

Construction & Building Engineering Courses (CB)

Construction Materials & Reinforced Concrete Structures Courses Group

CB 455 – Design of Reinforced Concrete Structures 2

COURSE INFORMATION

Course Title: Design of Reinforced Concrete Structures 2

Code: CB 455

Hours: Lecture – 4 Hrs. Tutorial – 2 Hrs. Credit –3.

Prerequisite: CB 354

GRADING

Class Performance/Attendance: 10%

Midterm # 1/Assignments – (7th Week): 30%

Midterm # 2/Assignments – (12th Week): 20%

Final Exam: 40%

COURSE DESCRIPTION

Analysis and design of sections subjected to torsion, design of stairs, design of eccentric sections, Analysis and design of slender columns, design of frames, design of flat slabs and hollow blocks, Design of water tanks, Introduction to pre-stressed concrete.

TEXT BOOK

Design of Reinforced Concrete Structures by Ghoneim, M, and El-Mihilmy, M,
Publisher: Volume 1 and 2, First Edition 2005.

REFERENCE BOOKS

Reinforced Concrete Design by W.H.Moslay, R.Hulse, J.H.Bungey Publisher:
McMillan, 1990.

Reinforced Concrete Design by C.K.Wang and C.G.Salman Publisher: Harpor Row,
4th Edition 1998.

Design of reinforced Concrete Structures by J.C.Mc Carmac Publisher: Harper
Collins, 1993

Egyptian code of Practice for Reinforced Concrete Structures 2006.

APPENDIX A-120

COURSE AIM

Familiarize the students with the analysis & design of different structural elements.

SPECIFIC OUTCOMES OF INSTRUCTION

The students should know the fundamental elements, which to design different structural elements.

COURSE OUTLINE

Week Number 1: Design of sections subjected to torsion.

Week Number 2-3: Analysis & Design of stairs.

Week Number 4: Analysis and design of eccentric section.

Week Number 5-6: Design of slender columns.

Week Number 7-8: Design of R.C. frames.

Week Number 9-10: Analysis and design of flat slabs / Hollow blocks.

Week Number 11-13: Design and Analysis of water tanks.

Week Number 14-15: Introduction to Pre-stressed concrete structures.

Week Number 16: Final Exam.

COURSE COORDINATOR AND DEMAND

Course Coordinator: Dr Adel M.Belal .

Course Demand: *Required*