

## 2013-2014 ANNUAL ASSESSMENT REPORT TEMPLATE

This template intends to make our annual assessment and its reports simple, clear, and of high quality not only for this academic year but also for the years to come. Thus, it explicitly specifies some of the best assessment practices and/or expectations implied in the four WASC assessment rubrics we have used in the last few years (see the information below\* that has appeared in Appendices 1, 2a, 2b, and 7 in the *Feedback for the 2011-2012 Assessment Report*; Appendix 2 in the *Feedback for the 2012-2013 Assessment Report*, and Appendices 5 to 8 in the *2013-2014 Annual Assessment Guideline*).

We understand some of our programs/departments have not used and/or adopted these best practices this year, and that is okay. You do not need to do anything extra this year, and ALL YOU NEED TO DO is to report what you have done this academic year. However, we hope our programs will use many of these best practices in the annual assessment in the future.

We also hope to use the information from this template to build a digital database that is simple, clear, and of high quality. If you find it necessary to modify or refine the wording or the content of some of the questions to address the specific needs of your program, please make the changes and highlight them in red. We will consider your suggestion(s). Thank you!

If you have any questions or need any help, please send an email to Dr. Amy Liu ([liuqa@csus.edu](mailto:liuqa@csus.edu)), Director of University Assessment. We are looking forward to working with you.

\*The four WASC rubrics refer to: 1) WASC "Rubric for Assessing the Quality of Academic Program Learning Outcomes"; 2) WASC "Rubric for Assessing the Use of Capstone Experience for Assessing Program Learning Outcomes"; 3) WASC "Rubric for Assessing the Use of Portfolio for Assessing Program Learning Outcomes"; and 4) WASC "Rubric for Assessing the Integration of Student Learning Assessment into Program Reviews".

### Part 1: Background Information

**B1. Program name:** [\_\_\_BS Mechanical Engineering\_\_\_]

**B2. Report author(s):** [\_\_Kenneth Sprott, Susan Holl\_\_\_]

**B3. Fall 2012 enrollment:** [\_\_630\_\_]

Use the *Department Fact Book 2013* by OIR (Office of Institutional Research) to get the fall 2012 enrollment: (<http://www.csus.edu/oir/Data%20Center/Department%20Fact%20Book/Departmental%20Fact%20Book.html>).

**B4. Program type: [SELECT ONLY ONE]**

X	1. Undergraduate baccalaureate major
	2. Credential
	3. Master's degree
	4. Doctorate: Ph.D./E.D.D.
	5. Other, specify:

## Part 2: Six Questions for the 2013-2014 Annual Assessment

### Question 1 (Q1): Program Learning Outcomes (PLO) Assessed in 2013-2014.

**Q1.1.** Which of the following program learning outcomes (PLOs) or Sac State Baccalaureate Learning Goals did you assess **in 2013-2014**? (See 2013-2014 Annual Assessment Report Guidelines for more details). **[CHECK ALL THAT APPLY]**

	1. Critical thinking (WASC 1) *
	2. Information literacy (WASC 2)
X	3. Written communication (WASC 3)
	4. Oral communication (WASC 4)
	5. Quantitative literacy (WASC 5)
	6. Inquiry and analysis
	7. Creative thinking
	8. Reading
	9. Team work
	10. Problem solving
	11. Civic knowledge and engagement – local and global
	12. Intercultural knowledge and competency
	13. Ethical reasoning
	14. Foundations and skills for lifelong learning
	15. Global learning
	16. Integrative and applied learning
	17. Overall competencies for GE Knowledge
	18. Overall competencies in the major/discipline
	19. Others. Specify any PLOs that were <b>assessed in 2013-2014 but not included above:</b>

\* One of the WASC's new requirements is that colleges and universities report on the level of student performance **at graduation** in five core areas: **critical thinking, information literacy, written communication, oral communication, and quantitative literacy.**

#### Q1.1.1. Please provide more detailed information about the PLO(s) you checked above:

The BS ME program has five program learning outcomes (Appendix I). During the 2013-14 academic year we focused on PLO IV: *Will communicate effectively through speaking, writing, and graphics, including the use of appropriate computer technology.* Specifically we focused on the Sacramento State BLG (WASC 3) *written communication*. Because we had already published and widely distributed a technical writing rubric we had developed in conjunction with faculty from the Department of English and the Reading and Writing Sub-Committee of the Senate GE Committee we continued to use that rubric (Appendix II).

- Criteria:
- IV.1 – **Organization and Transitions:** Clear logical organization. Follows appropriate format. Transitions between sections are smooth.
  - IV.2 – **Diction, Syntax, and Conventions of Standard English:** Demonstrates excellent control of language, including appropriate diction and syntactic variety, plus facility with the conventions of standard written English, but may have minor flaws.

IV.3 – **Paragraph and Sentence Structure:** Reflects a command of clauses, sentences, and paragraphs. Sentences varied with syntactic maturity.

IV.4 – **Content and Argument:** Clear and specific assertions, appropriate to the prompt, supported by logically compelling reasons.

IV.5 – **Audience Awareness:** Successfully tailors argument to an appropriate audience.

The rubric we developed is similar to the Value Rubric for Written Communication and during the 2014-15 academic year we will discuss adopting the Value Rubric so that we will be able to more easily compare the results of our assessment to other campus programs and other programs using the Value Rubrics.

**Q1.2.** Are your PLOs closely aligned with the mission of the university?

X	1. Yes
	2. No
	3. Don't know

**Q1.3.** Is your program externally accredited (except for WASC)?

X	1. Yes
	2. No <b>(If no, go to Q1.4)</b>
	3. Don't know <b>(Go to Q1.4)</b>

**Q1.3.1.** If yes, are your PLOs closely aligned with the mission/goals/outcomes of the accreditation agency?

X	1. Yes
	2. No
	3. Don't know

**Q1.4.** Have you used the *Degree Qualification Profile (DQP)* \* to develop your PLO(s)?

X	1. Yes
	2. No, but I know what DQP is.
	3. No. I don't know what DQP is.
	4. Don't know

\* **Degree Qualifications Profile (DQP)** – a framework funded by the Lumina Foundation that describes the kinds of learning and levels of performance that may be expected of students who have earned an associate, baccalaureate, or master's degree. Please see the links for more details:

[http://www.luminafoundation.org/publications/The\\_Degree\\_Qualifications\\_Profile.pdf](http://www.luminafoundation.org/publications/The_Degree_Qualifications_Profile.pdf) and  
<http://www.learningoutcomeassessment.org/DQPNew.html>.

## **Question 2 (Q2): Standards of Performance/Expectations for EACH PLO.**

**Q2.1.** Has the program developed/adopted **EXPLICIT** standards of performance/expectations for the PLO(s) you assessed in **2013-2014 Academic Year**? (For example: We expect 70% of our students to achieve at least a score of 3 on the Written Communication VALUE rubric.)

	1. Yes, we have developed standards/expectations for <b>ALL</b> PLOs assessed in 2013-14.
	2. Yes, we have developed standards/expectations for <b>SOME</b> PLOs assessed in 2013-14.
X	3. No <b>(If no, go to Q2.2)</b>

	4. Don't know ( <b>Go to Q2.2</b> )
	5. Not Applicable ( <b>Go to Q2.2</b> )

**Q2.1.1.** If yes, what are the desired levels of learning, including the criteria and standards of performance/expectations, especially at or near graduation, for **EACH PLO** assessed in 2013-2014 Academic Year? (For example: what will tell you if students have achieved your expected level of performance for the learning outcome.) **Please provide the rubric and/or the expectations that you have developed for EACH PLO one at a time below. [WORD LIMIT: 300 WORDS FOR EACH PLO]**

**Q2.2.** Have you published the **PLO(s)/expectations/rubric(s)** you assessed in 2013-2014?

X	1. Yes
	2. No ( <b>If no, go to Q3.1</b> )

**Q2.2.1.** If yes, where were the **PLOs/expectations/rubrics** published? [**CHECK ALL THAT APPLY**]

	1. In <b>SOME</b> course syllabi/assignments in the program that claim to introduce/develop/master the PLO(s)
X	2. In <b>ALL</b> course syllabi/assignments in the program that claim to introduce /develop/master the PLO(s)
	3. In the student handbook/advising handbook
	4. In the university catalogue
X	5. On the academic unit website or in the newsletters
X	6. In the assessment or program review reports/plans/resources/activities
	7. In the new course proposal forms in the department/college/university
	8. In the department/college/university's strategic plans and other planning documents
	9. In the department/college/university's budget plans and other resource allocation documents
	10. In other places, specify:

### Question 3 (Q3): Data, Results, and Conclusions for EACH PLO

**Q3.1.** Was assessment data/evidence **collected** for 2013-2014?

X	1. Yes
	2. No ( <b>If no, go to Part 3: Additional Information</b> )
	3. Don't know ( <b>Go to Part 3</b> )
	4. Not Applicable ( <b>Go to Part 3</b> )

**Q3.2.** If yes, was the data **scored/evaluated** for 2013-2014?

X	1. Yes
	2. No ( <b>If no, go to Part 3: Additional Information</b> )
	3. Don't know ( <b>Go to Part 3</b> )
	4. Not Applicable ( <b>Go to Part 3</b> )

**Q3.3.** If yes, what **DATA** have you collected? What are the **results, findings, and CONCLUSION(s)** for **EACH PLO** assessed in 2013-2014? In what areas are students doing well and achieving the expectations? In what areas do students need improvement? Please provide a simple and clear summary

of the key data and findings, including **tables and graphs** if applicable for EACH PLO one at a time.  
[WORD LIMIT: 600 WORDS FOR EACH PLO]

Data from the evaluation of Written Communication from the Senior Project reports are presented in Table I. Three tenured faculty each evaluated the same five randomly selected final Senior Project Reports from the capstone ME 191 - Project Engineering II course in Spring 2014. The published rubric was used to evaluate these reports.

**Table 1: Results for Written Communication**

Criterion	4 - Strong	3 -Acceptable	2- Poor	1 - Weak	Total (N = 5)
IV.1 – Organization & Transitions	13.3%	80%	6.7%		2.93
IV.2 – Diction, Syntax, and Conventions	13.3%	80%	6.7%		2.93
IV.3 – Paragraph and Sentence Structure		66.7%	33.3%		2.67
IV.4 – Content & Argument	33.3%	60%	6.7%		3.4
IV.5 – Audience Awareness	26.7%	66.7%	6.7%		3.2

Based on the evaluation using our Technical Writing Rubric of five randomly selected reports from our capstone Senior Project course the majority of the students are able to communicate in written English at an acceptable level. Of particular importance to success in the program is the ability to communicate in a clear and complete manner in both written and spoken English.

The majority of the reports were in the “Acceptable” or “Strong” range in four of the criteria including “Content and Argument” and “Audience Awareness”.

The weakest aspect of these written reports were in criterion IV.3 – “Paragraph and Sentence Structure.” We have discussed several strategies to address this weakness including requiring report drafts for peer review at the mid-term.

**Q3.4.** Do students meet the expectations/standards of performance as determined by the program and achieved the learning outcomes? [PLEASE MAKE SURE THE PLO YOU SPECIFY HERE IS THE SAME ONE YOU CHECKED/SPECIFIED IN Q1.1].

