

## Rigorous Core Questions and Answers

**Students can complete the Regent’s College Preparatory Program (3 years of math, 2 of science, and 2 of electives) to enter any of Montana’s four-year universities. However, students who take more rigorous coursework in high school, maintain high GPAs, and score well on the ACT or SAT are most likely to be successful in college. The Montana Board of Regents adopted the Rigorous Core as a requirement for the MUS Honors Scholarships in order to assure that the most meritorious students would compete for these scholarships and to assure that their Grade Point Averages would be based on a similar set of rigorous courses. The complete text of the applicable policies can be found within the Board of Regents Policy Manual: <http://mus.edu/borpol/default.asp>.**

- Policy 301.1 Admission Requirements for Undergraduates into Four-year University Programs, section B, Demonstration of Mathematics Proficiency, offers the Rigorous Core as an alternative to meeting the minimum mathematics scores of 22 on ACT, 520 on SAT, or 3 on AP for FULL admission status.
- Policy 501.1 requires that to be eligible for the MUS Honors Scholarship effective 2010, applicants must have completed this Rigorous Core.

Course	Rigorous Core	Units (Yrs)
Mathematics	Algebra I, II, and Geometry (or the sequential content equivalent) and a course beyond Algebra II (such as Trigonometry, Pre-Calculus, Calculus, Computer Math, or course equivalent). <i>All with grades of C or better.</i>	4
English	Written and oral communication skills, literature, and: <i>Recommendation: a designated college-prep composition or research-writing course.</i>	4
Science	Lab sciences: Earth science; biology; chemistry, physics, and/or other lab sciences.	3
Social Studies	Global studies (world history, world geography), American history, and government. Economics, American Indian history or other third-year course. <i>Recommendation: ½ yr of other courses such as psychology, humanities.</i>	3
Electives	<i>Recommendation: 2 years of a second language, and music, fine arts, speech/debate, career/technical education (such as information technology, computer science)</i>	3

1. What constitutes a unit of credit?

**The Board of Public Education defines a unit of credit as “the equivalent of at least 225 minutes per week for one year” (10.55.906 Montana School Accreditation Manual). This equates to approximately 135 hours for one unit. One college credit is generally defined as 15 contact hours, which must be accompanied by 30 hours of outside work, for a total of 45 hours. Many college courses are three credits, the equivalent of 135 hours. For students taking a dual credit college course to satisfy the Rigorous Core, a three-credit, one semester college course is the equivalent of one high school unit.**

2. Can students use online courses or courses taught at a college to satisfy the Rigorous Core?

***Yes, if they meet the requirements of Montana School Accreditation Standards 10.55.907 (Distance, Online, Technology Delivered Learning) and 10.57.437 (Teacher Licensure), which requires that college instructors obtain Class 8 Licensure. Montana School Accreditation Standard 10.55.906 allows school district trustees to determine if a student may be given credit for a course that meets the district's curriculum and assessment requirements and is aligned with Montana's content and performance standards. Courses could include online, dual credit, or college courses not offered in the high school. These courses must be recorded on the students' high school transcripts.***

3. Must dual credit courses be figured into the student's GPA?

***Yes, if the course is used to fulfill the Rigorous Core requirements, the grade must be used in the GPA.***

4. The rigorous core requires 4 years of math, one year "above Algebra II." Is Statistics accepted as "above Algebra II"?

***Yes, statistics can be counted as one of the high school mathematics courses beyond Algebra II.***

5. Can an 8<sup>th</sup> grade Algebra course count as one of the four years and can its grade be used to figure the high school GPA?

***No, only courses taken in grades 9-12 count in the Rigorous Core and in the high school GPA. The purpose of taking algebra in grade 8 is to be able to take Calculus or another high school math class as a senior. Without a math course in the senior year, students are less likely to be successful in college mathematics.***

6. The rigorous core requires 3 years of laboratory sciences: "earth science, biology, chemistry, physics and/or other lab sciences." Does that mean one science from each category?

***The Montana University System campuses defer to the high schools and their list of courses meeting the lab science requirement, but generally accept any combination of three lab science courses as meeting the science portion of Rigorous Core. Therefore a student could qualify with Biology I, Biology II, and Chemistry, for example. However, the intent of this section is to encourage students to take a variety of science courses, one of which should be chemistry or physics.***

7. What if a student takes algebra in middle school and has exhausted all possible mathematics courses in his/her high school before the senior year?

***In the September 2010 update of Policy 301.1, another option was added to the Rigorous Core: "Based on course availability, three years of mathematics, including a course beyond Algebra II, and four years of laboratory science may be substituted" for four years of math and three years of science. If students take chemistry or physics during their science year, they are continuing to sharpen their mathematics skills.***

8. For the social studies requirement could a student who took a year of US History and a year of American Government fulfill the third credit by taking any of the following courses: World History, Themes in History, or any other social sciences course a high school might offer?

**Yes, the universities accept any three years of the social sciences as Rigorous Core.**

9. Can students take three years of math and then test out their senior year?

**No, the University System has not set a threshold score on any test to demonstrate proficiency in the fourth year of high school mathematics. The student must take four years of mathematics. However, most campuses accept an AP score of 3 on the Calculus AB or Calculus BC exam to place out of the first semester of college-level calculus.**

10. Can a student take two years of science and test out of the third year?

**No, the University System has not set a threshold score on any test to demonstrate proficiency in a third year of high school science. The student must take three years of science. Again, AP scores can allow students to place out of certain college science courses.**

11. Can a student take three years of a second language to fulfill the elective requirement?

**Perhaps, but students must take two units of electives (vocational/technical and arts), in addition to second languages, in order to graduate from high school in Montana (Board of Public Education). Therefore, with three years of a second language, the student would have five units (years) of electives.**

12. Can a student who graduates early qualify for the MUS Honors Scholarship?

**Yes, if that student has completed the Rigorous Core. As a result, he/she may have taken two units of English and two units of mathematics during one school year. Also, in order to qualify for the MUS Honors Scholarship, the student must have been enrolled in and in attendance at an accredited Montana high school for at least 3 years prior to graduation.**

13. Can a student who has already taken the highest level of mathematics offered by the high school take college mathematics courses to count toward the Rigorous Core?

**Yes, if the high school does not offer courses that meet the needs of a very high-achieving student, that student can use early-college courses from a university or college to satisfy the four units of mathematics required by the Rigorous Core. The local school board may allow those credits to be included on the high school transcript (Montana School Accreditation Standard 10.55.906). If not, the student must submit both the high school and college transcript to verify eligibility for the MUS Honors Scholarship.**

14. How is GPA figured when students take college-level courses that are not offered in their high schools?

**For the MUS Honors Scholarships, GPA is figured based on seven semesters and does not include the final semester of the senior year. College-level courses, such as Linear Calculus, that ARE NOT OFFERED BY THE HIGH SCHOOLS can be treated in the same manner as courses taken in that eighth semester and excluded from the high school GPA.**