

Assessment Related Definitions

Assessment: Process of identifying collective aims for cumulative learning in terms of knowledge, skills, abilities, values, and/or attitudes and determining if those aims have been met. (from San Francisco State University website) Assessing student learning helps an institution focus on continuous improvement processes that can enhance student performance in the classroom. Assessment:

- Is an ongoing process
- Should focus on student learning
- Requires collection of data and documentation

Formative assessment:

- Information focuses on individual results and is used to fine-tune or modify what you do to help adapt teaching and learning to meet student needs.
- Occurs as an integral part of teaching and involves the student in the assessment process.

Summative assessment:

- Information focuses on group results and is used to judge how well you are doing compared to some standard of performance or the performance of others.
- Occurs at intervals (e.g. at the culmination of a course) rather than as an ongoing activity.

Learning Outcomes: Specific, measurable objectives of expected learning activities that the student will engage in while taking a course or completing a program.

Learning Outcome Domains:

- Cognitive: knowledge
- Psychomotor: physical skills
- Affective: behavioral/attitude changes

Program:

- Group of courses designed to prepare a student for a specific career. Students take all of the courses in the program in order to receive their degree.
- Can be at a Certificate or Associated degree level
- Such a program should address the student outcomes necessary for the student to learn to perform the skills necessary to succeed in their career, as well as address the appropriate set of the general education outcomes (explained later in this document).

Cluster:

- Group of courses within a division that have the same (or a selected group) of course prefix codes. *For example: any courses that have the BIOG prefix are part of the Biology Cluster.*
- The courses in each cluster are centered around subject topics rather than career fields. Students would take selected courses from a cluster as support classes for their career programs rather than taking all of the courses in the cluster. Clusters tend to have multiple strands containing classes designed for students pursuing different career programs. *For example: Some Biology courses are designed for preparing students for Allied Health programs. Others are designed for students intending to pursue careers in the field of Science. Still others were created to serve students in programs outside of the science fields (i.e. non-majors).*

Institutional Indicators: Views of various factors from a campus-wide perspective to look at the quality of the institution – usually done by the Office of Institutional Effectiveness and Planning.

Acronyms

AAHE	American Association for Higher Education – organization that focuses on improving learning and teaching in the classroom.
AQIP	Academic Quality Improvement Project – type of accreditation in which the college continually is involved in the accreditation process via Action Projects that focus on continuous improvement, rather than reflection on performance that was the focus of the traditional accreditation process – the AQIP Action Project #3 (Assessment Project) committee consists of faculty representatives and division directors from each of the academic divisions.
CAR	Course Assessment Record – document created by the AQIP Action Project #3 committee to help faculty record student learning and assessment activities taking place in their classrooms.
CARD	Course Assessment Record Database – compiles information from the individual CAR forms for analysis by Institutional Effectiveness and Planning to identify common themes for preparation of Institutional Indicators for the college associated with assessment of student learning.
CDSO	Course Description with Student Outcomes document – describes the course by listing credits, contact hours, course format, prerequisites, facilities requirements, topical outline, textbooks, learning outcomes, grading guidelines, etc.
GEO	General Education Outcome – group of skills that have been determined by the college to be essential in helping to “develop the whole person” and which help to provide a “liberal arts” type of educational experience for our students. Eleven General Education Outcomes have been identified.
GEASC	General Education Assessment Steering Committee – subcommittee of the AQIP Action Project #3 committee that focuses on the development of tools to assess the General Education Outcomes – the committee is composed of representatives from each of the academic divisions currently working to identify ways to measure their specific GEO from a program/college-wide (vs. classroom) perspective.
IEP	Office of Institutional Effectiveness and Planning – involved in activities that determine the “quality” of the college – assists with the process of Program Review and works with AQIP and GEASC committees to develop Institutional Indicators to look at what the academic programs are doing from a campus-wide perspective.
NCA	North Central Association – the college’s accrediting body
OBOR	Ohio Board of Regents – state’s educational oversight committee
PAR	Program Assessment Record – form created by the AQIP Action Project #3 committee to help faculty document assessment activities taking place in their programs and clusters
PR	Program Review – Program/cluster reviews occur on a 5-year cycle to allow faculty to evaluate the effectiveness and quality of their programs/cluster courses and to plan continuous improvement activities.

