

Construction & Building Engineering Courses (CB)

Construction Materials & Reinforced Concrete Structures Courses Group

CB 557 – Inspection, Maintenance, and Repair of structures

COURSE INFORMATION

Course Title: Inspection, Maintenance, and Repair of structures

Code: CB 557

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

Prerequisite: CB 444 & CB455

GRADING

Class Performance/Attendance: 10%

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

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

Final Exam: 40%

COURSE DESCRIPTION

Overview of maintenance, Causes and agents of deterioration, Diagnosis and investigation techniques, Diagnosis and investigation techniques, Foundations repair, concrete defects, Repair of concrete structure, Site visit for a repair project, Other materials investigation and repair.

TEXT BOOK

Inspection Maintenance And Repair. Publisher: AASTMT, Alexandria, Egypt.2012.

REFERENCE BOOKS

Repair and Protection of Concrete Structures by N.P. Mailvaganam Publisher: CRC Press, Florida, USA, 1991.

COURSE AIM

The aim of the course is to introduce the subjects of maintenance, inspection, and repair of structures to under graduate students.

SPECIFIC OUTCOMES OF INSTRUCTION

- The student should be know the different concepts and methods of inspection, maintenance, and repair of different structures.

APPENDIX A-168

- The students are subjected to practical methods used in the market and the commercial materials used in the field.
- The student should be familiar with what is going on in the real field of maintenance, inspection, and repair of structures.

COURSE OUTLINE

<i>Week Number 1:</i>	Overview of maintenance.
<i>Week Number 2:</i>	Overview of maintenance.
<i>Week Number 3:</i>	Causes and agents of deterioration.
<i>Week Number 4:</i>	Causes and agents of deterioration.
<i>Week Number 5:</i>	Diagnosis and investigation techniques.
<i>Week Number 6:</i>	Diagnosis and investigation techniques.
<i>Week Number 7:</i>	Foundations repair.
<i>Week Number 8:</i>	Foundations repair.
<i>Week Number 9:</i>	Foundations repair.
<i>Week Number 10:</i>	Concrete defects.
<i>Week Number 11:</i>	Repair of concrete structure.
<i>Week Number 12:</i>	Repair of concrete structures.
<i>Week Number 13:</i>	Repair of concrete structure.
<i>Week Number 14:</i>	Site visit for a repair project.
<i>Week Number 15:</i>	Other materials investigation and repair.
<i>Week Number 16:</i>	Final Exam.

COURSE COORDINATOR AND DEMAND

Course Coordinator: Dr Adel M.Belal .

Course Demand: *Elective*