HASAN KALYONCU UNIVERSITY
Faculty of Engineering
Course Description Form

COURSE: Reinforced Concrete II				
CODE: CE352	**SEMESTER:** SPRING			
LANGUAGE: ENGLISH	**TYPE:** COMPULSORY			
PRE-REQUISITES: - **CO-REQUISITES: -**	**THEORY**	**PRACTICAL**	**CREDIT**	**ECTS**
WEEKLY HOURS: 4	4	0	4	5

CONTENT OF THE COURSE:
Design of slabs and different floor systems, one way, two ways. Design of continuous beams. Design of columns under axial and eccentric loadings, short columns and slenderness limits. Types of footings and their structural designs. In addition to practical design project.

OBJECTIVE OF THE COURSE:
To enable students to design different elements of R.C. structures such as slabs, beams, columns and footings.

WEEKLY SCHEDULE	
Week	**Topics**
1	Chapter A: Design of One-Way Slabs
2	Chapter A: Design of One-Way Slabs
3	Chapter B: Design of Short Columns
4	Chapter B: Design of Short Columns
5	Chapter C: Footings
6	Chapter C: Footings
7	Chapter C: Footings
8	Midterm Week
9	Chapter D: Continuous Reinforced Concrete Structures
10	Chapter D: Continuous Reinforced Concrete Structures
11	Chapter E: Two-Way Slabs
12	Chapter E: Two-Way Slabs
13	Chapter E: Two-Way Slabs
14	Chapter E: Two-Way Slabs

- **TEXTBOOK: • Jack McCormac, Russell Brown, "Design of Reinforced Concrete", 10th Edition, John Wiley & Sons, 2015.**

REFERENCE BOOKS

- **James K. Wight, F.E. Richart, Jr., James G. Macgregor, "Reinforced Concrete, Mechanics and Design", 6th Edition, Pearson, 2012.**
- **A.H. Nilson, D. Darwin, C.W. Dolan, "Design of Concrete Structures", 14th Ed McGraw-Hill, 2010.**

- **W.H. Mosley, R. Hulse and J.H Bungey, "Reinforced Concrete Design to Eurocode 2", 7th Edition, Palgrave Macmillan, 2012.**
- ACI 318-14, "Building Code Requirements for Structural Concrete and Commentary", American Concrete Institute, 2014.
- TS 500, "Requirements for Design and Construction of Reinforced Concrete Structures", Turkish Standards, 2000.
- EN 1992-1-1: 2004 (E), "Eurocode 2: Design of concrete structures - Part 1-1: General rules and rules for buildings", European Standard, CEN, 2004.

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**
LO1	0	3	3	2	3	0	0	0	0	0	0
LO2	0	3	3	2	3	0	0	0	0	0	0
LO3	0	3	3	2	3	0	0	0	0	0	0
LO4	0	3	3	2	3	0	0	0	0	0	0
LO5	0	3	3	2	3	0	0	0	0	0	0
	PO: Program Outcomes | LO: Learning Outcomes Values: 0: None | 1: Low | 2: Medium | 3: High										

INSTRUCTOR(S):	Assoc. Prof. Dr. Amjad Khabaz
FORM PREPARATION DATE:	22.05.2019

LEARNING OUTCOMES OF THE COURSE:

LO1: To analyze and design reinforced concrete sections subjected to combined axial force and bending moment.
LO2: To design one-way and two-way slabs
LO3: To design RC continuous beams
LO4: To design RC short and slender columns
LO5: To design different types of reinforced concrete footings

CONTRIBUTION OF THE COURSE TOWARDS PROVIDING VOCATIONAL EDUCATION: The student learns to design columns, beams, flooring, foundations and stairs as a whole in line with what he/she has learned by learning the reinforced concrete structures and the standards for these structures.