Biennial Reporting Form  
Elaborated Guidance for Programs and Departments

Departments need to complete only one form that reports on all programs (major, minor, emphases) within that department if they all have the same student learning outcomes.

Departments that have distinct programs with different student learning outcomes need to complete a report for each distinct program (undergraduate and graduate programs in the same discipline should be treated as distinct programs)

Some model Biennial Reporting Forms from the 2010-2012 cycle are provided in Appendix A:

- CBA - Economics Department, Economics Major
- CLS - Archaeology/Sociology Department, Archaeology Major and Anthropology Minor
- CSH - Health Professions Department, Radiation Therapy Program

On the following pages are Student Learning Outcomes (SLOs) and further clarification of each component needed for each reporting form:

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Component Clarification</th>
</tr>
</thead>
</table>
| List **ALL** of the **STUDENT LEARNING OUTCOMES (SLOs) IDENTIFIED** for the program/department. | **In this section, please indicate all of the Student Learning Outcomes (SLOs) associated with the program.**  
  **Information on writing clear SLOs is available here:**  
  Writing Course Objectives (See Appendix B)  
  How to Write Student Learning Outcomes |
| *(if multiple SLOs are elaborated under major categories, please share a hyperlink to a location where they may be found online.)* | |
| Identify the **SPECIFIC STUDENT LEARNING OUTCOMES MEASURED** in the past biennium. | **To help make the process of assessment manageable and meaningful, it is recommended that departments set up a plan to collect information on a subset of their SLOs within each biennium, then cycle through their list of SLOs such that the program/department will have reviewed each outcome in preparation for Academic Program Review.**  
  **If your program/department maintains some external accreditation guidelines that require your SLOs be accessed more frequently, please follow those guidelines.** |
<table>
<thead>
<tr>
<th>Direct &amp; Indirect Measures</th>
<th>Component Clarification</th>
</tr>
</thead>
</table>
| **Describe the **DIRECT MEASURES** used to evaluate these student learning outcomes.**  

(All programs should be taking advantage of direct measures to assess their SLOs. Programs may include using a combination of direct and indirect measures.)  

Please list the direct measures your program / department used to assess your SLOs during the biennium. Assessment measures need to be described in sufficient detail to indicate how the SLO identified was measured. Direct measures are defined as those methods that collect information “directly” from student work that would demonstrate the skills, knowledge, or attitudes/dispositions.  

Examples may include processes that extract information from student papers, artworks, or presentations. Performance in exams might be a source of information if collections of questions are reviewed as they specifically relate to a specific SLO.  

**Some examples and definitions of direct and indirect assessments:**  

- Examples of Direct and Indirect Measures of Student Learning  
- Common Assessment Terms  
- Glossary of Assessment Terms |
| **Describe the INDIRECT MEASURES used to evaluate these student learning outcomes.**  

Please list the indirect measures your program / department used in the biennium. Indirect measures are those that make use of student, employer, or alumni perceptions of the impact of the curriculum on the SLOs.  

Examples may include surveys, graduate school admission rates, and/or students' self-reported gains in learning. These measures will also need to be described in sufficient detail to indicate how the SLO was measured. The combination of both direct and indirect measures may provide for a more complete understanding of student achievement. |
<table>
<thead>
<tr>
<th><strong>PROCESS and MAJOR RESULTS</strong></th>
<th><strong>Component Clarification</strong></th>
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<tbody>
<tr>
<td>Briefly describe the <strong>PROCESS</strong> your program / department used <strong>TO COLLECT, ANALYZE, AND SHARE</strong> assessment results.</td>
<td><strong>In this area, a summary of how the department or program faculty reviewed the information from the direct and indirect assessment tools, the actions the program took to analyze the information, and how program faculty were involved in the discussions. While it is acceptable to have designated coordinators within a program that facilitate the assessment process, it is typically through broad-based discussions among multiple faculty members that the fullest benefits of the assessment are gained. Having multiple faculty members involved in the collection of data also breeds better buy-in and use of the information.</strong></td>
</tr>
</tbody>
</table>
| Summarize the **MAJOR FINDINGS** and **RESULTS** of assessment of these student learning outcomes from Fall 2012 through June 2014. | **Please share the results of the specific outcomes (skills, knowledge, attitudes) you assessed in the biennium as well as the interpretation or meaning of these results to the program. This may include outcomes that students struggled with or those that they demonstrated competence in, or those in which there was mixed levels of achievement.**  

**One suggestion for completion of this section may be to identify patterns of successful or unsuccessful performance that emerge across the students in your program. If unsuccessful patterns emerge, this may indicate a need to address these performance issues by adapting courses and curriculum to better suit student needs or conducting more detailed assessment to resolve why students aren’t succeeding.**  

**Another suggestion may be to divide the content of the section in terms of the results from 2012-13, and then 2013-14. Reflections by program faculty, interpretations of the results, or any insights into what might explain these results could be placed here as well.**  

