

# **Butler County Community College - Butler, PA**

## **Student Learning Outcomes Assessment**

**Spring 2011**

Report on Student Learning Outcomes Assessment for which Data was collected  
in the Spring Semester 2011

Compiled by the Assessment, Research and Planning Division  
June 30, 2012

## Summary

Out of the 60 associate degree programs scheduled for outcomes assessment in the spring semester of 2011, faculty members provided data for 41 programs to be analyzed. Some programs evaluated two or more program competencies. The results indicate that students demonstrated success at the expected level in 36 of the 48 program competencies that were reviewed, and did not meet the success criteria in 12 program competencies. The findings have been analyzed and appropriate actions have been taken as shown in the outcomes assessment tables for the four academic divisions at the College. A separate table lists the programs that were scheduled, but did not complete the assessment.

## Introduction

Each of the 60 Associate degree programs at BC3 has program competencies (intended learning outcomes—ILOC's) along with a schedule for carrying out student learning outcomes assessment of the program competencies. All 60 associate degree programs were scheduled to collect data on student learning in the spring semester 2011 aligned with at least one program competency. Faculty collected data according to the specified means of assessment and the data was submitted to the Assessment Division at the end of the semester. Overall, 41 programs successfully completed student learning outcomes assessment (see Table A). In addition, instructors submitted samples of student work and grading rubrics where appropriate. The data that was submitted along with the supporting documentation have been entered into TracDat, BC3's data collection software.

Nineteen programs on the schedule did not complete an assessment for two reasons; there were no students in the relevant major enrolled in the course during the spring 2011 semester or; the faculty did not collect data. (The recommendation for these nineteen programs is to collect the data in the spring semester of 2013).

**Table A: Number of Programs due for Learning Assessment by Division**

<b>Division</b>	<b>Total Number of Programs</b>	<b>Number of Programs that competed Assessment</b>	<b>Number of programs that did not complete Assessment</b>
Business	19	17	2
Humanities & Social Sci.	20	6	14
Nat. Science and Tech	15	14	1
Nursing & Allied Health	6	4	2
<b>Total</b>	<b>60</b>	<b>41</b>	<b>19</b>

Some programs assessed more than one program competency. A total of 48 program competencies from 41 programs were assessed. Students met the success criteria in thirty six program competencies. Out of the 12 that did not meet the criteria for success, 10 did not meet the percent of students expected to succeed because the number of enrolled students in the major was small— ranging from one to five students. After reviewing program data thoroughly and noting that the enrollment figures are typical for these majors, it was decided to collect data during the three-year assessment cycle in the academic year 2013-14. The other two program competencies in which students did not meet success criteria need instructor actions to analyze specified success criteria, and a program to assist students in content acquisition.

The success criteria have been modified and data will be collected during the spring 2013 semester.

**Table B: Number of Program Competencies in which Students met or did not meet the success criteria**

<b>Division</b>	<b>Number of Program Competencies Assessed</b>	<b>Number of program Competencies that met success criteria</b>	<b>Number of program competencies that did not meet success criteria</b>
Business	20	13	7
Humanities & Social Sc.	10	7	3
Nat. Science. & Tech	14	12	2
Nursing & Allied Health	4	4	0
<b>Total</b>	<b>48</b>	<b>36</b>	<b>12</b>

In the tables that follow, the findings and the actions taken are reported by division program names in alphabetical order. For programs that completed the student learning outcomes assessment, a five-column layout lists the program name, the intended learning outcome, the means of assessment and the success criteria, results/findings & analysis and action taken. In the case of programs that did not complete an outcome, a four-column layout identifies the program name, the intended learning outcome scheduled for assessment, the reason for not completing the assessment and the action to be taken.

Table 1 and Table 1a are for programs in the Business Division.

Table 2 and Table 2a are for programs in the Humanities and Social Sciences Division.

Table 3 and Table 3a are for programs in the Science and Technology Division.

Table 4 and Table 4a are for programs in the Nursing and Allied Health Division.

(A program may appear on the 5-column and the 4-column layout depending on whether a scheduled ILOC was assessed or not.)

