

CB573 Construction Surveying II

COURSE INFORMATION

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Laborator y	
CB271	5	9 – 10	2	2	0	3

COURSE AIM

The course aims at introducing the student to the fundamentals of highway Engineering and its relation to the field of transportation. Through using; communication technologies and skills, engineering technologies, data collection and interpretation, and writing technical reports referring to the relevant literature.

COURSE WEEKLY CONTENTS

- 1 Types of traverses, closed, open, link (connecting) (1,2).
- 2 Types of traverses, closed, open, link (connecting) (1,2).
- 3 Traverse nets and application in Construction Engineering (1,2).
- 4 Traverse nets and application in Construction Engineering (1,2).
- 5 The theodolite application
- 6 Automatic laser level, longitudinal and grid leveling, Precise leveling (1,2).
- 7 Automatic laser level, longitudinal and grid leveling, Precise leveling (1,2). + Midterm Exam
- 8 Mass diagram and mass profile of distribution diagram, properties of mass diagram, free haul, over haul distance.
- 9 Setting out Horizontal Curves with field applications.
- 10 Setting out Vertical Curves with field applications.
- 11 Basics of total station and various applications
- 12 Setting out Axes of Construction projects using total station
- 13 Geographic information system GIS and its application in Construction Engineering field.
- 14 Global positioning system and its application in Construction Engineering field
- 15 Review of Commercial Construction Surveying Software.

STUDENT GRADING & ASSESSMENT

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	←	1 0	M A R K S		→	30
To be freely distributed among possible assessments							
8 to 12	←		2 0	M A R K S		→	20
13 to 15	←		1 0	M A R K S		→	10
16 or 17	40 Final						40
Total	Exams	Assign.	Quizzes	Reports	Present.	Lab.	100

REFERENCES

- Textbook** Surveying for Construction, William Irvine, McGraw-Hill, 4th Edition, 1995.
- Other** Fundamentals of Geographic Information Systems, Michael N. DeMers, John Wiley and Sons, Latest Edition.
- Surveying, A. Bannister and S. Raymond, Pitman; London , Latest Edition.
- Elementary Surveying, Paul R. Wolf and Russell C. Brinker, Prence Hall, Latest Edition.
- Surveying, Jack McCormac, Prence Hall., Fourth Edition
- Surveying for Construction, William Irvine , FRICS McGraw-Hill, London, Latest Edition.