

Secondary Mathematics Endorsement Specifications Competencies & Requirements

Purpose

The Secondary Mathematics endorsement can be attached to an Educator License with a Secondary area of concentration. Candidates who currently hold a Utah Educator License and meet the requirements of the Secondary Mathematics endorsement are approved to teach:

- All secondary mathematics courses within the licensed grade levels*

**Qualifications for teaching Concurrent Enrollment coursework require approval by an LEA's partner Institution of Higher Education as defined by Utah Code [53E-10-302 \(7\)](#)*

Endorsement Requirements:

The Middle School Mathematics endorsement has the following 2 competency areas:

Area #1: [Mathematics Content Knowledge](#) (See section C.1)

The requirements for Area #1: Mathematics Content Knowledge can be met through earning a bachelor's degree in mathematics or a related field, or passing the GRE Mathematics Subject Exam with a score of 515+, or completing specific university/college courses. Utah-based university courses are listed in this document by required course and then higher education institution.

Area #2: [Pedagogy, Skills, and Dispositions](#)

The requirements for Area #2: Secondary Mathematics Dispositions, Skills, and Pedagogy can be met through earning a bachelor's degree in mathematics education, or earning a National Board-Certified Teacher in Adolescence and Young Adulthood in Mathematics, or earning a Presidential Award for Excellence in Mathematics and Science Teaching (PAEMST), or completing specific university/college courses, or completing specific Microcredential Stacks.

Besides the options for meeting the requirements above for Areas #1 and #2, competency can also be demonstrated with other experience such as: teaching a course, certification in a related area, or work experience directly related to the requirement.

If taking Utah-Based University Courses approved by USBE:

- For individual coursework, applicants must earn a C or higher in each course taken.
- All Mathematics or Mathematics Education degree programs must include 24 semester hours of mathematics coursework and must include Geometry, Algebra, and Statistics/Probability coursework.
- Unless specifically indicated, all courses require a minimum of Calculus I as a prerequisite.
- AP Coursework is accepted.
- If you would like to learn more about a specific mathematics program or approved courses, please visit the following websites for Utah Institutions of Higher Education:

- [Brigham Young University](#)
- [Snow College](#)
- [Southern Utah University](#)
- [University of Utah](#)
- [Utah State University](#)
 - [UMEP](#) (Utah Mathematics Endorsement Project at USU)
- [Utah Tech University](#)
- [Utah Valley University](#)
- [Weber State University](#)
- [Westminster College](#)

Secondary Mathematics Endorsement Requirement Options

Requirement Area 1: Secondary Mathematics Content Knowledge

College Major

- Major in Mathematics or related field
 - Must include Geometry and Statistics coursework.

Content Exam

- [GRE Math Subject Exam](#)
 - Utah Passing Score 515

Approved Utah Institutions of Higher Education courses and their corresponding course numbers listed by required course:

College Algebra

*Calculus prerequisite does not apply.

- Brigham Young University - College Algebra - Math 110
- Snow College - College Algebra - Math 1050
- Southern Utah University - College Algebra - Math 1050
- UMEP - Contact the program director.
- University of Utah - College Algebra - Math 1050
- Utah State University - College Algebra - Math 1050 OR Math 1051
- Utah Tech University - College Algebra/Pre-Calculus - Math 1050
- Utah Valley University - College Algebra - Math 1050 OR Math 1055
- Weber State University - College Algebra - Math 1050
- Westminster College - College Algebra - Math 101

Trigonometry

*Calculus prerequisite does not apply.

- Brigham Young University - Trigonometry - Math 111
- Snow College - Trigonometry - Math 1060
- Southern Utah University - Trigonometry - Math 1060
- UMEP - Contact the program director.
- University of Utah - Trigonometry - Math 1060
- Utah State University - Trigonometry - Math 1060
- Utah Tech University - Trigonometry - Math 1060
- Utah Valley University - Trigonometry - Math 1060
- Weber State University - Trigonometry - Math 1060
- Westminster College - College Algebra - Math 142

Calculus I

- Brigham Young University - Calculus I - Math 112
- Snow College - Calculus I - Math 1210
- Southern Utah University - Calculus I - Math 1210
- UMEP - Calculus I - Math 4910-A
- University of Utah - Calculus I - Math 1210
- Utah State University - Calculus I - Math 1210
- Utah Tech University - Calculus I - Math 1210
- Utah Valley University - Calculus I - Math 1210
- Weber State University - Calculus I - Math 1210
- Westminster College - Calculus I - Math 201

Calculus II

- Brigham Young University - Calculus II - Math 113
- Snow College - Calculus II - Math 1220
- Southern Utah University - Calculus II - Math 1220
- UMEP - Calculus I - Math 4910-B
- University of Utah - Calculus II - Math 1220
- Utah State University - Calculus II - Math 1220
- Utah Tech University - Calculus II - Math 1220

- Utah Valley University - Calculus II - Math 1220
- Weber State University - Calculus II - Math 1220
- Westminster College - Calculus I - Math 202

