objectives:	This course aims to: • Enhance students' understanding for project management, project's stakeholders, and engineering economy. • Provide students with essential management skills. • Enhance students' understanding for project planning, scheduling and tracking.

Course Learning Outcomes (CLO) and Relation to ABET Student Outcomes		
CLOs	**Outcomes**	**ABET PLOs**
K2	Perform network analysis and scheduling calculations	**1**
K4	Plan the work: perform WBS, estimate activity duration, and establish relationships among the project activities.	**2**
C1	Evaluate the project status	**5**
C3	Evaluate the project status	**3**

Grading Policy and Assessment Instruments					
Graded Item	**Marks**	**Topic (s)**	**CLO(s)**	**Learning Portal** (Teams/ Moodle/ F2F/ Others)	**Week**
Project	25	Case study of Project Management	K2,K4,C1,C3	Moodle	15
Presentation	5		C3		15
Mid Exam	30%	Weeks 1-8	K2,K4,C1,C3		8
Final Exam	40%	Week 1-15	K2,K4,C1,C3		16
Total Marks	**100%**				
Notes:	• Course Project • Homework: Problem sets will be given to students. Homework should be solved individually and submitted before the due date. • The final exam will cover all the class material.				

Course Content: Learning Resources/ References/ Activities/ Assessment Methods							
Week	**Lecture**	**Topic**	**CLOs**	**Learning Resources/ References/ Activities/ Assessment Method**	**Learning Style** (F2F, Synchronous, Asynchronous)	**Learning & Teaching Methods**	**Assessment Method**
1	L1	Introduction,	K2	Text book	F2F	PPT	Mid Exam
	L2	Define Projects and Project Management	K2	Text book	F2F	PPT	Mid Exam
	L3	Define Projects and Project Management	K2	Text book	Asynchronous	Videos and report	Mid Exam
2	L1	Project teams	K2	Text book	F2F	PPt	Mid Exam
	L2	Project teams	K2, C1	Text book	F2F	PPt	Mid Exam
	L3	Formulation project team.	K2, C1	Text book the project management lifecycle on the following link https://www.youtube.com/watch?v=-GwBNwZOPUs	Asynchronous	Videos and report	Mid Exam
3	L1	Organization structure	K2	Text book	F2F	PPt	Mid Exam
	L2	Project structure	K2	Text book	F2F	PPt	Mid Exam
	L3	Type of projects	K2	Text book	Asynchronous	Videos and report	Mid Exam
4	L1	Project Planning	K4	Text book the construction process in construction projects. On the following links https://www.youtube.com/watch?v=mbwuj58UEPg	F2F	PPt	Mid Exam
	L2	WBS	K4, C1, C3	Text book A. https://www.youtube.com/watch?v=BVcd9uy9kuQ B.	F2F	PPt	Mid Exam, Project

				https://www.youtube.com/watch?v=WwNdq2PNelQ C. https://www.youtube.com/watch?v=fPc3c-7-2Ts			
	L3	OBS	K4, C1, C3	Text book	Asynchronous	Videos and report	Mid Exam, Project
5	L1	Scheduling the project	K4	Text book	F2F	PPt	Mid Exam, Project
	L2	Estimation project cost	K4, C1	Text book	F2F	PPt	Mid Exam, Project
	L3	Estimation Project Cost	K4	Text book	Asynchronous	Videos and report	Mid Exam, Project
6	L1	Project Budgeting	K4, C1	Text book	F2F	PPt	Mid Exam, Project
	L2	Project Budgeting	K4, C3	Text book	F2F	PPt	Mid Exam, Project
	L3	Gantt chart	K2, C3	Text book	Asynchronous	Videos and report	Mid Exam, Project
7	L1	Gantt chart	K2, C3	Text book	F2F	PPt	Mid Exam, Project
	L2	Project Planning	K2, C3	Text book	F2F	PPt	Final Exam and Project
	L3	Network programming using critical path mode (CPM)	K2,C3	Text book	Asynchronous	Videos and report	Final Exam and Project
8	L1	Network programming using critical path mode (CPM)	K2,C3	Text book	F2F	PPt	Final Exam and Project
	L2	Network programming using critical path mode (CPM)	K2,C3	Text book	F2F	PPt	Final Exam and Project
	L3	Network programming using critical path mode (CPM)	K2,C3	Text book	Asynchronous	Videos and report	Final Exam and Project
9	L1	Crushing CPM	K2,C1	Text book	F2F	PPt	Final Exam and Project
	L2	Crushing CPM	K2,C1	Text book	F2F	PPt	Final Exam and Project
	L3	S Curve	K2,C1	Text book	Asynchronous	Videos and report	Final Exam and Project
10	L1	S Curve	K2,C1	Text book	F2F	PPt	Final Exam and Project
	L2	Techniques of Project Planning	K2,C1	Text book	F2F	PPt	Final Exam and Project
	L3	Techniques of Project Planning	K2,C1	Text book	Asynchronous	Videos and report	Final Exam and Project
11	L1	Techniques of Project Planning	K2,C1	Text book	F2F	PPt	Final Exam and Project
	L2	Techniques of Project Planning	K2,C1	Text book	F2F	PPt	Final Exam and Project
	L3	Techniques of Project Planning control	K2,C1	Text book	Asynchronous	Videos and report	Final Exam and Project
12	L1	Techniques of Project Planning control	K2,C1	Text book	F2F	PPt	Final Exam and Project
	L2	Techniques of Project Planning control	K2,C1	Text book	F2F	PPt	Final Exam and Project

