DATE SUBMITTED

DATE DICC APPROVED 12/15/09 DATE LAST REVIEWED Oct. 7, 2009

CATALOG NO. SRVY 235

COURSE INFORMATION FORM

DISCIPLINE

Land Surveying

COURSE TITLE

Advanced Surveying

CR.HR. 3 LECT HR. 3 LAB HR. CLIN/INTERN HR. CLOCK HR.

CATALOG DESCRIPTION

This course is a continuation of surveying skills introduced in SRVY 135 with an emphasis on advanced surveying techniques beyond plane surveying such as geodetic control networks, practical astronomy, state plane coordinates, photogrammetry, and the US Public Land Surveys System.

PREREQUISITES

SRVY 135

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)

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

1. Describe the methods and applications of geodetic control surveys.
2. Define and summarize surveying techniques using global positioning satellites.
3. Analyze and generate US public land surveys and the rectangular systems of surveying.
4. Compute and employ the applications of state plane coordinates.
5. Calculate solar and celestial surveying techniques and their practical applications.
6. Define and summarize photogrammetric surveying techniques.
GENERAL EDUCATION OUTCOMES (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.
PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

1. Students will apply technical skills and critical thinking skills to solve surveying related problems.

2. Students will demonstrate the skills necessary to research and apply information of the public record as it applies to both boundary retracement and the subdivision of real property.

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes will be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Midterm & final exams (1-6)
2. Quizzes (1-6)
3. Homework (1-6)
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Horizontal control networks: introduction to high order control surveys, methods and applications

II. Calculation procedures related to methods and applications

III. State plane coordinates, introduction to the concept of state plane coordinates

IV. Introduction to global positioning surveys using satellites

V. Practical astronomy, introduction to solar and celestial observations, calculation methods and applications

VI. United States public land surveys; overview of the rectangular system of surveying with an emphasis on the survey history of Missouri and Kansas

VII. Calculation procedures related to methods and applications

VIII. Photogrammetry, overview of photogrammetric surveying procedures