

Colorado State University – Pueblo Undergraduate & Graduate Program Assessment Report for AY 2011-2012**Due: June 1, 2012****Program:** _____ BSIE and BSE _____**Date:** __18 June 2012__**Completed by:** __Jane M Fraser

Please complete this form for each undergraduate, minor, certificate, and graduate program (e.g., B.A., B.S., M.S.) in your department and return it to Erin Frew, erin.frew@colostate-pueblo.edu as an email attachment before June 1, 2012. You'll also find the form at the assessment website at <http://www.colostate-pueblo.edu/Assessment/Resources/Pages/default.aspx>. Thank you.

I. Program student learning outcomes (SLOs) assessed in this cycle, processes, results, and recommendations.

A. Which of the program SLOs were assessed during this cycle? Please include the outcome(s) verbatim from the assessment plan.	B. When was this SLO last assessed?	C. What method was used for assessing the SLO? Please attach a copy of any rubrics used in the assessment process.	D. Who was assessed? Please fully describe the student group.	E. What is the expected achievement level and how many students should be at it?	F. What were the results of the assessment?	G. What were the department's conclusions about student performance?	H. What changes/improvements to the <u>program</u> are planned based on this assessment?
(h)	Spring 2009	See table below	See table below	Usually, 80% achieve 80% or better	See table below	See table below	See table below

Report submitted to the Engineering faculty:

(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.				
Course	Semester	Goal met?	Notes	IE, E, or both?
EN 343	Fa 09		Each student looked at the real cost of some method of power production, for example, wind energy.	Both
EN 488	Sp 09	Yes	All six projects included appropriate discussions. Three involved renewable energy and had good discussion of project's contribution.	Both
EN 488	Fa 09	Yes	The project was "Evraz Steel Cooling Bed Replacement." The write up concentrated on energy savings provided by the new design	Both
EN 488	Sp 10	No	Three of the four projects had good discussions. One group omitted the section from their report.	Both
EN 488	Fa 10	Yes	The project was "Improving Radiological Service Times and Facilities Efficiency." The writ up claimed project results will provide better healthcare for the patients in the region.	Both
EN 343	Fa 11	Yes	Used text example of Monte Carlo simulation to decide if a major auto plant should be built in Turkey or not.	Both

The evidence shows that our students are able to understand and discuss the impact of engineering solutions.

The assessment works well in EN 343 and EN 488. EN 440 is also listed for such assessment but I suggest we drop it since it is only taken by IE students and no additional assessment is needed in addition to the two courses we use.

Jane Fraser, 12 March 2012

From 3 April 2012 Department meeting minutes:

We reviewed and approved the report on (h); no changes are needed to our programs or to the assessment method. We had a long discussion of the types of issues we should raise with our students: impacts on jobs, safety, and the environment, for example. For example, Jane discussed global climate change in the special topics course on sustainability. For example, Ding discussed the possible different impacts of the changes in patent law on individuals and corporations. We all agreed that engineering occurs in a social context and we should talk about these issues with students. We should also give our opinions, with justifications, but be open to other opinions.

B. Follow-up (closing the loop) on results and activities from previous assessment cycles. In this section, please describe actions taken during this cycle that were based on, or implemented to address, the results of assessment from previous cycles.

A. What SLO(s) did you address? Please include the outcome(s) verbatim from the assessment plan.	B. When was this SLO last assessed?	C. What were the recommendations for change from the previous assessment?	D. Were the recommendations for change acted upon? If not, why?	E. What were the results of the changes? If the changes were not effective, what are the next steps or the new recommendations?
(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.	Fall 2011 by ABET team.	Visiting team from ABET recommended tighter approval process for engineering design projects.	On 10 April 2012, the EN faculty voted unanimously that two faculty members will review each senior project proposal to ensure that the scope and assumptions are appropriate.	The change will not have effect until Fall 2012.

Comments: