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), 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: [____MS Mechanical Engineering_____]

B2. Report author(s): [__Kenneth Sprott, Susan Holl_____]

B3. Fall 2012 enrollment: [__46___]
*Us*e 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]

	1. Undergraduate baccalaureate major
	2. Credential
X	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 **assessed in 2013-2014 but not included above:** a. b. c.

[*] 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 MS ME program has four program learning outcomes (Appendix I). During the 2013-14 academic year we focused on PLO D: *Will communicate effectively through speaking, writing, and graphics.* Specifically we focused on (WASC 3) *written communication*. Because we had already published and widely distributed a Thesis Scoring 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). The ME MS is a "thesis only" program; the culminating experience for all ME MS students is completion of a thesis supervised by an ME faculty member.

Criteria: D.1 – **Effectiveness of the Thesis:** Papers written in an academic context are expected to contain a thoughtful and insightful thesis, main idea, position, or claim that is sustained throughout the paper.

D.2 – **Focus of Thesis:** Papers written in an academic context are expected to address the topic and issues set forth in the assignment and address all aspects of the writing task. Usually requires some discussion and refutation of an opposing view point..

D.3 – **Support:** Papers written in an academic context are expected to provide support for main points with reasons, explanations, and examples that are appropriate for intended audience.

D.4 – **Organization:** Papers written in an academic context are expected to be well-organized, in both overall structure & paragraphs.

D.5 – **Style:** Papers written in an academic context are expected to be stylistically effective – that is, to contain well-structured sentences, well-chosen words, and an appropriate tone, as a means of achieving its purpose.

D.6 – **Grammar and Mechanics:** Papers written in an academic context are expected to maintain sentence level correctness in terms of syntax, grammar, spelling, punctuation, and format.

The rubric we developed was developed specifically for evaluating technical thesis writing. Capable written communication is essential for success as an engineer. Although this rubric was developed in conjunction with assistance from English Composition faculty it is not a standard rubric. We have higher expectations for the culminating experience in the ME MS program as compared to the BS ME program. During the 2014-15 academic year we will discuss adopting a modified 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. It is important that we develop modifications that allow for the more stringent standards expected from graduates of an MS ME program.

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 **(If no, go to Q1.4)**
	3. Don't know **(Go to Q1.4)**

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:

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 **ALL** PLOs assessed in 2013-14.
	2. Yes, we have developed standards/expectations for **SOME** PLOs assessed in 2013-14.
X	3. No **(If no, go to Q2.2)**
	4. Don't know **(Go to Q2.2)**
	5. Not Applicable **(Go to Q2.2)**

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 **(If no, go to Q3.1)**

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

	1. In **SOME course syllabi/assignments** in the program that claim to introduce/develop/master the PLO(s)
X	2. In **ALL 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 **(If no, go to Part 3: Additional Information)**

	3. Don't know **(Go to Part 3)**
	4. Not Applicable **(Go to Part 3)**

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

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

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 MS Thesis Scoring are presented in Table I.

Table 1: Results for Thesis Scoring

Criterion	2 - Strong	1 - Acceptable	0 -Weak	Total (N = 5)
D.1 Effectiveness of Thesis	53%	47%		1.5
D.2 Focus of Thesis	47%	53%		1.5
D.3 Support	60%	40%		1.6
D. 4 Organization	67%	33%		1.7
D. 5 Style	47%	33%	20%	1.3
D. 6 Grammar & Mechanics	33%	33%	33%	1.0

Based on the evaluation using our Thesis Scoring Rubric of five randomly selected theses 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. It is of note that the effectiveness of all the theses was considered "acceptable" or "strong" and the weakest area is in the grammar and mechanics. These are areas that we continue to focus on because a significant fraction of our MS ME students are from international backgrounds in which English is not their first language. We have added a GWI course as a requirement and advise students to take that course in their first term in the program.

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) [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. 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]

We used the culminating experience MS thesis requirement as the assignment we evaluated. The thesis is to be written using standard technical engineering style and is required to be understandable to an appropriate audience (someone who has earned a BS in Mechanical Engineering).

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 theses. Three faculty met and discussed the rubric and independently scored the five theses.

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
	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 Mechanical Engineering MS graduates who have completed their degree in the last 5 years. The response rate was 13%. 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 prepared me to communicate effectively" was 3.3. From these responses we can conclude that our graduates have acceptable communication skills, but they could be improved.

We surveyed students all 8 students completing their MS ME degrees in Fall 2013. 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 3.3. Students who are just completing the program are measuring their communication effectiveness at the same level as alumni. This score indicates that these skills have room for improvement. We hope to see an improvement in written communication skills as the students begin implementing the material they learn in the ME 209 GWI course. 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 **(If no, go to Q4.6)**

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 **(Go to Q4.7)**
	3. Don't know **(Go to Q4.7)**

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 Thesis Scoring Rubric was used to directly assess 5 MS theses. 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. We will look at restructuring our scoring rubric but want to make sure to distinguish our expectations when compared to our BS ME program.