**It is not expected that your results will indicate perfect achievement of the outcomes. It is expected that the results of the assessment will be discussed by and acted upon by the program to encourage learning.** |
<table>
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<th>ACTION STEPS, FUTURE PLANS, EXAMPLES</th>
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<tr>
<td>Identify and explain specific ACTIONS INTENDED TO IMPROVE STUDENT LEARNING AND PROGRAM QUALITY undertaken by the department/program in response to the results from your measures of student learning outcomes.</td>
<td>It is not expected that your results will indicate perfect achievement of the outcomes. It is expected that the results of the assessment will be discussed by and acted upon by the program to encourage learning. Based on the major results discussed in the previous question, this section is requesting the program to highlight what was done to improve learning or sustain the satisfactory level of student learning related to the outcomes that were assessed.</td>
</tr>
<tr>
<td>If the results indicated acceptable student achievement of the outcomes, it’s permissible to explain that the course(s) or curriculum supporting that outcome will be maintained. If there is room for improvement in student learning related to the outcomes, then explaining the changes made in the course(s) or curriculum or other learning experiences offered to students (research colloquia, student internships, etc.) to address these learning deficiencies would be an appropriate focus for the content of this section.</td>
<td></td>
</tr>
<tr>
<td>In light of these current biennium results, briefly describe the GENERAL DIRECTION your assessment process may take in the NEXT BIENNIUM.</td>
<td>Results from the current biennium may also indicate desired improvements to the assessment process as well as directing new targets for assessment. Programs may find it useful to follow up on changes made to courses or curriculum with focused assessment to see the impact of their modifications. This may be the nature of the text of this section for your program.</td>
</tr>
<tr>
<td>Information also appropriate to this section would be an explanation of the cycle that a program may already have in place to cycle through the set of program outcomes over a period of time such that all outcomes will be addressed in a program review cycle. It is important to emphasize the idea that assessment is an ongoing process. This is the rationale for asking programs to indicate the direction their processes may take. Indication of a direction here is not binding upon the department, but indicating that the program is aware of their next steps for their process.</td>
<td></td>
</tr>
<tr>
<td>Please share EXAMPLES OF GOOD PRACTICE that would be worthy of further dissemination beyond your program (optional)</td>
<td>Programs and departments that have developed useful techniques for their own assessment processes are requested to share successful ideas and examples from which other units on campus could learn from or adopt to improve assessment campus-wide.</td>
</tr>
</tbody>
</table>
Appendix A: Model Biennial Reports from 2010-2012

- CBA - Economics Department, Economics Major
- CLS - Archaeology/Sociology Department, Archaeology Major and Anthropology Minor
- CSH - Health Professions Department, Radiation Therapy Program
### Learning Outcomes for the Economics Major (EM):

**Critical Thinking Skills**
- EM1: Apply economic reasoning to explain social and economic events.
- EM2: Predict the impact of private and public proposals and changing market conditions on social welfare using economic models.
- EM3: Compare the models’ strengths and weaknesses in explaining outcomes.

**Problem Solving Skills**
- EM4: Identify and analyze an issue within the framework of economic models.
- EM5: Evaluate, critique, and formulate solutions to an identified problem.

**Communication Skills**
- EM6: Communicate effectively the results of economic research and analysis to colleagues and decision-makers through written reports and oral presentations.

### Spring 2011 Competency in the Major Assessment of ECO 305 Intermediate Macroeconomic Analysis

- EM1: Apply economic reasoning to explain social and economic events.
- EM2: Predict the impact of private and public proposals and changing market conditions on social welfare using economic models.
- EM3: Compare the models’ strengths and weaknesses in explaining outcomes.
- EM4: Identify and analyze an issue within the framework of economic models.
- EM5: Evaluate, critique, and formulate solutions to an identified problem.

### Spring 2011 Competency in the Major Assessment of ECO 308 Intermediate Microeconomic Theory

- EM1: Apply economic reasoning to explain social and economic events.
- EM2: Predict the impact of private and public proposals and changing market conditions on social welfare using economic models.
- EM3: Compare the models’ strengths and weaknesses in explaining outcomes.
| **EM4**: Identify and analyze an issue within the framework of economic models.  
**EM5**: Evaluate, critique, and formulate solutions to an identified problem. |
|---|
| **Describe the DIRECT MEASURES used to evaluate student learning.**  
*(NOTE: All programs should be utilizing direct measures to assess SLOs. However, assessment may include a combination of direct and indirect measures.)* |
| **Spring 2011 Competency in the Major Assessment of ECO 305 and ECO 308**  
The Economics Department administered assessment tasks in the Spring 2011 semester in both ECO 305 and ECO 308 to evaluate the learning outcomes for economics majors. The tasks were short answer questions administered to individual students. The ECO 305 task was given on a quiz near the end of the semester. The ECO 308 task was given on the final exam. All students in the course, including non-majors, completed the assessment task; however, only students that were economics majors were evaluated for purposes of major competency.  
The assessment tasks were read by department members on May 18, 2011. Six faculty members from the department read the ECO 305 tasks and another six faculty members read the ECO 308 tasks. After some discussion about interpretation of the rubric, each task was read by two individuals in a double blind format. An effort was made to reconcile differences between readers, particularly if the scores were on opposing ends of the scale. Two scores were recorded for each trait. See the appendix for the tasks and evaluation rubrics. |

1. **Summarize the major findings and results of assessment from Fall 2010 through June 2012.**

**Spring 2011 Competency in the Major Assessment of ECO 305 and ECO 308**

The deficiencies in student learning in the assessment in the Macroeconomics courses concern fundamental concepts or ways of thinking in economics. That is the ability to use models to explain economic phenomena. This involves understanding assumptions behind models in order to choose an appropriate model for a situation (the questions involved explaining assumptions, but not explicitly choosing an appropriate model – the model was already chosen for the student). This also involves an ability to manipulate the model to understand the consequences of an event that alters market conditions. The event in the assessment task was acid rain causing capital depreciation. Many students failed to use the growth models correctly to describe the impact on long-run impact this has.

The deficiencies in student learning regarding assessment in the Microeconomics course concerns the highest order cognitive skill of integrating ideas from other classes and applying these to a new situation, using different concepts and ways of thinking and critiquing that is developed in other classes. It is not surprising that undergraduates have difficulty reaching this expert mode of thinking, but that does not mean there is no room for improvement in our teaching. One of the reasons may be that there is very little collaboration about course content between faculty members that teach the upper level courses. Having regular conversations about student learning, and regular collaboration for designing CITM assessment tasks may help address this.

