

More 4th Year Math Options for High School Seniors!



QRAT | *Quantitative Reasoning with Advanced Math Topics*

C-APPROVED

Students who typically enroll in this course:

- Are not ready to take AP level math/QR course.
- May have originally placed into pre-Calculus.
- “Just got by” IM III or Intermediate Algebra II but wish to further develop their readiness for college-level math.
- May not have planned on taking a senior year math course.

Intended for seniors who place into:

- Level 4 “Exceeds Standard” on SBAC/CAASPP
- Level 3 “Standard Met” on SBAC/CAASPP
- Level 2 “Standard Nearly Met” on SBAC/CAASPP (students who place into Level 2 may participate in the course with a counselor/math teacher recommendation)

Pre-requisites:

- Integrated Math III or Intermediate Algebra II with a passing grade

Successful completion of QRAT (C or better) allows students to bypass Sac State’s placement exam and enter into Math 29 (Pre-Calculus)

TQR | *Transition to Quantitative Reasoning*

G-APPROVED Math Elective

Students who typically enroll in this course:

- May not have planned on taking a senior year math course.
- May have originally been placed into Algebra II or IM III.
- “Just got by” Algebra I and Geometry or IM I and II but wish to further develop their readiness for college-level math.

Intended for seniors who place into:

- Level 3 “Standard Met” on SBAC/CAASPP
- Level 2 “Standard Nearly Met” on SBAC/CAASPP

Pre-requisites:

- Completion of “C” subject area of the “A-G” requirements

Successful completion of TQR (C or better) will satisfy future the Quantitative Reasoning requirement (anticipated by 2027).



STEM/MATH INTENSIVE MAJORS:

Anthropology | Business | Biology | Chemistry | Computer Science | Economics | Environmental Science
Family and Consumer Sciences | Geology | Kinesiology | Liberal Studies Math | Stats | Physics
Civil Engineering | Computer Engineering | Electrical Engineering | Mechanical Engineering

FAQs

Which course should I take my Senior Year?

The purpose of the C-Approved QRAT Course is to provide an alternative to the Pre-Calculus/Calculus pathway to better prepare students for the rigorous math requirements that STEM and/or math intensive majors will have to complete. Students who have met the SBAC/CAASPP standard would benefit from enrolling in this C-Approved Course. The QRAT course can only be taken during senior year and will count as a C-Approved course.

The purpose of the G-Approved TQR Course is to provide college-bound students with a pathway that prepares them for General Education college-level Quantitative Reasoning (QR). Students who have met or have nearly met the CAASPP standards would benefit from enrolling in this G-Approved Course. The TQR course can only be taken during senior year and will count as a G-Approved.

What does C-Approved and G-Approved mean?

C-Approved: Satisfies the Mathematics “C” area of the A-G Requirements. C-Approved is defined as “three years (six semesters) of college-preparatory mathematics [which] are required (four years are strongly recommended) including or integrating topics covering: Elementary Algebra, Advanced Algebra, Two- and three-dimensional geometry”.

G-Approved: A yearlong elective course that satisfies the College-preparatory Elective “G” area of the A-G Requirements. The elective course can focus on Quantitative Reasoning (QR) or other mathematics.

Both of these courses have Program Status from the University of California Office of the President (UCOP).

What is Program Status?

The UC Office of the President has granted both QRAT and TQR courses with “program status” meaning that high schools throughout the state can easily adopt these existing courses.

Why take a 4th year of math if it's not required?

“It is particularly important that students take mathematics courses in their senior year of high school, even if they have completed three years of college preparatory mathematics by the end of their junior year. Experience has shown that students who take a hiatus from the study of mathematics in high school are very often unprepared for courses of a quantitative nature in college...” *

Additionally, students who have exceeded the standard and do not seek to follow a STEM or a Calculus math track would benefit from taking either of these courses. Students who have not met the standard and have not taken Algebra II, should plan to take Algebra II their senior year. The California Community Colleges and the CSU encourage all students to enroll in a senior year math course rather than opting for no math class at all.

** Statement on Competencies in Mathematics Expected of Entering College Students by the Intersegmental Committee of the Academic Senates of the California Community Colleges, the CSU, and the UC (2016).*

Does choosing the C-Approved versus G-Approved course affect my college admission?

No. CSU Admissions eligibility is unaffected. This course may be used as one of the multiple measures used in the CSU placement process.

What is “Area B4”?

Area B4 refers to the **Mathematics & Quantitative Reasoning** section in the CSU General Education (GE) requirements. All incoming first year students, regardless of major, need to complete the GE requirements in order to graduate.

If I choose the G-Approved course, can I major in a STEM field at a later time?

Yes. Students who take the G-Approved TQR course always retain the option to major in a STEM/Math intensive field.

What are multiple measures?

The CSU relies on **multiple measures** (SBAC/CAASPP, ACT, SAT, AP/IB) as well as high school grades and coursework to place incoming students into English and math courses. If a student wants to place into a level other than what multiple measures suggest, he/she must take a placement test.

How do the SBAC/CAASPP levels help to inform CSU placement?

In 11th grade, students take the SBAC/CAASPP Test. These results are used by the CSU as a part of the multiple measures system to help decide into which courses a student will be placed. For this reason, high school juniors should take the SBAC/CAASPP Test seriously.

All students admitted to the CSU are ready for GE requirements in English and math courses; however, some students may require a different level of support.

Fulfilled Requirement – have fulfilled AP/IB or have college credits in a respective field; CSU GE requirements in English and/or math are fulfilled.

Enroll in GE Course – SBAC/CAASPP Scores, SAT, ACT, GPA, coursework will determine placement; students are ready for GE English and/or math courses

Enroll in supported GE Course – SBAC/CAASPP Scores, SAT, ACT, GPA, coursework will determine placement; students are ready for GE English and/or math courses with support; Early Start Program is recommended

Early Start Program Required – Enroll in Supported GE Course – Based on assessment test results and high school GPA and coursework results, the student requires additional support; students are ready for GE English and/or math courses with support; Early Start Program is required.