Assessment Tools

The following is a list of common assessment tools used to determine if student learning is taking place. This may provide you with some ideas for doing assessment in the classroom.

Tests and quizzes can be a useful assessment tool. If the questions are of the same type and related to the same topic, you may use an entire test. If the questions are different formats (e.g. word problems and formula questions) or related to different topics, use a selected group of questions in your assessment. In either case, an item analysis of each test question is recommended for assessment purposes.

- *Selected- response format*
Multiple choice, true/false, matching, enhanced multiple choice, standardized tests, pre/post-test
- *Brief constructed response*
Fill in the blank, word(s), phrase(s), short answer, sentence(s), paragraph(s), label a diagram, show your work, visual representation, essay, formula calculations, others

Product

Research paper, story, play, poem, portfolio, art exhibit, science, project, model, video/ audio tape review, spread sheet, lab report, math problem solving,

Performance

Oral presentation, dance/movement, science lab demonstration, athletic skill performance, dramatic reading, enactment, computer skills, practical exams, laboratory skills competency tests

Process- focused assessment

Debate, musical recital, keyboarding, teach-a-lesson, oral questioning, observation, interview, conference, process description, think aloud, learning log, muddiest point, minute paper, rubric

Description of Selected Tools

Muddiest point: After a topic is introduced, assess student learning by asking the students to list, on a small piece of paper, topics/concepts that are not clear.

Minute paper: Assess student learning by asking students to spend one minute explaining, on a small piece of paper, their understanding of a topic/concept discussed in class.

Learning log: Assess student learning by asking students to reflect on their learning of a certain topic. The logs may be written as a journal or even an error log including corrections.

Pre/post-test: Assesses student learning over the course of a semester. This tool consists of two tests, both having the same questions. One is given before the student is exposed to the material (e.g. at the beginning of the semester). The other is given after the material has been presented (e.g. at the end of the semester).

General Education Outcomes

General Education Outcomes (GEO): General Education Outcomes represent skill sets that all “educated” individuals should have. College programs must ensure that the General Education requirements are fulfilled in their program. LCCC has ten GEOs: five Core Outcomes and five Infused Outcomes:

- All programs must incorporate the five infused outcomes into their curriculum.
- The number of core outcomes that must be addressed will vary based on the type of program:
 - The Associate of Science (AS) and Associate of Arts (AA) programs must address all five core outcomes.
 - Applied associate degree programs must address four of five core outcomes.
 - Certificate of Proficiency programs must address two of the five core outcomes.

Each Course Description with Student Outcomes document lists the General Education Outcomes addressed in the course, along with the specific Course Outcomes that students will learn.

LCCC Core Outcomes*: Core courses (mostly courses in the OBOR Transfer module) have been identified by discipline faculty at the college as courses that specifically address the Core Outcome topics:

- C1: English: Demonstrate logical organization, coherent thinking, and precision in writing
- C2: Mathematics: Utilize college mathematics to solve problems.
- C3: Natural Science: Apply scientific concepts and methods of inquiry.
- C4: Social Science: Apply concepts, principles and methods of inquiry in the social sciences.
- C5: Humanities: Examine the nature of human expression and/or artistic creativity.

*Non-core courses may have these outcomes listed in the CDSO document with a small “c” indicating that the course has a significant component of the core GE outcome in it. Such a course, however, does not qualify as a core course.

LCCC Infused Outcomes: Infused Outcomes are embedded into the course content because they are associated with skills that students will need to learn to be able to master the course material. The course, however, is not necessarily designed to specifically address that topic:

- In1: Critical Thinking: Employ critical thinking skills in addressing issues and problems.
- In2: Communication: Demonstrate competence in verbal and nonverbal communication.
- In3: Diversity: Analyze the role of diversity in the development of the individual, the community, and the global society.
- In4: Ethics: Apply personal, professional, social and civic values.
- In5: Health: Identify behaviors that promote health of the individual.

