



COURSE OUTLINE: SUR122 - SURVEY FIELD CAMP

Prepared: Marc Pilon

Approved: Corey Meunier, Chair, Technology and Skilled Trades

Course Code: Title	SUR122: SURVEY FIELD CAMP
Program Number: Name	4080: CIVIL ENG TECHNICIAN
Department:	CIVIL/CONSTRUCTION
Semesters/Terms:	21W
Course Description:	This course is designed to provide the students with a one week of practical hands-on surveying experience. You will be working in teams and have to apply teamwork, leadership and interpersonal skills to complete the projects.
Total Credits:	2
Hours/Week:	30
Total Hours:	30
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	There are no co-requisites for this course.
Vocational Learning Outcomes (VLO's) addressed in this course:	4080 - CIVIL ENG TECHNICIAN
Please refer to program web page for a complete listing of program outcomes where applicable.	VLO 1 develop and use strategies to enhance professional growth and ongoing learning in the civil engineering field.
	VLO 2 comply with workplace health and safety practices and procedures in accordance with current legislation and regulations.
	VLO 6 collect, process and interpret technical data to produce written and graphical project-related documents.
	VLO 7 use industry-specific electronic and digital technologies to support civil engineering projects.
	VLO 8 participate in the design and modeling phase of civil engineering projects by applying engineering concepts, basic technical mathematics and principles of science to the review and production of project plans.
	VLO 11 apply teamwork, leadership and interpersonal skills when working individually or within multidisciplinary teams to complete civil engineering projects.
Essential Employability Skills (EES) addressed in this course:	EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.
	EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication.
	EES 3 Execute mathematical operations accurately.
	EES 4 Apply a systematic approach to solve problems.
	EES 5 Use a variety of thinking skills to anticipate and solve problems.
	EES 6 Locate, select, organize, and document information using appropriate technology and information systems.

In response to public health requirements pertaining to the COVID19 pandemic, course delivery and assessment traditionally delivered in-class, may occur remotely either in whole or in part in the 2020-2021 academic year.



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	EES 8 Show respect for the diverse opinions, values, belief systems, and contributions of others.
	EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.
	EES 10 Manage the use of time and other resources to complete projects.
	EES 11 Take responsibility for ones own actions, decisions, and consequences.

Course Evaluation: Passing Grade: 50%, D

A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.

Other Course Evaluation & Assessment Requirements: Grade
Definition Grade Point Equivalent
A+ 90 - 100% 4.00
A 80 - 89%
B 70 - 79% 3.00
C 60 - 69% 2.00
D 50 - 59% 1.00
F (Fail)49% and below 0.00

CR (Credit) Credit for diploma requirements has been awarded.
S Satisfactory achievement in field /clinical placement or non-graded subject area.
U Unsatisfactory achievement in field/clinical placement or non-graded subject area.
X A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.
NR Grade not reported to Registrar`s office.
W Student has withdrawn from the course without academic penalty.

Attendance
Students are only allowed to miss three classes without a documented explanation. One mark will be deducted from your overall grade for each undocumented explanation. The maximum deduction in overall grade is not to exceed 15%. Valid documented explanation include:

- Medical reason
- Family emergency
- Child care issue
- Transportation problems

The documented explanation has to be sent to me by e-mail no later than three days from a missed class. A Doctor note, etc., is to be attached as a PDF file to your e-mail

Books and Required Resources: Surveying with Construction Application by Barry F. Kavanagh/Dianne K. Slattery
Publisher: Pearson Education Edition: 8th
ISBN: 10: 0-13-276698-1

Course Outcomes and Learning Objectives:	<table border="1"> <thead> <tr> <th>Course Outcome 1</th> <th>Learning Objectives for Course Outcome 1</th> </tr> </thead> <tbody> <tr> <td>Upon successful completion, the student will be able to: 1. Comply with health and safety practices and</td> <td>1.1 Conduct self in safe manner and in accordance with the requirements of work situation 1.2 Identify unsafe situations in the field 1.3 Apply best safety practices when working outdoors</td> </tr> </tbody> </table>	Course Outcome 1	Learning Objectives for Course Outcome 1	Upon successful completion, the student will be able to: 1. Comply with health and safety practices and	1.1 Conduct self in safe manner and in accordance with the requirements of work situation 1.2 Identify unsafe situations in the field 1.3 Apply best safety practices when working outdoors
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procedures while performing survey field camp activities.	
Course Outcome 2	Learning Objectives for Course Outcome 2
Upon successful completion, the student will be able to: 2. Participate as a member of a survey team to complete survey and layout activities.	2.1 Collect, interpret and check survey data by using systematic approaches in accordance to recognized standards and practices 2.2 Present a completed field book, to your professor for marking, at the end of the survey field camp
Course Outcome 3	Learning Objectives for Course Outcome 3
Upon successful completion, the student will be able to: 3. Use industry-specific automatic level, digital level and total stations and technologies to support the survey field camp.	3.1 Select and use standard survey equipment such as automatic level, digital level and total station 3.2 Apply survey techniques and use survey equipment such as automatic level, digital level and total station 3.3 Use AutoCAD to extract point identification data from a digital drawing. 3.4 Use AutoCAD to import surveyed point and check accuracy of layout of lot plan.
Course Outcome 4	Learning Objectives for Course Outcome 4
Upon successful completion, the student will be able to: 4. Participate as a member of a survey team by applying surveying concepts and basic technical mathematics to review and produce the layout of survey projects.	4.1 Apply known and routine calculations to check the closure of a leveling route 4.2 Implement checks to ensure that field work is accurate 4.3 Check layout work of another group, other than your own, and provide recommendations as to whether the layout is within or out of accuracy limits. 4.4 Seek assistance to resolve situations that are beyond the student's scope of training or knowledge.
Course Outcome 5	Learning Objectives for Course Outcome 5
Upon successful completion, the student will be able to: 5. Apply teamwork, leadership and interpersonal skills when working individually or within a team to complete the survey field camp projects.	5.1 Take initiative while working with your team to complete the field projects 5.2 Assume accountability for self in managing the use of time and resources to meet established deadline 5.3 Work as an effective team player to complete the survey projects while promoting a positive work environment 5.4 Use effective time-management and organizational techniques to prioritize project tasks and to accomplish goals set by the team 5.5 Use conflict resolution skills in the field including cooperation and compromise

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Accuracy of Field Work Layout	30%
Attendance/Participation	20%
Completeness and Neatness of Field Book	30%

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	Oral Presentation	20%
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Date: June 11, 2020

Addendum: Please refer to the course outline addendum on the Learning Management System for further information.

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