

Secondary Mathematics Endorsement
Requirement Options
April 2021

Requirement Area 1: Secondary Mathematics Content Knowledge (C.1)

University Courses

- [Secondary Mathematics Endorsement Course List](#)

College Algebra

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|------------------------------|---|
| Brigham Young University | Math 110 | College Algebra |
| Dixie State University | Math 1050 | College Algebra/ Pre-Calculus |
| Snow College | Math 1050 | College Algebra |
| Southern Utah University | Math 1050 | College Algebra |
| UMEP | | |
| University of Utah | Math 1050 | College Algebra |
| Utah State University | Math 1050 or Math 1051 | College Algebra or Classical Algebra |
| Utah Valley University | Math 1050 or Math 1055 | College Algebra or College Algebra with Preliminaries |
| Westminster College | Math 101 | Fundamentals of Algebra |
| Weber State University | Math 1050 | College Algebra |

Trigonometry

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|-------------|---------------------------|
| Brigham Young University | Math 111 | Trigonometry |
| Dixie State University | Math 1060 | Trigonometry |
| Snow College | Math 1060 | Trigonometry |
| Southern Utah University | Math 1060 | Trigonometry |
| UMEP | | |
| University of Utah | Math 1060 | Trigonometry |
| Utah State University | Math 1060 | Trigonometry |
| Utah Valley University | Math 1060 | Trigonometry |
| Westminster College | Math 144 | Functions Modeling Change |
| Weber State University | Math 1060 | Trigonometry |

Calculus I

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|---------------------------|-------------------------------------|
| Brigham Young University | Math 112 | Calculus I |
| Dixie State University | Math 1210 | Calculus I |
| Snow College | Math 1210 | Calculus I |
| Southern Utah University | Math 1210 | Calculus I |
| UMEP | Math 4910-A | Calculus I |
| University of Utah | Math 1210 | Calculus I |
| Utah State University | Math 1210 or Math 4910 | Calculus I or Conceptual Calculus I |
| Utah Valley University | Math 1210 | Calculus I |
| Westminster College | Math 201 | Calculus I |
| Weber State University | Math 1210 | Calculus I |

Calculus II

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|-------------|-------------|
| Brigham Young University | Math 113 | Calculus II |
| Dixie State University | Math 1220 | Calculus II |
| Snow College | Math 1220 | Calculus II |
| Southern Utah University | Math 1220 | Calculus II |
| UMEP | Math 4910-B | Calculus II |
| University of Utah | Math 1220 | Calculus II |
| Utah State University | Math 1220 | Calculus II |
| Utah Valley University | Math 1220 | Calculus II |
| Westminster College | Math 202 | Calculus II |
| Weber State University | Math 1220 | Calculus II |

Multivariable Calculus

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|-------------|-------------------------------|
| Brigham Young University | Math 314 | Calculus of Several Variables |
| Dixie State University | Math 2210 | Multivariable Calculus |
| Snow College | Math 2210 | Calculus III |
| Southern Utah University | Math 2210 | Calculus III |
| UMEP | Math 4910-C | Multivariable Calculus |
| University of Utah | Math 2210 | Calculus III |
| Utah State University | Math 2210 | Multivariable Calculus |
| Utah Valley University | Math 2210 | Calculus III |
| Westminster College | Math 203 | Multivariate Calculus |
| Weber State University | Math 2210 | Calculus III |

Probability & Statistics

(Must have a Calculus prerequisite, introductory courses not acceptable)

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|------------------------------|---|
| Brigham Young University | Stat 121 | Principles of Statistics |
| Dixie State University | Math 3400 | Probability & Statistics |
| Snow College | Math 3040 | Statistics for Scientists & Engineers |
| Southern Utah University | Math 3700 | Probability and Statistics |
| UMEP | Stat 3000 | Probability and Statistics |
| University of Utah | Math 3070 OR Math 5010 | Applied Statistics I OR Introduction to Probability |
| Utah State University | Stat 3000 | Statistics for Scientists |
| Utah Valley University | Stat 3040 | Probability and Statistics for Engineering and the Sciences |
| Westminster College | Math 310 | Probability and Statistics |
| Weber State University | Math 3410 | Probability and Statistics I |