Students in the Microeconomics course did excel in using quantitative tools to determine the impact of different tax policies on the economy, successfully accomplishing learning outcomes 2 and 4. Students in the Macroeconomics course exceled in identifying the conclusions of the two growth models, successfully accomplishing learning outcomes 1 and 3.
2. Identify and explain specific actions intended to improve student learning and program quality undertaken by the department/program in response to the results of DIRECT of student learning.

Spring 2011 Competency in the Major Assessment of ECO 305 and ECO 308

First, there are small modifications in the design of our lessons we can make without substantial changes to course design or program curriculum. In the macroeconomics courses, we should spend less time drilling rote modeling skills and more time drilling the skills that will help student select models. Case studies and problem based learning activities might help this somewhat. In all of our upper level courses, we should identify the links and overlap that exists, so that we can deliberately point out to our students how the pieces fit together. This can be done through a discussion between the upper division micro-related course instructors, and between upper division macro-related course instructors. This is similar to how the department currently collaborates as a part of General Education assessment for our principles of microeconomics course (ECO 110) and our principles of macroeconomics course (ECO 120).

Secondly, we have begun developing a substantial change in our upper level economics curriculum to address learning deficiencies in critical thinking, and in particular, seeing connections of ideas from different disciplines in economics and applying them to new contexts. In Spring 2012, we successfully applied for a UW-L Curricular Redesign Grant to redesign six courses in our upper-level curriculum to better develop our students’ critical thinking and communication skills, and to better emphasize the connections between ideas across courses in the curriculum. See the appendix for Curricular Redesign Grant proposal which describes in more detail the changes we are developing in the curriculum and our plan to assess student learning concerning critical thinking and communication.
2010-2012 Biennial Assessment Report: Assessment of Student Learning Outcomes in Academic Programs
Due Date: June 30, 2012

Academic Program: Archaeological Studies Program (Archaeology Major and Anthropology Minor)  
Department: Sociology/Archaeology

The purpose of assessment is to promote high quality student learning through a process of continual attention to evidence for student learning outcomes. The biennial assessment form serves to summarize programmatic assessment processes/outcomes in a concise manner. Biennial assessment reports are submitted to the college (or unit), are uploaded to D2L, and are a component of APR self-studies. In addition, biennial assessment reports are a component of quality assurance documentation provided to the Higher Learning Commission for university-wide reaccreditation.

(An information guide for this report can be found at [http://www.uwlax.edu/assessment/pca.htm](http://www.uwlax.edu/assessment/pca.htm))

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<tr>
<th>Who is responsible for conducting assessment in the department/program?</th>
<th>Fall 2010—June 2012</th>
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</table>
| ☐ Department Chair / ☐ Program Director / ☐ Departmental or Program Assessment Coordinator  
☐ Department or Programmatic Assessment Committee  
★Other (please describe): Program faculty, in consultation with Program Assessment Committee |  

List all of the STUDENT LEARNING OUTCOMES identified for the program/department.

(Note: If multiple SLOs are elaborated under major categories please share a hyperlink to a location where they may be found.)

**ARCHAEOLOGY MAJOR**

1. Core Disciplinary Knowledge  
   a. Apply anthropological and archaeological concepts and theories and recount their historical development  
   b. Assess cultural and biological diversity worldwide in the past and present within a bio-cultural evolutionary framework  
   c. Recognize the value of multi-cultural diversity through cultural experiences  

2. Practical Disciplinary Experience  
   a. Apply archaeological research methods using appropriate tools and techniques to define a research problem  
   b. Apply archaeological field methodologies  
   c. Apply archaeological laboratory methods  

3. Critical Thinking and Communication Skills  
   a. Utilize appropriate social science-related resources  
   b. Communicate effectively both orally and in writing  
   c. Compose cogent research papers with proper grammar, spelling and professional citations and references  
   d. Compose a research project/thesis and report scientific findings on that research both orally and in writing  
   e. Critique published archaeological research  
   f. Appraise basic philosophical, ethical and methodological principles underpinning the social sciences, in general

**ANTHROPOLOGY MINOR**

1. Core Disciplinary Knowledge  
   a. Define and utilize concepts and theories in anthropology and their historical development  
   b. Compare and contrast the uniqueness and similarities of the world’s cultures  
   c. Identify historical patterns of global culture change and their effects on contemporary local cultures  
   d. Analyze historical and contemporary developments that lead to social inequality and maintain patterns of wealth and poverty  
   e. Gain proficiency in detecting ethnocentric judgments or biases and, alternatively, explain rationales for cultural differences.
2. Practical Disciplinary Experience  
a. Apply basic ethnographic research methods using appropriate tools and techniques to define a research problem, implement a study of that research problem, and report scientific findings on that research both orally and in writing.
b. Demonstrate basic qualitative research skills
c. Gain proficiency in the use and evaluation of appropriate social science-related resources, such as library, electronic sourcing aides (Social Science Citation Index, etc.)
d. Demonstrate the ability to apply anthropological concepts, theories, and skills to students’ own major disciplines as well as in their future careers.

