

ASSESSMENT REPORT FOR DEVELOPMENTAL MATHEMATICS

NA

(Instructional Degree Program)

November 2004 – October 2006

(Assessment Period Covered)

NA

(Degree Level)

October 27, 2004

(Date Submitted)

Mission Linkage:

UVSC Mission Reference: Utah Valley State College is a state college comprised of two interdependent divisions. The lower division embraces and preserves the philosophy and mission of a comprehensive community college...Utah Valley State College is dedicated to providing a broad range of quality academic, vocational, technical, cultural, and social opportunities designed to encourage students in attaining their goals and realizing their talents and potential, personally and professionally. The College is committed to...providing developmental, general, and transfer education...

Strategic Directions:

I. Manage Enrollment

- Better prepare students for completion.
- Enhance the academic experience.

Intended Educational (Student) Outcomes:

After successfully completing MAT 1000 or 1010, students will have sufficient mathematical knowledge and skills to succeed in their next math course.

After successfully completing MAT 1000 or 1010, students will be able to apply their mathematical knowledge and skills to solve application based word problems.

MAT 1000 and 1010 students will be autonomous and independent learners as evidenced by their use of available student services and resources.

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NA

(Instructional Degree Program)

NA

(Degree Level)

November 2004 – October 2006

(Assessment Period Covered)

October 23, 2006

(Date Submitted)

Intended Educational (Student) Outcome:

Note: There should be one form C for each intended outcome listed on form B. The intended outcome should be restated in the box immediately below and the intended outcome number entered in the blank spaces.

After successfully completing MAT 1000 or 1010, students will have sufficient mathematical knowledge and skills to succeed in their next math course.

First Means of Assessment for Outcome Identified Above:

a. Means of Program Assessment & Criteria for Success:

75% of students who earn a C or better in MAT 1000 or 1010 and complete their next math course within one semester will earn a C- or better in that mathematics course. This will be assessed from data obtained through Institutional Research.

a. Summary of Assessment Data Collected:

The following data represent the percentage of students passing MAT 1000/1010 and then completing their next math course with a C- or better:

68.9% for students taking MAT 1000/1010 in the Fall 2004 and then MATH 1030, 1040, or 1050 in Spring 2005

For Spring 2005 through Spring 2006, data have not yet been provided by Institutional Research.

There are not sufficient data to determine if the objective is being met.

a. Use of Results to Improve Instructional Program:

Continue to monitor student success in their next math course. Several initiatives have been proposed to further help students succeed in their next math course including a recommendation by the Math Task Force, in the Spring, 2006, to implement policies that will encourage students to complete their mathematical requirements in a timely and sequential manner and to put a 2-year restriction on course prerequisites which will further encourage students to complete the mathematics requirements of their program sooner.

Additionally, an orientation program was conducted by the Department in the Fall, 2006 to encourage students to take up math classes consecutively each semester.

Second Means of Assessment for Outcome Identified Above:

b. Means of Program Assessment & Criteria for Success:

Of the students that completed MAT 1000 or 1010 with a grade of C or better and registered for the next course the following semester, no more than 20% will receive a W or UW. This will be assessed from data obtained through Institutional Research.

b. Summary of Assessment Data Collected:

7.8% of students that completed MAT 1000/1010 with a C or better in the Fall 2004 received a W or UW in MATH 1030, 1040, or 1050 into the following semester, Spring 2005.

For Spring 2005 through Spring 2006, data have not yet been provided by Institutional Research.

There are not sufficient data to determine if the objective is being met.

b. Use of Results to Improve Instructional Program:

Continue to monitor with data from Institutional Research. Additionally, conduct a study to identify the reason(s) why students withdraw from class.

Intended Educational (Student) Outcome:

Note: There should be one form C for each intended outcome listed on form B. The intended outcome should be restated in the box immediately below and the intended outcome number entered in the blank spaces.

After successfully completing MAT 1000 or 1010, students will be able to apply their mathematical knowledge and skills to solve application based word problems.