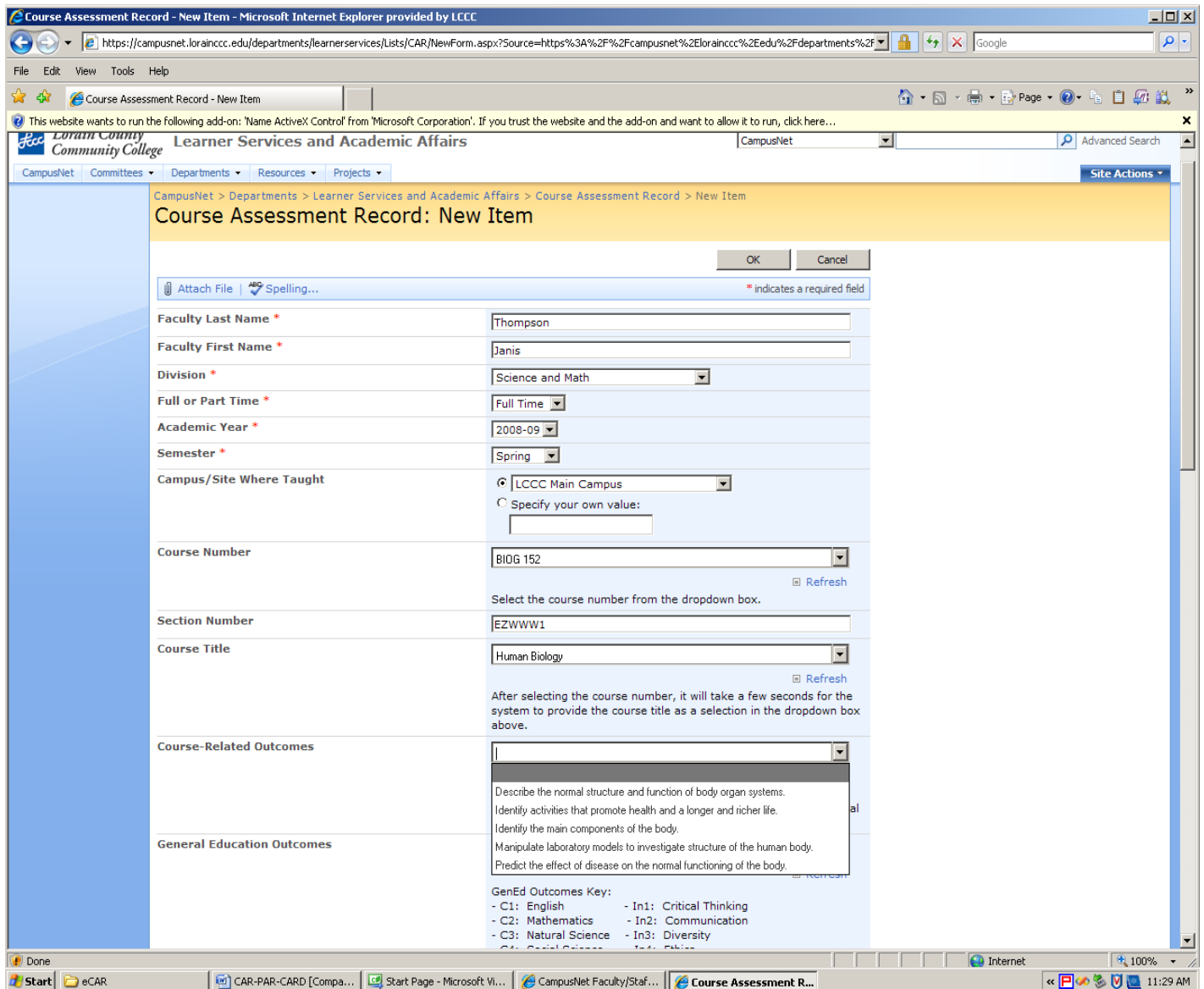
Completion of Assessment Data Documentation

Each semester, faculty are expected to complete a Course Assessment Record (CAR) document for at least one course outcome for at least one course (more are encouraged). The assessment data that is collected at the course level helps provide assessment at the program and institutional level, as well. On a yearly basis, the CAR data is compiled into a Course Assessment Record Database (CARD), first by division and then by the institution. These composite data are subsequently evaluated by the Office of Institutional Effectiveness and Planning (IEP) to look for trends across the curriculum – especially in the area of General Education. An annual report is published related to the CARD. Programs are formally evaluated on five-year cycles using a Program Review (PR) process. During the Program Review, the PR committee will complete the Program Assessment Record (PAR) using assessment data previously reported on the CAR.

