# 2014-2015 GPHD Annual Assessment Report

*FOR GRADUATE AND CREDENTIAL PROGRAMS: THIS TEMPLATE REFERS TO SAC STATE BACCALAUREATE LEARNING GOALS. PLEASE IGNORE THESE REFERENCES IN YOUR REPORT.*

## Question 1: Program Learning Outcomes

**Q1.1.** Which of the following Program Learning Outcomes (PLOs) and Sac State Baccalaureate Learning Goals (BLGs) **did you assess in 2014-2015**? **[Check all that apply]**

- [ ] 1. Critical thinking
- [ ] 2. Information literacy
- [ ] 3. Written communication
- [ ] 4. Oral communication
- [ ] 5. Quantitative literacy
- [ ] 6. Inquiry and analysis
- [ ] 7. Creative thinking
- [ ] 8. Reading
- [ ] 9. Team work
- [ ] 10. Problem solving
- [ ] 11. Civic knowledge and engagement
- [ ] 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. Other, specify any PLOs that were assessed in 2014-2015 but not included above:
  - a.
  - b.
  - c.

**Q1.3.** Are your PLOs closely aligned with the mission of the university?

- [X] 1. Yes
- [ ] 2. No
- [ ] 3. Don't know

**Q1.4.** Is your program externally accredited (other than through WASC)?

- [X] 1. Yes
- [ ] 2. No (Go to **Q1.5**)
- [ ] 3. Don't know (Go to **Q1.5**)

**Q1.4.1. If** the answer to Q1.4 is yes, are your PLOs closely aligned with the mission/goals/outcomes of the accreditation agency?

- [X] 1. Yes
- [ ] 2. No
- [ ] 3. Don't know

**Q1.5.** Did your program use the *Degree Qualification Profile* (DQP) to develop your PLO(s)?

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

**Q1.6.** Did you use action verbs to make each PLO measurable (See Attachment I)? Yes

**Q1.2.** Please provide more detailed background information about **EACH PLO** you checked above and other information such as how your specific PLOs were **explicitly** linked to the Sac State BLGs:

Program Learning Outcomes are tied to the discipline in the following ways:

**A. Graduates from the graphic design program will be able to demonstrate the ability to solve communication problems, including the skills of problem identification, audience and context definition, research and information gathering, analysis, generation of alternative solutions, prototyping and user testing, and evaluation of outcomes.**

Program: Graphic Design, Bachelor of Science Department: Design
Learning outcome A is highly valued in the modern practice of Graphic Design. The creative process, within the Graphic Design profession, is a cyclical endeavor that can envelope the entire enterprise of constructing a visual communication artifact. From defining the problem, through the generation of multiple concepts and continuing through the overseeing of the final production all while identifying, understanding and

**Q1.2.1.** Do you have rubrics for your PLOs?

- [ ] 1. Yes, for all PLOs
- [ ] 2. Yes, but for some PLOs
- [X] 3. No rubrics for PLOs
- [ ] N/A, other (please specify):

acknowledging the audience and the context is vital.

**B. Graduates from the Graphic Design Program will be able to demonstrate the ability to create and develop visual form in response to communication problems, including an understanding of principles of visual organization/composition, information hierarchy, symbolic representation, typography, aesthetics, and the construction of meaningful images.**

Learning outcome B is at the core of the historical and modern practice of Graphic Design. The creation and analyses of aesthetically striking visual compositions, singularly and in systems to address a given problem is a primary measure of success for the Graphic Design profession.

**C. Graduates from the Graphic Design Program will be able to demonstrate an understanding of tools and technology, including their roles in the creation, reproduction, and distribution of visual messages.**

Learning outcome C is a valued skill set upon entering the profession. Technology as an instrument of Graphic Design moves at an exceptionally fast pace. Graduates are expected to be proficient in both analog and digital technologies when executing a design solution. In addition graduates are expected to be aware and be able to utilize technological changes in information distribution channels.

**D. Graduates from the Graphic Design Program will be able to demonstrate an understanding of basic business practices related to professional practice, including the ability to organize design projects and to work productively as a member of teams.**

Learning outcome D is a valued skill set upon entering the profession. Graphic Design as a practice does not exist in a vacuum. Graduates are expected to work collaboratively with clients, vendors and other creative professionals. Graduates are also expected to understand how the creative process applies to standard business practices and cycles.

**E. An understanding of design history, theory, and criticism from a variety of perspectives, including those of art history, communication and information theory, technology, and the social and cultural use of design objects.**

The Graphic Design faculty consider learning outcome E a valued area of knowledge due to its ability to illustrate to graduates the role Graphic Design plays in a broader cultural context in both a historical and contemporary setting. It provides graduates with the ability to consider the impact of the artifacts they produce in a wide range of contexts.

***IN QUESTIONS 2 THROUGH 5, REPORT IN DETAIL ON ONE PLO THAT YOU ASSESSED IN 2014-2015***

## Question 2: Standard of Performance for the selected PLO

**Q 2.1**. Specify one PLO here as an example to illustrate how you conducted assessment (be sure you checked the correct box for this PLO in Q1.1):

Overall competencies in the major/discipline

**Q2.2.** Has the program developed or adopted **explicit** standards of performance for this PLO?

- [ ] 1. Yes
- [X] 2. No
- [ ] 3. Don't know
- [ ] 4. N/A

**Q2.3.** **Please provide the rubric(s)** and standard of performance that you have developed for this PLO here or in the appendix: **[Word limit: 300]**

The standards of performance mirror those required by the profession for employment. The Graphic Design Profession sets the level of competence necessary to be employed in the field and thus the competence required by graduates.

