Course Number and Name	CE318-3 Reinforced Concrete 2
Credits hours	3 Credits hours
Contact hours	4 Contact hours; 2 for lecture, 2 for tutorial and 0 for practical
Instructor/s name/s	Prof. Ahmed El-Abbasy
Textbook	Hassoun, M. N. & Al-Manaseer, A, (2015). Structural Concrete: Theory and Design, (6th ed.), Hoboken: Wiley
Other supplemental materials	1- Handout Notes, prepared by the instructor. 2- Lecture notes. 3- Saudi Building Code, Concrete Structures Requirements, SBC 304 4- Saudi Building Code (Concrete Structures commentary, SBC 304C. 5- Saudi Building Code, Loads and Forces Requirements, SBC 301.
Specific course information	
a. Catalog description	This course focuses on the properties and behavior of reinforced concrete structures. Also, on developing the analysis and design procedures of reinforced concrete structural members (shear and torsion in beams, hollow block slabs, flat slabs, stairs, and long columns).
b. Prerequisite	CE317-3 Reinforced Concrete Design (1)
c. Required / Elective	Required
Specific goals for the course	
Course Learning Outcomes (CLOs)	By the end of this course, the student will be able to: 1. Analyze sections subjected to shear force and torsional moment. 2. Analyze sections subjected to normal force and bending moment. 3. Design special slabs such as hollow block and flat slabs. 4. Design stairs, and long columns. 5. Work separately and in work groups.
Student outcomes that addressed by the course	The following student outcomes are addressed by the course: SO1: An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics. SO2: An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors. SO5: An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

Topics to be covered	
Topic	**Number of weeks**
Design of hollow-block slabs.	**3**
Design of flat slabs.	**3**
Design of sections subjected to shear force and torsion moment.	**2**
Design of cantilever-type stairs.	**1**
Design of slab-type stairs.	**1**
Design of sections subjected to normal force and bending moment.	**2**
Design of columns sections subjected to normal force and uni-axial or bi-axial bending moment.	**1**
Design of long columns.	**2**

Schedule of Assessment Tasks for Students During the Semester

Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week due	Proportion of Total Assessment
Homework	Weeks 10 and 13	10%
Team Assignment	The entire term	10%
Midterm-exam I	Week 6,7, or 8	15%
Midterm-exam II	Week 10, 11, or 12	15%
Term Project	Week 14	20%
Final Exam	Final Exam week	30%

CLO-SO Map							
	SO1	**SO2**	**SO3**	**SO4**	**SO5**	**SO6**	**SO7**
CLO 1	√	√					
CLO 2	√	√					
CLO 3	√	√					
CLO 4	√	√					
CLO 5					√		