

# GBC Class/Course Assessment Report

Course Prefix, Number, and Title: SUR 280 - Fundamentals Geomatics I

Section Number(s): 1001  
 Department: Computer Technologies

Instructor: Byron Calkins  
 Academic Year: 2021-2022  
 Semester: Fall 2021  
 Is this a GenEd class? Yes\_\_\_ No\_x\_\_

Complete and submit your assessment report electronically to your department chair. As needed, please attach supporting documents and/or a narrative description of the assessment activities. You may use as many or as few outcomes as necessary.

Class/Course Outcomes	Assessment Measures	Assessment Results	Outcome Results Analysis
<p>In the boxes below, summarize the outcomes assessed in your class or course during the last year.</p> <p><i>Note: If this is a GenEd class, include the appropriate GenEd objectives at the beginning of the course assessment report.</i></p>	<p>In the boxes below, summarize the methods used to assess course outcomes during the last year. Assessment of outcomes need to be based on student work that directly demonstrates achievement of outcomes. Also include the criterion to judge whether or not students have achieved the expected outcome.</p> <p><i>Note: Any assessment reporting for GenEd courses should provide a clear explanation of the assessment methodology (how performance was assessed) as well as how the work being assessed meets Gen. Ed. outcomes.</i></p>	<p>In the boxes below, summarize the results of your assessment activities during the last year.</p> <p><i>Notes: For GenEd courses, in the boxes below, summarize the results of your assessment activities during the last year.</i></p>	<p>In the boxes below, please reflect on this outcome's results and summarize how you plan to use the results to improve student learning.</p> <p><i>Note: Completed assessment reporting for GenEd courses should include data generated from assessment as well as discussion and interpretation of its meaning and should include detail on how the instructor/department will incorporate and utilize data in course design and planning moving forward.</i></p>

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Course Outcome #1:	Course Assessment Measure	Course Results	Course Analysis
<p>Minimize and correct surveying measurements</p>	<p><u>Assessment Overview:</u> <b>Homework 5 Angular Closure</b></p> <p>Draw a full-page sketch of the traverse and Compute the Angular closure</p> <p><u>Assessment Methodology:</u>            Balance the field angles with an equal adjustment at each station. Apply the adjustment to the nearest second making the sum of the interior angles balance exactly -            Compute the Azimuth of each line in the traverse -            Compute the bearing of each line in the traverse -            Compute the deflection angles.</p> <p><u>Criterion for achievement</u>            70% of students will score above 80% on Course Outcome #1</p>	<p><u>Results:</u>            12/17 students scored 80% or higher            Criterion Met: <i>Yes/No</i>            Yes</p>	<p><u>Analysis:</u>            The criterion for achievement developed for the <b>Homework 5 Angular Closure</b> states that 70% of the students will score 80% or greater to meet course outcome number one, which requires the learner to determine a balanced traverse, azimuth, bearing, and deflection angles.</p> <p>The criterion for course outcome one was met, as 70% of the learners in the SUR 280 class earned an 80% or greater.</p> <p><u>Action Plan:</u>            Please see course overview report and notes for discussion, interpretation, and how the instructor/department will incorporate proficiency data results from the course outcome number one.</p>
<p>Course Outcome #2:</p> <p>Compute direction, distance from plane coordinates</p>	<p><u>Assessment Overview:</u> <b>Homework 7 Compute Linear Traverse</b></p> <p>Compute latitudes and Departures. Compute the linear error of closure and traverse precision.</p> <p><u>Assessment Methodology:</u>            Using your adjusted latitudes and departures, compute the coordinates of each station. Begin at the known coordinates of station A and close on the known coordinates of station G.</p> <p><u>Criterion for achievement:</u>            70% of students will score above 80% on Course Outcome #2</p>	<p><u>Results:</u>            9/17 students scored 80% or higher</p> <p>Criterion Met: <i>Yes/No</i>            No</p>	<p><u>Analysis:</u>            The criterion for achievement developed for <b>Homework 7 Compute Linear Traverse</b> states that 70% of the students will score 80% or greater to meet course outcome number two, which requires the learner to compute latitudes and departures.</p> <p>The criterion for course outcome two was not met, as 52% of the learners in the SUR 280 class earned an 80% or greater.</p> <p><u>Action Plan:</u>            Please see course overview report and notes for discussion, interpretation, and how the instructor/department will incorporate proficiency data results from</p>

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			course outcome number two in course design and planning moving forward.
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### Course Overview Report

SUR 280 (Fundamentals Geomatics I) course outcomes are measurable and consistent with the course-level objectives. The module/unit-level learning objectives describe outcomes that are measurable and consistent with the course-level objectives. Learning objectives are stated clearly in the syllabus, are written from the learner's perspective, but are not prominently located in each module/unit overview. The relationship between learning objectives and learning activities is not stated in each module/unit overview. The learning objectives are suited to the level of the course as 70% of all learners earned an 80% or greater overall.

SUR 280 (Fundamentals Geomatics I) course assessments Homework 5 Angular Closure and Homework 7 Compute Linear Traverse measure the achievement of the stated learning outcomes. The course grading policy is stated clearly at the beginning of the course in the course syllabus and specific and descriptive criteria are provided for the evaluation of learners' work, and their connection to the course grading policy is clearly explained. The assessments used are sequenced, varied, and suited to the level of the course. The course provides learners with multiple opportunities to track their learning progress with a timely feedback policy, automated quiz grading, online class meetings, and instructor comments.

SUR 280 (Fundamentals Geomatics I) instructional materials contribute to the achievement of the stated learning objectives. The relationship between the use of instructional materials in the course and completing learning activities is not clearly explained in the module overview or on the assessment activity page. The instructional materials are comprised of dated and current versions, and mostly represent up-to-date theory and practice in the discipline. A variety of instructional materials (Textbook, Video, Zoom, Industry Publications) are used in the course.

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### **Course Outcome #1:**

*Minimize and correct surveying measurements*

#### **Action Plan: Homework 5 Angular Closure**

The criterion for course outcome one was met, as 70% of the learners in the SUR 280 class earned a 80% or greater. Course level objectives such as, balance the field angles with an equal adjustment at each station, apply the adjustment to the nearest second - making the sum of the interior angles balance exactly, compute the Azimuth of each line in the traverse, compute the bearing of each line in the traverse, and compute the deflection angles are assessed via learning activities from our class text, *Elementary Surveying: An Introduction to Geomatics (15th Edition) Prentice Hall, 2017* and supplementary readings. There are no major current action items for course outcome one, but it should be noted that all course videos need updating.

### **Course Outcome #2:**

*Compute direction, distance from plane coordinates*

#### **Action Plan: Homework 7 Compute Linear Traverse**

The criterion for course outcome two was not met, as 52% of the learners in the class earned an 80% or greater. Course level objectives such as computing latitudes and departures, computing the linear error of closure and traverse precision are assessed via learning activities from our class text, *Elementary Surveying: An Introduction to Geomatics (15th Edition) Prentice Hall, 2017* and supplementary readings. There are no major current action items for course outcome two, but it should be noted that all course videos need updating.

Note: All SUR 280 course videos need updating.

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I have reviewed this report:

\_\_\_\_\_  
Department Chair

Date \_\_\_\_\_

\_\_\_\_\_  
Dean

Date \_\_\_\_\_

\_\_\_\_\_  
Vice President of Academic Affairs and Student Services

Date \_\_\_\_\_