جامعة الشرقية
A' SHARQIYAH UNIVERSITY

Course Descriptor
[CVEN280 Construction Methodology]

Proposed Academic Year	2019-2020	**Last Reviewed Academic Year**	2020-2021
Course Code	CVEN280	**Course Title**	Construction Methodology
Credit hours	3	**Level of study**	Undergraduate
College / Centre	College of Engineering	**Department**	Civil & Environmental Engineering
Co-requisites		**Pre-requisites**	

1. COURSE OUTLINE

[This course is to introduce students the basic principles, techniques, terminology, codes, specifications, communications, and safety issues of the construction industry as well as skills associated with reading and interpreting construction plans.]

2. AIMS

[The purpose of this course is to expose students to various types of construction methodologies that will be encountered in the field and to develop in the students a basic understanding of the uses and management of the different construction methods.]

3. LEARNING OUTCOMES *(Definitive) and* TEACHING, LEARNING and ASSESSMENT METHODS

Learning Outcomes ***(Definitive)*** Upon successful completion of this course, students will be able to**:**	**Teaching and Learning methods** ***(Indicative)***	**Assessment** ***(Indicative)***
1. demonstrate appropriate knowledge and understanding of construction methods and materials	Lectures	Assignments + Exams
2. demonstrate ability to communicate effectively using technical terms and information obtained from a set of plans and specifications	Lectures, Group work, presentations	Assignments + Exams
3. be aware of professional, ethical, and safety issues and their global impact on the construction industry and society	Lectures	Assignments + Exams
4. learn the importance of having a commitment to	Lectures	Assignments + Exams

quality, timeliness, and continuous improvement		
5.		

4. ASSESSMENT WEIGHTING

Assessment	Percentage of final mark (%)
Assignment & Participation	20%
Quiz / Case Study	20%
Midterm	20%
Final Exam	40%
TOTAL	**100%**

5. ACHIEVING A PASS

Students will achieve 3 credit hour for this course by passing ALL of the course assessments (Assignments, Quiz, Midterm and Final examinations) and achieving a minimum overall score of 50.%

NB *Ensure that ALL learning outcomes are taken into account

6. Course Delivery Plan

LECTURE TOPIC	TIME (HOURS)
Syllabus presentation	1.5
General presentation of main topics	1.5
Phases of site investigation	1.5
Process of site investigation	1.5
Safety and security planning and regulations	1.5
Facilities and services	1.5
Earthworks & Excavation-Area calculation	1.5
Earthworks & Excavation-Volume calculation	1.5
Earthworks & Excavation-Excel exercises	1.5
Earthworks & Excavation-Needed resources estimation	1.5
Construction systems	1.5
Construction systems-Case study	1.5
Critical Path Method	1.5
Critical Path Method-Exercise	1.5

Architectural and Structural Plan	1.5
Structural drawings – Concrete structure	1.5
Steel structure - Basics	1.5
Steel structure drawings	1.5
Repetitive Floor Network-Presentation	1.5
Repetitive Floor Network-Construction Method	1.5
Repetitive Floor Network-Exercise	1.5
Repetitive Floor Network-Case study	1.5
Concrete supply alternatives	1.5
Concrete supply alternatives-Breakeven method	1.5
Exercises and applications	9
TOTAL HOURS	**45**
Plus **RECOMMENDED INDEPENDENT STUDY HOURS**	**90**
TOTAL COURSE HOURS	**135**

7. RECOMMENDED READING

Core text/s:

Hanizam Awang & Md Azree Othuman Mydin (2016) Construction Methods and Technology, Penerbit Universiti Sains Malaysia

Building Construction: Principles, Materials, and Systems by Madan Mehta, Walter Scarborough, and Diane Armpriest, Pearson Prentice Hall, 2008

Library + online resources:

Francis D. K. Ching (2008) Building Construction Illustrated, 4th edition, Wiley.
https://www.pdfdrive.com/building-construction-illustrated-4th-edition-e183731129.html

ANDREW WATTS (2016) MODERN CONSTRUCTION HANDBOOK, FOURTH EDITION, Birkhäuser.

Bernard Vuillerme & Henri Richaud (1995) Chantiers de bâtiment : Préparation et suivi, NATHAN