	L3	Techniques of Project Planning control	K2,C1	Text book	Asynchr onous	Videos and report	Final Exam and Project
13	L1	Project Tracking	K2, C1,C3	Text book	F2F	PPt	Final Exam and Project
	L2	Project Tracking	K2, C1,C3	Text book	F2F	PPt	Final Exam and Project
	L3	Project Tracking	K2, C1,C3	Text book	Asynchr onous	Videos and report	Final Exam and Project
14	L1	Earn Value Methods	K2, C1,C3	Text book	F2F	PPt	Final Exam and Project
	L2	Earn Value Methods	K2, C1,C3	Text book	F2F	PPt	Final Exam and Project
	L3	Earn Value Methods	K2, C1,C3	Text book	Asynchr onous	Videos and report	Final Exam and Project
15	L1	Project Presentation	K2, C1,C3	Text book	F2F	PPt	Participation
	L2	Review& Final exam			F2F		
	L3	Review& Final exam			F2F		
16	L1	Final Exam			F2F		
	L2	Final Exam			F2F		

Notes:
For Blended and F2F Courses: L1 & L2 each 1 hour.
For Online Course: L1 and L2 each 1.5 hours.

Credit Hours Distribution Report	
Learning Style	**Credit Hours**
F2F	32
Synchronous	0
Asynchronous	16
Total	48

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October 2024

Philadelphia University

Faculty of Engineering & Technology

Department of Civil Engineering

First Semester 2025/2026

Course Information

Course Title:	Specifications, Contracts, and Quantity Surveying (0670572)
Prerequisite:	Reinforced Concrete 2 (0670412)
Credit Hours:	3 credit hours (16 weeks per semester, approximately 44 contact hours)
Textbook:	McMULLAN, J. (2019). *Construction Contract Administration Principles: Guide To Construction Contract Professionals*.
References:	The Jordanian Ministry of Public Works and Housing. *Civil Engineering Specifications for Jordanian Construction Projects Book*. The Jordanian Ministry of Public Works and Housing.(2013). *Jordanian Contract book*. http://www.jcca.org.jo/DataFiles/2017/Files/contractor2010-1013.doc
Website:	http://www.philadelphia.edu.jo/academics/alaa
Course Description:	The course intends to introduce types of contractual procedures, types of contracts, procurement, contract conditions, technical specification for buildings, bills of quantities, pricing and quantity measurement.
Instructors:	Dr. Ala'a Alshdiefat
Course Coordinator:	Dr. Ala'a Alshdiefat
Technology Requirements:	• Personal computer, laptop, or mobile phone. • Internet Connection. • Access to Philadelphia University E-Learning Portal (MS Teams and Moodle)
Learning Style:	F2F
Communication:	• Announcement: the announcements will be posted in MS Teams or Moodle on a regular basis. • Email. • MS Teams or Moodle chats.
Course Objectives:	This course aims to: • Enhance students' understanding for contracts, quantity surveying and specifications. • Provide students with essential Quantity surveying skills. • Enhance students' understanding for project specifications.