**Q2.4.** Please indicate the category in which the selected PLO falls into.

- [X] 1. Critical thinking
- [ ] 2. Information literacy
- [ ] 3. Written communication
- [X] 4. Oral communication
- [ ] 5. Quantitative literacy
- [X] 6. Inquiry and analysis
- [X] 7. Creative thinking
- [ ] 8. Reading
- [X] 9. Team work
- [X] 10. Problem solving
- [ ] 11. Civic knowledge and engagement
- [X] 12. Intercultural knowledge and competency
- [ ] 13. Ethical reasoning
- [X] 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. Other:

| Please indicate where you have published the PLO, the standard of performance, and the rubric that measures the PLO: | Q2.5 (1) PLO | Q2.6 (2) Standards of Performance | Q2.7 (3) Rubrics |
|---|---|---|---|
| 1. In **SOME** course syllabi/assignments in the program that address the PLO | X | X | X |
| 2. In **ALL** course syllabi/assignments in the program that address the PLO | | | |
| 3. In the student handbook/advising handbook | | | |
| 4. In the university catalogue | X | | |
| 5. On the academic unit website or in newsletters | | | |
| 6. In the assessment or program review reports, plans, resources or activities | X | | |
| 7. In new course proposal forms in the department/college/university | X | | |
| 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. Other, specify: | | | |

## Question 3: Data Collection Methods and Evaluation of Data Quality for the Selected PLO

| **Q3.1.** Was assessment data/evidence **collected** for the selected PLO in 2014-2015? | **Q3.2. If** yes, was the data **scored/evaluated** for this PLO in 2014-2015? |
|---|---|
| [X] 1. Yes<br>[ ] 2. No (Skip to **Q6**)<br>[ ] 3. Don't know (Skip to **Q6**)<br>[ ] 4. N/A (Skip to **Q6**) | [X] 1. Yes<br>[ ] 2. No (Skip to **Q6**)<br>[ ] 3. Don't know (Skip to **Q6**)<br>[ ] 4. N/A (Skip to **Q6**) |
| **Q3.1A.** How many assessment tools/methods/measures **in total** did you use to assess this PLO?<br><br>1. Portfolio Review<br>2. Senior Portfolio Exhibition<br>3. Capstone Classes | **Q3.2A** Please describe how you collected the assessment data for the selected PLO. For example, in what course(s) or by what means were data collected (see Attachment II)? **[Word limit: 300]**<br><br>1. Portfolio Review<br>There is a formal review of pre-major's portfolios after the completion of their foundation courses. These portfolios are made up of work from Photography and Graphic Design classes and are evaluated by each full-time faculty member of the Graphic Design Program. Each faculty member gives a student's a score based on their ability to demonstrate principles covered during foundations courses. These scores are compared and discussed in order to reach a ranking of all the student applicants and are then compared to rankings from previous years. The quality of these portfolios also form the starting point for evaluations as students move towards graduation.<br><br>2. Senior Portfolio Exhibition<br>Every year the Graphic Design Program takes part in the Department of Design's Spring Show in which projects from all upper division classes are displayed, accompanied by portfolios of graduating seniors. Faculty and community judges review pieces for awards and general continuity and quality of curriculum. Judges are pulled from the northern California professional community and include alumni, members of national professional organizations and faculty from other institutions. Alumni and the greater business community also participate by communicating the current needs of employers within the industry, providing feedback on how curriculum and skill sets match anticipated openings.<br><br>3. Capstone Class<br>As senior Graphic Design majors are required to take a portfolio class in which they review and reassess, with their professor, assignments spanning the entire curriculum. Professors make note of any inconsistencies and issues in curriculum, and evaluate the individual . Students are also encouraged to get feedback from faculty members beyond their class professor. The student portfolios are evaluated by the professor using the same criteria as the initial portfolio review. |

## *Q3A: Direct Measures (key assignments, projects, portfolios)*

**Q3.3.** Were direct measures [key assignments, projects, portfolios, etc.] used to assess this PLO?

- [X] 1. Yes
- [ ] 2. No (Go to **Q3.7**)
- [ ] 3. Don't know (Go to **Q3.7**)

**Q3.3.2.** Please attach the direct measure you used to collect data.

All student digital Portfolio Review submission available upon request. There are two samples included with this document, a strong and a weak one (2014-15 Assessment Appendix A Strong.pdf, 2014-15 Assessment Appendix B Weak.pdf).

**Q3.3.1.** Which of the following direct measures were used? **[Check all that apply]**

- [X] 1. Capstone projects (including theses, senior theses), courses, or experiences
- [X] 2. Key assignments from required classes in the program
- [ ] 3. Key assignments from elective classes
- [X] 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
- [X] 7. Other portfolios
- [ ] 8. Other measure. Specify:

**Q3.4.** How was the data evaluated? **[Select only one]**

- [X] 1. **No** rubric is used to interpret the evidence (Go to **Q3.5**)
- [ ] 2. Used rubric developed/modified by the faculty who teaches the class
- [ ] 3. Used rubric developed/modified by a group of faculty
- [ ] 4. Used rubric pilot-tested and refined by a group of faculty
- [ ] 5. The VALUE rubric(s)
- [ ] 6. Modified VALUE rubric(s)
- [X] 7. Used other means. Specify: Evaluated by Graphic Design faculty.

**Q3.4.1.** Was the direct measure (e.g. assignment, thesis, etc.) aligned directly and explicitly with the PLO?

- [ ] 1. Yes
- [ ] 2. No
- [ ] 3. Don't know
- [ ] 4. N/A

**Q3.4.2.** Was the direct measure (e.g. assignment, thesis, etc.) aligned directly and explicitly with the rubric?

- [ ] 1. Yes
- [ ] 2. No
- [ ] 3. Don't know
- [ ] 4. N/A

**Q3.4.3.** Was the rubric aligned directly and explicitly with the PLO?

- [ ] 1. Yes
- [ ] 2. No
- [ ] 3. Don't know
- [ ] 4. N/A

**Q3.5.** How many faculty members participated in planning the assessment data collection of the selected PLO?

All full-time Graphic Design faculty with input from part-time faculty.

**Q3.5.1. If** the data was evaluated by multiple scorers, was there a norming process (a procedure to make sure everyone was scoring similarly)?

- [ ] 1. Yes
- [ ] 2. No
- [X] 3. Don't know

**Q3.6.** How did you **select** the sample of student work [papers, projects, portfolios, etc.]?

Full-time faculty determined which type of projects best reflect student skills.

**Q3.6.1.** How did you **decide** how many samples of student work to review?

All samples of student work where used.

**Q3.6.2.** How many students were in the class or program?
63 students in portfolio review
39 students in Senior Show and Portfolio Class

**Q3.6.3.** How many samples of student work did you evaluate?
Portfolio Review: all work from lower division courses GPHD 25 and GPHD 30.
Senior Show and Portfolio Class: All upper division projects.

