

Course Outline
SURV 212
Survey Computer Programs
3 Semester Hours
2 Lecture Hours
2 Lab hours

The Community College of Baltimore County

Description

Survey Computer Programs

Introduces the procedures and computations of advanced surveying using microcomputers and software; covers computer operating systems; survey applications software and surveying computations; state plane coordinate systems and datum coordinate conversion programs; control surveys and adjustments to control networks; Global Positioning Satellite (GPS) adjustment and user programs; and use of state data and Geographic Information Systems (GIS) for property and boundary surveys.

3 credits; 2 lecture hour and 2 laboratory hours per week.

Prerequisite: SURV 111 or permission of the program coordinator.

Overall Course Objectives

Upon completion of this course the student will be able to:

1. use computer programs that will perform coordinate conversions
2. use computer programs that will perform traverse computations and survey adjustments
3. use computer programs that will plot surveys and field data
4. use computer programs that will allow the student to analyze and plot information from geographical databases
5. use computer programs to plan GPS surveys and adjust field data
6. use the internet to access federal, state, and property databases.

Major Topics

- I. Introduction to Computers and Windows NT
- II. Coordinate Conversion Programs
- III. Traverse and Survey Adjustments
- IV. Civil Surveying Software
- V. GIS Software
- VI. GPS Software
- VII. Internet Database Searches

Course Requirements

Grading/exams: Grading Procedures will be determined by the individual faculty member but will include the following:

1. Tests, exams: Individual instructors will notify students of procedures, but as a minimum, six tests or exams will be required.
2. Homework assignments: Individual instructors will notify students of procedures, but as a minimum two graded assignments will be given.

Other Course Information

This course is a core course in Surveying Degree and Certificate Programs.

This course is taught in a classroom and computer environment.