In the past, data had to be transferred manually from one document to another – a time-consuming retyping of the information from the CAR to the PAR or CARD. Beginning in fall 2009, however, LCCC faculty will be entering data electronically into the Electronic Course Assessment Record (eCAR) site that has been created using Microsoft SharePoint. This site will have many benefits: 1) Course information will be present in the system and available to the faculty menu via pull-down menus; 2) The site can be accessed easily from both on and off campus; 3) The data will be input in a much more consistent format which will lead to more reliable and comparable data; 4) The data will be directly entered into an electronic database and downloadable to an Excel spreadsheet; 5) The downloaded data can be easily manipulated by faculty and staff to extract needed information (training will be provided at a future time); 6) The electronic data can be easily transferred (via cut-and-paste) to other documents, as needed; 7) The electronic format will save reams of paper each semester, which is great for the environment. *The paper version of the CAR will no longer be used.*

The eCAR site was created using the guidelines from the paper CAR document so you will be providing exactly the same information that you did previously, you will just be entering it directly into the database now. Access to the eCAR site is via the College's intranet (i.e. CampusNet), which one can get to on campus by typing "www" into the URL bar on the browser and hitting Return. If you are off campus, you can access the site by going to <http://www.lorainccc.edu>; clicking on the Faculty/Staff link (yellow tab in the upper right corner of the page); and then clicking on the CampusNet link in the left-hand menu. You will be required to login using your system login information. This will take you to the CampusNet homepage. From here, you will click on the **Forms Library** link under the Resources heading at the center of the page and then click on the **Course Assessment Record** link.

Once you arrive at the eCAR page, click on new in the upper left side of the page. The electronic CAR will initially ask you to input basic demographic data about you, the course, and your course section. Pull-down menus have been provided, wherever possible, to assist you with the completion of the eCAR.



Then you will select the specific course outcome and the related General Education Outcomes that you have assessed. This information is programmed into the system, based on the information from the Course Description with Student Outcomes (CDSO) document for the course, so there is no need to hunt down the information in the division office or from the office staff. [Note: At the beginning of each semester, you may want to go and look at your "options" for course outcomes to assess during the semester – just enter in the course title and the course outcomes menu will self-populate.]

Next, you will need to identify the learning activities that your students engaged in to learn the material related to this course outcome. You will also select the assessment tool(s) that you used to assess the learning that took place in your class associated with this course outcome. You can choose more than one, if several were used. Just click on the boxes next to the appropriate assessment tool. If the assessment tool that you used is not listed, click on the final entry of the list ("Specify your own value") and put in the name of the tool that you used.

The screenshot shows a web browser window titled "Course Assessment Record - New Item - Microsoft Internet Explorer provided by LCCC". The address bar shows a URL from campusnet.lorainccc.edu. The form contains the following fields and options:

- Section number:** EZWWW1
- Course Title:** Human Biology (with a Refresh button and a note: "After selecting the course number, it will take a few seconds for the system to provide the course title as a selection in the dropdown box above.")
- Course-Related Outcomes:** Identify activities that promote health and a longer and richer life. (with a Refresh button and a note: "Select one student learning outcome from the dropdown list. To assess a second outcome for this course, please create an additional record for this course.")
- General Education Outcomes:** (with a Refresh button and a GenEd Outcomes Key: C1: English, C2: Mathematics, C3: Natural Science, C4: Social Science, C5: Humanities, In1: Critical Thinking, In2: Communication, In3: Diversity, In4: Ethics, In5: Health)
- Learning Processes and Activities:** Lecture, classroom discussions, nutrition project (with a note: "List the course activities that the student will participate in to learn the stated objective(s).")
- Assessment Techniques-Methods-Measures:**
 - Application Scenario
 - Discussion
 - Journal
 - Minute Paper
 - Muddiest Point
 - Performance
 - Portfolio
 - Presentation
 - Practical/Competency Testing
 - Pre-Test/Post-Test
 - Project
 - Rubric
 - Test Item Analysis
 - Specify your own value: _____
- Expected Outcomes-Performance Evaluation Criteria:** _____