Course Learning Outcomes (CLO) and Relation to ABET Student Outcomes		
CLOs	**Outcomes**	**ABET PLOs**
K2	Understand specifications in construction projects and be familiar with Jordanian specifications	**1**
K2	Understand construction contracts' characteristics and features	**6**
K4	Be familiars with Jordanian construction contracts for construction projects	**2**
C3,C1	Be able to quantify several quantities in construction projects and able to prepare BOQ	**3,5**
C2	Determine the obligations of project's parties	**4**

Grading Policy and Assessment Instruments					
Graded Item	**Marks**	**Topic (s)**	**CLO(s)**	**Learning Portal** (Teams/ Moodle/ F2F/ Others)	**Week**
Project	25	Case study	K2,K4,C1,C2,C3	Moodle	15
Presentation	5		C3		15
Mid Exam	30%	Weeks 1-8	K2,K4,C1,C2,C3		8
Final Exam	40%	Week 1-15	K2,K4,C1,C2,C3		16
Total Marks	**100%**				
Notes:	• Course Project • The final exam will cover all the class material.				

Course Content: Learning Resources/ References/ Activities/ Assessment Methods							
Week	**Lecture**	**Topic**	**CLOs**	**Learning Resources/ References/ Activities/ Assessment Method**	**Learning Style** (F2F, Synchronous, Asynchronous)	**Learning & Teaching Methods**	**Assessment Method**
1	L1	Introduction to the course	K2	Text Books	F2F	PPT	Mid Exam
	L2	Define construction contracts and specifications, and Introduction to quantify in construction projects.	K2	Text Books	F2F	PPT	Mid Exam
2	L1	Construction project parties, procurement process	K2	Text Books	F2F	PPt	Mid Exam
	L2	Factor effecting on construction contracts	K2, C1	Text Books	F2F	PPt	Mid Exam
3	L1	Type of construction contracts	K2	Text Books	F2F	PPt	Mid Exam
	L2	Type of construction contracts	K2	Text Books	F2F	PPt	Mid Exam
4	L1	Fixed price contracts	K4	Text Books	F2F	PPt	Mid Exam
	L2	Cost reimbursable contracts	K4, C1, C3	Text Books	F2F	PPt	Mid Exam, Project
5	L1	Jordanian construction contracts	K4	Text Books	F2F	PPt	Mid Exam, Project

	L2	Jordanian construction contracts	K4, C1,C2	Text Books	F2F	PPt	Mid Exam, Project
6	L1	General conditions, and special conditions	K4, C1,C2	Text Books	F2F	PPt	Mid Exam, Project
	L2	General conditions, and special conditions	K4,C2, C3	Text Books	F2F	PPt	Mid Exam, Project
7	L1	Jordanian specifications for building	K2,C2, C3	Text Books	F2F	PPt	Mid Exam, Project
	L2	Jordanian specifications for building	K2,C2, C3	Text Books	F2F	PPt	Final Exam and Project
8	L1	Reinforcement specifications	K2,C2,C 3	Text Books	F2F	PPt	Final Exam and Project
	L2	Reinforcement concrete specifications.	K2,C2,C 3	Text Books	F2F	PPt	Final Exam and Project
9	L1	Excavation and fill works	K2,C2,C 1	Text Books	F2F	PPt	Final Exam and Project
	L2	Excavation and fill works	K2,C2,C 1	Text Books	F2F	PPt	Final Exam and Project
10	L1	Concrete works	K2,C2,C 1	Text Books	F2F	PPt	Final Exam and Project
	L2	Concrete works	K2,C2,C 1	Text Books	F2F	PPt	Final Exam and Project
11	L1	Concrete works	K2,C2,C 1	Text Books	F2F	PPt	Final Exam and Project
	L2	Reinforcement works	K2,C2,C 1	Text Books	F2F	PPt	Final Exam and Project
12	L1	Reinforcement works	K2,C2,C 1	Text Books	F2F	PPt	Final Exam and Project
	L2	Reinforcement works	K2,C2,C 1	Text Books	F2F	PPt	Final Exam and Project
13	L1	Blockworks works	K2,C2, C1,C3	Text Books	F2F	PPt	Final Exam and Project
	L2	Plaster works	K2,C2, C1,C3	Text Books	F2F	PPt	Final Exam and Project
14	L1	Tile works	K2,C2, C1,C3	Text Books	F2F	PPt	Final Exam and Project
	L2	Preparing BOQ	K2, C1,C3	Text Books	F2F	PPt	Final Exam and Project
15	L1	Project Presentation	K2, C1,C3	Text Books	F2F	PPt	Participation
	L2	Review& Final exam			F2F	PPt	
16	L1	Exam			F2F		
	L2	Exam			F2F		

Notes:
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Credit Hours Distribution Report	
Learning Style	**Credit Hours**
F2F	48
Synchronous	0
Asynchronous	0
Total	48

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October 2024