**Sinclair Community College**

**Continuous Improvement Annual Update 2013-14**

**Please submit to your dean and the Provost’s Office no later than Oct. 1, 2013**

**Department:** 0573 – Engineering – University Parallel

Year of Last Program Review: FY 2008-2009

Year of Next Program Review: FY 2015-2016

**Section I: Department Trend Data, Interpretation, and Analysis**

**Degree and Certificate Completion Trend Data – OVERALL SUMMARY**

Please provide an interpretation and analysis of the Degree and Certificate Completion Trend Data (Raw Data is located in Appendix A*): i.e. What trends do you see in the above data? Are there internal or external factors that account for these trends? What are the implications for the department? What actions have the department taken that have influenced these trends? What strategies will the department implement as a result of this data?*

**There was a concerted effort in 2012-2013 to clean up the records and find students who should have graduated but did not. These adjustments account for some of the additional graduates, the rest are due to increased awareness of the program and the requirement to complete the degree to receive the transfer scholarships at Wright State and UD.**

**Course Success Trend Data – OVERALL SUMMARY**

**NOT APPLICABLE**

**Section II: Progress Since the Most Recent Review**

Below are the goals from Section IV part E of your last Program Review Self-Study. Describe progress or changes made toward meeting each goal over the last year.

|  |  |  |
| --- | --- | --- |
| **GOALS** | **Status** | **Progress or Rationale for No Longer Applicable** |
| Explore adding global awareness to the courses/program. | In progress  Completed  No longer applicable | Affects transfer. Students are allowed to take any OTM courses and then follow specific guidelines from their receiving institution. |
| Online courses. | In progress  Completed  No longer applicable | Some general education courses are available on-line. No plans to make the core engineering courses on-line. |
| New calculus based Thermodynamics course as suggested by most universities. | In progress  Completed  No longer applicable | **MEE 2201 was successfully offered Fall 2012 and Spring 2013. Course will remain in the schedule each fall and spring.** |

Below are the Recommendations for Action made by the review team. Describe the progress or changes made toward meeting each recommendation over the last year.

|  |  |  |
| --- | --- | --- |
| **RECOMMENDATIONS** | **Status** | **Progress or Rationale for No Longer Applicable** |
| The program coordinator has done much to revitalize this degree program, but his efforts need to be formalized so that when responsibility for this program transfers to someone else at some future time the momentum that has developed in this program is not lost. Due to the nature of the program, it is recommended that, like the current coordinator, any future coordinators have an engineering background. The current coordinator has done a stellar job of overseeing this program, and that should not be lost at some point in the future when he hands his responsibilities over to someone else. A formalized and well-documented transition process will need to be developed in anticipation of this. The advisory committee may have some insights on how to accomplish this. | In progress  Completed  No longer applicable | Program has transitioned to new coordinator. Several new initiatives are under way to better serve students in the program (see later). |
| The coordinator has developed a marketing plan, and it is recommended that the marketing plan be pursued as a way of attracting students to the program. | In progress  Completed  No longer applicable | **During 2012-13 held two outreach nights for HS students and their parents. Participated in college fairs at Mason and West Carrollton. Displayed at tech prep night. Will display at Sinclair Welcome Week in the fall and scheduled for two Sinclair Talks on Engineering in 2013-2014.** |
| Strong relationships already exist with area universities, particularly with the University of Dayton. It is recommended that the coordinator continue to maintain these relationships. | In progress  Completed  No longer applicable | **Relationships are strong with both WSU and UD. Developing relationships with Central State and Wilberforce. Opening a new dialog with UC and Miami.** |
| Much of the knowledge regarding this program is held by the coordinator and by a Senior Academic Advisor. It is recommended that cross-training occur and documentation of policies and procedures be made, such that when other individuals transition into these positions there is continuity of policies and procedures. There is a pressing need for clear documentation that will allow a variety of academic advisors to assist interested students. | In progress  Completed  No longer applicable | **Work continues on training addvisors. Two training sessions held. New pathway documents will also be of help to advisors.** |
| The formation of the advisory committee was an important step for this program. It is recommended that the coordinator work closely with the committee, such that the committee feels engaged in program maintenance and improvement. The self-study mentions that a “definite plan will be developed in the advisory committee meeting in Spring 2010” to increase student retention, and it is recommended that this be pursued in that meeting. | In progress  Completed  No longer applicable | Spring 2012 marketing initiatives were implemented. Work with advisory is ongoing and additional actions will be taken in the future. |
| Work recently began on the web page for the program, and continued development of this is recommended. | In progress  Completed  No longer applicable | **Web page exists.** |
| Continue efforts to better communicate with students in the program. | In progress  Completed  No longer applicable | **Developed Angel community for better communication with students. Electrical students now have a class assignment in a basic class (EET 1131) that requires them to contact the EUT corrdinator if they are engineering students.** |

