

Construction & Building Engineering Courses (CB)

Transportation Engineering Courses Group

CB 573 – Construction Surveying 2

COURSE INFORMATION

Course Title: Construction Surveying 2

Code: CB 573

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

Prerequisite: CB 271

GRADING

Class Performance/Attendance: 10%

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

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

Final Exam: 40%

COURSE DESCRIPTION

Total station application ; Types of traverses, closed, open, link, traverse nets and application ; Automatic laser level and its applications ; Grid leveling and contouring ; mass hall diagram ; Computation of earthwork ; Geographic information system ; Global positioning system

TEXT BOOK

Surveying for Construction by William Irvine , FRICS Publisher: McGraw-Hill , London , 4th Edition 1995.

REFERENCE BOOKS

Fundamentals of Geographic Information Systems by Michael N. DeMers Publisher: John Wiley & Sons , Inc. 1997.

Surveying by A. Bannister & S. Raymond Publisher: Pitman ; London , 1993.

Elementary Surveying by Paul R. Wolf & Russell C. Brinker Publisher: Prentice Hall , Inc. Ninth Edition 2001.

Surveying by Jack McCormac Publisher: Fourth Edition Prentice Hall Inc. 1998.

APPENDIX A-177

COURSE AIM

To familiarize the senior student with the application of construction surveying in the field of construction engineering.

SPECIFIC OUTCOMES OF INSTRUCTION

The senior student should be aware with the more sophisticated in instruments commonly used in the surveying practice.

COURSE OUTLINE

- Week Number 1-2:* Types of traverses, closed, open, link (connecting)
- Week Number 3-4:* Traverse nets and application in Construction Engineering.
- Week Number 5:* The total station application
- Week Number 6:* Automatic laser level.
- Week Number 7:* Grid leveling and contouring, 7th Week exam.
- Week Number 8-9:* Mass diagram and mass profile of distribution diagram, properties of mass diagram, free haul, over haul distance.
- Week Number 10 :* Drawing Contour lines, SURFER software.
- Week Number 11- 12:*Geographic information system GIS and its application in Construction Engineering field, 12th Week exam.
- Week Number 13-14:* Global positioning system and its application in Construction Engineering field
- Week Number 15:* Review of Commercial Construction Surveying Software.
- Week Number 16:* Final Exam.

COURSE COORDINATOR AND DEMAND

Course Coordinator: Dr. Akram Soltan Kotb.

Course Demand: *Elective*