Islamic University of Gaza
Civil Engineering Department

Surveying II
ECIV 2332

By
Belal Almassri
ISLAMIC UNIVERSITY OF GAZA

Department of Civil Engineering
ECIV 2332- SURVEYING II
Semester: Spring 2012
Total Credits: 3 credit hours, 2 credit hours. Lectures (Theory), 1 credit hour lab work
Course Description:
This course is a continuity to the previous course (Surveying I). It will introduce the student to some advanced principles of surveying. Special emphases will be made on Fieldwork and practical problems.

Prerequisite: Surveying I (ECIV 2331)

Lecturer: Engr. Belal Almassri
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Teaching Assistant: Engr. Mohammed Abu AlHatal
Textbooks:
Surveying for Civil Engineers By Najeh Tamim, 2003
Surveying, 6th ed., By Bannister, Raymond and Baker

References:
Surveying, 6th ed., By Francis H. Moffitt
Elementary Surveying, 6th ed., By Brinker.

Grading:
Fieldwork and Homework 10%
Project 10%
Midterm Exam 25%
Final Exam 50%
Quizzes 5%
Course Aims:
- Understanding advanced principles of traverse surveying.
- Understanding advanced principles of route surveying.
- Understanding advanced principles of photogrammetric surveying.
- Being familiar with advanced tools and equipments.
- Practicing extensive field training related to engineering applications.
- Acquiring some skills that help students at their future work.
Course Outlines:
- Coordinate Geometry and Traverse Surveying: Coordinate systems, bearings, horizontal control, traversing, intersection, resection and plane table.
- Route Surveying: Horizontal curves: circular and transitional curves, vertical curves.
- Electronic Distance Measurement (EDM): Electro-optical instruments, microwave instruments, electromagnetic measurements and total station.
- Horizontal control Surveys: Accuracy, basic principles, horizontal control and vertical control.
- Hydrographic Surveying: Vertical control datums, horizontal control and sounding.
- Photogrammetry: Aerial photogrammetry, true plan, vertical scale, air photogrammetry, survey flying, plotting and measurement, applications.