**Q3.6.4.** Was the sample size of student work for the direct measure adequate?
- [X] 1. Yes
- [ ] 2. No
- [ ] 3. Don't know

## *Q3B: Indirect Measures (surveys, focus groups, interviews, etc.)*

**Q3.7.** Were indirect measures used to assess the PLO?
- [ ] 1. Yes
- [X] 2. No (Skip to **Q3.8**)
- [ ] 3. Don't know

**Q3.7.2 If** surveys were used, how was the sample size decided?

**Q3.7.1.** Which of the following indirect measures were used? **[Check all that apply]**
- [ ] 1. National student surveys (e.g., NSSE)
- [ ] 2. University conducted student surveys (e.g. OIR)
- [ ] 3. College/Department/program student surveys
- [ ] 4. Alumni surveys, focus groups, or interviews
- [ ] 5. Employer surveys, focus groups, or interviews
- [ ] 6. Advisory board surveys, focus groups, or interviews
- [ ] 7. Other, specify:

**Q3.7.3. If** surveys were used, briefly specify how you selected your sample.

**Q3.7.4. If** surveys were used, what was the response rate?

## *Q3C: Other Measures (external benchmarking, licensing exams, standardized tests, etc.)*

**Q3.8.** Were external benchmarking data such as licensing exams or standardized tests used to assess the PLO?
- [X] 1. Yes
- [ ] 2. No (Go to **Q3.8.2**)
- [ ] 3. Don't know

**Q3.8.1.** Which of the following measures were 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.)
- [X] 4. Other, specify: Graphic Design professionals rated all senior portfolios.

**Q3.8.2.** Were other measures used to assess the PLO?
- [ ] 1. Yes
- [X] 2. No (Go to **Q3.9**)
- [ ] 3. Don't know (Go to **Q3.9**)

**Q3.8.3.** If other measures were used, please specify:

## *Q3D: Alignment and Quality*

**Q3.9.** Did the data, including the direct measures, from all the different assessment tools/measures/methods directly align with the PLO?
- [X] 1. Yes
- [ ] 2. No

**Q3.9.1.** Were **ALL** the assessment tools/measures/methods that were used good measures for the PLO?
- [X] 1. Yes
- [ ] 2. No

| | |
|---|---|
| ☐ 3. Don't know | ☐ 3. Don't know |

## Question 4: Data, Findings and Conclusions

**Q4.1.** Please provide simple tables and/or graphs to summarize the assessment data, findings, and conclusions: (see Attachment III) **[Word limit: 600 for selected PLO]**

1. Portfolio Review
Score 1–10 (average of all Full-time faculty), Faculty told score of 5 = average skill level:
1–1.9 (1), 2–2.9 (4), 3–3.9 (6), 4–4.9 (13), 5–5.9 (14), 6–6.9 (13), 7–7.9 (7), 8–8.9 (5), 9–9.9 (0), 10 (0)
Accepted into major: 4.75–8.5 (40), wait listed: 4.75 (4), rejected 4.25 ≥ (19)

2. Senior Portfolio Exhibit
Five Community Judges (each with 10+ years of experience in graphic design field)
Judges assessed the preparedness of each student to enter the profession as an entry level graphic designer based on portfolio only.
Excellent Preparation (2) 5%
Above Average Preparation (31) 79%
Average Preparation (5) 13%
Below Average Preparation (1) 3%
Poor Preparation (0) 0%

3. Capstone Class
A (18), A- (11), B+ (4), B (2), B- (0), C+ (0), C (3), C- (0)

**Q4.2.** Are students doing well and meeting program standard? If not, how will the program work to improve student performance of the selected PLO?
Yes

**Q4.3.** For **selected** PLO, the student performance:

- ☐ 1. **Exceeded** expectation/standard
- ☒ 2. **Met** expectation/standard
- ☐ 3. **Partially** met expectation/standard
- ☐ 4. **Did not meet** expectation/standard
- ☐ 5. No expectation or standard has been specified
- ☐ 6. Don't know

# Question 5: Use of Assessment Data (Closing the Loop)

**Q5.1.** As a result of the **assessment effort in 2014-2015** and based on the prior feedback from OAPA, do you anticipate making any changes for your program (e.g., course structure, course content, or modification of PLOs)?

- [ ] 1. Yes
- [X] 2. No (Go to **Q6**)
- [ ] 3. Don't know (Go to **Q6**)

**Q5.1.2.** Do you have a plan to assess the impact of the changes that you anticipate making?

- [ ] 1. Yes
- [ ] 2. No
- [ ] 3. Don't know

**Q5.1.1.** Please describe what changes you plan to make in your program as a result of your assessment of this PLO. Include a description of how you plan to assess the impact of these changes. **[Word limit: 300 words]**

**Q5.2.** How have the assessment data from last year (**2013 - 2014**) been used so far? **[Check all that apply]**

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

23. Other Specify:

**Q5.2.1.** Please provide a detailed example of how you used the assessment data above.

# Additional Assessment Activities

**Q6.** Many academic units have collected assessment data on aspects of a program that are not related to PLOs (i.e., impacts of an advising center, etc.). **If** your program/academic unit has collected data on the program elements, please briefly report your results here. **[Word limit: 300]**

**Q7.** What PLO(s) do you plan to assess next year?

| | |
|---|---|
| | 1. Critical thinking |
| | 2. Information literacy |
| | 3. Written communication |
| | 4. Oral communication |
| | 5. Quantitative literacy |
| | 6. Inquiry and analysis |
| | 7. Creative thinking |
| | 8. Reading |
| | 9. Team work |
| | 10. Problem solving |
| | 11. Civic knowledge and engagement |
| | 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. Other, specify any PLOs that were assessed in 2014-2015 but not included above: |
| | a. |
| | b. |
| | c. |