**Spring 2011 Assessment**

**Table 1 - Business Programs**

Program	Intended Learning Outcome (ILOC)	Means of Assessment & Success criterion	Results/Findings	Analysis and Action Taken
<b>Accounting (301)</b>	Students will be able to apply accounting concepts and terms to accounting programs.	Students will be assessed utilizing selected questions on the comprehensive final exam. 80% of the students will achieve the mastery level defined as 91% or greater on the selected questions (ACCT 234).	14% of the students in the Accounting program scored 91% on the selected questions. <u>Success criterion is not met.</u>	The 91% score at mastery level was considered to be too high. As a result, the success criterion has been set at 70%. Instructor will use other application methods to assess this competency. Data will be collected again in the spring semester 2013.
<b>Business Administration (205)</b>	Students will be able to apply accounting concepts and terms to accounting programs.	Students will be assessed utilizing selected questions on the comprehensive final exam. 80% of the students will achieve the mastery level defined as 91% or greater on the selected questions. (ACCT 234)	Zero percent of the students in the Business Administration program scored 91% on the selected questions. <u>Success criterion is not met.</u>	The 91% score at mastery level was considered to be too high. As a result, the success criterion has been set at 70%. The instructor will use other application methods to assess this competency. Data will be collected again in the spring semester 2013 .
<b>Business Management (302)</b>	Students will be able to correctly interpret employment law case studies by applying the appropriate employment law.	Students will be assessed utilizing a comprehensive final exam. 75% of the students will achieve a score of 70% or greater. (BUSN 124)	84.2% of the students in the Business Management program scored 75% on the exam. <u>Success criterion is met.</u>	Data will be collected again during the next three-year assessment cycle 2013-14.
<b>CIS/Computer Forensics &amp; Security (315)</b>	Students will be able to apply computer forensic processes using the appropriate forensics software and hardware to a complex case.	Students will be assessed utilizing scores on the final project. 80% of the students will achieve a score of 70% or greater. (COMP 270)	70% of students in the CIS/Computer Forensics & Security program scored 70% on the final project with a total possible 35 points. <u>Success criterion is not met.</u>	An analysis of students who did not meet the success criterion reveal that 2 of the 3 students missed the minimum score by 1 percentage point. Therefore the data will be collected again during the three-year assessment cycle in 2013-14. Additional supporting documents will be included in future submission for this ILOC.

**Spring 2011 Assessment**

**Table 1 - Business Programs Cont'd**

Program	Intended Learning Outcome (ILO)	Means of Assessment & Success criterion	Results/Findings	Analysis and Action Taken
<b>CIS/Computer Support Specialist (303A)</b>	Students will be able to illustrate essential computer skills by managing, maintaining, troubleshooting, installing, and configuring basic personal computer hardware components.	Students will be assessed utilizing scores on the PC Build final project. 80% of the students will achieve a score of 85% or higher. (COMP 215)	100% of students in the CIS/Computer Support Specialist program scored 85% on the final project. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>CIS/Network Administration (303E)</b>	Students will be able to illustrate essential computer skills in managing, maintaining, troubleshooting, installing, and configuring basic network infrastructure.	Students will be assessed utilizing scores on the final exam. 80% of the students will achieve a score of 75% or higher. (COMP 211)	80% of the students in the CIS/Network Administration program scored 75% on the exam with a total possible 100 points. <u>Success criterion is met.</u>	An additional assessment that measures the competency of configuring the network may be added as a class or lab. Data will be collected again during the next three-year assessment cycle 2013-14.
<b>CIS/Programming Specialist (303B)</b>	Students will be able to construct web pages that utilize client-side and/or server-side scripting where appropriate.	Students will be assessed utilizing scores on the final project. 80% of the students will achieve a score of 80% or higher. (COMP 236)	85.7% of students in the CIS/Programming Specialist program scored 80% on the final exam. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>CIS/Web Programming Specialist (303D)</b>	Students will be able to construct images for web pages using graphic design software packages.	Students will be assessed utilizing scores on the comprehensive final project. 80% of the students will achieve a score of 80% or higher. (COMP 130)	66.7% (2 out of 3) of students in the CIS/Web Programming Specialist program scored 80% on the final project. <u>Success criterion is not met.</u>	It is noted that the data set is small, which is typical for this program, and one student represents a large percentage. The effect is that the percent of students needed for success criterion is difficult to meet. Therefore this outcome is considered to be adequate and data will be collected again during the three-year assessment cycle 2013-14.