Now you will need to identify the level of expectation that you had set for your students. This can be worded in a number of ways, but should include some type of numerical value for comparison purposes. Remember that the goal of assessment is to **improve student learning**, so set your expectations high. Students will rise to the occasion; and if they don't, you will know where they need help for future classes. For example:

- 80% of the students will earn a minimum of 70% of the points on selected questions.
- Students will be expected to perform at a level of 70% or higher.
- Benchmark expectation is 70%.
- 95% of students will demonstrate improvement between pretest and post-test.
- 80% of students will achieve a minimum rating of 4.0 on the 5.0 rubric rating scale.

In the next box, you will list the actual results of the assessment. In other words, how did your students do? Again, provide numerical data, similar to your expectation:

- 67% of students scored 70% or higher on selected test questions.
- 97% of students improved score between pretest and post-test.
- 86% of students scored 4.0 or higher on rubric rating of assignment with average rating of 4.3.

If you noticed anything in particular about the students' performance, this is the place to note that, as well. Maybe 86% of the students achieved the 4.0 overall on the rubric, but 50% scored poorly on one section of that rating rubric. That would be important to know. Yes, the students met the benchmark, but there is an area where improvement in learning could occur. Therefore, your entry might look more like this:

- 86% of students scored 4.0 or higher on rubric rating of assignment with average rating of 4.3. Only 50% of students scored 4.0 or higher in the "Organization" category.

Now select whether your students met the expectation criteria. You have three options to select from: yes, no, and partial achievement.

The screenshot shows a web browser window titled "Course Assessment Record - New Item" from LCCC. The address bar shows a URL from campusnet.lorainccc.edu. The page contains a form with the following sections and content:

- Expected Outcomes-Performance Evaluation Criteria:** A text area containing "80% of students will achieve benchmark level of 80% in correctly identifying behaviors that promote health and those that contribute to disease." Below it is a question: "Determine the level of performance that you expect your students to achieve (e.g. '70% will score more than 80% on the selected test questions,' or 'students will be expected to achieve 80% benchmark level')." There is a small input field above this text.
- Assessment Data Analyses:** Two text areas. The first contains "95% of students participated in classroom discussions about the topics and provided insightful responses." The second contains "76% correctly responded to selected test questions related to these contributing factors." Below these is the question: "What does the data you collected in your assessment tell you about the students' level of performance?"
- Was the Performance Criteria Achieved?:** A dropdown menu with the selected option "3-partial achievement of criteria".
- Recommendation for Continuous Improvement:** A text area containing "A class exercise will be created to help students self-assess their preparation for the exam." Below it is the question: "As a result of your assessment, do you plan to make any adjustments in your courses or presentation of the material?"
- Prior Course Assessment:** A dropdown menu with the selected option "Yes, and changes were made". Below it is the question: "Have you assessed this outcome in your course before?"
- Changes Based on Prior Assessment:** A text area containing "Additional class time was devoted to helping students delineate between the positive and negative factors." Below it is the question: "If you made changes to a course based on a prior assessment, what changes did you make?"
- Performance Improvement:** A group of radio buttons with options: "1 - Large Decrease", "2 - Slight Decrease", "3 - No Change", "4 - Slight Increase" (which is selected), and "5 - Large Increase".

At the bottom right of the form are "OK" and "Cancel" buttons. The browser's taskbar at the bottom shows the Start button, several open applications (eCAR, CAR-PAR-CARD, Document1), and the system tray with the time 11:40 AM.

In the final section, you will be asked if you have assessed this course outcome previously. If not, select "No" and you are done with your eCAR. If you have, then select either: "Yes, but no changes were made" or "Yes, and changes were made". If you made changes, briefly describe what you did differently since the last assessment of the outcome and whether student performance improved and to what degree.