3. Critical Thinking and Communication Skills  
a. Develop effective presentation skills, including the use of visual aids
b. Write cogent research papers with proper grammar, spelling and American Anthropological Association-style citations and references
c. Critically evaluate published research.

| Archaeology Major | SLO 1a. Acquire Core Disciplinary Knowledge: Comprehend anthropological and archaeological concepts and theories and their historical development.  
| SLO 2d. Obtain Extensive Practical Disciplinary Experience: Demonstrate basic quantitative research skills  
| SLO 3b. Build Strong Communication Skills: Demonstrates basic qualitative research skills  
| SLO 3c. Build Strong Communication Skills: Write cogent research papers with proper grammar, spelling and American Antiquity-style citations and references  
| Anthropology Minor  
| SLO 2b. Practical Disciplinary Experience: Demonstrate basic qualitative research skills  
| SLO 4a. Promote the Use and Application of Anthropological Skills and Concepts: Demonstrate the ability to apply anthropological concepts, theories, and skills to students’ own major disciplines as well as in their future careers. |

Identify the STUDENT LEARNING OUTCOMES measured in the past biennium.  
(Note: Must be a subset of the SLO’s identified in the row above.)

| Archaeology Major | SLO 1a. ARC 455 Final Essay Rubric: Evaluates comprehension and critical evaluation of various approaches to archaeological interpretation and philosophical approaches to social scientific research.  
| SLO 2d. ARC 445 Final Exam Rubric: Evaluate students’ abilities to evaluate archaeological data using quantitative research skills. The exam tests their ability to evaluate the archaeological question(s) being asked and decide upon an appropriate quantitative method(s) to use, and finally to successfully apply proper quantitative methods to the data and interpret the results.  
| SLO 3b. ARC 489/499: Assessment Rubric for Final Senior Thesis/Project: Evaluates students’ abilities to design an archaeological research project focused on a specific research objective (research question), carry out the research, and present it in writing, according to established scientific conventions within the discipline of archaeology.  
| SLO 3c. ARC 200 Essay Exercise: One of three written assignments will be used to evaluate comprehension and critical interpretation of key technological events in the prehistory of humankind.  
| Anthropology Minor  
| SLO 2b. ANT 266: Anthropology of Food Participant Observation Exercise: Participant observation is the signature method of all cultural anthropologists. This assignment evaluates students’ application of participant observation methodology in two venues in the La Crosse area.  
| SLO 4a. ANT 454: Bio-bibliography of one anthropologist: This gives students one particular personality on whom to focus in the midst of the readings and discussions relative to the dozens of other individuals and their contributions to the field. |

Describe the DIRECT MEASURES used to evaluate student learning.  
(Note: All programs should be utilizing direct measures to assess SLOs. However, assessment may include a combination of direct and indirect measures.)
Describe the INDIRECT MEASURES used to evaluate student learning (if applicable).

Indirect measures were not used the biennium for program assessment.

1. Summarize the major findings and results of assessment from Fall 2010 through June 2012.

Archaeology Major
SLO 1a. Acquire Core Disciplinary Knowledge: Comprehend anthropological and archaeological concepts and theories and their historical development.
Overall, 96% of students were at least satisfactory relative to this SLO and a majority was exemplary. Students are gaining a clear understanding of various interpretive approaches within anthropology and archaeology.

SLO 2d. Obtain Extensive Practical Disciplinary Experience: Demonstrate basic quantitative research skills
Overall 80% of the students were at least satisfactory relative to the SLO and the vast majority were (70%) were exemplary. From these results it is clear that the majority of students are obtaining a clear understanding of the application of quantitative research methods to archaeological data and current research questions in archaeology. This is an improvement over past years. An examination of the students who were underdeveloped or unsatisfactory in their performance indicated that these students were those who missed substantial numbers of class sessions, and in particular those sessions where the connections between the statistical tests and their appropriate applications in archaeology were presented and discussed.

SLO 3b. Build Strong Communication Skills: Demonstrates basic qualitative research skills
Twelve students out of 14 produced Exemplary or Very Proficient theses (receiving scores of 4 or 5 on all measures on the rubric). The remaining students received scores of 4, 3, or 2 on all the measures but still overall produced proficient theses.

SLO 3c. Build Strong Communication Skills: Write cogent research papers with proper grammar, spelling and American Antiquity-style citations and references
Over 90 percent of papers acceptable (Exemplary, Proficient, or Satisfactory) in terms of grammar and content. Approximately 50% of students had citation errors, which is a concern that needs to be, and is currently being addressed (see below).

Anthropology Minor
SLO 2b. Practical Disciplinary Experience: Demonstrate basic qualitative research skills
Twenty-three out of 29 students received a score of Exemplary or Proficient relative to the Direct Measure listed in the above table. Based on this data, we conclude that this SLO has been met.

SLO 4a. Promote the Use and Application of Anthropological Skills and Concepts: Demonstrate the ability to apply anthropological concepts, theories, and skills to students’ own major disciplines as well as in their future careers.
Overall, 96% of students who completed this assessment tool in ANT 454, the capstone course for the minor (Historical and Theoretical Approaches in Anthropology), scored at or above the satisfactory level relative to the Direct Measure listed in the above table. Over half of the students scored at the exemplary level.
2. Identify and explain specific actions intended to improve student learning and program quality undertaken by the department/program in response to the results of DIRECT MEASURES and INDIRECT MEASURES of student learning.

Archaeology Major

SLO 1a. Acquire Core Disciplinary Knowledge: Comprehend anthropological and archaeological concepts and theories and their historical development.

We will continue updating our coverage of archaeological theory in ARC 455 (and in other relevant classes) as disciplinary developments occur and new publications are available. During the 10 minute Senior Thesis presentations we noted that explicit theoretical discussion was lacking (although most theses have such discussion in the final written products). We will continue to emphasize the importance of explicitly stating one’s theoretical perspective in presenting their research.

SLO 2d. Obtain Extensive Practical Disciplinary Experience: Demonstrate basic quantitative research skills

Fall 2010 represented a major revision to the ARC 445 course materials and teaching format. These revisions were made based on observations of the lack of, or inappropriate use of, quantitative methods of analysis in student Senior thesis projects. Those students who had ARC445 in Fall 2010 showed a marked improvement in the proper use and presentation of quantitative research techniques in their thesis projects during Spring 2011. This increase appears to be directly related to the revised format and content of the ARC445 course and therefore, we will continue to approach the course in this fashion as well as strive to integrate additional exercises that further elucidate the application of quantitative methods to archaeological data analysis. Since poor absence was identified as directly related to student performance, daily class attendance has subsequently been made mandatory and larger part of the overall course grade to ensure the maximum attendance of every student. Fall 2011 attendance was much better as a result.