**Spring 2011 Assessment**

**Table 1 - Business Programs Cont'd**

<b>Program</b>	<b>Intended Learning Outcome (ILO)</b>	<b>Means of Assessment &amp; Success criterion</b>	<b>Results/Findings</b>	<b>Analysis and Action Taken</b>
<b>Hospitality Management (318)</b>	Students will be able to use business math principles and computation skills in a hospitality environment.	Students will be assessed utilizing a recipe costing assignment. 70% of the students will achieve a score of 70% or higher. (FSVC 230)	80% of students in the Hospitality Management program scored 70% on the recipe costing assignment. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Hospitality Management - Dietary Manager Option (318A)</b>	Students will be able to function as an integral part of the food service management team.	Students will be assessed utilizing lab performance reports for Quantity Food Production lunches. 80% of the students will achieve a score of 70% or higher. (FSVC 201)	91.7% of students in the Hospitality Management - Dietary Manager Option program scored a 70% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Human Resource Management (225)</b>	Students will be able to utilize critical thinking skills to interpret human performance management skills.	Students will be assessed utilizing a performance management case study in Case Studies in HR Management (BUSN 281). 80% of the students will achieve a score of 70% or higher.	71.4% of the students in the Human Resource Management program scored a 70% or higher. <u>Success criterion is not met.</u>	An analysis of students who did not meet the success criterion reveal that 2 of them scored 69% and 67.5% which are very close to the 70% mark. Therefore the data will be collected again during the three-year assessment cycle in 2013-14.
<b>Marketing Management (311)</b>	Students will be able to apply marketing research principles to a company's product or services.	Students will be assessed utilizing a marketing research project in Marketing Research (BUSN 241). 80% of the students will achieve a score of 70% or higher.	100% of the students in the Marketing Management program scored a 70% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Office Administration - Executive (308)</b>	Students will be able to perform administrative office procedures in a business setting.	Students will be assessed utilizing site supervisor evaluations in OADM 206. 90% of the students will achieve an outstanding or above average from their site supervisor.	100% (2 of 2) of the students in the Office Administration - Executive program received an outstanding. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.

**Spring 2011 Assessment**

**Table 1 - Business Programs Cont'd**

Program	Intended Learning Outcome (ILO)	Means of Assessment & Success criterion	Results/Findings	Analysis and Action Taken
<b>Office Administration - Executive (308) Cont'd</b>	Students will be able to create a professional portfolio illustrating personal competency skills acquired in the Office Administration program.	Students will be assessed utilizing a professional portfolio created in practicum OADM 206. 80% of the students will achieve a score of 80% or higher.	100% (2 of 2) of the students in the Office Administration - Executive program scored a 80% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Office Administration - Legal (313)</b>	Students will be able to perform administrative office procedures in a business setting.	Students will be assessed utilizing site supervisor evaluations in OADM 205. 90% of the students will achieve an outstanding or above average from their site supervisor.	100% (2 of 2) of the students in the Office Administration - Legal program received an outstanding. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
	Students will be able to create a professional portfolio illustrating personal competency skills acquired in the Office Administration program.	Students will be assessed utilizing a professional portfolio created in practicum OADM 205. 80% of the students will achieve a score of 80% or higher.	100% (2 of 2) of the students in the Office Administration - Legal program scored a 80% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Office Administration - Medical (312)</b>	Students will be able to perform administrative office procedures in a medical/business setting.	Students will be assessed utilizing a site supervisor evaluation in Medical Office Administrative Practicum (OADM 281). 90% of the students will achieve an overall performance rating of outstanding or above average.	60% (3 of 5) of the students in the Office Administration - Medical program scored outstanding. <u>Success criterion is not met.</u>	It is noted that the data set is small, which is typical for this program, and one student represents a large percentage. The effect is that the percent of students needed for success criterion is difficult to meet. Therefore this outcome is considered to be adequate and data will be collected again during the three-year assessment cycle 2013-14.

