Weber State University
Annual Assessment of Evidence of Learning

Cover Page

Department/Program: Developmental Mathematics
Academic Year of Report: 2014 -2015
Date Submitted: Nov 15, 2015
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A. **Brief Introductory Statement:**
Please review the Introductory Statement and contact information for your department displayed on the assessment site: http://www.weber.edu/portfolio/departments.html **- if this information is current, please indicate as much. No further information is needed. We will indicate "Last Reviewed: [current date]" on the page.**
If the information is not current, please provide an update:

Developmental mathematics offers two sequences of pre-college level math courses designed to prepare students for college level mathematics. The traditional sequence of Pre-algebra (Math 0950), a First Course in Algebra (Math 0990) and Intermediate Algebra (Math 1010) prepares students for College Algebra (Math 1050). An alternate sequence of R.E.A.L. Pre-algebra (Math 950) and Pathway to Contemporary Mathematics (Math 0970) prepares students for Contemporary Mathematics (Math 1030) or Intro to Statistics (Math 1040). The program uses multiple methods of course delivery: online courses, hybrid courses (modified emporium, aka TERM), collaborative classroom courses, and flipped courses. It is the goal of the WSU Developmental Mathematics program to assist students in gaining the math skills they need for success in college level mathematics in as short a time as possible.

B. Mission Statement
Please review the Mission Statement for your department displayed on the assessment site:
http://www.weber.edu/portfolio/departments.html **- if it is current, please indicate as much; we will mark the web page as "Last Reviewed [current date]". No further information is needed.**
If the information is not current, please provide an update:

The Developmental Mathematics Program of Weber State University prepares students for success in college level mathematics courses and lays the foundation for general academic success through course options that meet the diverse learning needs of students. Meaningful, learner-centered instruction provides students the opportunity to think and reason mathematically to develop conceptual, contextual and procedural understanding of mathematics, and the habits of mind needed for success.

C. Student Learning Outcomes

Please review the Student Learning Outcomes for your department displayed on the assessment site:
http://www.weber.edu/portfolio/departments.html **- if they are current, please indicate as much; we will mark the web page as "Last Reviewed [current date]". No further information is needed.**
If they are not current, please provide an update:

Current

D. **Curriculum**

Please review the Curriculum Grid for your department displayed on the assessment site: http://www.weber.edu/portfolio/departments.html **- if it is current, please indicate as much; we will mark the web page as "Last Reviewed: [current data]". No further information is needed.**
If the curriculum grid is not current, please provide an update:

Current

E. Assessment Plan

Please review the Assessment Plan for your department displayed on the assessment site:
http://www.weber.edu/portfolio/departments.html **- if the plan current, please indicate as much; we will mark the web page as "Last Reviewed [current date]". No further information is needed.**
If the plan is not current, please provide an update:

The site should contain an up-to-date assessment plan with planning going out a minimum of three years beyond the current year. Please review the plan displayed for your department at the above site. The plan should include a list of courses from which data will be gathered and the schedule, as well as an overview of the assessment strategy the department is using (for example, portfolios, or a combination of Chi assessment data and student survey information, or industry certification exams, etc.).

current

F. Report of assessment results for the most previous academic year:

There are a variety of ways in which departments can choose to show evidence of learning. This is one example. The critical pieces to include are 1) what learning outcome is being assessed, 2) what method of measurement was used, 3) what the threshold for 'acceptable performance' is for that measurement, 4) what the actual results of the assessment were, 5) how those findings are interpreted, and 6) what is the course of action to be taken based upon the interpretation.

a. Evidence of Learning: Courses within the Major
c. Evidence of Learning: General Education Courses
(duplicate this page as needed or delete if department does not offer GE courses)

Evidence of Learning: Courses within the Major					
Measurable Learning Outcome Students will…	Method of Measurement Direct and Indirect Measures*	Threshold for Evidence of Student Learning	Findings Linked to Learning Outcomes	Interpretation of Findings	Action Plan/Use of Results
Learning Outcome 1: 50% of our students complete their courses at 70% or better	Measure 1: Grade distributions from Argos	Threshold 1: The number of students receiving a grade of C or better divided by the number of students enrolled in the course.	Findings 1: See Table 1	Interpretation 1: Overall department pass rates at 70% or greater were over 50%. They are on an upward trend. (Summer semester is typically higher than the other semesters.)	Action1: Evidence indicates efforts to offer students a choice of course delivery methods and to direct students to the best choice have helped improve student success. We will continue on this route. Efforts are now focusing on improving teaching.