SLO 3b. Build Strong Communication Skills: Demonstrates basic qualitative research skills

The high quality results achieved are a result of our emphasis on writing in the Major as well as the rigorous training they receive in the recently revised Research Methods in Archaeology course (ARC445). While only required for the B.S. degree or to achieve Honors in the major, it is clear that this course makes a substantial contribution toward student success in ARC489/499. Therefore, program faculty will discuss making this course a required course for all archaeology students.

Anthropology Minor

SLO 2b. Practical Disciplinary Experience: Demonstrate basic qualitative research skills

Almost 1/6 of the students who completed the assessment scored in the Underdeveloped/Unsatisfactory category. In order to close this gap, program faculty will discuss the possibility of increasing the number of qualitative assignments that students are exposed to throughout other courses in the Anthropology Minor.

SLO 4a. Promote the Use and Application of Anthropological Skills and Concepts: Demonstrate the ability to apply anthropological concepts, theories, and skills to students’ own major disciplines as well as in their future careers.

As new developments in Anthropology arise, course materials should be updated so that students are provided with readings that reflect new theoretical approaches in the discipline. The bio-bibliography assignment requires students to integrate course knowledge with their own research on the anthropologist of their choice, so the course needs to be modified periodically to provide students with models to facilitate this integration.
The purpose of assessment is to promote high quality student learning through a process of continual attention to evidence for student learning outcomes. The biennial assessment form serves to summarize programmatic assessment processes/outcomes in a concise manner. Biennial assessment reports are submitted to the college (or unit), are uploaded to D2L, and are a component of APR self-studies. In addition, biennial assessment reports are a component of quality assurance documentation provided to the Higher Learning Commission for university-wide reaccreditation. (An information guide for this report can be found at [http://www.uwlax.edu/assessment/pca.htm](http://www.uwlax.edu/assessment/pca.htm)).

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</tr>
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List all of the STUDENT LEARNING OUTCOMES identified for the program/department. *(Note: If multiple SLOs are elaborated under major categories please share a hyperlink to a location where they may be found.)*

<table>
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<tr>
<th>List all of the STUDENT LEARNING OUTCOMES identified for the program/department.</th>
<th>The Radiation Therapy Program student learning outcomes are reported annually to the accreditation agency, JRCERT (Joint Review Committee on Education in Radiologic Technology). Click here for the full <a href="http://www.uwlax.edu/assessment/pca.htm">outcome assessment plan</a>.</th>
</tr>
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</table>

Identify the STUDENT LEARNING OUTCOMES measured in the past biennium. *(Note: Must be a subset of the SLO’s identified in the row above.)*

<table>
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<tr>
<th>Identify the STUDENT LEARNING OUTCOMES measured in the past biennium.</th>
<th>All of the learning outcomes identified above were measured during this biennium. See above outcome assessment plan. Outcomes are report in the <a href="http://www.uwlax.edu/assessment/pca.htm">class of 2011 Outcome assessment report</a>.</th>
</tr>
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### Describe the DIRECT MEASURES used to evaluate student learning.

*(NOTE: All programs should be utilizing direct measures to assess SLOs. However, assessment may include a combination of direct and indirect measures.)*

- Professional Development Evaluations
- Affective Clinical Evaluations
- Written projects (research proposal, clinical assignments, research paper)
- Various exam scores
- Clinical competency testing
- The national certification exam (ARRT) - pass rate and the average score

### Describe the INDIRECT MEASURES used to evaluate student learning (if applicable).

- Graduate surveys (6 months, post-graduation)
- Employer surveys (6 months, post-graduation)
- Program retention and graduation rates
- Job placement statistics

1. Summarize the major findings and results of assessment from Fall 2010 through June 2012.
   - Students demonstrated professional development through the program as evidenced by the 100% scores on the professional development plan.
   - According to the various components of the clinical affective evaluations, students were found to have met the following benchmarks: patient communication, professional characteristics and behavior, and accuracy sections. All scores in these areas were greater than 1.9 out of 2 through the terms in which the scores were measured and recorded.
   - Student outcomes on written assignments (research proposal, QA project, and research paper) were met for the most part. Students on average received 90.9% on the research proposal and 98.5% on the QA projects. A small group of students had marks below proficient on the RT 412 research paper.
   - Students evidenced an understanding of ethics and ethical decision making by their scores in the ethics section of the RT 350 final exam. On average students scored 13.4 out of 15 on the ethics questions on the RT 350 final exam.
   - Students exhibited knowledge of patient care and nursing procedures by their scores on the RT 350 final exam.
   - The majority of students pass their first attempt of clinical competency of treatment, simulation, complex treatment, and impromptu competencies.
   - The pass rate on the national certification exam (ARRT) continues to be at 100% for the program.
   - Graduates report a high degree of satisfaction with the education received at the University and within the Radiation Therapy program.
   - Employers communicated high levels of satisfaction with the graduates that they employ. The program director receives routine phone calls and emails from prospective employers looking to hire UW-L graduates prior to posting job openings in their respective institutions to the public.
   - Student retention for the class of 2011 was 95% meeting the benchmark.
   - The class of 2010 graduates had an 81.8% job placement rate within 6 months amongst those who were seeking active employment. In 2011, the job placement rate was 100% within 3 months.
2. Identify and explain specific actions intended to improve student learning and program quality undertaken by the department/program in response to the results of DIRECT MEASURES and INDIRECT MEASURES of student learning.