**Q8.** Have you attached any appendices? If yes, please list them all here:

2014-15 Assessment Appendix A Strong.pdf
2014-15 Assessment Appendix B Weak.pdf

# Program Information

| | |
|---|---|
| **P1.** Program/Concentration Name(s):<br>Graphic Design<br><br>**P1.1.** Report Authors:<br>Richard Pratt | **P2.** Program Director:<br>Richard Pratt<br><br>**P2.1.** Department Chair:<br>Andrew Anker |
| **P3.** Academic unit: Department, Program, or College:<br>Program | **P4.** College:<br>Arts & Letters |
| **P5.** Fall 2014 enrollment for Academic unit *(See Department Fact Book 2014 by the Office of Institutional Research for fall 2014 enrollment:* 87 Majors (157 Pre-majors) | **P6.** Program Type: **[Select only one]**<br>[X] 1. Undergraduate baccalaureate major<br>[ ] 2. Credential<br>[ ] 3. Master's degree<br>[ ] 4. Doctorate (Ph.D./Ed.d)<br>[ ] 5. Other. Please specify: |
| ***Undergraduate Degree Program(s):***<br>**P7.** Number of undergraduate degree programs the academic unit has: 1<br><br>**P7.1.** List all the name(s): Graphic Design<br><br>**P7.2.** How many concentrations appear on the diploma for this undergraduate program? 0 | ***Master Degree Program(s):***<br>**P8.** Number of Master's degree programs the academic unit has: 0<br><br>**P8.1.** List all the name(s): n/a<br><br>**P8.2.** How many concentrations appear on the diploma for this master program? n/a |
| ***Credential Program(s):***<br>**P9.** Number of credential programs the academic unit has: 0<br><br>**P9.1.** List all the names: n/a | ***Doctorate Program(s)***<br>**P10.** Number of doctorate degree programs the academic unit has: 0<br><br>**P10.1.** List all the name(s): n/a |

| When was your assessment plan? | 1. Before 2007-08 | 2. 2007-08 | 3. 2008-09 | 4. 2009-10 | 5. 2010-11 | 6. 2011-12 | 7. 2012-13 | 8. 2013-14 | 9. 2014-15 | 10. No formal plan |
|---|---|---|---|---|---|---|---|---|---|---|
| P11. Developed | X (2002) | | | | | | | | | |
| P12. Last updated | X (2006) | | | | | | | | | |

| | 1. Yes | 2. No | 3. Don't Know |
|---|---|---|---|
| **P13.** Have you developed a curriculum map for this program? | X | | |
| **P14.** Has the program indicated explicitly where the assessment **of student learning** occurs in the curriculum? | X | | |
| **P15.** Does the program have any capstone class? | X | | |
| **P16.** Does the program have **ANY** capstone project? | X | | |

# Assessing Other Program Learning Outcomes (Optional)

If your program assessed PLOs not reported above, please summarize your assessment activities in the table below. If you completed part of the assessment process, but not the full process (for example, you revised a PLO and developed a new rubric for measuring it), then put N/A in any boxes that do not apply.

**Report Assessment Activities on Additional PLOs Here**

| Q1: Program Learning Outcome (PLO) | Q2: Standard of Performance/ Target Expectation | Q3: Methods/ Measures (Assignments) | Q4: Data/Findings/ Conclusions | Q5: Use of Assessment Data/ Closing the Loop |
|---|---|---|---|---|
| | | | | |

**Example: Educational Technology (iMet), MA**

| Q1: Program Learning Outcome (PLO) | Q2: Standard of Performance/ Target Expectation | Q3: Methods/ Measures (Assignments) | Q4: Data/Findings/ Conclusions | Q5: Use of Assessment Data/ Closing the Loop |
|---|---|---|---|---|
| <u>Critical Thinking Skills</u><br><br>6.1 Explanation of issues<br>6.2 Evidence<br>6.3 Influence of context and assumptions<br>6.4 Student's position<br>6.5 Conclusions and related outcomes<br><br>(See Critical Thinking Rubric and data tables on Next Page) | Seventy percent (70 %) of our students will score 3.0 or above in all five dimensions using the VALUE rubric by the time they graduate from the four semester program. | Culminating Experience Projects:<br><br>Master's Thesis | Students meet the standards of 6.1 (92%), 6.4 (77%) and 6.5 (69%).<br>Students do not meet the standards of 6.2 (61%) and 6.3 (61%).<br><br>**Students meet some of our Critical Thinking standards.**<br><u>The areas needing improvement</u>:<br><br>1). 6.2: Evidence (61%)<br>2). 6.3: Influence of context and assumptions (61%). | In order to help students in our program successfully become critical thinking researchers, we will design more classroom activities and assignments related to:<br>1). Re-examination of evidence (6.2) and context and assumptions (6.3) in the research<br>2). Require students to apply these skills as they compose comprehensive responses for all their assignments. |

**Example: Chemistry BS/BA**

| | | | | |
|---|---|---|---|---|
| Students will quantitatively determine the composition of chemical unknowns through the use of classical and modern analytical techniques and instrumentation. | Target performance for this assessment was that 50% of students would demonstrate "mastery" (i.e., reported values within 0.5% of the true value) and 75% of students would demonstrate "proficiency" (i.e., reported values within 1.0% of the true value). | Students were provided with nine chemical samples and quantitatively analyzed each unknown to determine their respective weight percent of chloride in a solid. | Findings were 44% mastery and 56% proficiency. | To close the loop, faculty has implemented additional opportunities for practice and achievement in analytical techniques and methodology in two core courses. |

Additional PLOs

| | | | | |
|---|---|---|---|---|
| **PLO** | | | | |
| **PLO** | | | | |
| **PLO** | | | | |

**Attachment I: The Development of Program Learning Outcomes**

**The Importance of Verbs**

| **Multiple Interpretations:** | **Fewer Interpretations:** |
|---|---|
| to grasp | to write |
| to know | to recite |
| to enjoy | to identify |
| to believe | to construct |
| to appreciate | to solve |
| to understand | to compare |