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 theses using the Thesis Scoring Rubric and surveys of students and alumni.

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.

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 **(If no, go to Q5.3)**
	3. Don't know **(Go to Q5.3)**

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 are discussing adding additional writing assignments to our first semester ME 209 GWI course with additional structured feedback.

We will discuss modifying our Thesis Scoring Rubric to create a more standard 4 point scale. We will examine the VALUE rubric and try to make modifications that are appropriate for evaluating graduate level work.

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?

	1. Critical thinking (WASC 1) [1]
	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
X	18. Overall competencies in the major/discipline
	19. Others. Specify any PLOs that the program is going to **assess but not included above:**

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 **developed** 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
X	6. 2011-2012
	7. 2012-2013
	8. 2013-2014
	9. Have not yet **updated** the assessment plan

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

	1. Yes
X	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 500___]

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: GRADUATE LEARNING GOALS/OBJECTIVES

Goal/Objective	Outcome (Assessment Components)
A. Technical and Professional Maturity: Will enter professional employment at an advanced level and/or Ph.D. programs in the following areas of mechanical engineering practice: machine design, thermal and fluids systems, and manufacturing.	Demonstrate proficiencies in technical materials which are up-to-date and high in demand especially in the concentration area.
B. Knowledge and Analysis: Will use knowledge of the principles of science, mathematics, and engineering, to identify, formulate, and solve problems in mechanical engineering.	Identify and formulate technical requirements. Use mathematical and scientific tools to analyze, test, solve problems, and improve performance of designs.
C. Creativity: Will apply creativity in the design of systems, components, or processes to meet desired needs.	Identify needs or system improvements in a real world environment. Operationalize these needs and system improvements into specific technical requirements. Based on the technical requirements, perform engineering synthesis, design and analysis to develop products and/or solve problems.
D. Communication: Will communicate effectively through speaking, writing, and graphics.	Write technical reports with specifying clear contributions, explanations, and conclusions. Publish reports (including thesis) following a standard professional format. Present technical work for a targeted audience with effective oral communication and visual aids.

Appendix II: **Thesis Scoring Rubric**

Assessment Rubric for Thesis	Strong 2	Acceptable 1	Weak 0
EFFECTIVENESS OF THE THESIS: Papers written in an academic context are expected to contain a thoughtful and insightful thesis, main idea, position, or claim that is sustained throughout the paper.	The thesis is clear, insightful and thought-provoking. It is sustained consistently throughout the paper.	The thesis is clear and plausible. It is sustained consistently throughout the paper.	The thesis is weak or absent. It is not sustained throughout the paper.
FOCUS OF THESIS: Papers written in an academic context are expected to address the topic and issues set forth in the assignment and address all aspects of the writing task. Usually requires some discussion and refutation of an opposing view point.	The paper responds to the assignment and addresses the topic and issues. Discussion of a counterargument is included when appropriate.	The paper responds to the assignment and addresses the topic and issues. Some discussion of a counter-argument is included when appropriate.	The paper does not respond to the assignment or treats the assignment in a superficial, simplistic, or disjointed manner. Little or no discussion of a counter-argument in included.
SUPPORT: Papers written in an academic context are expected to provide support for main points with reasons, explanations, and examples that are appropriate for intended audience.	The thesis is fully and convincingly developed, supported with good reasons, explanations and examples.	The thesis is adequately developed, supported with reasons, explanations, and examples.	The thesis is inadequately developed, unsupported with reasons, explanations, and examples.
ORGANIZATION: Papers written in an academic context are expected to be well-organized, in both overall structure & paragraphs.	The paper is well-structured; its form contributes to its purpose. Paragraphs are well-organized and carefully linked to the thesis.	The paper is generally well structured, with only a few flaws in overall organization. Paragraphs are adequately organized and generally linked to the thesis.	The paper is poorly structured; organizational flaws undermine its effectiveness. Paragraphs are not well organized; nor are they linked to the thesis.
STYLE: Papers written in an academic context are expected to be stylistically effective – that is, to contain well-structured sentences, well-chosen words, and an appropriate tone, as a means of achieving its purpose.	The sentence structure, word choice, fluency, and tone of the paper enhance its effectiveness and reinforce its purpose.	The sentence structure, word choice, fluency, and tone of the paper contribute to its effectiveness and adequately support its purpose.	The sentence structure, word choice, fluency, and tone of the paper detract from its effectiveness or are inappropriate to its purpose.
GRAMMAR AND MECHANICS: Papers written in an academic context are expected to maintain sentence level correctness in terms of syntax, grammar, spelling, punctuation, and format.	The paper is correct in terms of its syntax, grammar, spelling, punctuation, and format.	Sentence level errors do not seriously detract from the paper's effectiveness.	Sentence level errors are so frequent and disruptive that they detract from the paper's effectiveness.