

Construction & Building Engineering Courses (CB)

Construction Materials & Reinforced Concrete Structures Courses Group

CB 556 – Concrete Technology

COURSE INFORMATION

Course Title: Concrete Technology

Code: CB 556

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

Prerequisite: CB 352

GRADING

Class Performance/Attendance: 10%

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

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

Final Exam: 40%

COURSE DESCRIPTION

Concrete workability and consistency. Concrete manufacturing. Mixing, transporting and casting of concrete. Properties of hardened concrete. Compacting and curing of concrete. Expansion joints. Concrete admixtures. Concrete durability. Design of concrete mixtures. Evaluation of concrete strength. Ready mix concrete. Hot weather concrete curing.

TEXT BOOK

Properties of concrete by M Neville Publisher: longman scientific and technical, England 3 Edition, 1995.

REFERENCE BOOKS

Concrete: Structure, properties, and Materials by P.K.Mehta and P.J. Monerio Publisher: 2nd Edition, Prentice-Hall, Englewood Cliffs, USA, 1994.

Manual for concrete practice by American Concrete institute Publisher: Parts 1 5, detroit, USA, 1995.

Concrete by M.Sidney and Y.Francis Publisher: printice-Hall, Inc. Englewood cliffes, N.J.07632.1981.

APPENDIX A-166

COURSE AIM

The aim of the course is to emphasize the importance of concrete technology in construction.

SPECIFIC OUTCOMES OF INSTRUCTION

The students are exposed to progress in concrete technology, advanced concrete mechanics as well as the future demands of concrete.

COURSE OUTLINE

- Week Number 1:* Concrete workability and consistency.
- Week Number 2:* Concrete manufacturing.
- Week Number 3:* Mixing, transporting and casting of concrete.
- Week Number 4:* Properties of hardened concrete.
- Week Number 5:* Compacting and curing of concrete.
- Week Number 6:* Expansion joints.
- Week Number 7:* Concrete admixtures.
- Week Number 8-10:* Concrete durability.
- Week Number 11:* Design of concrete mixtures.
- Week Number 12:* Evaluation of concrete strength.
- Week Number 13:* Ready mix concrete.
- Week Number 14-15:* Hot weather concreting.
- Week Number 16:* Final Exam.

COURSE COORDINATOR AND DEMAND

Course Coordinator: Dr Adel M.Belal .

Course Demand: *Elective*