

Assessment: Annual Report

Program (CT) - BAS- Land Surveying/Geomatics

Unit Mission: The Land Surveying and Geomatics program (LSG) is committed to addressing the disparate and constantly changing needs of students - throughout Nevada and beyond - who are preparing for a geomatics career. Great Basin aims to deliver a high quality and relevant educational experience that prepares LSG students for professional success.

Outcomes	Assessment Measures	Results	Actions
<p>Prepare to take and pass the Fundamentals of Land Surveying examination - Prepare to take and pass the Fundamentals of Land Surveying examination developed by the National Council of Examiners for Engineering and Surveying (NCEES).</p> <p>Outcome Status: Active</p> <p>Assessment Year: 2018-2019, 2019-2020</p> <p>Start Date: 08/31/2015</p>	<p>Survey - A Point-of-Contact questionnaire will be emailed to all graduates asking whether or not they passed the National Council of Examiners for Engineering and Surveying Fundamentals of Surveying (FS) exam which contains 110 multiple-choice questions. The exam appointment time is 6 hours long, which includes a nondisclosure agreement, tutorial (8 minutes), the exam (5 hours and 20 minutes), and a scheduled break (25 minutes).</p> <p>Criterion: 70% of all GBC graduates will pass the Fundamentals of Surveying (FS) exam on their first attempt.</p>	<p>Reporting Period: 2018-2019</p> <p>Criterion Met: Yes</p> <p>9/9 students (GBC graduates) passed the Fundamentals of Surveying (FS) exam on their first attempt.</p> <p>Poll address: https://goo.gl/forms/OVVd1oEgybM306Bc2</p> <p>See attachment (06/27/2019)</p> <p>Related Documents: B.Calkins_LSG_BAS_Program_Assessment_Report_Spring_2019.pdf</p>	<p>Action: Notes: Spring 2018</p> <p>2018 Exam results from the Fundamentals of Surveying (FS) exam had a 48% national pass rate for first time takers and a 31% pass rate for repeat takes. Graduates from GBC Land Surveying/Geomatics program have a 100% pass rate on the Fundamentals of Surveying (FS) exam from 2009 to 2015, based on the POC questionnaire that was developed and implemented in 2015.</p> <p>Notes: Spring 2019</p> <p>A Point-of-Contact questionnaire was sent out to 17 former students (2016 graduates – 2018 graduates) on June 12, 2018. 12 students replied. Nine replied they took the FS exam and nine passed the exam on their first attempt. Graduates from GBC Land Surveying/Geomatics program have a 100% pass rate on the Fundamentals of Surveying (FS) exam from 2016 to 2018, based</p>

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			on the POC questionnaire that was developed and implemented in June of 2018. (06/27/2019)
<p>Satisfy the educational requirement for licensure - Satisfy the educational requirements for licensure required by NRS.625.270 as a professional Land Surveyor in Nevada and recognize the benefit of life-long learning by participating in continuing education as students or as instructors.</p> <p>Outcome Status: Active</p> <p>Assessment Year: 2018-2019, 2019-2020</p> <p>Start Date: 08/31/2015</p>	<p>Software - A Point-of-Contact questionnaire will be emailed to all graduates asking whether or not they passed the National Council of Examiners for Engineering and Surveying PS exam which contains 100 multiple-choice questions. It lasts 6 hours and is split into a 4-hour morning session (67 questions) and a 2-hour afternoon session (33 questions). The PS exam uses USCS measurements.</p> <p>Criterion: 80% of all GBC graduates will pass the Profession Surveying (PS) examination on their first attempt.</p>	<p>Reporting Period: 2018-2019</p> <p>Criterion Met: Yes</p> <p>9/9 students (GBC graduates) passed the National Professional Surveying (PS) exam on their first attempt.</p> <p>Poll address: https://goo.gl/forms/OVVd1oEgybM306Bc2 (06/27/2019)</p>	<p>Action: Notes: Spring 2018</p> <p>2018 Exam results from the Professional Surveying (PS) exam had a 72% national pass rate for first time takers and a 40% pass rate for repeat takes. Graduates from GBC Land Surveying/Geomatics program have a 100% pass rate on the Professional Surveying (PS) exam from 2009 to 2015, based on the POC questionnaire that was developed and implemented in 2015.</p> <p>Notes: Spring 2019</p> <p>A Point-of-Contact questionnaire was sent out to 17 former students (2016 graduates – 2018 graduates) on June 12, 2018. 12 students replied. Nine replied they took the PS exam and nine passed the national exam on their first attempt (note: each state has a specific exam and one student had not taken the state portion). Graduates from GBC Land Surveying/Geomatics program have a 100% pass rate on the Professional Surveying (PS) exam from 2016 to 2018, based on the POC questionnaire that was developed and implemented in June of 2018. (06/27/2019)</p>
<p>Convey spatial information - Convey spatial information in graphical, textual, and verbal forms as an</p>	<p>Project - The SUR 495 final student project requires the application of knowledge and skills acquired in</p>	<p>Reporting Period: 2018-2019</p> <p>Criterion Met: Yes</p>	<p>Action: Notes: Spring 2019</p> <p>Student projects included:</p>