Now press **OK** and your eCAR will be submitted into the database. You can look at your "finished product" and even print it out (no longer necessary, but if you want a copy) by clicking the link on your name for that eCAR. The finished product will look like this:

Faculty Last Name	Thompson
Faculty First Name	Janis
Division	Science and Math
Full or Part Time	Full Time
Academic Year	2008-09
Semester	Spring
Campus/Site Where Taught	LCCC Main Campus
Course Number	courseNumber BIOG 152
Section Number	EZWWW1
Course Title	courseTitle Human Biology
Course-Related Outcomes	courseOutcomeDescr Identify activities that promote health and a longer and richer life.
General Education Outcomes	GEOoutcomes C3, In5
Learning Processes and Activities	Lecture, classroom discussions, nutrition project
Assessment Techniques-Methods-Measures	Discussion; Rubric; Test Item Analysis
Expected Outcomes-Performance Evaluation Criteria	80% of students will achieve benchmark level of 80% in correctly identifying behaviors that promote health and those that contribute to disease.
Assessment Data Analyses	Rubric analysis of Nutrition Project report indicated that 85% of students correctly identified at least 80% of the factors. 95% of students participated in classroom discussions about the topics and provided insightful responses. 76% correctly responded to selected test questions related to these contributing factors.
Was the Performance Criteria Achieved?	3-partial achievement of criteria
Recommendation for Continuous Improvement	A class exercise will be created to help students self-assess their preparation for the exam.
Prior Course Assessment	Yes, and changes were made
Changes Based on Prior Assessment	Additional class time was devoted to helping students delineate between the positive and negative factors.
Performance Improvement	4 - Slight Increase

If you have assessed additional course outcomes or additional courses, complete another eCAR for each. *A separate eCAR is used for each outcome that is assessed.* The reason for doing this to allow the data to go into a separate line on the database for better retrieval of information later when needed for the CARD or PAR or other purposes. If you want to change anything on your document, you can click on **Edit Item** at the top of the page and fix it. You will only be able to edit and view your own documents.

All eCARs must be submitted by the first week of the next semester. During the second week of the semester, the data will be downloaded to an Excel spreadsheet and stored in an **Archive** so that the data for each semester will remain “pure” even if courses are updated in the future. This will also help to reduce clutter on the eCAR home page, as hundreds of entries will occur each semester. The archived data will be an “edited” version that has all of the information needed for program or cluster review, but the anonymity of the submitter will be maintained. Training for retrieving data from the database will be provided at a future time. Since the data is in the form of an Excel spreadsheet, many faculty and staff will already be knowledgeable about how to manipulate the database to access the data that they seek.

The following pages show some examples of the “old paper CAR” entries to give you ideas about how the data should look. The same type of information will be input into the eCAR (*remember that we will no longer be using the paper version of the CAR document*). If you have questions or need assistance with the eCAR, contact Janis Thompson at 366-7245 or jthomps@lorainccc.edu (email will likely get you a quicker response).

COURSE ASSESSMENT RECORD (CAR) Samples

Student Learning Outcomes [Select from course description and student outcomes CC document]	General Education Outcomes [Select from measurable general education objective document]	Learning Processes / Activities [In class, homework, and research assignments etc.]	Assessment Techniques / Methods / Measures [Qualitative/ descriptive points]	Expected Outcomes / Performance Evaluation Criteria [Rubrics, levels, time limit, competencies, etc.]	Assessment data analyses [Formative, Diagnostic, or Summative evaluation etc.]	Recommendation for continuous improvement [Contents, lab setting, instruction, pedagogy, etc.]	Follow-Up: To be completed following the implementation of recommendation(s) for continuous improvement
<i>What cognitive, affective, and / or psychomotor learning outcomes have been identified for this course?</i>	<i>What general education outcomes are embedded in the course content?</i>	<i>What learning experiences and strategies will students be exposed to in order to achieve these learning outcomes?</i>	<i>What assessment strategies will you use to demonstrate student learning?</i>	<i>What are the benchmark targets you will use as indicators of adequate learning in this course?</i>	<i>What did you find out? What does the data show?</i>	<i>Based on your data and the results obtained, what do you plan to do?</i>	(a) <i>What change(s) did you make?</i> (b) <i>When did you implement the change(s)?</i> (c) <i>What were your results?</i> (d) <i>Have you shared the results with others? - Yes-No-N/A</i>
EMCH 111 Statics for Technology Apply statics scientific principles and mathematical concepts to force systems in equilibrium.	#3b. Applies scientific knowledge to program of study and contemporary issues <i>(Has become C3 in the new GEO list)</i>	* Complete home work assignments * Read and text book worked examples and participate in group discussion * Observe, discuss and understand in class presentation of problem solving shown in step by step procedures	* Homework (formative feedback) * Class tests (formative feedback) * Final examinations (summative and normative evaluation)	Target: 80% students be able to (a) select correct statics principles and (b) using appropriate math concepts and formula in completing assignments on time and tests	83% of students were able to do homework satisfactorily. Class test 1- 63% Class test 2- 70% demonstrate the outcome by earning above "C" or better 68% received "C" or above in the final	50% of students have very poor study habits, working part time, and unable to learn continuously without disruption. Advise students to improve math skills in MTHM 121 the prerequisite for this course.	N/A