First Means of Assessment for Outcome Identified Above:

a. Means of Program Assessment & Criteria for Success:

The median score for the group of students who complete MAT 1000 or 1010 with a final grade of C or better will be 70% or higher in correctly setting up application based word problems from representative tests. This will be assessed from data obtained from a representative sample of MAT 1000 and 1010 instructors throughout the semester.

a. Summary of Assessment Data Collected:

For a period of three semesters, Spring, 2005; Fall, 2005; and Spring, 2006, the median score in correctly setting up application based word problems for the sample group of students who completed MAT 1000/1010 with a final grade of C or better was 77.7%

a. Use of Results to Improve Instructional Program:

The goal of 70% for the median score in correctly setting up application word based problems is, overall being met. However, there were certain types of word problems that have consistently created problems for students, in particular, setting up such problems. Data indicated that word problems such as mixture, distance, and work-rate type problems were problematic for most students. Encourage instructors to provide more opportunities for students to solve problems such as these.

Second Means of Assessment for Outcome Identified Above:

b. Means of Program Assessment & Criteria for Success:

The median score for the group of students who complete MAT 1000 or 1010 with a final grade of C or better will be 70% or higher in correctly solving application based word problems from representative tests. This will be assessed from data obtained from a representative sample of MAT 1000 and 1010 instructors throughout the semester.

b. Summary of Assessment Data Collected:

For a period of three semesters, Spring, 2005; Fall, 2005; and Spring, 2006, the median score in correctly solving application based word problems for the sample group of students who completed MAT 1000/1010 with a final grade of C or better was 67.0%. It is conjectured that the median for "solving" is substantially lower than the median for the "set-up" because students who fail to properly set up problems are often not in a position to show whether or not they could have produced the algebra to find the solution.

b. Use of Results to Improve Instructional Program:

It is conjectured that there is an overall weakness in basic algebraic skills, including operations with fractions and decimals. In lower level developmental courses, continue to encourage instructors to spend more time in the mastery of fundamental arithmetic skills such as working with fractions and decimals. In addition, emphasis should also be placed on checking the reasonableness of the solution.

Intended Educational (Student) Outcome:

Note: There should be one form C for each intended outcome listed on form B. The intended outcome should be restated in the box immediately below and the intended outcome number entered in the blank spaces.

MAT 1000 and 1010 students will be autonomous and independent learners as evidenced by their use of available student services and resources.

First Means of Assessment for Outcome Identified Above:

____ a. Means of Program Assessment & Criteria for Success:

60% of MAT 1000 and MAT 1010 students will use the Math Lab. This will be assessed from data obtained from the Math Lab and Institutional Research.

____ a. Summary of Assessment Data Collected:

The following data represent the percentage of MAT 1000/1010 students using the Math Lab for the following time periods:

38.7% used the Math Lab in the Fall, 2004 semester as reported by Math Lab/Institutional Research

38.8% used the Math Lab in the Spring, 2005 semester as reported by Math Lab/Institutional Research

There were no data provided by Institutional Research to quantify the usage of the Math Lab from Fall, 2005 through Spring, 2006.

The Student Survey conducted in the Spring, 2005 and Spring, 2006 semesters by the Department to selected MAT 1000/1010 sections yielded the following information:

62.6% reported using the Math Lab in the Spring, 2005 semester.

47.2% reported using the Math Lab in the Spring, 2006 semester.

The discrepancy between the data reported by the student survey (Spring, 2005) and the data provided by the Math Lab/Institutional Research (Spring, 2005) has not been analyzed.

____ a. Use of Results to Improve Instructional Program:

Continue class visitations by Math Lab tutors during the first week of school to orient the students to the Math Lab resources. Continue to advertise through flyers the various activities conducted and sponsored by the Math Lab. Encourage instructors to promote the use of the Math Lab to those students most needing the services.

Second Means of Assessment for Outcome Identified Above:

____ b. Means of Program Assessment & Criteria for Success:

60% of MAT 1000 and MAT 1010 students will use at least two different services or learning resources during the semester. Data will be obtained from a student survey.

____ b. Summary of Assessment Data Collected:

The Student Survey conducted by the Department to a sampling of MAT 1000/1010 courses reported the following:

71.4% reported using 2 or more learning resources/services in the Spring, 2005 student survey.
79.9% reported using 2 or more learning resources/services in the Spring, 2006 student survey.

b. Use of Results to Improve Instructional Program:

The goal of 60% of MAT 1000/1010 students using at least two different learning resources is being met. The following resources/services have been identified as mostly or commonly used: Computer Lab, Math Lab, Library, and Instructor's office hours. Investigate why certain services and learning resources such as the Learning Strategist and the Math Lab One-on-One Tutor are under utilized. Plan to promote such services during orientation day or suggest individual classroom visitations.