**Q3.4.1.** First PLO: [ \_\_\_\_\_ Written Communication \_\_\_\_\_ ]

	1. Exceed expectation/standard
X	2. Meet expectation/standard
	3. Do not meet expectation/standard
	4. No expectation/standard set
	5. Don't know

[NOTE: IF YOU HAVE MORE THAN ONE PLO, YOU NEED TO REPEAT THE TABLE IN Q3.4.1 UNTIL YOU INCLUDE ALL THE PLO(S) YOU ASSESSED IN 2013-2014.]

**Q3.4.2.** Second PLO: [ \_\_\_\_\_ ]

	1. Exceed expectation/standard
	2. Meet expectation/standard
	3. Do not meet expectation/standard

	4. No expectation/standard set
	5. Don't know

**Question 4 (Q4): Evaluation of Data Quality: Reliability and Validity.**

**Q4.1.** How many PLOs in total did your program assess in the 2013-2014 academic year? [  1  ]

**Q4.2.** Please choose **ONE ASSESSED PLO** as an example to illustrate how you use direct, indirect, and/or other methods/measures to collect data. If you only assessed one PLO in 2013-14, YOU CAN SKIP this question. If you assessed MORE THAN ONE PLO, please check **ONLY ONE PLO BELOW EVEN IF YOU ASSESSED MORE THAN ONE PLO IN 2013-2014.**

	1. Critical thinking (WASC 1) <sup>1</sup>
	2. Information literacy (WASC 2)
X	3. Written communication (WASC 3)
	4. Oral communication (WASC 4)
	5. Quantitative literacy (WASC 5)
	6. Inquiry and analysis
	7. Creative thinking
	8. Reading
	9. Team work
	10. Problem solving
	11. Civic knowledge and engagement – local and global
	12. Intercultural knowledge and competency
	13. Ethical reasoning
	14. Foundations and skills for lifelong learning
	15. Global learning
	16. Integrative and applied learning
	17. Overall competencies for GE Knowledge
	18. Overall competencies in the major/discipline
	19. Other PLO. Specify:

**Direct Measures**

**Q4.3.** Were direct measures used to assess this PLO?

X	1. Yes
	2. No (If no, go to Q4.4)
	3. Don't know (Go to Q4.4)

**Q4.3.1.** Which of the following DIRECT measures were used? [Check all that apply]

X	1. Capstone projects (including theses, senior theses), courses, or experiences
	2. Key assignments from other CORE classes
	3. Key assignments from other classes
	4. Classroom based performance assessments such as simulations, comprehensive exams, critiques
	5. External performance assessments such as internships or other community based

	projects
	6. E-Portfolios
	7. Other portfolios
	8. Other measure. Specify:

**Q4.3.2.** Please provide the direct measure(s) [**key assignment(s)/project(s)/portfolio(s)**] that you used to collect the data. [WORD LIMIT: 300 WORDS]

The capstone Senior Project requires that the student create a manufactured product from concept to prototype, test the prototype and analyze and evaluate the results of the project. The results of the two semester effort must be presented in a technical report. This report requires a discussion of the product, the goals of the product, the design objectives, analysis of the design, any modifications, test results and comparisons with what was expected. All aspects must include a technical justification and must be understandable to an appropriate audience (junior level mechanical engineering students).

**Q4.3.2.1.** Was the direct measure(s) [**key assignment(s)/project(s)/portfolio(s)**] aligned directly with the rubric/criterion?