**Spring 2011 Assessment**

**Table 1 - Business Programs Cont'd**

Program	Intended Learning Outcome (ILO)	Means of Assessment & Success criterion	Results/Findings	Analysis and Action Taken
<b>Office Administration - Medical (312) Cont'd</b>	Students will be able to create a professional portfolio illustrating personal competency skills acquired in the Office Administration program.	Students will be assessed utilizing a professional portfolio in Medical Office Administration Practicum (OADM 281). 80% of the students will achieve a score of 80% or higher.	100% (5 of 5) of students in the Office Administration - Medical program scored 80% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Recreation Tourism (343)</b>	Students will be able to identify the role travel and tourism plays as a major industry in the local community and global environment.	Students will be assessed utilizing a final project in Regional Geography and Tourism (TOUR 125). 80% of the students will achieve a score of 70% or higher.	100% (5 of 5) of the students in the Recreation Tourism program scored 70% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Technical Trades - Cosmetology Management Option (314B)</b>	Students will be able to apply the law to consumer product and service liability inherent in the cosmetology environment.	Students will be assessed utilizing a chapter examination in Business Law (BUSN 102). 75% of students will achieve a score of 75% or higher.	100% (1 student) of students in the Technical Trades - Cosmetology Management Option program scored 70% of the product liability test. <u>Success criterion is not met.</u>	It is noted that the data set is small, which is typical for this program, and one student represents a large percentage. The effect is that the percent of students needed for success criterion is difficult to meet. Since the one student here did not meet the criterion, the outcome will be assessed in the spring semester 2013. Data will be collected spring 2013.

Spring 2011 Assessment

Table 1a - Business Programs Cont'd

The following Business programs were scheduled but did not complete an assessment:

Table 1a - Business Programs

Program	Intended Learning Outcome (ILO)	Reason	Action Recommended
<b>CIS Transfer (300)</b>	The student will be able to utilize common desktop software (word processing, spreadsheets, database, presentation, etc.).	No Microcomputing majors were enrolled in COMP 242, so No data collected.	Remind lead faculty and collect data during the next assessment cycle in 2013-14.
<b>Hospitality Management - Meeting Event Mgmt. Option (318B)</b>	The student will be able to implement a special events project.	No data collected.	Remind the lead faculty and collect data next time the course is offered in spring 2013.

**Spring 2011 Assessment**

**Table 2- Humanities & Social Sciences Programs**

<b>Program</b>	<b>Intended Learning Outcome (ILO)</b>	<b>Means of Assessment &amp; Success criterion</b>	<b>Results/Findings</b>	<b>Analysis and Action Taken</b>
<b>Communications (120)</b>	Students will be able to create a portfolio with a minimum of three news stories, including one required broadcast style story.	Students will be assessed utilizing a Media Writing Portfolio in COMM 135. 75% of the students will achieve a score of 70% or higher.	92% of students scored 70% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
	Students will be able to successfully compose a press release.	Students will be assessed utilizing a press release based on a faculty created rubric. 75% of the students will achieve a score of 70% or higher. (COMM 230)	64% of students scored a 70% or higher. <u>Success criterion is not met.</u>	Results did not indicate if all of the students were Communications program majors. Therefore data will be collected again during the spring semester 2013 for program majors only.
<b>Criminology (125)</b>	Students will be able to identify the principles of criminal procedures with a particular emphasis on federal constitutional limitations.	Students will be assessed utilizing questions 46 and 47 on the final exam in CRIM 210. 50% of the students will correctly answer these questions.	74% of students correctly answered question 46 and 82% for question 47. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>English (107)</b>	Students will be able to analyze canonical texts of English and American literature within their historical, cultural and literary traditions.	Students will be assessed utilizing grades on two critical papers assigned in each of the four courses required for English majors. Students will score 80% or higher on 70% of critical papers submitted in ENGL 201, 206, 209 and 210.	94% of papers submitted scored 80% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Park and Recreation Management - General Option (307A)</b>	Students will be able to develop a PowerPoint presentation for a lesson plan.	Students will be assessed utilizing a PowerPoint presentation which is assessed through a rubric. 75% of the students will achieve a score of 80% or higher.	83% of students scored 80% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.