<p>PBAD 251 Organizational Leadership</p> <p><u>Outcome</u> The student will be able to differentiate between communication styles and to identify appropriate intervention strategies to use in specific case scenarios (Cognitive and affective)</p>	<p><u>Outcome</u> #9 Develop critical thinking and reasoning skills for problem solving</p> <p><i>(Has become In1 in the new GEO list)</i></p>	<p>1.read the chapter on communication in the textbook; 2.participate in lecture session; 3.participate in communication-focused small group activities; participate in and observe role play situations</p>	<p>1). Pre-test/Post test 2). Journal reflections String book Project selections and reflections</p>	<ul style="list-style-type: none"> ▪ 80% of the students will increase their test scores by 50% or more in the post test ▪ 50% of the students' journal reflections will include statements indicating understanding of and applications for communication 	<ul style="list-style-type: none"> ▪ 95% of the students increased their test scores more than 60% ▪ 70% of the journal reflections written indicated understanding and provided appropriate examples of communication scenarios ▪ 75% demonstrated the use of critical thinking skills through their writing/reflections on string book articles 	<p>I plan to: 1.provide a handout at the beginning of the course and demonstrate examples of the process of critical thinking 2.Begin lectures on communication earlier in the semester. 3. use more role plays to demonstrate more examples of good intervention strategies begin string book project earlier and spend more time describing the process of reflection/critical thinking</p>	<p>N/A</p>
<p>HPED 172 Exercise Management for Special Populations</p> <p>Psychomotor Apply the precautions associated with resistance and endurance training for special populations</p>	<p>11. Develop an appreciation for and an understanding of the benefits of a healthy, active and well-balanced lifestyle. <i>(now is In5)</i> 6. Develop precision, clarity, and fluency in writing <i>(now is C1)</i> 7. Develop accuracy, conciseness, and coherence in spoken communication <i>(now is In2)</i></p>	<p>Lectures, Power Point presentations, Group work using scenarios Healthcare Professional Observation and written summary Videos, Workout routines Final Project/Research Paper Journal summaries</p>	<p>Final project, oral presentations, and 4 quizzes</p>	<p>At least 85% of students will achieve at least 78% average on all assignments and exams</p> <p>100% of the students in attendance will complete mid term course assessments</p>	<p>Scores ranged from 80% - 100% for all of the graded materials for most of the class.</p> <p>13% of the students received 50% or less on some of the graded materials and had poor attendance throughout the semester.</p>	<p>Do a practice demonstration before the actual presentation to the class</p> <p>Ongoing continuous improvement.</p>	<p>N/A</p>