- As mentioned above some students scored less than proficient marks on the RT 412 research paper. This was largely in the areas of grammar, writing mechanics, and the AMA citation style. The program in response to this has created its own guide to the AMA writing style. Additionally, in RT 325, grammar and writing mechanics are reviewed. Finally an additional small research paper was added to RT 411 to reduce the length of time between RT 325 in term in which research writing is taught, and RT 412 where the research paper is completed in term 5.

- Will continue to develop clinical simulation labs prior to competency testing to improve first time pass on clinical competency procedures.

- Outcome assessment plan will be revised to highlight new areas as many of the areas currently measured have been met for a few years now.
### UNIVERSITY OF WISCONSIN-LA CROSSE
### RADIATION THERAPY PROGRAM PLAN OF ASSESSMENT (July 2011 - August 2012)

<table>
<thead>
<tr>
<th>Program Goal</th>
<th>Outcomes</th>
<th>Measures</th>
<th>Benchmarks</th>
<th>Assessment Schedule</th>
<th>Responsible person(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Students will demonstrate critical thinking skills.</strong></td>
<td>a. Students apply didactic concepts and information into the clinical setting.</td>
<td>1. Quality improvement project (RT 437) grading criteria. 2. Clinical assignments grading criteria.</td>
<td>1. Project grade of ≥ 85%. 2. Average grade ≥ 85% for term 3, ≥ 90% for term 5.</td>
<td>1. End of term 5. 2. End of terms 3 and 5.</td>
<td>1 &amp; 2. Educational directors report to Program Director</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>1. On first attempt student will pass. 2. Students will pass on the first time impromptu competencies of complex treatment procedures.</td>
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<td></td>
<td>b. Students will perform complex treatment procedures.</td>
<td>1. Competency of multi-field breast or multi-field head and neck patient, per clinical competency form. 2. Impromptu competencies of complex procedures, such as multi-field breast or head and neck, or abdomen, or craniospinal, as per clinical competency form.</td>
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<tr>
<td><strong>II. Students will grow and develop professionally.</strong></td>
<td>a. Students will demonstrate professional behaviors.</td>
<td>1. Professional Development Evaluation 2. Affective clinical evaluation, professional characteristics and behaviors section</td>
<td>1. Students will average ≥ 80% after term 2, ≥ 85% after term 4, and ≥ 90% after term 6. 2. Students will average ≥ 1.4 of 2 points after term 4. Students will average ≥ 1.6 of 2 points at the end of terms 5 and 6.</td>
<td>1. At end of terms 2, 4, and 6 2. At end of terms 4, 5, and 6.</td>
<td>1 &amp; 2. Educational directors report to Program Director 1. program director, educational director report to PD 2. educational directors report to PD</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>1. Students will average ≥ 10 points on a scale of 1-15.</td>
<td>1 &amp; 2. End of terms 4, 5, and 6</td>
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<tr>
<td></td>
<td>b. Students will demonstrate an understanding of ethics and ethical decision making.</td>
<td>1. Ethics section of RT 350 final exam.</td>
<td>1. Students will average ≥ 10 points on a scale of 1-15.</td>
<td>1. end of RT 350, term 2</td>
<td>1. program director, instructor of RT 350</td>
</tr>
<tr>
<td><strong>III. Students will be clinically competent.</strong></td>
<td>a. Students will demonstrate acquisition of accurate simulation skills.</td>
<td>1. Clinical competency forms, simulation. 2. Affective clinical evaluation for simulation rotation; accuracy section.</td>
<td>1. On first attempt student will pass required competencies. 2. Students will average ≥ 1.5 of 2.</td>
<td>1 &amp; 2. End of terms 4, 5, and 6</td>
<td>1 &amp; 2. Education Directors at sites report to Program Director.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>1. Students will average ≥ 85% on patient care final exam. 2. Students will average ≥ 85% per grading sheet.</td>
<td>1. End of RT 350, term 2 2. End term 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Students will exhibit knowledge of patient care and nursing procedures.</td>
<td>1. Final exam for RT 350. 2. Competency will be achieved in RT 471 per the completion of patient care procedures and checklists grading sheets.</td>
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<tr>
<td>c. Students will demonstrate understanding of basic treatment planning procedures in dosimetry rotations.</td>
<td>1. Clinical competency form, dosimetry. 2. Affective clinical evaluation for dosimetry rotation; accuracy section.</td>
<td>1. On first attempt student will pass and receive a score of ≥ 80%. 2. Students will average ≥ 1.5 of 2.</td>
<td>1 &amp; 2. End of term 5, 6.</td>
<td>1. Educational directors report to program director</td>
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<tr>
<td>d. Students will evidence competency in treatment delivery skills.</td>
<td>1. Clinical competency forms, treatment procedures.</td>
<td>1. Students will pass the required competencies and won’t exceed more than two failed competencies.</td>
<td>1. End of terms 4, 5, 6.</td>
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<td></td>
</tr>
<tr>
<td>IV. The program will successfully meet the needs of its students and communities of interest.</td>
<td>a. Students who enroll in the program will complete the program</td>
<td>1. program retention</td>
<td>1. Retention rate will be at least 95%.</td>
<td>1. annually in August after graduation</td>
<td>PD</td>
</tr>
<tr>
<td></td>
<td>b. Graduates will pass the national certification exam.</td>
<td>1. ARRT pass rate</td>
<td>1. 80% or better of graduates will pass the ARRT exam on their first attempt</td>
<td>1. annually in Nov.</td>
<td>1. PD</td>
</tr>
<tr>
<td></td>
<td>c. Graduates seeking employment as a therapist will find job placement</td>
<td>1. Job placement statistics 2. Graduate surveys</td>
<td>1. 80% or more of graduates will be placed in jobs by 6 months post graduation</td>
<td>1. Annually in Oct. 2. Annually in Feb. (6 mo post grad.)</td>
<td>1-3 PD</td>
</tr>
<tr>
<td></td>
<td>d. Graduates will exhibit a high degree of satisfaction with the educational experience at the University and clinical internship site.</td>
<td>1. Graduate surveys; university section 2. Graduate surveys; internship section</td>
<td>1. Graduate satisfaction will average 4 of 5 2. Graduate satisfaction will average 4 of 5</td>
<td>1 &amp; 2 annually in Feb. (6 mo. post grad survey)</td>
<td>1 &amp; 2 PD</td>
</tr>
<tr>
<td></td>
<td>e. Employers of graduates will report a high degree of satisfaction with graduates’ performance.</td>
<td>1. Employer surveys</td>
<td>1. Employers will rate their over all satisfaction with their employee an average 4 of 5 or better.</td>
<td>1. annually in Feb.</td>
<td>1. PD</td>
</tr>
<tr>
<td>V. Students will demonstrate effective communication skills.</td>
<td>a. Students will effectively communicate with patients</td>
<td>1. Affective clinical evaluation, patient communication section</td>
<td>1. Students average ≥1.5 of 2</td>
<td>1. end of 4, 5, 6 terms</td>
<td>1. Educational Directors report to PD</td>
</tr>
<tr>
<td></td>
<td>b. Students will write at a proficient level by graduation</td>
<td>1. RT 325 research proposal grading rubric 2. RT 412 research paper grading rubric</td>
<td>1. Grade of ≥ 80 %. 2. Students will have no marks below the proficient level (proficient is a 2).</td>
<td>1. End of term 1 2. End of term 5</td>
<td>1. Program Director; instructor for RT 325. 2. Educational directors report to PD</td>
</tr>
</tbody>
</table>
Appendix A: Writing Learning Objectives (Outcomes) by Kristine Koepke
Writing Course Objectives

