**Sinclair Community College**

**Program/Department Annual Update**

**2008-09**

**Program :** Civil Engineering Technology (& Construction Management Option)

**Chairperson:** Larraine Kapka

**Dean:** George Sehi

**Date:** March 13, 2009

**Program outcome(s) for which data were collected during 07-08:**

**(**Note: Outcome(s) listed on Program Outcomes Assessment Plan document located at Provost website: http://www.sinclair.edu/administrative/vpi/pdreview/index.cfm)

PO#6

Assist in the management of construction projects with emphasis on safety, quality and continuous improvement.

**Program outcome(s) for which data are being collected this year (08-09):**

**(**Note: Outcome(s) listed on Program Outcomes Assessment Plan document located at Provost website: http://www.sinclair.edu/administrative/vpi/pdreview/index.cfm)

PO#2

Employ logical and concise problem solving techniques to complex problems.

PO#7

Recognize professional, ethical and societal responsibilities, respect diversity and commit to lifelong learning.

**Directions and Examples:**

This annual update has been designed so that a one page program review update is provided by each department on an annual basis, in conjunction with the Departmental Program Review process.

The program outcome(s) that were identified by department chairs as being those under study for 2007-08 and 2008-09. For the outcome that was under study in 06-07, specific data should by now have been collected, studied and perhaps acted upon. Please note the following schedule:

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| Program Outcomes | **06-07** | **07-08** | **08-09** | **09-10** | **10-11** |
| Communicate effectively and professional in the civil and construction environment through proper usage of verbal, written and graphic skills. | CAT 101, CAT 121, CAT 131, CAT 199, CAT 216, CAT 211, CAT 218, CAT 221, CAT 223, CAT 227, CAT 245, CAT 256, CAT 270, CAT 278 COM 206, ENG 111, ENG 112, ETD 199 | **Direct measure data are *analyzed*** | **Document *improvements*** |  |  |
| Employ logical and concise problem solving techniques to complex problems. |  |  | CAT 121, CAT 123, CAT 131, CAT 216, CAT 218, CAT 221, CAT 223, CAT 227, CAT 229, ETD 198, MAT 131, MAT 132, MAT 133, PHY 131, PHY 132, ETD 213, ETD 222 | **Direct measure data are *analyzed*** | **Document *improvements*** |
| Understand the mechanics of structural design | MAT 131, MAT 132, PHY 131, ETD 213, ETD 222, CAT 131, CAT 245, CAT 278 | **Direct measure data are *analyzed*** | **Document *improvements*** |  |  |
| Use surveying equipment and software applications to safely collect data, solve technical problems and layout construction projects. |  |  |  | CAT 121, CAT 123, CAT 199, CAT 221, CAT 223, CAT 229, CAT 278, ETD 199 | **Direct measure data are *analyzed*** |
| Function effectively in teams—demonstrating a cooperative effort to evaluate and solve problems and to develop and implement plans. |  |  |  |  | CAT 105, CAT 106, CAT 216, CAT 218, CAT 256, CAT 278 |
| Assist in the management of construction projects with emphasis on safety, quality and continuous improvement. |  | CAT 105, CAT106, CAT110, CAT216, CAT 218, CAT252, CAT256, CAT 278 | **Direct measure data are *analyzed*** | **Document *improvements*** |  |
| Recognize professional, ethical and societal responsibilities, respect diversity and commit to life long learning. |  |  | CAT 105, CAT 106, CAT 110, CAT 216, CAT 218, CAT 256, CAT 270, CAT 278, COM 206, SOC ELE, HUM ELE | **Direct measure data are *analyzed*** | **Document *improvements*** |

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| **Please list noteworthy changes in the data set from last year:**  Increased enrollment.  As a result of combining ARC and CCT into one program, Civil Architectural Technology (CAT) class sizes have increased with a more common curriculum throughout the program.  **Please list the actions and/or improvement priorities underway from the most recent program review recommendations:**  Wind turbine has been purchased and installed on the roof of Building 11. It is producing electrical power used in the Energy Lab in Room 11-126.  Solar panels for the Energy Lab have been mounted on a movable station.  Course toolboxes have been updated.  Five state of the art total stations for surveying have been purchased to replace obsolete equipment.  Faculty members received software training in emerging BIM technologies.  Computer images have been updated to allow more flexible content delivery.  Faculty have worked outside of normal hours to submit several grant proposals ranging from energy conservation and education to curriculum development.  **Program outcome(s)--data collected for 07-08**  **How have you analyzed the data collected? What did you find? Describe the results obtained.**  Capstone work was reviewed by faculty and advisory board.  Outcome #6 deals with management, safety and improvement. As a result, CAT218 Project Management and CAT256 Construction Management have been combined into CAT255 Engineering Project Management. A new module was added to the CAT216 Construction Estimating course to include Building Information Modeling (BIM) estimating capabilities.  This department have two new courses, CAT145 10 Hour OSHA training and CAT231 30 hour OSHA training.  **Program outcome(s)—data collected for 08-09**  **For the outcome(s) currently under study (for 08-09 outcomes), what evidence and process do you plan to use to determine the extent to which this/these program outcome(s) have been met?**  Analysis of interdisciplinary capstone course.  Graduate interviews by chair.  Gap analysis of Division Core Competencies by chair.  A one page course assessment for continual improvement of each course is completed after each quarter.  **General Education**  **Describe any general education changes/improvements in your program/department during this past academic year (07-08).**  In several classes writing requirements have been implemented and improved.  These classes include CAT101 Architectural Drafting, CAT102 Architectural Detail Drafting, CAT207 Building Codes and CAT245 Soil Mechanics  We have solidified the courses in which oral communications are required. These courses are: CAT105 Residential Building Materials and Methods, CAT106 Commercial Building Materials and Methods, CAT110 Introduction to Civil and Architectural Technology, CAT216 Construction Estimating, CAT218 Project Management, CAT256 Construction Management and CAT278 Capstone. |