Assessment: Course Four Column

Courses (CT) - Surveying

SUR 281:Fundamentals Geomatics II

Course Outcomes	*Assessment Measures*	*Results*	*Actions*
Manage instrument errors - Quantify, compute, eliminate, and manage instrument errors. **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 07/19/2016	**Exam -** Field Book #3 Laboratory Report #3 Quiz #1 Homework #2 Midterm Exam **Criterion:** 70% of students will score above 80% on the course outcomes. Evaluation Rubric: 5 – Excellent – 100% 3 – Satisfactory – 80% 1 – Unsatisfactory – 60% 0 – Not Attempted – 0% Each Student's performance on each assessment is evaluated using the Evaluation Rubric for each Learning Outcome. The data is aggregated for each Learning Outcome resulting in the Results shown above for each Learning Outcome.	**Reporting Period:** 2015-2016 **Criterion Met:** Yes 3.5/5 (07/19/2016)	
Error propagation and compute precision of measurements - Apply principles of error propagation and compute precision of measurements **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 07/19/2016	**Exam -** Final Exam Field Book #5 Laboratory Report #5 Quiz #2 Homework #4 Midterm Exam **Criterion:** 70% of students will score above 80% on the course outcomes.	**Reporting Period:** 2015-2016 **Criterion Met:** No 1.7 / 5 (07/19/2016)	**Action:** For the 281 labs, I would like to supplement the existing lab manual with "Surveying Solved Problems" by Jan Van Sickle, PhD, PLS, which includes more than 900 problems representing a broad range of topics on both the fundamentals of surveying (FS) and professional

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			surveying (PS) exams. Each problem gives learners the opportunity to apply the SUR 281 knowledge of theory and equations to assess and strengthen their problem-solving skills. ISBN-13: 978-1-59126-487-3 (07/19/2016)
Control leveling - Conduct control leveling using sound survey procedures and standards **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 07/19/2016	**Assignment - Project -** Field Book #10 Laboratory Report #10 Quiz #3 Homework #4 **Criterion:** 70% of students will score above 80% on the course outcomes.	**Reporting Period:** 2015-2016 **Criterion Met:** Yes 5.0 / 5 (07/19/2016)	**Action:** No action required *Sharing of Excel spreadsheet positive (07/19/2016)
Principles of survey astronomy - Apply principles of survey astronomy to compute accurate directions from measurements on a star **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 07/19/2016	**Assignment - Project -** Field Book#14, #15 Laboratory Report#14, #15 **Criterion:** 70% of students will score above 80% on the course outcomes.	**Reporting Period:** 2015-2016 **Criterion Met:** Yes 5.0 / 5 (07/19/2016)	**Action:** No action required *Sharing of Excel spreadsheet positive (07/19/2016)
Accurate large scale mapping surveys - Design accurate large scale mapping surveys to satisfy accuracy standards **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 07/19/2016	**Assignment - Project -** Field Book #12 Laboratory Report #12 **Criterion:** 70% of students will score above 80% on the course outcomes.	**Reporting Period:** 2015-2016 **Criterion Met:** Yes 5.0 / 5 (07/19/2016)	
Data collector for traverse and large scale mapping - Use a data collector for traverse and large scale mapping **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 07/19/2016	**Assignment - Project -** Lab#18 Laboratory Report#18 **Criterion:** 70% of students will score above 80% on the course outcomes.	**Reporting Period:** 2015-2016 **Criterion Met:** Yes 5.0 / 5 (07/19/2016)	**Action:** Each Student's performance on each assessment is evaluated using the Evaluation Rubric for each Learning Outcome. The data is aggregated for each Learning Outcome resulting in the Results shown above for each Learning Outcome. Applying principles of error

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			propagation and computing precision of measurements is an intricate component within the surveying profession. This material is best taught hands on in the laboratory. I will incorporate “Surveying Solved Problems” by Jan Van Sickle, PhD, PLS, which includes more than 900 problems representing a broad range of topics on both the fundamentals of surveying (FS) and professional surveying (PS) exams. Each problem gives learners the opportunity to apply the SUR 281 knowledge of theory and equations to assess and strengthen their problem-solving skills. Enhancing the course curriculum with relevant and current practice problems will provide our learners another set of tools to assist in error calculation. During the course of the spring 2016 semester, I was determined to hand-over the SUR 281 course to a PTI instructor. After some long and deep reflection, I have decided that the course needs more work and I must stay with it for another year. No other major changes are required in the administration of this course. (07/19/2016)