<p>MTHM 181 Calculus I</p> <p>Have the skills and knowledge necessary to compute derivatives</p>	<p>This outcome represents an aspect of Gen. Ed. #8 Apply mathematical concepts to solve quantitative problems</p> <p><i>(Has become C2 in the new GEO list)</i></p>	<p>Lecture, class discussion, guided practice, homework</p>	<p>In-class exam.</p> <p>Prior to the exam, I will also informally assess the class by observing my students as they work on practice problems, and by analyzing their questions about related homework.</p>	<p>The successful student will score 21/25 or better.</p>	<p>11/20 students achieved 21/25 (84%) or better. The other 7 scores were between 64% and 83%. No one scored lower than 64%. (In terms of letter grades, no one failed this test.)</p> <p>I believe the data shows that many of the students have achieved a pretty respectable level of competency in the area of taking derivatives.</p>	<p>I am extremely pleased with the results of this assessment, and congratulated the class as a whole for their excellent performance on this exam.</p> <p>Taking the derivative of a function is an essential skill of introductory calculus. I believe that the grading method for this particular test acted as an incentive to students. The accuracy that a student develops while preparing for this exam will serve them very well later in the course, when they will be required to apply these skills.</p> <p>The next time I teach this course, I will implement a similar procedure.</p>	<p>I had decided to do the informal assessment by observing my students and analyzing their homework after previous classes performed somewhat poorly in this area. I think this observation helped me to more easily predict where help or additional work might be needed by the students.</p>
<p>BIOG 161 Principles of Biology I</p> <p>Students will have an understanding of the complexities of biology and will develop critical thinking skills for the assessment and evaluation of information associated with scientific topics</p>	<p>#9 Develop critical thinking and reasoning skills for problem solving</p> <p><i>(Has become In1 in the new GEO list)</i></p>	<p>Lecture sessions discussing biology and related topics</p> <p>Laboratory exercises allowing “hands on” observation and application of biological processes</p> <p>Individual and group tutoring by the professor</p>	<p>Each lecture exam (total five) will include a critical thinking application question to be assessed by the instructor</p>	<p>70% of the students will achieve a score of 70% or higher on selected critical thinking and application exam questions</p>	<p>The goal of 70% of the students achieving 70% or higher on the critical thinking question was reached on 2 of the 5 exams given (exams number 4 & 5)</p> <p>A cumulative average of 65.2% was realized by 70% of the students</p>	<p>Based on the results of this assessment I plan to incorporate more critical thinking and application scenarios into lecture materials</p> <p>I will incorporate critical thinking exercises into the laboratory</p>	<p>N/A</p>

BIOG 152 Human Biology <u>Psychomotor</u> Identify the main components of the body.	(No associated GEO for this course outcome)	Laboratory exercises associated with examination of models and specimens of the human body.	13 Practical-style lab quizzes Cumulative Practical-style lab final	80% of the students will correctly identify 80% of the structures	On all of the lab quizzes and final lab practical, >85% of the students scored 80% or higher.	The current method of presentation of this material appears to be adequate for the learning of this course objective.	Changes made to the laboratory exercises appear to have improved the student performance.
ENGL 011 Writing Review Employ Standard American English grammar, sentence structure, mechanics and usage. (Cognitive)	6. Develop precision, clarity and fluency in writing 6c. Expression: demonstrates competency in syntax, mechanics, usage, tone and voice. <i>(Has become C1 in the new GEO list)</i>	-in class grammar activities -Powerpoint in class -Activities in class <u>Evergreen</u> -CD work on own	Selected questions on Quiz 3	70 % of students will earn 70% or higher on Quiz 3	53% passed with 70% or higher	Have students complete additional CD activities for practice. Further discuss study habits and test taking strategies.	N/A
MTHM 021 Pre-algebra Cognitive The student shall demonstrate the solution of arithmetic problems on paper	#8 Apply mathematical concepts to solve quantitative problems. 8a: Solves problems algebraically, numerically, graphically and verbally, using technology when appropriate <i>(Has become C2 in the new GEO list)</i>	Assigned homework Take home quizzes	Fraction component of Test 1	80% will demonstrate competency (70% or higher) on Test 1	61% of students earned 70% or higher on test 1	Give retest after review of fractions	Not assessed previously

Faculty Name: _____ Signature: _____ Date Submitted: _____

If you need assistance in completing this form, contact your division's GEASC or AQIP committee members.

Approved by AQIP Assessment Project Design Team , July 23, 2003

Related document : P & P IV – 115 :- Course Evaluation

Revised July 13, 2004, Revised January 2007