Table 2 - Humanities &amp; Social Sciences Programs Cont'd

Spring 2011 Assessment

Program	Intended Learning Outcome (ILO)	Means of Assessment & Success criterion	Results/Findings	Analysis and Action Taken
<b>Park and Recreation Management - General Option (307A) Cont'd</b>	Students will be able to implement a planned outdoor adventure program using appropriate leadership techniques.	Students will be assessed in an outdoor adventure. No success criterion was identified.	The average score was a 91%, 100% scored above 85%. <u>Success criterion is met.</u> Although no success criterion was identified this outcome is considered a success.	Data will be collected again during the three-year assessment cycle 2013-14.
	Students will be able to obtain professional certification (Park Safety and Visitor Services/First Aid and Safety).	Students will be assessed utilizing attendance and scores on standardized examinations. Students will achieve a score of 80% or higher.	A minimum percentage was not indicated, however, 69% passed Water Rescue Awareness Level, 78% passed Operations Level, 55% passed Ice Rescue and 78% passed. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Psychology (115)</b>	Students will be able to identify the eras associated with the major schools of thoughts in the history of psychology.	Students will be assessed utilizing questions on exams covering the history of psychology. 70% of the students will correctly answer specific questions. (PSYC 201)	48% of the students in the Psychology program answered question #53 correctly, 72% answered #54 correctly, 80% answered #55 correctly and 100% answered #'s 56 and 57 correctly. <u>Success criterion is not met for question #53.</u>	Data will be collected from all instructors teaching the course in the spring 2013. The one instructor who submitted this data taught five sections and will remediate, reteach and review topics with students.
	Students will be able to enumerate basic research methods, including advantages and disadvantages.	Students will be assessed utilizing topic specific questions on exams in PSYCH 201. 70% of the students will successfully respond to selected subject specific questions.	64% of the students in the Psychology program met the criterion. <u>Success criterion is not met.</u>	Data will be collected from all instructors teaching the course in the spring 2013. The one instructor who submitted this data taught five sections and will remediate, reteach and review topics with students.

Table 2 - Humanities & Social Sciences Programs Cont'd

Spring 2011 Assessment

Program	Intended Learning Outcome (ILO)	Means of Assessment & Success criterion	Results/Findings	Analysis and Action Taken
<b>Social Work (118)</b>	Students will be able to identify specific professional characteristics associated with employment as a social worker.	Students will be assessed on completion of a reflection paper associated with 30 hours of required volunteer work in SOCW 101. 80% of the students will achieve a score of 75% or higher.	85% of students scored 75% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.

The following Humanities & Social Sciences programs were scheduled but did not complete an assessment:

Table 2a - Humanities &amp; Social Sciences Programs

Program	Intended Learning Outcome (ILOC)	Reason	Action Recommended
<b>Child Development Education (271)</b>	1 - The student will be able to create a portfolio that includes artifacts supporting PA Early Learning Standards. 2 - The student will be able to evaluate the role of individual growth and development as it relates to learning outcomes. 3 - The student will be able to identify specific professional characteristics associated with employment as a teacher.	No data collected.	Remind the lead faculty and collect data next time the course is offered in spring 2013.
<b>Communications (120)</b>	The student will be able to apply communication models to explain communication terminology and concepts.	No data collected.	Remind the lead faculty and collect data next time the course is offered in spring 2013.
<b>Creative Digital Communication (276)</b>	1 - The student will be able to design a basic web page showing graphic design components. 2 - The student/graduate will be able to use photo retouching/photo manipulation software effectively.	No ILOC forms have been received for this program, therefore, no results have been submitted.	Remind the lead faculty and collect data next time the course is offered in spring 2013.