X	1. Yes
	2. No
	3. Don't know

**Q4.3.3.** Was the direct measure (s) [key assignment(s)/project(s)/portfolio(s)] aligned directly with the PLO?

X	1. Yes
	2. No
	3. Don't know

**Q4.3.4.** How was the evidence scored/evaluated? [**Select one only**]

	1. No rubric is used to interpret the evidence (If checked, go to Q4.3.7)
	2. Use rubric developed/modified by the faculty who teaches the class
X	3. Use rubric developed/modified by a group of faculty
	4. Use rubric pilot-tested and refined by a group of faculty
	5. Use other means. Specify:

**Q4.3.5.** What rubric/criterion was adopted to score/evaluate the above key assignments/projects/portfolio? [**Select one only**]

	1. The VALUE rubric(s)
	2. Modified VALUE rubric(s)
X	3. A rubric that is totally developed by local faculty
	4. Use other means. Specify:

**Q4.3.6.** Was the rubric/criterion aligned directly with the PLO?

X	1. Yes
	2. No
	3. Don't know

**Q4.3.7.** Were the evaluators (e.g., faculty or advising board members) who reviewed student work calibrated to apply assessment criteria in the same way?

X	1. Yes
	2. No
	3. Don't know

**Q4.3.8.** Were there checks for inter-rater reliability?

X	1. Yes
	2. No
	3. Don't know

**Q4.3.9.** Were the sample sizes for the direct measure adequate?

X	1. Yes
	2. No
	3. Don't know

**Q4.3.10.** How did you select the sample of student work (papers, projects, portfolios, etc)? Please briefly specify here:

We randomly selected five papers from the ME 191 – Project Engineering II course in Spring 2015 (there were 15 projects total completing ME 191). Three faculty met and discussed the rubric and independently scored the same five papers.

#### ***Indirect Measures***

**Q4.4.** Were indirect measures used to assess the PLO?

X	1. Yes
	2. No (If no, go to Q4.5)

**Q4.4.1.** Which of the following indirect measures were used?

	1. National student surveys (e.g., NSSE, etc.)
	2. University conducted student surveys (OIR surveys)
X	3. College/Department/program conducted student surveys
X	4. Alumni surveys, focus groups, or interviews
	5. Employer surveys, focus groups, or interviews
X	6. Advisory board surveys, focus groups, or interviews
	7. Others, specify:

**Q4.4.2.** If surveys were used, were the sample sizes adequate?

X	1. Yes
	2. No
	3. Don't know

**Q4.4.3.** If surveys were used, please briefly specify how you select your sample? What is the response rate?

We surveyed 25 Mechanical Engineering employers who attended our 6<sup>th</sup> annual “Mechanical Engineering Evening with Industry” networking event held in Spring 2014. All of the employers indicated that “Communicating effectively” was “extremely important”. When asked to rate how well the program was meeting the PLO of effective communication (including written communication) on a scale



of 0 through 4 (4 = strongly agree, 3 = moderately agree) when evaluating Mechanical Engineering graduates from Sacramento State the score for the statement “The CSUS ME program has prepared employees to communicate effectively” was 3.01. There indicates that our graduates have acceptable communication skills, but they could be improved.

We surveyed the 74 graduating seniors in Spring 2014. When asked to rate how well the program was meeting the PLO of effective communication (including written communication) on a scale of 0 through 4 (4 = strongly agree, 3 = moderately agree) the score for the statement “The CSUS ME program has prepared me to communicate effectively” was 3.04. Our graduates are measuring their communication effectiveness at the same level as employers. This score indicates that our students are fairly evaluating their communication skill level, and that these skills have room for improvement. As the skills improve the graduates will gain confidence and be able to be more effective in the workforce.

### ***Other Measures***

**Q4.5.** Were external benchmarking data used to assess the PLO?

	1. Yes
X	2. No ( <b>If no, go to Q4.6</b> )

**Q4.5.1.** Which of the following measures was used?

	1. National disciplinary exams or state/professional licensure exams
	2. General knowledge and skills measures (e.g., CLA, CAAP, ETS PP, etc)
	3. Other standardized knowledge and skill exams (e.g., ETS, GRE, etc)
	4. Others, specify:

**Q4.6.** Were other measures used to assess the PLO?

	1. Yes
X	2. No ( <b>Go to Q4.7</b> )
	3. Don't know ( <b>Go to Q4.7</b> )

**Q4.6.1.** If yes, please specify: [\_\_\_\_\_]

### **Alignment and Quality**

**Q4.7.** Please describe how you collected the data? For example, in what course(s) (or by what means) were data collected? How reliable and valid is the data? [WORD LIMIT: 300 WORDS]

The Technical Writing Rubric was used to collect data to directly assess the writing ability of the graduates of the Mechanical Engineering Program in Spring 2014. Five reports were randomly selected from 15 reports and three faculty were "normed" and then scored the papers individually. The data were summarized and will be presented to the Mechanical Engineering Department Assessment Committee for further evaluation.