**Section III: Assessment of General Education & Degree Program Outcomes**

The Program Outcomes for the degrees are listed below. **All program outcomes must be assessed at least once during the 5 year Program Review cycle, and assessment of program outcomes must occur each year**.

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| --- | --- | --- | --- | --- |
| **General Education Outcomes** | To which degree(s) is this program outcome related? | Year assessed or to be assessed. | Assessment Methods  Used | What were the assessment results?  (Please provide brief summary data) |
| Critical Thinking/Problem Solving | | All programs | **2012-2013** | **Tests** | **Analysis of tests in Calc I and II and EGR 1101 show improved critical thinking and problem solving in all areas from pre-test to post-test.** |
| Values/Citizenship/Community | | All programs | **2013-2014** |  |  |
| Computer Literacy | | All programs | **2014-2015** |  |  |
| Information Literacy | | All programs | **2015-2016** |  |  |
| Oral Communication | | All programs | **2016-2017** |  |  |
| Written Communication | | All programs | **2016-2017** |  |  |
|  | |  |  |  |  |
| **Program Outcomes** | | To which course(s) is this program outcome related? | Year assessed or to be assessed. | Assessment Methods  Used | What were the assessment results?  (Please provide brief summary data) |
| Develop skills in calculus, analytical geometry and differential equations to analyze and solve engineering problems. | | MAT 2270  MAT 2280 | 2012-13 | **Tests** | **Substantial improvement in student performance from pre-test to post-test (averaging 40 percentage points higher.** |
| Demonstrate written and oral communication skills for effective presentations. | | ENG 1101  ENG 1201  COM 2211  OTM Arts/Humanities Elective  OTM Social/ Behavioral Elective | 2013-14 |  |  |
| Use mathematics and analytical tools for engineering and related problem solving. | | EGR Electives  SME 1101 | 2011-12 | **Exams** | **Section averages consistently above 75%, consistently higher than WSU students on same exam in parallel course.** |
| Identify and apply the basic laws of physics and chemistry including mechanical, electrical, heat, light, sound, and inorganic chemistry to enhance comprehension of engineering topics. | | CHE 1211  PHY 2201  PHY 2202 | 2014-15 |  |  |

**General Education Outcomes**

1. Are changes planned as a result of the assessment of general education outcomes? If so, what are those changes?

**No**

1. How will you determine whether those changes had an impact?

**Program Outcomes**

1. Are changes planned as a result of the assessment of program outcomes? If so, what are those changes?

**No**

1. How will you determine whether those changes had an impact?

**Improvement Efforts**

1. What were the results of changes that were planned in the last Annual Update? Are further changes needed based on these results?

**Last year it was identified that students were having trouble with the MATLAB portion of EGR 1101. Four new assignments were added and students performed in line with performance on other class exams on the MATLAB exam.**

1. Are there any other improvement efforts that have not been discussed in this Annual Update submission?

**No**