**Major Assessment Report Template**

Please download this document and provide a response to each question in the appropriate section. Send your assessment reports to Dr. Angel Sanchez (aansanchez@csufresno.edu) in the Office of Institutional Effectiveness and copy Dr. Melissa Jordine (mjordine@csufresno.edu). Please complete a separate report for each Bachelors and Masters program offered by the department.

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| --- |
| 1. **What learning outcome(s) did you assess this year?** List all program outcomes you assessed (if you assessed an outcome not listed on your department SOAP please indicate explain). Do not describe the measures or benchmarks in this section Also please only describe major assessment activities in this report. The G.E. Committee will issue a separate call for G.E. assessment reports.

b) an ability to design and conduct experiments, as well as to analyze and interpret datad) an ability to function on multi-disciplinary teams |
| 1. **What instruments (assignment) did you use to assess them?** If the assignment (activity, survey, etc.) does not correspond to the activities indicated in the timeline on the SOAP, please indicate why. Please clearly indicate how the instrument (assignment) is able to measure the outcome. If after evaluating the assessment you concluded that the measure was not clearly aligned or did not adequately measure the outcome please discuss this in your report. Please include the benchmark or standard for student performance in your assessment report (if it is stated in your SOAP then this information can just be copied into the report). An example of an expectation or standard would be “On outcome 2.3

In this course, students work in teams and conduct three projects. To do so, they gather needed data, analyze the data, make inferences and present the findings. As such, each group gives a presentation for each project and writes a final report for each project as well. Presentations and reports are to include scope of the work, cost analysis and schedule. For example, one of the projects carried out by students is Solar Farm project. In this project, student teams plan for topographic map of the solar farm site where the solar panels will be installed. Next, they do the analysis for taking the power from the site to the PG&E substation i.e., they consider how power lines will be put in place through the topography and properties along the way. |
| 1. **What did you discover from the data?** Discuss the student performance in relation to your standards or expectations. Be sure to clearly indicate how many students did (or did not) meet the standard for each outcome measured. Where possible, indicate the relative strengths and weaknesses in student performance on the outcome(s).

The following is the rubric used for assessment.

|  |  |  |  |
| --- | --- | --- | --- |
|  | 1 Partially Proficient | 2 Basic Proficiency | 3 Advanced Proficiency |
| Design and Conduct Experiment | Did not design or fully implement an experiment that could produce valid data. | Students designed and mapped out how power lines would be laid out and have to account for an analysis aspects of the topography that would affect implementation. | Additional analysis beyond the minimum to account for all aspects of topography with no details left out. |
| Analyze and Interpret Data | Only part of the data was analyzed or interpreted.  | Students use all equations included in the experiment and they conducted and analyze and discuss all data to some extent. | Students use all equations included in the experiment and analyze and discuss the data thoroughly and make inferences based on the data. |
| Ability to work on multi-disciplinary Teams | All students DID NOT participate in discussions, contribute to brain storming sessions, contribute to load sharing, contribute to improving the quality of the computations and drawings and contribute to the written report. | All students participated in discussions, contribute to brain storming sessions, contribute to load sharing, contribute to improving the quality of the computations and drawings and contribute to the written report. | All students participated to a great extent in discussions, contribute to brain storming sessions, contribute to load sharing, contribute to improving the quality of the computations and drawings and contribute to the written report. Experiment and report were clearly a collective effort.  |

Project 1: Aerial photogrammetric mapping project

|  |  |  |  |
| --- | --- | --- | --- |
|  | Group 1 | Group 2 | Group 3 |
| Design and Conduct Experiment | 3 | 3 | 3 |
| Analyze and Interpret Data | 3 | 3 | 3 |
| Ability to work on multi-disciplinary Teams | 3 | 3 | 3 |

Project 2: Light Detection and Ranging (LiDAR) project design

|  |  |  |  |
| --- | --- | --- | --- |
|  | Group 1 | Group 2 | Group 3 |
| Design and Conduct Experiment | 3 | 3 | 3 |
| Analyze and Interpret Data | 3 | 3 | 3 |
| Ability to work on multi-disciplinary Teams | 3 | 3 | 3 |

Project 3: Solar energy project design

|  |  |  |  |
| --- | --- | --- | --- |
|  | Group 1 | Group 2 | Group 3 |
| Design and Conduct Experiment | 3 | 3 | 3 |
| Analyze and Interpret Data | 3 | 3 | 3 |
| Ability to work on multi-disciplinary Teams | 3 | 3 | 3 |

Students were not very experienced in report writing and presentations for the first project, but gained additional experience as they completed the second and third projects. Despite this lack of experience, students were able to perform all project requirements. |
| 1. **What changes did you make as a result of the data?** Describe how the information from the assessment activity was reviewed and what action was taken based on the analysis of the assessment data.

Since student teams performed very well, no change is needed at the moment. |
| 1. **What assessment activities will you be conducting in the 2016-2017 AY?** List the outcomes and measures or assessment activities you will use to evaluate them. These activities should be the same as those indicated on your current SOAP timeline; if they are not please explain.

(g) an ability to communicate effectively(m) a recognition of the need for acquiring GME related work experience prior to graduation |
| 1. **What progress have you made on items from your last program review action plan?** Please provide a brief description of progress made on each item listed in the action plan. If no progress has been made on an action item, simply state “no progress.”

**Geomatics Engineering Program Review Report from September 2009****Areas for Improvement/Recommendations:**1. Development of a long-term plan for funding necessary laboratory equipment.

In 2015, Geomatics Engineering program purchased a state of the art Leica Laser Scanner. In addition, Geomatics Engineering program received equipment donation from Leica in the amount of approximately half a million dollars including GPS receivers, robotic total stations, digital levels etc.1. Development of departmental hiring plan and address gender and ethnic diversity when new faculty members are added.

In 2014, Geomatics Engineering program hired two new faculty: one is a male USA citizen and another is a male Turkish citizen. As the program grows, the program plans to hire more faculty in the future.1. Library holdings need to be addressed.

The Geomatics Engineering faculty have discussed enhancing current library material to facilitate the research of undergraduate students with the librarian assigned as the liaison to LCOE. Due to budgetary issues, the material has not been expanded significantly.Other Issues:1. Similar to many programs on campus, faculty work load should be addressed.

**Additional Guidelines:** If you have not fully described the assignment then please attach a copy of the questions or assignment guidelines. If you are using a rubric and did not fully describe this rubric (or the criteria being used) than please attach a copy of the rubric. If you administered a survey please attach a copy of the survey so that the Learning Assessment Team (LAT) can review the questions. |