**Relevant Verbs in Defining Learning Outcomes**

(Based on Bloom's Taxonomy)

| Knowledge | Comprehension | Application | Analysis | Synthesis | Evaluation |
|---|---|---|---|---|---|
| Cite | Arrange | Apply | Analyze | Arrange | Appraise |
| Define | Classify | Change | Appraise | Assemble | Assess |
| Describe | Convert | Compute | Break Down | Categorize | Choose |
| Identify | Describe | Construct | Calculate | Collect | Compare |
| Indicate | Defend | Demonstrate | Categorize | Combine | Conclude |
| Know | Diagram | Discover | Compare | Compile | Contrast |
| Label | Discuss | Dramatize | Contrast | Compose | Criticize |
| List | Distinguish | Employ | Criticize | Construct | Decide |
| Match | Estimate | Illustrate | Debate | Create | Discriminate |
| Memorize | Explain | Interpret | Determine | Design | Estimate |
| Name | Extend | Investigate | Diagram | Devise | Evaluate |
| Outline | Generalize | Manipulate | Differentiate | Explain | Explain |
| Recall | Give Examples | Modify | Discriminate | Formulate | Grade |
| Recognize | Infer | Operate | Distinguish | Generate | Interpret |
| Record | Locate | Organize | Examine | Manage | Judge |
| Relate | Outline | Practice | Experiment | Modify | Justify |
| Repeat | Paraphrase | Predict | Identify | Organizer | Measure |
| Reproduce | Predict | Prepare | Illustrate | Perform | Rate |
| Select | Report | Produce | Infer | Plan | Relate |
| State | Restate | Schedule | Inspect | Prepare | Revise |
| Underline | Review | Shop | Inventory | Produce | Score |
| | Suggest | Sketch | Outline | Propose | Select |
| | Summarize | Solve | Question | Rearrange | Summarize |
| | Translate | Translate | Relate | Reconstruct | Support |
| | | Use | Select | Relate | Value |
| | | | Solve | Reorganize | |
| | | | Test | Revise | |

**Attachment II: Simplified Annual Assessment Report**

Basic Assessment

| **Q1.** Program Learning Outcome | **Q2.** Standards of Performance/Target Expectations | **Q3.** Methods/ Measures (Assignments) and Surveys | **Q4.** Data/Findings/ Conclusion | **Q5.** Use of Assessment Data/ Closing the Loop |
|---|---|---|---|---|

**Examples**:

Chemistry, BS/BA

(Example of Content Knowledge)

| **PLO 1:** Students will quantitatively determine the composition of chemical unknowns through the use of classical and modern analytical techniques and instrumentation. | Target performance for this assessment was that 50% of students would demonstrate "mastery" (i.e., reported values within 0.5% of the true value) and 75% of students would demonstrate "proficiency" (i.e., reported values within 1.0% of the true value). | Students were provided with nine chemical samples and quantitatively analyzed each unknown to determine their respective weight percent of chloride in a solid. | Findings were 44% mastery and 56% proficiency. | To close the loop, faculty has implemented additional opportunities for practice and achievement in analytical techniques and methodology in two core courses. |
|---|---|---|---|---|

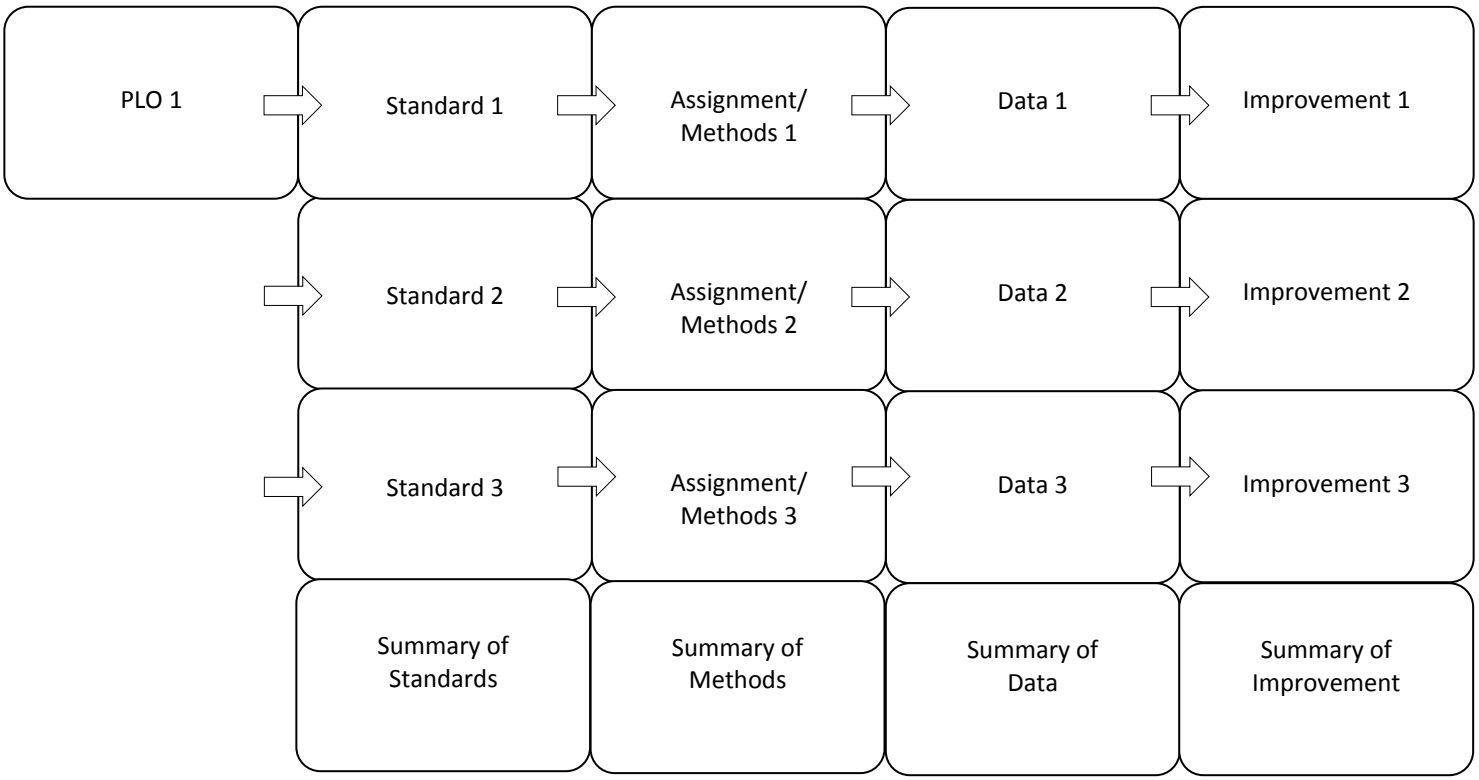
Educational Technology (iMet), MA

(Example of Complicated Skills)