Multivariable Calculus

- Brigham Young University - Calculus of Several Variables - Math 314
- Snow College - Calculus III - Math 2210
- Southern Utah University - Calculus III - Math 2210
- UMEP - Multivariable Calculus - Math 4910-C
- University of Utah - Calculus III - Math 2210
- Utah State University - Multivariable Calculus - Math 2210
- Utah Tech University - Multivariable Calculus - Math 2210
- Utah Valley University - Calculus III - Math 2210
- Weber State University - Calculus III - Math 2210
- Westminster College - Multivariate Calculus - Math 203

Linear Algebra

- Brigham Young University - Computational Linear Algebra - Math 215
- Snow College - Linear Algebra - Math 2270
- Southern Utah University - Linear Algebra - Math 2270
- UMEP - Linear Algebra - Math 4910-LD
- University of Utah - Linear Algebra - Math 2270
- Utah State University - Linear Algebra OR Linear Algebra and Differential Equations - Math 2270 OR Math 2250
- Utah Tech University - Linear Algebra - Math 2270
- Utah Valley University - Linear Algebra - Math 2270
- Weber State University - Linear Algebra - Math 2270
- Westminster College - Linear Algebra - WCSAM 203

Probability & Statistics

*Must have a Calculus prerequisite, introductory courses not allowed.

- Brigham Young University - Principles of Statistics - Stat 121

- Snow College - Statistics for Scientists & Engineers - Math 3040
- Southern Utah University - Probability & Statistics - Math 3700
- UMEP - Probability & Statistics - Stat 3000 University of Utah - Applied Statistics I OR Introduction to Probability - Math 3070 OR Math 5010
- Utah State University - Statistics for Scientists - Stat 3000
- Utah Tech University - Probability & Statistics - Math 3400
- Utah Valley University - Probability & Statistics for Engineering and the Sciences - Stat 3040
- Weber State University - Probability & Statistics I - Math 3410
- Westminster College - Probability & Statistics - Math 310

Introduction to Analysis OR Advanced Calculus

- Brigham Young University - Theory of Analysis I - Math 341
- Snow College - Contact the program director.
- Southern Utah University - Introduction to Analysis - Math 4400
- UMEP - Introduction to Analysis - Math 4200
- University of Utah - Foundations of Analysis OR Foundations of Analysis II - Math 3210 OR Math 3220
- Utah State University - Foundations of Analysis OR Introduction to Analysis I - Math 4200 OR Math 5210
- Utah Tech University - Introduction to Analysis I - Math 3200
- Utah Valley University - Foundations of Analysis - Math 3200
- Weber State University - Introductory Real Analysis I - Math 4210
- Westminster College - Complex Analysis - Math 323

Euclidean/Non-Euclidean Geometry OR Geometry for Secondary Mathematics Teaching

- Brigham Young University - Survey of Geometry OR Euclidean Geometry: Content, Learning, and Teaching - MathEd 362 OR MathEd 562
- Snow College - Contact the program director.
- Southern Utah University - Modern Geometries OR Mathematics for Secondary Education II - Math 3130 OR Math 3020

- UMEP - Geometry for Secondary Mathematics Teaching - Math 5010 OR Math 3110
- University of Utah - Foundations of Geometry OR Geometry for Secondary Mathematics Teachers - Math 3100 OR Math 3420
- Utah State University - Modern Geometry - Math 3110
- Utah Tech University - Euclidean/Non-Euclidean Geometry OR Geometry and Statistics for Secondary Mathematics Teaching - Math 3100 OR Math 3020
- Utah Valley University - Geometry for Secondary Mathematics Teaching - Math 4030
- Weber State University - Foundations of Euclidean & Non-Euclidean Geometry
 - OR Geometry from a Teaching Perspective
 - OR Geometry for Elementary Teachers
 - Math 3120 OR Math 2010 OR Math 3070
- Westminster College - Foundations of Geometry - Math 314

Differential Equations OR Applied Mathematics/Modeling

- Brigham Young University - Ordinary Differential Equations - Math 334
- Snow College - Differential Equations - Math 2280
- Southern Utah University - Differential Equations - Math 2280
- UMEP - Differential Equations - Math 4910-LD
- University of Utah - Introduction to Differential Equations OR Mathematical Modeling - Math 2280 OR Math 5740
- Utah State University - Ordinary Differential Equations OR Linear Algebra and Differential Equations - Math 2280 OR Math 2250
- Utah Tech University - Ordinary Differential Equations - Math 2280
- Utah Valley University - Ordinary Differential Equations - Math 2280
- Weber State University - Ordinary Differential Equations OR Introduction to Mathematical Modeling - Math 2280 OR Math 3550
- Westminster College - Differential Equations - Math 363

An Additional Course Including the Following

Brigham Young University

- History of Math - Math 300 OR MathEd 300
- Abstract Algebra - Math 371

Utah Tech University

- History of Math - Math 3000
- Discrete Mathematics - Math 2200
- Abstract Algebra - Math 4010

Snow College

- Discrete Mathematics - Math 3310
- Data Science - Math 1120

Southern Utah University

- Abstract Algebra - Math 4220
- Mathematical Modeling - Math 3770

UMEP

- Contact the program director.

