Course Title: Introduction to Surveying
Course Prefix and Number: SRVY 1301
Department: Engineering Design
Division: Technology & Business

Course Type: (check one)

☐ Academic General Education Course (from ACGM – but not in WCJC Core)
☐ Academic WCJC Core Course
☒ WECM course (This course is a Special Topics or Unique Needs Course:  Y  or N  )

Semester Credit Hours #: Lecture Hours #: Lab/Other Hours #: 3:2:4

Equated Pay hours for course - 4

Course Catalog Description: An overview of the surveying profession. The history of surveying and its impact on the world. Review of the mathematics used in surveying. Introduction to basic surveying equipment with emphasis on measurements. Instruction on surveying procedures and the limitation of errors. Calculation to determine precision and error of closure.

Prerequisites/Co-requisites: DFTG 1493

Prepared by: Jo Ann Shimek
Date: 06/11/2015

Reviewed by Department Head: Jo Ann Shimek
Date: 06/11/2015

Accuracy verified by Division Chair: David Kucera
Date: 07/15/15

Approved by Dean or Vice President of Instruction: Leigh Ann Collins
Date: 3-3-16
I. Topical Outline – Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, clinical or other non-lecture instruction):

- History and Development of Surveying
- Surveying Field Notes and Field Book Documentation
- Linear Measurement
- Leveling
- Angular Measurements and Directions
- Traversing
- Boundary Surveys
- Areas
- Topographic Surveys
- Construction Surveys
- Earthwork Volume and Area Calculations

II. Course Learning Outcomes

Upon successful completion of this course, students will:

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
<th>Methods of Assessment</th>
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<tr>
<td>Describe the surveying profession and its historical impact;</td>
<td>Classroom assignments, field assignments, knowledge of procedures and responsibilities</td>
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<td>Apply basic surveying terminology, identify surveying equipment and preform measurements;</td>
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<tr>
<td>List the steps required in performing a survey;</td>
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<tr>
<td>Apply mathematical principles and use scientific calculators to calculate survey error and adjustment.</td>
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III. Required Text(s), Optional Text(s) and/or Materials to be Supplied by Student.


IV. Suggested Course Maximum - 20

V. List any specific spatial or physical requirements beyond a typical classroom required to teach the course.

- Computer work station to include printers/plotters, projection system and appropriate software.
- Surveying equipment and lockable storage facilities for surveying equipment.

VI. Course Requirements/Grading System – Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course
Lecture:  Lab:

Daily Work - 20%  Lab Participation - 10%
Quizzes - 10%  Field Book - 10%
Exams - 30%  Final Project - 20%

A = 100 -90
B =  89-80
C =  79-70
D =  69-60
F =  59 or below

"C" or above in all degree specific classes

VII. Curriculum Checklist

☐ - Academic General Education Course (from ACGM – but not in WCJC Core)
No additional documentation needed

☐ - Academic WCJC Core Course
Attach the Core Curriculum Checklist, including the following:
• Basic Intellectual Competencies
• Perspectives
• Exemplary Educational Objectives

☒ - WECM Courses
If needed, revise the Program SCANS Matrix & Competencies Checklist.