**2017-18 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. * Exams in class to measure SLO 1, 4: At least 70% of students to achieve a score of C or above. * 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. * Employer survey to measure SLO 1, 2, 3, 4, 5: Get 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 9 and Dec. 5, 2017, 19 and 23 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 57.89% in Spring 2017 is below the national average pass rate of 66.61%, and 47.62% in Fall 2017 is much lower than the national average pass rate of 78.85%, which are the averages among hundreds of peer departments nationwide.  The Assessment Coordinator then did an analysis on the detailed results. We found from the analysis report that our graduates’ pass rates in both Spring and Fall 2017 still lower than the national average pass rate. And, as usual, showed seasonal trend that Spring semester was better, but Fall semester was worse. Our students’ average score of 89 is lower than the national average score of 102 in Spring, and 92 is lower than national average of 110 in Fall. For the category analysis, in both Spring and Fall semesters, our students’ average scores of all categories are 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 weaknesses in their classes, so to know where they need to improve.  From the Exit Survey results, the Assessment Coordinator showed that in Spring 2017, 3 of the 19 participating students gave us scores as 2.79, 3.16 and 3.32, which are lower than the 3.5 target. And in Fall 2017, 2 out of 18 students gave us scores lower than the 3.5 target (2.89 and 3.47). But the overall average scores for all 19 questions are high which reflected that our students are generally satisfied with our programs. He also showed that the only items with average scores lower than 4.0 are: #9 – “Amount of work seems consistent among the department faculty”, #11 – “Financial assistance opportunity”, and #12 – “Internship opportunity”.  For Class Exams, we assessed Dr. Balaji Seth’s classes. Dr. Seth also delivered a presentation about the class exam assessment at our department meeting. From his presentation, all faculty members learned that quizzes and homework assignments, as the formative assessment of the teaching, is the key to student learning. And pre-test and post-test are good ways to improve teaching.  For the Employer Survey, the super low response rate was a big problem for a long time. We couldn’t do any effective analysis because the response rates are really too low. This year, our assessment coordinator asked our DAA to take the Employer survey to the department banquet in April. And we are very happy that we got 8 responses back totally.  From the responses, we can see that the employers are satisfied with our department. Most of the employers gave us high scores to our program study, and to the important skills they expected. The only one “Disagree” among all 8 responses to all questions about our program is to the statement “IT provided adequate and appropriate managerial preparation”. And the only score below “average” (it’s a “fair”) among all 8 responses to all important skills the employer expected is “Manage/supervise others”. |
| 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 had been presented at our department meeting to let all faculty members understand our improvement targets. Faculty members had a discussion on how to improve our students’ performance in CTM exams. Some faculty suggested we hold class review sessions before the exams to help students review the contents of the classes. But who and when and what to review presented a lot of technical issues. And a couple of faculty members questioned if the “Review” is appropriate because the purpose to use CTM exam as one of the assessment methods is to improve our everyday teaching rather than just higher pass rates. So, faculty member decide that no change will be made during this time.  As usual, all faculty members are encouraged to consider possible changes and improvements in their teaching according to the analysis of our students’ performance in related sub-categories.  On the supervision of the IT 199 – Senior Project, all faculty members think that the Progress Meetings we tried last year were apparently effective. This year, we setup 5 “Supervision Progress Meetings” in each semester and expand the participation to IT 190 – Independent Studies and IT 194 - Internship. Every student who enrolled in those supervision classes including IT 199, IT 190, and IT 194 must participate the Supervision Progress Meeting for at least 3 times each semester. Students need to discuss on the progress of their projects at the meetings and request help sessions to discuss with their advisors. All faculty members agreed that this is an excellent way to supervise the student efforts on their projects. We will keep doing this in the future.  From the results of Exit Survey, we found that some students still want more internship opportunities. All faculty members agreed that we should cooperate with the Engineering College to strengthen our internship program. We have scheduled department meet to invite the engineering college internship coordinator to discuss with our faculty about the collaboration issues. |
| 1. **What assessment activities will you be conducting in the 2018-2019 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 2018-2019 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. * Exit survey to measure SLO 1, 5. * Alumni survey to measure SLO 3, 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 had a two-year follow-up in the Spring 2018 semester. The review group was satisfied with our updates. We also had a complete review of our 5-year Strategic Plan to make it clear that what we still need to work on.  We have continued to add new courses, such as “Intelligent Robot in Ag” to make our program further aligned with our college, and to catch the latest development in technologies.  We have discussed the modifications of the SOAP, modified part of the 5 Goals and SLOs, and the related Curriculum Map. The new SOAP will be finalized after more discussions in the Fall 2018 semester.  **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 of our survey forms in the 2017-18 assessment:   * 2017 Fall Exit Survey * 2017 Employer Survey |