

ITEM 119-104-R0503

**Mathematics Proficiency Admissions Standards**

**THAT:**

The Board of Regents accept the recommendations of the K-16 Mathematics Proficiency Steering and Advisory Committees and direct campuses of the Montana University System to work with Montana high schools, the Office of Public Instruction, and the Office of the Commissioner of Higher Education to implement these proficiency admissions standards for the entering freshman class in Fall 2004. Specifically:

In addition to current admissions standards, mathematics proficiency standards will be in force for admission to all four-year programs at Montana State University-Bozeman, Montana State University-Billings, Montana State University-Northern, The University of Montana-Missoula, Montana Tech of The University of Montana, and The University of Montana-Western as follows:

For Fall 2004 and 2005\* admission, students must earn a minimum mathematics (quantitative) score of

- 16 on the ACT,
- 390 on the SAT, or
- A score of 3 or above on the AP Calculus AB or BC Subject Examinations.

For Fall 2006 admission, students must earn a minimum mathematics (quantitative) score of

- 17 on the ACT
- 420 on the SAT, or
- A score of 3 or above on the AP Calculus AB or BC Subject Examinations.

For Fall 2007 and the following years, students must earn a minimum mathematics (quantitative) score of

- 18 on the ACT
- 440 on the SAT, or
- A score of 3 or above on the AP Calculus AB or BC Subject Examinations.
- In lieu of these indicators, students may offer CLEP Subject Examinations in selected topics [**College Algebra, College Algebra-Trigonometry, Calculus, or**

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\* The original Steering Committee recommended only one year at the score of 16. Staff recommends a two-year phase-in to take into account the large number of students who take the ACT in the junior year of high school and who may not retest in the senior year.

**Trigonometry]** if their score on the examination meets or exceeds the ACE Recommended Score for Awarding Credit of **50** in 2003.

Alternately, students may be excused from any testing in mathematics and deemed proficient if they complete a Rigorous High School Core including four years of high school mathematics (Algebra I, II, geometry & a course beyond Algebra II, as outlined in the matrix below) with grades of C or better in all courses.

**EXPLANATION:**

In July 1995, the Montana Board of Regents adopted Phase II of Restructuring including raising admissions standards to the four-year campuses by establishing proficiency admissions standards in mathematics and writing. "Proficiency Admission Requirements and Developmental Education in the Montana University System required that a uniform assessment tool be "used in determining if students or prospective students have the basic proficiencies in math and English to provide them a reasonable chance of success in postsecondary education."

From 1995 to 1998, preliminary work was completed by a group of K-12 mathematics teachers and MUS faculty. In 1998, a joint committee was appointed by the Superintendent of Public Instruction and the Commissioner of Higher Education and charged to complete recommendations for proficiency admissions standards. The Mathematics Proficiency Steering and Advisory Committees, studied proficiency admissions and concluded that, in the field of mathematics, there are sufficient external tests available to use in assessing students' readiness for college mathematics.

These committees recommend that mathematics proficiency admissions standards for entering first-time, full-time freshmen be based on a student's mathematics score on an ACT, SAT, Advanced Placement or CLEP (College Level Examination Program) test. These tests are available to students and have been used by many institutions to assist with college admissions or credit- award decisions.

Research shows higher ACT scores and completion of recommended core coursework are closely associated with higher college graduation and persistence rates. To set minimum scores, the committee researched the number of students currently tested at each score point and the requirements of typical college mathematics courses.

Further follow-up research may be warranted to determine how well freshmen perform in relation to their test scores, and this question will be raised with the mathematics faculty across the Montana University System.

By setting admissions standards in mathematics, the Montana University System hopes to ensure that students know what level of skills they must develop in order to be successful in college.

### **Additional Recommendations:**

When the Board approved the concept of proficiency admissions standards, it may have envisioned the need for differential standards for two-year programs.

The Steering Committee recommends that:

- Open admissions continue for all Two-Year programs at UM-Western and MSU-Northern and the Colleges of Technology. Community Colleges and Tribal Colleges would have no reason to change practices. However, the MUS must be sensitive to the issue of how to document proficiency for these students when they transfer to a four-year program or campus.
- If students transfer from two-year programs to four-year programs, they will need to demonstrate comparable mathematics proficiency to ensure their success at the four-year institution.
- To this end, it is recommended that a joint committee of representatives from the two-year and four-year sectors, including the community colleges and tribal colleges, be named to work out the details of how best to handle mathematics proficiency standards for transfer students within Montana.