Presenter: Kristin Koepke  
Center for Advancing Teaching and Learning  
www.uwlax.edu/catl

• What is an instructional objective?  
An instructional objective is an explicit description of what students will be able to do as a result of the instruction they receive (Dick & Reiser, 1996).

• Why Write Objectives?  
Quality objectives are like a road map to the course. By developing a coherent and logical map, students and instructor have clear directions on the road of the course. Objectives also permit self-evaluation, help determine if students will succeed in acquiring skills and knowledge, and provide a framework for students and instructor to work toward.

• Objective vs. Goal  
There is often confusion about a goal and an objective. Goals are general statements of desired instructional outcomes and can be broken down into more specific behaviors (Dick & Riser, 1996). Goals are often used as a focus for curriculum development as they are general and abstract. Course objectives should be more narrow, tangible, and able to be validated.

• What makes a quality objective?  
  ▫ Describe a specific measurable behavior that the learner should perform. Objectives should describe student performance in observable terms and be meaningfully assessed.  
  ▫ Indicate what the instructor expects of the learner.  
  ▫ Learner-centered, and not instructor-centered. Make sure your objectives state what the students will do and not what the instructor will do. In addition, they should be stated clearly, avoiding jargon and complex language, allowing students to grasp their meaning.  
  ▫ State measurable terms.  
  ▫ State an outcome not an activity. For example, Students will be able to name all... (outcome) vs. Students will take a test... (activity).  
  ▫ Address course and unit/lesson objectives/outcomes.  
  ▫ Be appropriate for the level of the course. Quality Matters recommends that lower-division courses address content mastery, critical thinking skills, and core learning skills. Upper-division and graduate courses should be discipline specific.

**Source: University of Wisconsin Extension Learning Innovations, New Course Development Training (August 2005)**
## Bloom’s Taxonomy of Cognitive Domain

A hierarchy from less to more complex ideas of student learning.

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>DEFINITION</th>
<th>SAMPLE VERBS</th>
<th>SAMPLE BEHAVIORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVALUATION</td>
<td>Show that you can judge and evaluate ideas, information, procedures and solutions</td>
<td>Judge, Recommend, Critique, Justify</td>
<td>The student will judge the effectiveness of writing objectives using Bloom’s taxonomy.</td>
</tr>
<tr>
<td>SYNTHESIS</td>
<td>Show that you can combine concepts to create an original thought or idea</td>
<td>Create, Design, Hypothesize, Invent, Develop</td>
<td>The student will design a classification scheme for writing educational objectives that combines the cognitive, affective, and psychomotor domains.</td>
</tr>
<tr>
<td>ANALYSIS</td>
<td>Show that you perceive and can pick out the most important points in the material/presentation</td>
<td>Analyze, Categorize, Compare, Contrast, Separate</td>
<td>The student will compare and contrast the cognitive and affective domains.</td>
</tr>
<tr>
<td>APPLICATION</td>
<td>Show that you can use what you have learned</td>
<td>Use, Compute, Solve, Demonstrate, Apply, Construct</td>
<td>The student will write an instructional objective for each level of Bloom’s taxonomy.</td>
</tr>
<tr>
<td>COMPREHENSION</td>
<td>Show that you understand</td>
<td>Explain, Summarize, Paraphrase, Describe, Illustrate</td>
<td>The student will explain the purpose of Bloom’s taxonomy of the cognitive domain.</td>
</tr>
<tr>
<td>KNOWLEDGE</td>
<td>Show that you know.</td>
<td>Write, List, Label, Name, State, Define</td>
<td>The student will define the 6 levels of Bloom’s taxonomy of the cognitive domain.</td>
</tr>
</tbody>
</table>
**Verbs to Use**