**Spring 2011 Assessment**

**Table 2a - Humanities & Social Sciences Programs Cont'd**

<b>Program</b>	<b>Intended Learning Outcome (ILOC)</b>	<b>Reason</b>	<b>Action Recommended</b>
<b>Early Childhood Education - Pre K-4 (112)</b>	<p>1 - The student will be able to create a portfolio that includes artifacts supporting PA Early Learning Standards.</p> <p>2 - The student will be able to evaluate the role of individual growth and development as it relates to learning outcomes.</p> <p>3 - The student will be able to identify specific professional characteristics associated with employment as a teacher.</p>	No data collected.	Remind the lead faculty and collect data next time the course is offered in spring 2013.
<b>Emergency Services - EMS Option (265B)</b>	Students will be able to identify the principles of criminal procedures with a particular emphasis on federal constitutional limitations.	Unable to generate results. This programs shares the same ILOCS as Criminology. One EMS major was included in those results but they were not broken out by student.	Remind the lead faculty and collect data next time the course is offered in 2013. Break future submissions out by Program with Student ID number.
<b>Emergency Services - Police Services Option (265A)</b>	Students will be able to identify the principles of criminal procedures with a particular emphasis on federal constitutional limitations.	Unable to generate results as this programs shares the same ILOCS as Criminology. Four Police Service majors were included in those results but they were not broken out by student.	Remind the lead faculty and collect data next time the course is offered in spring 2013. Break future submissions out by Program with Student ID number.

**Spring 2011 Assessment**

**Table 2a - Humanities & Social Sciences Programs Cont'd**

<b>Program</b>	<b>Intended Learning Outcome (ILOC)</b>	<b>Reason</b>	<b>Action Recommended</b>
<b>English (107)</b>	The student will be able to write about canonical texts of English and American literature read and discussed in course work.	No data collected.	Remind the lead faculty and collect data next time the course is offered in spring 2013.
<b>Fine Arts (109)</b>	The student will be able to describe the major historical periods/movements of 20th century art, music or theater.	No data collected.	Remind the lead faculty and collect data next time the course is offered in spring 2013.
<b>General Studies (100A)</b>	No matrix or ILOC statements have been received.	No data collected.	Remind the lead faculty to develop ILOC statements and collect data in spring 2013.
<b>Graphic Design (275)</b>	The student will be able to function as a professional graphic designer in either an employer-employee relationship or as a freelance graphic designer.	No data collected.	Remind the lead faculty and collect data next time the course is offered in spring 2013.
<b>Homeland Security (278)</b>	No matrix or ILOC statements have been received.	No data collected.	Remind the lead faculty to develop ILOC statements and collect data in spring 2013.
<b>Park and Recreation Management - Park Law Enforcement Option (307C)</b>	The student/graduate will be able to develop a PowerPoint presentation for a lesson plan.	No data collected.	Remind the lead faculty and collect data next time the course is offered in spring 2013.

**Spring 2011 Assessment**

**Table 2a - Humanities & Social Sciences Programs Cont'd**

<b>Program</b>	<b>Intended Learning Outcome (ILOC)</b>	<b>Reason</b>	<b>Action Recommended</b>
<b>Photography (277)</b>	No matrix or ILOC statements have been received.	No data collected.	Remind the lead faculty to develop ILOC statements and collect data in spring 2013.
<b>Physical Education - Sport Management Option (110B)</b>	No matrix or ILOC statements have been received.	No data collected.	Remind the lead faculty to develop ILOC statements and collect data in spring 2013.
<b>Secondary Education (103)</b>	The student will be able to create a portfolio that includes artifacts supporting PA Academic.	No data collected.	Remind the lead faculty and collect data next time the course is offered in spring 2013.

**Spring 2011 Assessment**

**Table 3 - Science & Technology Programs**

Program	Intended Learning Outcome (ILO)	Means of Assessment & Success criterion	Results/Findings	Analysis and Action Taken
<b>Architectural Design &amp; Drafting with CADD (304)</b>	Students will be able to master typical architectural drawing requirements by planning overall sheet layouts, including application of proper dimensioning, notes and necessary detailing, quality lettering and line work.	Students will be assessed utilizing a portfolio review committee consisting of three industry/advisory members. 80% of the students will achieve a score of 80% or higher. (ARCH 202)	100% of students in the Architectural Design & Drafting program scored 80% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Biological Science (206)</b>	Students will be able to define and explain the essential principles and concepts of the life sciences.	Students will be assessed utilizing final exams in Biology 120. 50% of the students will achieve a score of 70% or higher.	91% of students enrolled scored a 70% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Chemistry (207)</b>	Students will be able to apply basic chemical principles.	Students will be assessed utilizing midterm & final exams in CHEM 102 and final exams in CHEM 221 & CHEM 222. 50% of the students will achieve a score of 60% or higher.	40% of students in the Chemistry program scored above the minimum percentage on the midterm, and 60% of students on the final. In CHEM 221, 100% of students scored above the minimum. In CHEM 222, 50% scored above the minimum. <u>Success criterion is not met.</u>	The instructors will evaluate low student mid-term scores and make changes to assist students to succeed. Data will be collected again during spring semester 2013
<b>Civil Programming Technology (310)</b>	Students will be able to prepare detailed civil engineering drawings.	Students will be assessed utilizing cumulative project scores in CIVL 217 and the parallel project in CIVL 218. 90% of the students will achieve a score of 70% or higher on both projects.	100% of students in the Civil Programming Technology program scored a 70% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.

