**2016-17 Major Assessment Report  
Department of Industrial Technology**

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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. No GE assessment was required for the 2016-2017 academic year.   SLO 1: Demonstrate knowledge, skills and technical competencies for employment advancement  SLO 2: Develop management competency based on students’ career objectives  SLO 3: Develop leadership skills through practice in organization, planning, execution and assessment of projects and activities  SLO 4: Apply research principles and methodologies  SLO 5: Develop communication and interpersonal skills |
| 1. **What assignment or survey did you use to assess the outcomes and what method (criteria or rubric) did you use to evaluate the assignment?** 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 assignment/survey is able to measure a specific 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 we expected at least 80% of students to achieve a score of 3 or above on the rubric.”  * Standard exam (ATMAE CTM exam) to measure SLO 1, 2, 4: Make our “Pass rate” closer to or above the national average pass rate. * Papers to measure SLO 2, 3, 4: All “IT – 199 Senior project” papers get 3 or above in the Rubric. * Exit survey to measure SLO 1, 5: Our target is to make all average scores from the 19 questions above 3.5 out of 5. * Alumni survey to measure SLO 3, 5: Make the mean score to the principal questions above 3.5 out of 5. |
| 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).   On May 10 and Dec. 6, 2016, 9 and 24 potential graduates took the Certified Technology Manager (CTM) exam respectively. CTM exam is the standard exam from our national association – Association of Technology Management and Applied Engineering (ATMAE). It covers all of the core courses required for our students. The overall results indicated that our pass rate of 55.56% in Spring 2016 is below the national average pass rate of 63.04%, and 29.17% in Fall 2016 is much lower than the national average pass rate of 60.01%, which are the averages among hundreds of peer departments nationwide.  Our Assessment Coordinator then did an analysis on the detailed results (see attached for details). We found from the analysis report that our graduates’ pass rate is varying with the national average pass rate. Spring 2016 was getting closer, Fall 2016 was getting much worse. Our students’ average score of 94 is getting much closer to the national average score of 99 in Spring, and 87 is much lower than national average of 104 in Fall. For the category analysis, our students’ average score of 8.00 in the “safety” category is higher than the national average score of 7.39 in the Spring semester. But, in the Fall semester, our average scores of all categories are much lower than national levels.  The analysis report also showed the analysis results for all sub-categories of the four main-categories of our major: Quality, Safety, Production, and Management. So, the instructors can easily find the weakness in their classes, so to know where they need to improve.  From the exit survey results, our Assessment Coordinator showed that in Spring 2016, 2 of the 9 students gave us scores as 3.11 and 3.42, which are lower than the 3.5 target. And in Fall 2016, 3 out of 24 students gave us scores lower than the 3.5 target (3.47, 3.16, and 2.95). He also showed that the weakest item is: #3 – “Program space and facility”. Seems like it’s related to the closing of our Automotive Lab. Another lower item is #13 – “Career services”. It’s important to notice that those items were also the worst ones last year.  For the Alumni Survey, we spent a lot of time on the design of the survey form in this year. Our assessment coordinator asked all faculty members to contribute ideas for how to simplify and modify the form and took the suggested modifications to the department meeting for discussion for four times. The finalized survey form was sent to OIE, they will help us to modify the electronic version.  For papers, we asked 4 faculty members to evaluate the quality of the IT 199 – Senior Project reports. From the evaluation forms we can see that our students’ papers meet our department requirements except one student. It showed that the new department policy on Senior Project is very good. We’ll keep doing that in the future. |
| 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.   The CTM standard exam analysis report has been presented at our department meeting to let all faculty members understand our improvement targets. Faculty members analyzed the possible reasons for the lower pass rate in the Fall 2016 semester. We agreed that the principal reason is that more low score students participated in this exam. We want to keep eyes on more CTM results in the coming years. And, all faculty members will consider the possible changes and improvements on their courses according to the analysis of our students’ performance in related sub-categories.  One big change has been tried in this year on the supervision of the IT 199 – Senior Project because of the finding of the low score reports. We setup 6 “Supervision Progress Meetings” on Jan 25 (Moderated by Austin), Feb 7 (Seth), Feb 22 (Alex), Mar 16 (Zhang), Apr 18 (Nambiar), and May 3 (Austin). Every student who enrolled in IT 199 must show up at the Supervision Progress Meeting for at least 3 times. Students need to discuss on the progress of their projects. All faculty members agreed that this is an excellent way to supervise the student effort on their projects. We will keep doing this in the future.  Another big change came from the 2016 Program Reviewer group that they want our syllabus to be more clearly related to our Student Learning Outcomes. According to Reviewers’ suggestion, Don Austin has made a template for the course outcomes. We demand all of our faculty members must follow those guidelines to improve our syllabi starting from Fall 2017. And, from doing the above, we have found that our SOAP needs a total improvement on the Student Learning Outcomes part and the Curriculum Map part. We have scheduled department meetings in October 2017 to discuss those issues and make changes to our SOAP. |
| 1. **What assessment activities will you be conducting in the 2017-2018 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.   In the 2017-2018 academic year, we will assess the following student learning outcomes:  SLO 1: Demonstrate knowledge, skills and technical competencies for employment advancement  SLO 2: Develop management competency based on students’ career objectives  SLO 3: Develop leadership skills through practice in organization, planning, execution and assessment of projects and activities  SLO 4: Apply research principles and methodologies  SLO 5: Develop communication and interpersonal skills  The above student learning outcomes will be assessed by the following methods:   * Standard exam (ATMAE CTM exam) to measure SLO 1, 2, 4. * Exam in class to measure SLO 1, 4. * Exit survey to measure SLO 1, 5. * Employer survey to measure SLO 1, 2, 3, 4, 5. |
| 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.”   Our last Program Review was finished in Spring 2016.  We have added about 6 new courses to make our program aligned with our college, i.e. develop more courses related to agriculture. With such a big change, our SOAP looks outdated. We have planned a special department meeting to discuss and modify the SOAP, especially the 5 Goals and SLOs, and the Curriculum Map. We have also required that all syllabi must follow the new template of the course outcomes which was established according to the reviewers’ suggestions during last program review.  **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) then please attach a copy of the rubric. If you administered a survey please consider attaching a copy of the survey so that the Learning Assessment Team (LAT) can review the questions.  Please see attachment:   * Paper and Report rubric * 2016 CTM Exam Results Analysis * 2016 Exit Survey Results Analysis * 2016 IT Alumni Survey Modifications |