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<p>individual or as a collaborating member of a professional team.</p> <p>Outcome Status: Active</p> <p>Assessment Year: 2018-2019, 2019-2020</p> <p>Start Date: 08/31/2015</p>	<p>previous field experience and coursework. Projects may include field/office evidence research, urban subdivision layout, descriptions, map/plat construction, and/or a directed undergraduate research project.</p> <p>Criterion: 80% of students will pass the senior capstone class with a 70% or better on the class presentation, poster presentation, and research paper.</p>	<p>4/4 students presented their "Senior Capstone Project" on May 9th, 2019 in the Big Blue Button, recorded and archived in SUR 495. The recording statistics may be found here: https://recordings.rna1.blindsidenetworks.com/gbc/3e6e9eb7f259641fd76d20e4f0f575a93532b05a-1557442969914/statistics/</p> <p>Student Chats Talks Duration</p> <p>Byron Calkins 2 505 1:06:19</p> <p>Michelle Meece 2 331 0:28:21</p> <p>Michael Andreozzi 0 177 0:16:54</p> <p>James Meyer 0 169 0:28:30</p> <p>Joshua Belknap 2 113 0:12:02 (06/27/2019)</p>	<ol style="list-style-type: none"> 1. Single Point PPK vs Site Calibration PPK 2. Evidence: Are the Rules Changing for Boundary Evidence 3. Survey of a One Acre Parcel: Comparison of GNSS with Conventional Traverse and Radial Methods 4. Re-establishing the Ohio-Michigan State Line Boundary Monuments (06/27/2019) <p>Follow-Up: There are currently 105 enrolled students in the LSG program. 34 students have declared the AS degree and 68 have declared the BAS degree, while three are non-degree-seeking. There are currently 47 awarded BAS degrees through 2019 and 20 awarded AS degrees through spring 2019. Four or more BAS degrees are expected to be awarded in spring 2020 and five or more AS degrees are expected to be awarded in spring 2020 for a minimum of 76 combined completions. The following challenges need to be addressed by the following means: 1) Develop a strategic plan that identifies the technological, instructional, and financial obstacles in offering both an AS and BAS program. 2) Implement policy to allow LSG AS completions to be counted for LSG BAS completions in relation to low</p>

<i>Outcomes</i>	<i>Assessment Measures</i>	<i>Results</i>	<i>Actions</i>
			<p>yield computations. 3) Upgrade the online instructional material to stay current with the changing technological advances.4) Hire second full-time professor to pursue ABET and to insure quality instructional material at all levels, including high quality of instruction, and to avoid single instructor “burnout.” 5) Provide sufficient faculty resources to meet required professional development, educational and public outreach, including program development and recruitment within the State of Nevada and beyond. 6) Purchase of state-of-the-art surveying equipment to assure students have the proper training to be competitive in their field.</p> <p>(06/27/2019)</p>