**Spring 2011 Assessment**

**Table 3 - Science & Technology Programs Cont'd**

<b>Program</b>	<b>Intended Learning Outcome (ILO)</b>	<b>Means of Assessment &amp; Success criterion</b>	<b>Results/Findings</b>	<b>Analysis and Action Taken</b>
<b>Computer Aided Drafting Technologies (321)</b>	Students will be able to develop technical drawings that apply to industrial standard practices.	Students will be assessed utilizing a comprehensive project in DRFT 110. 90% of the students will achieve a score of 70% or higher.	100% (3 of 3) of students in the CAD Technologies program scored a 70% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Computer Aided Machining Technology (340)</b>	Students will be able to interpret and write computer numerical control (CNC) tool path code to control CNC equipment.	Students will be assessed utilizing a final code writing project in MECH 114 and a lathe threading project in MECH 121. 70% of the students will achieve a 80% or higher on the writing project and the threading project.	93% of students in the CAM Technology program scored a 80% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Electronics Technology (305)</b>	Students will be able to apply theoretical principles to physically design electric circuits in order to solve technical problems.	Students will be assessed in ELEC 225 using the laboratory design and construction of a BCD to 7-Degment Display Decoder. 75% of the students will successfully complete the project.	100% of students in the Electronics Technology program successfully completed the project. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Engineering (106)</b>	Students will be able to use computer technology to solve problems in science and engineering.	Students will be assessed in COMP 230 and/or DRFT 115 on computer programming applications and computer graphics final project assignments. 80% of the students will achieve a score of 70% or higher.	100% of the students in DRFT 115 and 90% of students in COMP 230 scored a 70% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Machine Drafting and Design with CADD (306)</b>	Students will be able to develop technical drawings that apply to industrial standard practices.	Students will be assessed using a comprehensive final project. 90% of the students will achieve a score of 70% or higher.	100% (1 student) in the Machine Drafting and Design with CADD program scored a 70% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.

**Spring 2011 Assessment**

**Table 3 - Science & Technology Programs Cont'd**

Program	Intended Learning Outcome (ILO)	Means of Assessment & Success criterion	Results/Findings	Analysis and Action Taken
<b>Mathematics (104)</b>	Students will be able to utilize appropriate technology for mathematical applications.	Students will be assessed using scores from selected homework assignments, application software assignments, projects or graphing calculator assignments. 80% of the students will achieve a score of 70% or higher.	67% of students (2/3) in the Mathematics program scored a 70% or higher. <u>Success criterion is not met.</u>	It is noted that the data set is small, which is typical for this program, and one student represents a large percentage. The effect is that the percent of students needed for success criterion is difficult to meet. Therefore this outcome is considered to be adequate and data will be collected again during the three-year assessment cycle 2013-14.
<b>Metrology/Precision Measurement Technology (320)</b>	Students will be able to present and analyze experimental/test data in written form and through oral presentation.	Students will be assessed in METR 275 using written laboratory reports and an oral presentation about the project given to a group of metrology students and instructors. 70% of the students will achieve a passing grade.	100% (3/3) of students in the Metrology program scored a passing grade. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Nanofabrication Technology (324)</b>	Students will be able to apply theoretical principles to physically design electric circuits to solve technical problems.	Students will be assessed in ELEC 225 utilizing the laboratory design and construction of a BCD to 7-Segment Display Decoder. 75% of the students will successfully complete the project.	100% (1/1) of students successfully completed the project. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.