Evidence of Learning: Courses within the Major					
Measurable Learning Outcome Students will…	Method of Measurement Direct and Indirect Measures*	Threshold for Evidence of Student Learning	Findings Linked to Learning Outcomes	Interpretation of Findings	Action Plan/Use of Results
Learning Outcome 2: 50% of our students who complete evals indicate improved skills for independent learning	Measure 2: Responses to a question in student evaluations	Threshold 2: The number of students indicating *agree* or *strongly agree* divided by the number of students submitting evaluations.	Findings 2: Out of 1434 students submitting evaluations, 1002 agree or strongly agree that they have improved their ability to learn by using resources, asking questions, and seeking answers -70%	Interpretation 2: Outcome goal was met.	Action 2: This is a 7 pt increase over last year. We will continue to improve student engagement in learning.

*At least one measure per objective must be a direct measure; indirect measures may be used to supplement direct measure(s).

G. **Summary of Artifact Collection Procedure**

N/A

Artifact	Learning Outcome Measured	When/How Collected?	Where Stored?
(i.e. Final Project Rubric)		(i.e. end of semester)	(i.e. electronic copies)
(i.e. Chi Tester Outcome Report)		(i.e. 2-3 times per semester)	(i.e. electronic format, chi tester warehouse)

Summary Information (as needed)

Appendix A

Table 1
Developmental Mathematics
2013-14 Course Pass Rates (70% or greater)
Includes 2011-12 for comparison.

Semester	Math 0810		Math 0950			Math 0990			Math 1010		
	13-14	14-15	11-12	13-14	14-15	11-12	13-14	14-15	11-12	13-14	14-15
Summer	n/a	n/a	35.8%	50.00%	52%	25.13%	51.92%	47.03%	43.88%	54.80%	51.53%
Fall	n/a	72.67%	35.13%	45.17%	51.34%	20.65%	42.44%	46.40%	38.42%	47.68%	49.46%
Spring	69.23%	72.80%	35.99%	44.47%	56.16%	33.65%	46.25%	55.46%	41.00%	49.30%	57.44%

Overall Department Pass Rate
Summer 14 – 50%
Fall 14 – 51%
Spring 15 – 57%

Please respond to the following questions.

1) Reflecting on this year's assessment(s), how does the evidence of student learning impact your faculty's confidence in the program being reviewed; how does that analysis change when compared with previous assessment evidence?

   To answer this question, compare evidence from prior years to the evidence from the current year. Discuss trends of evidence that increases your confidence in the strengths of the program. Also discuss trends of concern (e.g. students struggling to achieve particular student outcomes).

   Overall department pass rates increased 6 percentage points each year for the past 3 years. Efforts over the 14-15 year focused on informing students of the choices they have when registering for a dev math class. The first full year of multiple sections of Pathway being offered each semester contributed significantly to improved pass rates, as the average pass rate in Pathway was 73%. Adding deadlines to the TERM program beginning Spring 2015 improved TERM pass rates significantly, from 47% (Fall 14) to 57% (Spr 15). We also piloted a R.E.A.L. Prealgebra course that is taught similarly to Pathway. We are concerned with the rate of W and UW's in our courses and are adding self-efficacy lessons to our curriculum.

2) With whom did you share the results of the year's assessment efforts?

   Results have been discussed with full time and adjunct faculty, the dean of the College of Science, as well as the Developmental Mathematics Advisory committee and with the Associate Provost. A report of program changes and improvements over the past 3 years was shared with USHE Commissioner David Buhler and included in his public newsletter, as well as shared in a Board of Regents meeting.

3) Based on your program's assessment findings, what subsequent action will your program take?

   The department continues to identify and provide pedagogies and course delivery methods that lead to greater student success. We continue to divert students from TERM, which has the lowest pass rate and is not the right fit for many students, to a course that is a better fit for their learning style, such as flipped and pathway courses. Moving forward, we are creating a pathway-style Math 1010 course.