The faculty of the Mechanical Engineering program are all involved in various aspects of assessing all the program learning outcomes in compliance with ABET requirements.

**Q4.8.** How many assessment tools/methods/measures **in total** did you use to assess this PLO? [\_\_2\_\_]

**NOTE: IF IT IS ONLY ONE, GO TO Q5.1.**

Direct evaluation of the Senior Project Reports using the Technical Writing Rubric and surveys of students, alumni and employers.

**Q4.8.1.** Did the data (including all the assignments/projects/portfolios) from all the different assessment tools/measures/methods directly align with the PLO?

X	1. Yes
	2. No
	3. Don't know

**Q4.8.2.** Were **ALL** the assessment tools/measures/methods that were used good measures for the PLO?

X	1. Yes
	2. No
	3. Don't know

### Question 5 (Q5): Use of Assessment Data.

**Q5.1.** To what extent have the assessment results from 2012-2013 been used for? [CHECK ALL THAT APPLY]

	Very Much (1)	Quite a Bit (2)	Some (3)	Not at all (4)	Not Applicable (9)
1. Improving specific courses			X		
2. Modifying curriculum			X		
3. Improving advising and mentoring			X		
4. Revising learning outcomes/goals			X		
5. Revising rubrics and/or expectations			X		
6. Developing/updating assessment plan			X		
7. Annual assessment reports	X				
8. Program review			X		
9. Prospective student and family information				X	
10. Alumni communication				X	
11. WASC accreditation (regional accreditation)			X		
12. Program accreditation			X		
13. External accountability reporting requirement					X
14. Trustee/Governing Board deliberations					X
15. Strategic planning			X		
16. Institutional benchmarking				X	
17. Academic policy development or modification			X		
18. Institutional Improvement			X		
19. Resource allocation and budgeting			X		
20. New faculty hiring			X		
21. Professional development for faculty and staff			X		
22. Other Specify:					

**Q5.1.1.** Please provide one or two best examples to show how you have used the assessment data above.

We have added peer review and in class writing assignments to Engr 45 (sophomore level course) to reinforce the writing instruction students receive in their lower division English composition courses. We found that integrating these skills into the curriculum at a relatively early stage helps the students retain them and be able to use them more effectively in the capstone course sequence.

We have modified the course content of ME 138 to ensure that our students will be able to transition between the Machine Design sequence and apply those topics and the product design topics to the Senior Project sequence (ME 190 and ME 191).

**Q5.2.** As a result of the **assessment effort in 2013-2014** and based on the prior feedbacks from OAPA, do you anticipate making any changes for your program (e.g., course structure, course content, or modification of program learning outcomes)?

X	1. Yes
	2. No ( <b>If no, go to Q5.3</b> )
	3. Don't know ( <b>Go to Q5.3</b> )

**Q5.2.1.** What changes are anticipated? By what mechanism will the changes be implemented? How and when will you assess the impact of proposed modifications? [WORD LIMIT: 300 WORDS]

We will continue to develop strategies to improve communication skills. Some possible mechanisms are utilizing additional peer review and mid-semester reports in the capstone sequence. Additionally we are soliciting assistance from industry partners for professional review and feedback to the students on their communication.

