

Subject Matter Authorizations in Mathematics

(This authorization substitutes for the Supplemental Authorization for new teachers entering the profession.)

Subject Matter Authorizations in Mathematics may be added to a Single Subject or Multiple Subject Teaching Credential and will authorize the holder to teach mathematics in grades 9 and below. (Note that this will enable a teacher to teach a class in which the curriculum is for grades 9 and below but the students in the class may be in grades K-12.)

An applicant will qualify for a subject matter authorization upon the completion of either of the two options below:

- a. 32 semester or 48 quarter hours of non-remedial collegiate coursework in mathematics. A minimum of three semester or four quarter hours is required in each of the specific content areas below. The balance of the units may be in any course within the subject category.
- b. A collegiate major from a regionally accredited college or university in a subject directly related to mathematics.

Required content areas for the 32 semester units:

| | |
|--|---------------------------|
| Algebra | Advanced Algebra |
| Geometry | Probability or Statistics |
| Development of the Real Number System or Introduction to Mathematics | |

- Course work must be college level mathematics or higher.
- Algebra courses must be for credit, applicable towards a degree, and, if completed at the community college level, transferable to a four-year institution to be acceptable. Elementary algebra courses may not meet these requirements. If trying to use an elementary algebra course, a course description will need to be submitted to verify the acceptability.
- Since both algebra and advanced algebra is required, there are several options available to meet both areas. The requirement is algebra content at two different levels.
 1. If an individual completes a college algebra course, the “advanced” course may be another level of algebra such as linear algebra. An individual may not use another college algebra course, an elementary algebra course, or the same level algebra course completed at another college or university.
 2. If an individual completes a college or other level algebra course (other than elementary algebra), the “advanced” course may be a “higher” level math courses such as trigonometry or calculus.

- Courses in calculus will clear the specific course requirements (one for each content area being cleared) in algebra, advanced algebra, geometry, and development of the real number system. The applicant must still have the required 32 units. Calculus courses will not clear the probability and statistics content area.
- If the applicant has only one or two courses in calculus and no course work in algebra, geometry, or real number systems, the applicant will need to either submit course descriptions so that it can be confirmed whether or not those areas were covered by the calculus course(s) or complete additional course work in the required content areas.
- Personal enrichment-type mathematics courses are not acceptable.
- One mathematics-based computer course is acceptable as additional units toward the required 32 units.

These are the CCTC requirements. Our suggestions for courses are listed below.

| Plan A | Plan B | Plan C |
|--|--|---|
| Math 12 Math 105 Math 106 Math 101 Math 107A Math 107B Math 196 Probability and Data Analysis (4 units) Choose one of: Math 196 Calculus for Middle School Teachers (4 units) Math 196 Algebraic Structures (4 units) Choose two of: Math 196 Discrete Mathematics Math 196 Measurement and Scaling Math 196 History of Mathematics Math 196 Use of Technology in Teaching Middle School Mathematics | Math 12 Math 105 Math 106 Math 101 Math 107A Math 107B Math 8 Math 19 (5 units) Stat 95 Choose one of: Math 70 Math 42 | Math 12 Math 105 Math 106 Math 19 (5 units) Math 30P (5 units) Math 31 (4 units) Stat 95 Choose two of: Math 101 Math 107A Math 107B |