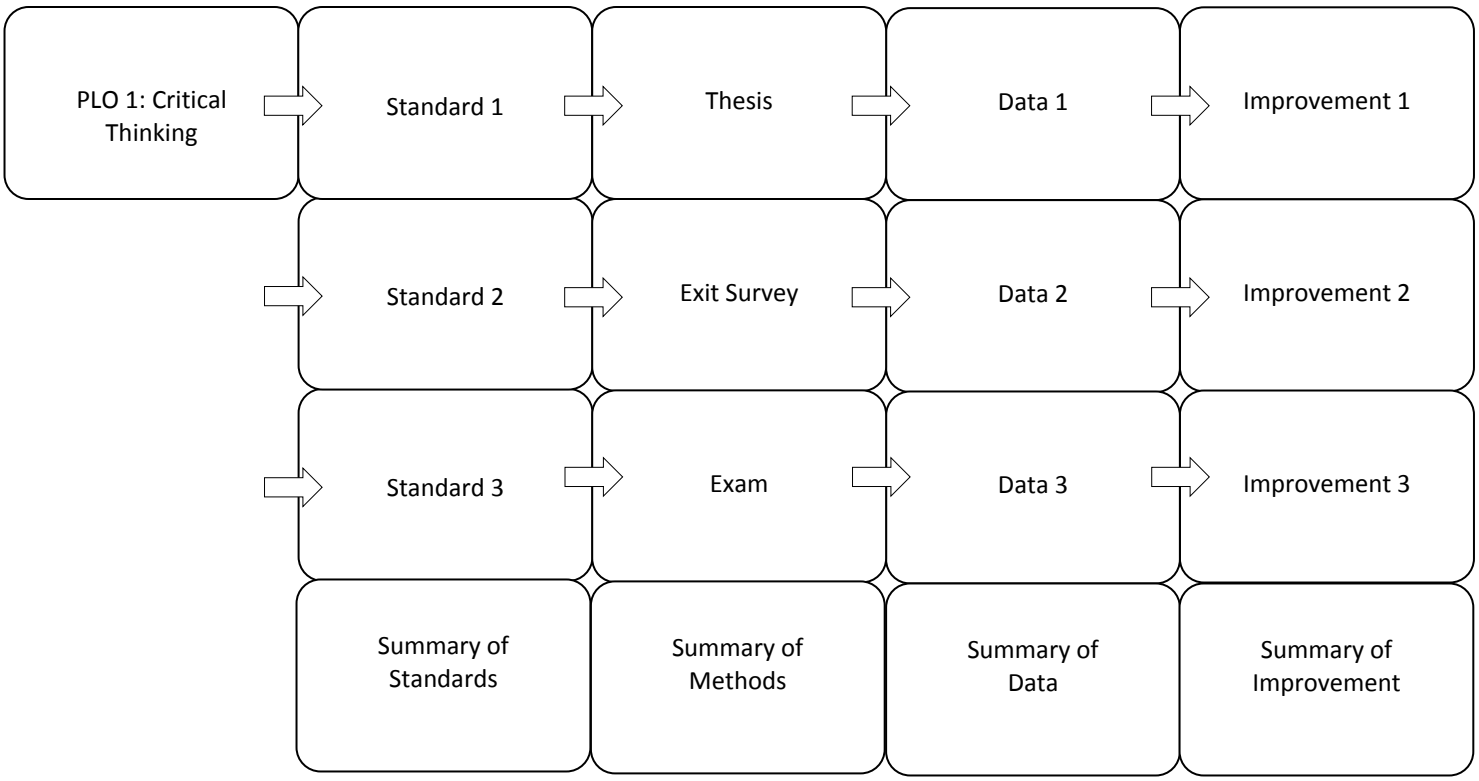
| **PLO 1:** <u>Critical Thinking Skills</u><br><br>**6.1** Explanation of issues<br>**6.2** Evidence<br>**6.3** Influence of context and assumptions<br>**6.4** Student's position<br>**6.5** Conclusions and related outcomes<br><br>(See Appendix III) | Seventy percent (70 %) of our students will score 3.0 or above in all five dimensions using the VALUE rubric by the time they graduate from the four semester program. | Culminating Experience Projects:<br><br>Master's Thesis | Students *meet* the standards 6.1 (92%), 6.4 (77%) and 6.5 (69%).<br><br>Students *do not* meet the standards 6.2 (61%) and 6.3 (61%).<br><br>**Students meet some of our Critical Thinking standards.**<br><u>The areas needing improvement</u>:<br>1). 6.2: Evidence (61%)<br>2). 6.3: Influence of context and assumptions (61%). | In order to help students in our program successfully become critical thinking researchers, we will design more classroom activities and assignments related to:<br>1). Re-examination of evidence (6.2) and context and assumptions (6.3) in the research<br>2). Require students to apply these skills as they compose comprehensive responses for all their assignments. |
|---|---|---|---|---|