**Q5.2.2.** Is there a follow-up assessment on these areas that need improvement?

X	1. Yes
	2. No
	3. Don't know

**Q5.3.** Many academic units have collected assessment data on aspects of a program that are not related to program learning outcomes (i.e., impacts of an advising center, etc.). If your program/academic unit has collected assessment data in this way, please briefly report your results here. [WORD LIMIT: 300 WORDS]

**Question 6 (Q6).** Which program learning outcome(s) do you plan to assess next year?

X	1. Critical thinking (WASC 1) <sup>1</sup>
	2. Information literacy (WASC 2)
	3. Written communication (WASC 3)
	4. Oral communication (WASC 4)
	5. Quantitative literacy (WASC 5)
	6. Inquiry and analysis
	7. Creative thinking
	8. Reading
	9. Team work
	10. Problem solving
	11. Civic knowledge and engagement – local and global
	12. Intercultural knowledge and competency
	13. Ethical reasoning
	14. Foundations and skills for lifelong learning
	15. Global learning
	16. Integrative and applied learning
	17. Overall competencies for GE Knowledge
	18. Overall competencies in the major/discipline
	19. Others. Specify any PLOs that the program is going to <b>assess but not included above:</b>

--	--

### Part 3: Additional Information

**A1.** In which academic year did you **develop** the current assessment plan?

	1. Before 2007-2008
	2. 2007-2008
X	3. 2008-2009
	4. 2009-2010
	5. 2010-2011
	6. 2011-2012
	7. 2012-2013
	8. 2013-2014
	9. Have not yet <b>developed</b> a formal assessment plan

**A2.** In which academic year did you last **update** your assessment plan?

	1. Before 2007-2008
	2. 2007-2008
	3. 2008-2009
	4. 2009-2010
	5. 2010-2011
	6. 2011-2012
	7. 2012-2013
X	8. 2013-2014
	9. Have not yet <b>updated</b> the assessment plan

**A3.** Have you developed a curriculum map for this program?

X	1. Yes
	2. No
	3. Don't know

**A4.** Has the program indicated explicitly where the assessment **of student learning** occurs in the curriculum?

X	1. Yes
	2. No
	3. Don't know

**A5.** Does the program have any capstone class?

X	1. Yes
	2. No
	3. Don't know

**A5.1.** If yes, please list the course number for each capstone class: [\_\_ME 190 & ME 191\_\_]

**A6.** Does the program have **ANY** capstone project?

X	1. Yes
	2. No
	3. Don't know

A7. Name of the academic unit: [\_\_Department of Mechanical Engineering\_\_]

A8. Department in which the academic unit is located: [\_\_ Mechanical Engineering\_\_]

A9. Department Chair's Name: [\_\_Susan L. Holl\_\_]

A10. Total number of annual assessment reports submitted by your academic unit for 2013-2014: [\_\_2\_\_]

A11. College in which the academic unit is located:

	1. Arts and Letters
	2. Business Administration
	3. Education
X	4. Engineering and Computer Science
	5. Health and Human Services
	6. Natural Science and Mathematics
	7. Social Sciences and Interdisciplinary Studies
	8. Continuing Education (CCE)
	9. Other, specify:

***Undergraduate Degree Program(s):***

A12. Number of undergraduate degree programs the academic unit has: [\_\_1\_\_]

A12.1. List all the name(s): [\_\_BS Mechanical Engineering\_\_]

A12.2. How many concentrations appear on the diploma for this undergraduate program? [\_\_0\_\_]

***Master Degree Program(s):***

A13. Number of Master's degree programs the academic unit has: [\_\_1\_\_]

A13.1. List all the name(s): [\_\_MS Mechanical Engineering\_\_]

A13.2. How many concentrations appear on the diploma for this master program? [\_\_0\_\_]

***Credential Program(s):***

A14. Number of credential degree programs the academic unit has: [\_\_0\_\_]

A14.1. List all the names: [\_\_\_\_\_]

***Doctorate Program(s)***

A15. Number of doctorate degree programs the academic unit has: [\_\_0\_\_]

A15.1. List the name(s): [\_\_\_\_\_]

A16. Would this assessment report apply to other program(s) and/or diploma concentration(s) in your academic unit\*?