**Spring 2011 Assessment**

**Table 3 - Science & Technology Programs Cont'd**

Program	Intended Learning Outcome (ILO)	Means of Assessment & Success criterion	Results/Findings	Analysis and Action Taken
<b>Robotics Technology (325)</b>	Students will be able to analyze Direct Current (DC) and Alternating Current (AC) circuits using various circuit simplification and analysis techniques.	Students will be assessed in ELEC 110 utilizing the comprehensive final exam. 70% of the students will achieve a score of 70% or higher.	81.3% of students in the Robotics Technology program scored a 70% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Technical Trades - HVAC Option (314A)</b>	Students will be proficient in oral and written communications.	Students will be assessed in ENGL 101 and COMM 201 utilizing their course grades. 70% of the students will earn a C or higher.	73% of HVAC program majors in ENGL 101 and 92% in COMM 201 earned a C or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.

**Spring 2011 Assessment**

**Table 3a- Science & Technology Programs Cont'd**

**The following Science & Technology programs were scheduled but did not complete an assessment:**

**Table 3a - Science & Technology Programs**

<b>Manufacturing with Advanced Technology (341)</b>	The student will be able to identify how specific manufacturing processes and materials are employed during product manufacture.	No program majors enrolled in this course.	Remind lead faculty and collect data during the next assessment cycle in 2013-14.
---	--	--	---

**Spring 2011 Assessment**

**Table 4- Nursing & Allied Health Programs**

<b>Program</b>	<b>Intended Learning Outcome (ILO)</b>	<b>Means of Assessment &amp; Success criterion</b>	<b>Results/Findings</b>	<b>Analysis and Action Taken</b>
<b>Medical Assistant (212)</b>	Students will be able to incorporate cognitive knowledge in the performance of affective learning domains when providing patient care.	Students will be assessed utilizing a rubric-graded patient education project completed in the final semester of the M.A. program. 100% of the students will achieve a score of 75% or higher.	100% of students in the Medical Assistant program scored 75% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Nursing, R.N. (208)</b>	Students will be able to apply the five phases of the nursing process as presented on the HESI exam at the end of the second semester.	Students will be assessed taking the HESI exam at the end of their second semester. At least 80% of the students will achieve a score of 850 or above.	100% of students in the Nursing program achieved a score of 850 or above. In individual areas students scored below the benchmark, with scores of 58% and 51%. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Physical Therapist Assistant (215)</b>	Students will be able to identify normal and abnormal postures, and the student will be able to relate faculty postures with clinical findings.	Students will be assessed utilizing questions 14, 25, and 40 in Functional Anatomy (PTAP 140). At least 75% of the students will answer questions 14, 25, and 40 correctly on test 4.	88.5% of students in the Physical Therapist Assistant program answered question 14 correctly, 92.3% answered questions 25 and 40 correctly. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.
<b>Technical Trades - Massage Therapy Management Option (314D)</b>	Students will be able to perform a one hour Swedish Table Massage.	Students will be assessed utilizing the final practical examination in MTPY 101. 95% of the students will achieve a score of 90% or higher.	100% of students in the Massage Therapy program scored a 90% or higher. <u>Success criterion is met.</u>	Data will be collected again during the three-year assessment cycle 2013-14.

Spring 2011 Assessment

Table 4a- Nursing & Allied Health Programs

The following Nursing/Allied Health programs were scheduled but did not complete an assessment:

Table 4a- Nursing/Allied Health Programs

Program	Intended Learning Outcome (ILOC)	Reason	Action Recommended
Paramedic (209)	1 - The student will function safely within the role of the EMT/Paramedic in pre-hospital and clinical settings. 2 - The student will comply with professional standards and follow ethical and legal guidelines in the clinical and field settings. 3 - The student will use appropriate therapeutic communication techniques with patients, and patient's significant others. 4 - The paramedic student will accurately document electronically essential information related to the paramedic's actions in a specific patient situation. 5 - The paramedic graduate will be able to pass the National Registry examination on the first attempt within 6 months of program completion.	No ILOC form was submitted.	Remind the lead faculty and collect data next time the course is offered in spring 2013.
Technical Trades - Radiologic Technology (314C)	No matrix or ILOC statements have been received.	No ILOC form was submitted.	Remind the lead faculty to develop ILOC statements and collect data in spring 2013.