**Assessment Flowchart – Multiple Methods**

One PLO Assessed by Multiple Assignments

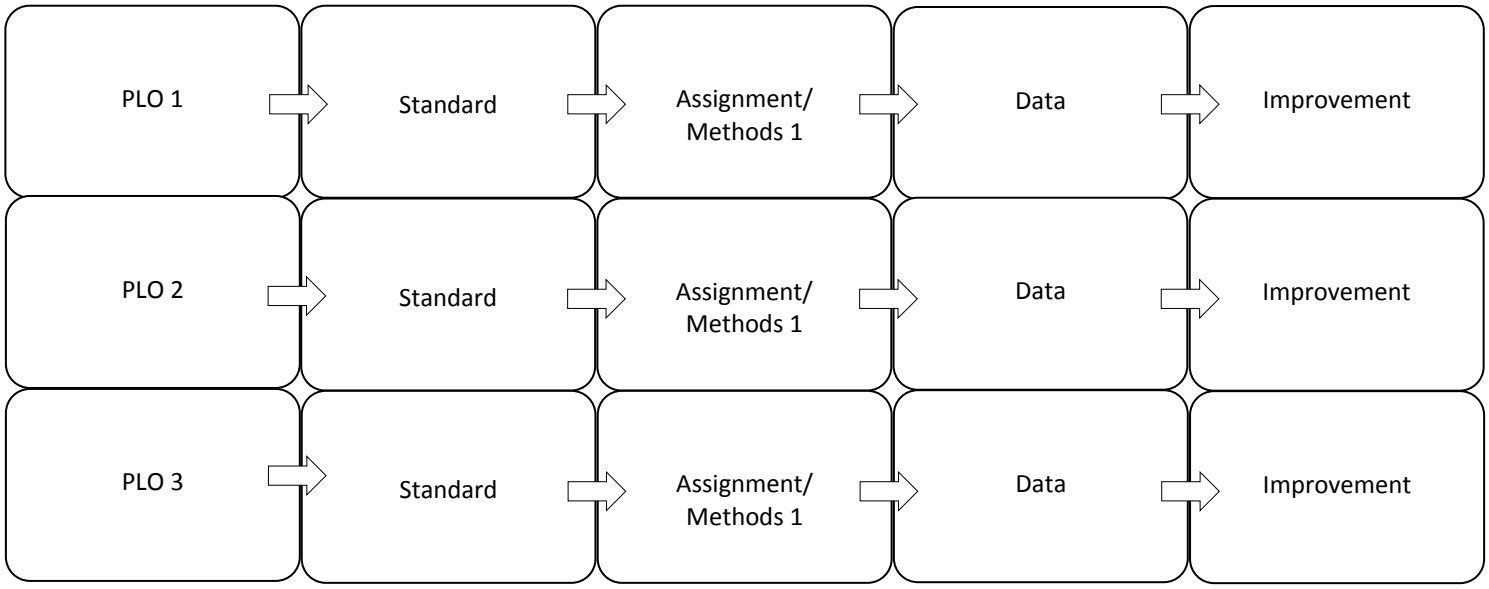



**Multiple-Methods Example:**

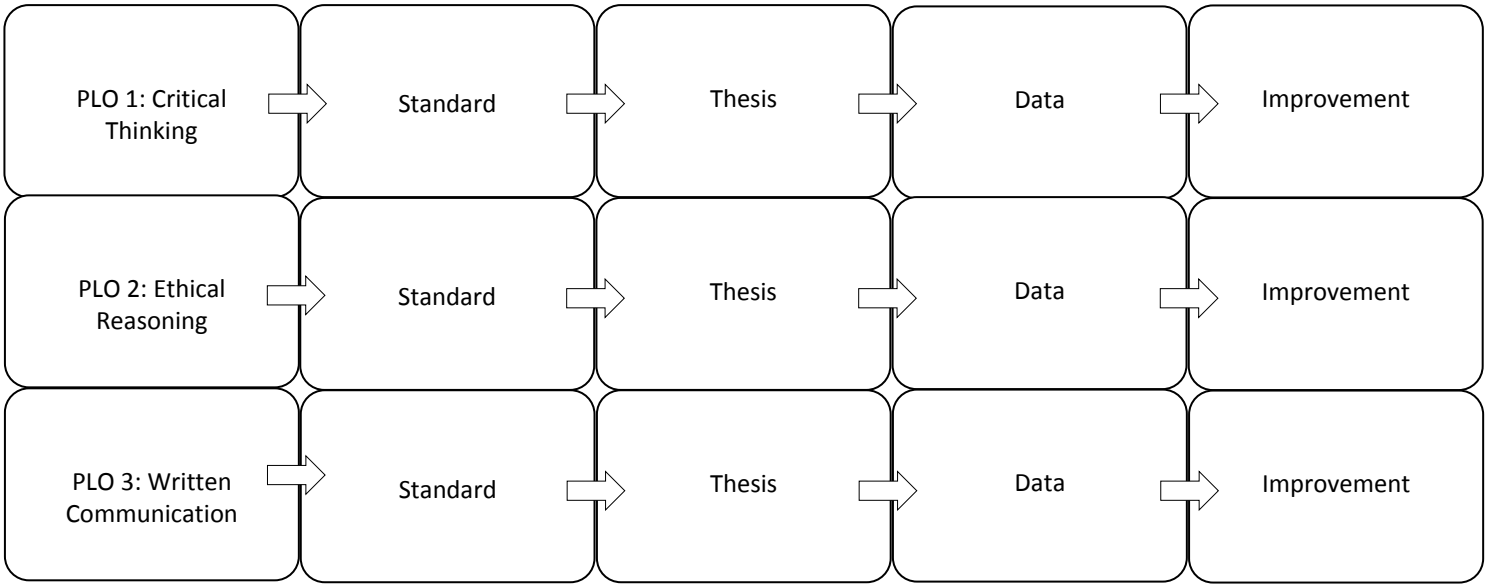


**Assessment Flowchart – Multiple PLOs**

Multiple PLOs Assessed by One Assignment




**Multiple-PLOs Example**



## Attachment III: Program Learning Outcomes (PLOs) for the Educational Technology (iMet) Graduate Program

**Table I: The Results for Critical Thinking Skill**

Note: Data shown here drawn from Data Collection Sheet[1]

| Different Levels[2] / Five Criteria (Areas)[2] | Capstone (4) | Milestone (3) | Milestone (2) | Benchmark (1) | Total (N=10) |
|---|---|---|---|---|---|
| **6.1: Explanation of issues** | 38% | 54% | 0% | 8% | (100%, N=13) |
| **6.2: Evidence** | 15% | 46% | 23% | 15% | (100%, N=13) |
| **6.3: Influence of context and assumptions** | 15% | 46% | 23% | 15% | (100%, N=13) |
| **6.4: Student's position** | 23% | 54% | 8% | 15% | (100%, N=13) |
| **6.5: Conclusions and related outcomes** | 15% | 54% | 15% | 15% | (100%, N=13) |

**Standards of Performance for Education Technology (iMet) Graduate Students**

**Q2.3.** If your program has an explicit standard(s) of performance for the selected PLO, describe the desired level of learning: *Seventy percent (70 %) of our students will score 3.0 or above using the VALUE rubric by the time they graduate from the four semester program.*