	1. Yes
X	2. No

\*If the assessment conducted for this program (including the PLO(s), the criteria and standards of performance/expectations you established, the data you collected and analyzed, the conclusions of the assessment) is the same as the assessment conducted for other programs within the academic unit, you only need to submit one assessment report.

16.1. If yes, please specify the name of each program: \_\_\_\_\_

16.2. If yes, please specify the name of each diploma concentration: \_\_\_\_\_

## **Appendix I: Program Educational Objectives**

The Mechanical Engineering program will prepare graduates who:

- I. Will enter professional employment and/or graduate study in the following areas of mechanical engineering practice: machine design, thermal and fluids systems, materials, and manufacturing;
- II. Will use knowledge of the principles of science, mathematics, and engineering, to identify, formulate, and solve problems in mechanical engineering;
- III. Will apply creativity in the design of systems, components, processes, and/or experiments and in the application of experimental results, working effectively on multi-disciplinary teams;
- IV. Will communicate effectively through speaking, writing, and graphics, including the use of appropriate computer technology;
- V. Will use their understanding of professional, ethical, and social responsibilities, the nature and background of diverse cultures, and the importance of life-long learning in the conduct of their professional careers.



## Appendix II: Technical Writing Rubric

Criteria	1 Poor	2 Weak	3 Acceptable	4 Strong	Rating
<b>Organization and Transitions</b>	Unclear organization, no transitions between sections OR Organization is inappropriate for report	Some signs of organization. May have abrupt or illogical shifts. Ineffective flow of ideas	Organization is logical and coherent. Follows standard format. Transitions may occasionally be awkward but smooth.	Clear logical organization. Follows appropriate format. Transitions between sections are smooth.	
<b>Diction, Syntax, and Conventions of Standard English</b>	Displays serious lack of familiarity with the conventions of written language that interferes with meaning and may contain a pervasive pattern of errors in grammar, usage, and mechanics that interferes with meaning.	Demonstrates limited control of language and clarity; simplistic, over-inflated, or cliched language may be frequent and may contain numerous errors in grammar, usage, and mechanics that undermine coherence.	Demonstrates good control of language, including mostly appropriate diction and some syntactic variety, although language may occasionally be simplistic, over-inflated, or cliched, and may have multiple minor errors in grammar, usage, and mechanics.	Demonstrates excellent control of language, including appropriate diction and syntactic variety, plus facility with the conventions of standard written English, but may have minor flaws.	
<b>Paragraph and Sentence Structure</b>	Sentence structure and phrasing confusing with compounded syntax problems with clause and sentence closure and linkage.	Sentence structure and syntax may be relatively simple but phrasing clear and not confusing.	Reflects mostly a command of clauses and sentences. Sentences contain appropriate variety and some syntactic maturity.	Reflects a command of clauses, sentences, and paragraphs. Sentences varied with syntactic maturity.	

<b>Criteria</b>	<b>1 Poor</b>	<b>2 Weak</b>	<b>3 Acceptable</b>	<b>4 Strong</b>	<b>Rating</b>
<b>Content and Argument</b>	Makes no clear statement of main idea; lacks supporting detail or supports are irrelevant; uses, for the most part, some mode of discourse other than argument.	Assertions vague or lacking central focus; supports are frequently tangential, irrelevant, repetitive and/or simplistic.	Appropriate assertions that provide some unity of direction, supported by relevant details.	Clear and specific assertions, appropriate to the prompt, supported by logically compelling reasons.	
<b>Audience Awareness</b>	Shows no awareness of audience or total misconception of them.	Shows little awareness of audience or appears to misconceive them.	Shows good awareness of audience.	Successfully tailors argument to an appropriate audience.	