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Comprehension</th>
<th>Application</th>
<th>Analyze</th>
<th>Synthesis</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cite</td>
<td>Arrange</td>
<td>Adapt</td>
<td>Analyze</td>
<td>Arrange</td>
<td>Appraise</td>
</tr>
<tr>
<td>Choose</td>
<td>Associate</td>
<td>Apply</td>
<td>Appraise</td>
<td>Arrange</td>
<td>Approve</td>
</tr>
<tr>
<td>Define</td>
<td>Clarify</td>
<td>Catalogue</td>
<td>Audit</td>
<td>Assemble</td>
<td>Assess</td>
</tr>
<tr>
<td>Label</td>
<td>Classify</td>
<td>Chart</td>
<td>Break down</td>
<td>Build</td>
<td>Choose</td>
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<tr>
<td>List</td>
<td>Convert</td>
<td>Compute</td>
<td>Calculate</td>
<td>Combine</td>
<td>Conclude</td>
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<tr>
<td>Locate</td>
<td>Describe</td>
<td>Consolidate</td>
<td>Categorize</td>
<td>Compile</td>
<td>Conceive</td>
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<tr>
<td>Match</td>
<td>Diagram</td>
<td>Demonstrate</td>
<td>Certify</td>
<td>Compose</td>
<td>Criticize</td>
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<tr>
<td>Name</td>
<td>Draw</td>
<td>Develop</td>
<td>Compare</td>
<td>Conceive</td>
<td>Critique</td>
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<tr>
<td>Recall</td>
<td>Discuss</td>
<td>Employ</td>
<td>Contrast</td>
<td>Construct</td>
<td>Diagnose</td>
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<tr>
<td>Recognize</td>
<td>Estimate</td>
<td>Extend</td>
<td>Correlate</td>
<td>Create</td>
<td>Evaluate</td>
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<tr>
<td>Record</td>
<td>Explain</td>
<td>Extrapolate</td>
<td>Criticize</td>
<td>Design</td>
<td>Judge</td>
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<tr>
<td>Repeat</td>
<td>Express</td>
<td>Generalize</td>
<td>Deduce</td>
<td>Devise</td>
<td>Justify</td>
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<tr>
<td>Select</td>
<td>Identify</td>
<td>Illustrate</td>
<td>Defend</td>
<td>Discover</td>
<td>Prioritize</td>
</tr>
<tr>
<td>State</td>
<td>Locate</td>
<td>Infer</td>
<td>Detect</td>
<td>Draft</td>
<td>Prove</td>
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<tr>
<td>Write</td>
<td>Outline</td>
<td>Interpolate</td>
<td>Diagram</td>
<td>Formulate</td>
<td>Rank</td>
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<td>Paraphrase</td>
<td>Interpret</td>
<td>Differentiate</td>
<td>Generate</td>
<td>Rate</td>
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<td>Report</td>
<td>Manipulate</td>
<td>Discriminate</td>
<td>Integrate</td>
<td>Recommend</td>
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<td>Restate</td>
<td>Modify</td>
<td>Distinguish</td>
<td>Make</td>
<td>Research</td>
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<td>Review</td>
<td>Order</td>
<td>Examine</td>
<td>Manage</td>
<td>Resolve</td>
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<td>Sort</td>
<td>Predict</td>
<td>Infer</td>
<td>Organize</td>
<td>Revise</td>
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<td>Summarize</td>
<td>Prepare</td>
<td>Inspect</td>
<td>Plan</td>
<td>Rule on</td>
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<td>Transfer</td>
<td>Produce</td>
<td>Investigate</td>
<td>Predict</td>
<td>Select</td>
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<td>Transcribe</td>
<td>Relate</td>
<td>Question</td>
<td>Prepare</td>
<td>Support</td>
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<tr>
<td></td>
<td>Use</td>
<td>Sketch</td>
<td>Reason</td>
<td>Propose</td>
<td>Validate</td>
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<td></td>
<td>Use</td>
<td>Submit</td>
<td>Separate</td>
<td>Recorder</td>
<td></td>
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<td></td>
<td>Use</td>
<td>Transcribe</td>
<td>Solve</td>
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<td>Utilize</td>
<td>Use</td>
<td>Survey</td>
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<td>Test</td>
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<td>Uncover</td>
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<td>Verify</td>
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</tbody>
</table>

**Level 1: Recall**

- Level 2: Interpretation

- Level 3: Problem-Solving

• Verbs to Avoid

<table>
<thead>
<tr>
<th>The following verbs cannot be measured or are redundant:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Able to</td>
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<tr>
<td>Appreciation for</td>
</tr>
<tr>
<td>Awareness of</td>
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<tr>
<td>Capable of</td>
</tr>
<tr>
<td>Comprehend</td>
</tr>
<tr>
<td>Conscious of</td>
</tr>
<tr>
<td>Familiar with</td>
</tr>
</tbody>
</table>

• The Formula

- **Audience:** The student!
- **Behavior:** Describes what the student will be expected to do as a result of the instruction.
- **Condition:** The circumstances under which the behavior is to be completed should be stated, including what tools or assistance is to be provided.
- **Degree:** Describes the level of performance and how well or quickly the student will be expected to perform the behavior.

• Examples

- **Poor** - To increase the student’s ability to visually identify white cells on a differential.  
  **Better** - The student will identify correctly all white cells on a differential.
- **Poor** - The student will gain knowledge of automated chemistry tests.  
  **Better** - The student will state the principle for each automated chemistry test listed.
- **Poor** - The student will be familiar with red blood cell maturation in the bone marrow.  
  **Better** - The student will diagram the maturation of red blood cells.

• Resources

Bloom, B. S., et. al. (1956). Taxonomy of educational objectives; the classification of educational goals, N.Y., David McKay Company, Inc. Murphy Library: LB17 .T3