[1]Critical Thinking Data Collection Sheet

| Different Levels[2] / Five Criteria (Areas) [2] | (4) | (3) | (2) | (1) | Total (N=10) |
|---|---|---|---|---|---|
| 6.1: Explanation of issues | 5 | 7 | 0 | 1 | (N=13) |
| 6.2: Evidence | 2 | 6 | 3 | 2 | (N=13) |
| 6.3: Influence of context and assumptions | 2 | 6 | 3 | 2 | (N=13) |
| 6.4: Student's position | 3 | 7 | 1 | 2 | (N=13) |
| 6.5: Conclusions and related outcomes | 2 | 7 | 2 | 2 | (N=13) |

## [2]Critical Thinking Value Rubric

| Criterion | Capstone<br>4 | Milestone<br>3 | Milestone<br>2 | Benchmark<br>1 |
|---|---|---|---|---|
| **6.1: Explanation of issues** | Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding. | Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions. | Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown. | Issue/problem to be considered critically is stated without clarification or description. |
| **6.2: Evidence** *Selecting and using information to investigate a point of view or conclusion* | Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. | Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. | Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. | Information is taken from source(s) without any interpretation/evaluation.<br>Viewpoints of experts are taken as fact, without question. |
| **6.3: Influence of context and assumptions** | Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position. | Identifies own and others' assumptions and several relevant contexts when presenting a position. | Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa). | Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). |
| **6.4: Student's position (perspective, thesis/ hypothesis)** | Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue.<br>Limits of position (perspective, thesis/hypothesis) are acknowledged.<br>Others' points of view are synthesized within position. | Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue.<br>Others' points of view are acknowledged within position (perspective, thesis/hypothesis). | Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue. | Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious. |
| **6.5: Conclusions and related outcomes (implications and consequences)** | Conclusions and related outcomes (consequences and implications) are logical and reflect students' informed evaluation and ability to place evidence and perspectives discussed in priority order. | Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly. | Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly. | Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified. |

## Appendix I: Critical Thinking Value Rubric for PLO 6: Critical Thinking Skill (Rubric to Assess Master Thesis and ePortfolio)

| Criterion | Capstone 4 | Milestone 3 | Milestone 2 | Benchmark 1 |
|---|---|---|---|---|
| **6.1: Explanation of issues** | Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding. | Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions. | Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown. | Issue/problem to be considered critically is stated without clarification or description. |
| **6.2: Evidence** *Selecting and using information to investigate a point of view or conclusion* | Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. | Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. | Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. | Information is taken from source(s) without any interpretation/evaluation.<br>Viewpoints of experts are taken as fact, without question. |
| **6.3: Influence of context and assumptions** | Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position. | Identifies own and others' assumptions and several relevant contexts when presenting a position. | Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa). | Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). |
| **6.4: Student's position (perspective, thesis/hypothesis)** | Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue.<br>Limits of position (perspective, thesis/hypothesis) are acknowledged.<br>Others' points of view are synthesized within position. | Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue.<br>Others' points of view are acknowledged within position (perspective, thesis/hypothesis). | Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue. | Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious. |
| **6.5: Conclusions and related outcomes (implications and consequences)** | Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order. | Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly. | Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly. | Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified. |

**Standards and Achievement Targets:** 70 % of our first year graduate students should score **3 or above** by the time of their graduation.

**Appendix II: Key Assessment for the iMET Program**
**Culminating Experience Report**

**Culminating Experience Report (Action Research Report):** The main task in action research is to design and implement a study using data collection tools that will allow you to "show" the reader what happened during and as a result of your intervention. After collecting your data, you will sort through your findings, looking for bits of data that reveal some information pertinent to your study. You then look for relationships (patterns) between these bits or pieces. The patterns that emerge from a variety of sources such as things that happen, things that you observe, things that people say and things that you measure result in your findings (conclusions).

## Suggested Headings for iMET Action Research Report

Title Page
Abstract
Introduction

**Statement Of The Problem**
**Significance**
**Research Questions**
**Definitions**

**Review of Literature**
**Methods**

**Description of the Innovation/Intervention**
**Setting**
**Limitations/Delimitations of the Study**
**Data Collection**
- **Types of data collected.**
- **Subjects.**
- **Variables.**
- **Steps taken.**

**Data Analysis**
- **Procedures.**
- **Validity and reliability.**

**Findings**
**Discussion**
References
Appendices

## Appendix III: Key Assessment for the iMET Program
## ePortfolio

The iMET culminating experience is an ePortfolio consisting of:

1. **Abstract**: Simply put, the portfolio abstract is an introduction to your e-portfolio. The basic components of the abstract includes elements such as:
   - a welcome to the reader
   - an overview of the portfolio components
   - an introduction to the navigation of the portfolio
2. **Process**: The process section of the portfolio consists of a personal reflection on your experience of the iMET program and a resume. In addition, many students include a narrative of their teaching history and philosophy in this section.
3. **Products:** In the product section of the portfolio, you link artifacts (products) you have created during your time in the program. Each product you include in the product section must be accompanied by:
   - a description of how the product was conceived (what was the individual or group process that led to the creation of the product).
   - a description of how technology and teaching strategies were utilized
   - standards covered by the use of the product
   - feedback on the product you have received from received 2 peers and 1 faculty on your project
   - Most portfolio's contain at least 3-5 Artifacts
4. **Report: Literature Review and Action Research**

**Literature Review:** The goal of the literature review is to introduce your readers to your research by synthesizing for them what has been written about your area of focus. It is also a place where you address the educational theories that motivated the design of your research. Ultimately, the review of literature should set the stage for your discussion of your research. Also remember that, though you can use a variety of sources, it is very important to share primary sources of information.

**Action Research:** The main task in action research is to design and implement a study using data collection tools that will allow you to "show" the reader what happened during and as a result of your intervention. After collecting your data, you will sort through your findings, looking for bits of data that reveal some information pertinent to your study. You then look for relationships (patterns) between these bits or pieces. The patterns that emerge from a variety of sources such as things that happen, things that you observe, things that people say and things that you measure result in your findings (conclusions).

5. **Symposium: Electronic Poster and/or Webinar**