University of Utah

- History of Math - Math 3010
- Discrete Mathematics - Math 2200
- Data Science - Math 4100
- Mathematical Modeling - Math 5740

Utah State University

- History of Math - Math 4400
- Discrete Mathematics - Math 3310
- Advanced Probability - Math 5710
- Advanced Statistics - Math 5720
- Abstract Algebra - Math 4310

Utah Valley University

- History of Math - Math 3000
- Discrete Mathematics - Math 3310
- Abstract Algebra - Math 3300

Weber State University

- History of Math - Math 3050
- Discrete Mathematics - Math 1630
- Mathematical Modeling - Math 355

Westminster College

- Discrete Mathematics - Math 210
- Computer Programming and Data Science - Data 360
- Abstract Algebra - Math 312

Requirement Area 2: Secondary Mathematics Dispositions, Skills, and Pedagogy

College Major

Degree in Mathematics Education

Certificate or Experiences

[National Board Certification: Mathematics \(Adolescence and Young Adulthood\)](#)

(AYA NBCT Math)

[Presidential Award for Excellence in Mathematics and Science Teaching](#)

(PAEMST) Awardee or Finalist

Microcredentials

[Algebra for Secondary Mathematics Teaching](#)

[Geometry for Secondary Mathematics Teaching](#)

[Statistics and Probability for Secondary Mathematics Teaching](#)

[Secondary Mathematics Methods](#)

Approved Utah Institutions of Higher Education courses and their corresponding course numbers:

Algebra for Secondary Mathematics Teaching

- Brigham Young University - Contact the program director.
- Snow College - Contact the program director.
- Southern Utah University - Math for Secondary Education I - Math 3010
- UMEP - Algebra for Secondary Mathematics Teaching - Math 3010
- University of Utah - Algebra for Secondary Mathematics Teaching - Math 3430
- Utah State University - Pedagogical Foundations of Algebra - Math 3010
- Utah Tech University - Algebra for Secondary Mathematics Teaching - Math 3010
- Utah Valley University - Algebra for Secondary Mathematics Teaching - Math 3030 OR Math 290R
- Weber State University - Algebra from a Teaching Perspective - Mthe 4110
- Westminster College - Contact the program director.

Geometry for Secondary Mathematics Teaching

- Brigham Young University - Survey of Geometry or Euclidean Geometry: Content, Learning, and Teaching - MthEd 362 OR MthEd 562
- Snow College - Contact the program director.
- Southern Utah University - Math for Secondary Education II - Math 3020
- UMEP - Geometry for Secondary Mathematics Teaching - Math 5010 OR Math 3110
- University of Utah - Geometry for Secondary Mathematics Teaching - Math 3420
- Utah State University - Geometry for Secondary Mathematics Teaching - Math 4030 OR Math 290R
- Utah Tech University - Geometry and Statistics for Secondary Mathematics Teaching - Math 3020
- Utah Valley University - Geometry for Secondary Mathematics Teaching - Math 4030 OR Math 290R
- Weber State University - Geometry from a Teaching Perspective - Mthe 2120 OR Mthe 3070
- Westminster College - Contact the program director.

Statistics for Secondary Mathematics Teaching

- Brigham Young University - Teaching Statistics and Probability - MthEd 301
- Snow College - Contact the program director.
- Southern Utah University - Contact the program director.
- UMEP - Statistics for Secondary Mathematics Teaching - STAT 4010
- University of Utah - Statistics for Secondary Mathematics Teaching - Math 3410
- Utah State University - Statistics and Probability for Secondary Mathematics Teaching - Stat 4010
- Utah Tech University - Contact the program director.
- Utah Valley University - Statistics & Probability for Secondary Mathematics Teaching - Math 4040 OR Math 290R
- Weber State University - Probability and Statistics from a Teaching Perspective - Mthe 3060
- Westminster College - Contact the program director.

Methods of Teaching Secondary Mathematics

- Brigham Young University
 - Mathematics Teaching in the Public Schools - MthEd 377
 - AND Practicum in Mathematics Education - MthEd 378
- Snow College - Contact the program director.
- Southern Utah University - Methods of Teaching Secondary Mathematics - Math 4900
- UMEP - Methods of Teaching Secondary Mathematics - Math 4500
- University of Utah - Methods of Teaching Secondary Mathematics - Math 4090
- Utah State University - Methods for Teaching Secondary Mathematics - Teal 4630 OR Teal 6630 OR Math 4500 OR Math 6500
- Utah Tech University - Methods Teach Secondary Mathematics - Math 4500
- Utah Valley University - Methods of Secondary School Mathematics Teaching - Math 3010 OR Math 290R
- Weber State University - Methods and Technology for Teaching Secondary Mathematics - Mthe 3010
- Westminster College - Methods of Teaching Secondary School Math - Educ 387