Linear Algebra

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|------------------------------|---|
| Brigham Young University | Math 215 | Computational Linear Algebra |
| Dixie State University | Math 2270 | Linear Algebra |
| Snow College | Math 2270 | Linear Algebra |
| Southern Utah University | Math 2270 | Linear Algebra |
| UMEP | Math 4910-LD | Linear Algebra |
| University of Utah | Math 2270 | Linear Algebra |
| Utah State University | Math 2270 OR Math 2250 | Linear Algebra OR Linear Algebra and Differential Equations |
| Utah Valley University | Math 2270 | Linear Algebra |
| Westminster College | WCSAM 203 | Linear Algebra |
| Weber State University | Math 2270 | Elementary Linear Algebra |

Foundations of Algebra or Algebraic Structures

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|----------------------------|---|
| Brigham Young University | Math 371 OR Math 290 | Abstract Algebra 1 OR Fundamentals of Mathematics |
| Dixie State University | Math 4000 | Foundations of Algebra |
| Snow College | | |
| Southern Utah University | Math 3120 | Transition to Advanced Mathematics |
| UMEP | Math 4310 | Algebraic Structures |
| University of Utah | Math 4030 | Foundations of Algebra |
| Utah State University | Math 4310 | Introduction to Algebraic Structures |
| Utah Valley University | Math 3300 | Foundations of Abstract Algebra |
| Westminster College | Math 312 | Abstract Algebra |
| Weber State University | Math 3110 OR 4110 | Foundations of Algebra OR Modern Algebra I |

Euclidean/Non-Euclidean Geometry OR Foundations of Geometry

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|---------------------------------|--|
| Brigham Young University | Math 362 OR MathEd 362 | Survey of Geometry OR Survey of Geometry |
| Dixie State University | Math 3100 | Euclidean/Non-Euclidean Geom. |
| Snow College | | |
| Southern Utah University | Math 3130 | Modern Geometries |
| UMEP | Math 3110 | Euclidean/Non-Euclidean Geometry |
| University of Utah | Math 3100 | Foundations of Geometry |
| Utah State University | Math 3110 | Modern Geometry |
| Utah Valley University | Math 3100 | Foundations of Geometry |
| Westminster College | Math 314 | Foundations of Geometry |
| Weber State University | Math 3120 | Foundations of Euclidean and Non-Euclidean Geometry |

Differential Equations OR Applied Mathematics/Modeling

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|---------------------------|---|
| Brigham Young University | Math 334 | Ordinary Differential Equations |
| Dixie State University | Math 2280 | Ordinary Differential Equations |
| Snow College | Math 2280 | Differential Equations |
| Southern Utah University | Math 2280 | Differential Equations |
| UMEP | Math 4910-LD | Differential Equations |
| University of Utah | Math 2280 OR Math 5740 | Introduction to Differential Equations OR Mathematical Modeling |
| Utah State University | Math 2280 OR Math 2250 | Ordinary Differential Equations OR Linear Algebra and Differential Equations |
| Utah Valley University | Math 2280 | Ordinary Differential Equations |
| Westminster College | Math 363 | Differential Equations |
| Weber State University | Math 2280 OR Math 3550 | Ordinary Differential Equations OR Introduction to Mathematical Modeling |

Introduction to Analysis OR Advanced Calculus

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|------------------------------|--|
| Brigham Young University | Math 341 | Theory of Analysis 1 |
| Dixie State University | Math 3200 | Introduction to Analysis I |
| Snow College | | |
| Southern Utah University | Math 4400 | Advanced Calculus I |
| UMEP | Math 4200 | Introduction to Analysis |
| University of Utah | Math 3210 OR Math 3220 | Foundations of Analysis OR Foundations of Analysis II |
| Utah State University | Math 4200 OR Math 5210 | Foundations of Analysis OR Introduction to Analysis I |
| Utah Valley University | Math 3200 | Foundations of Analysis |
| Westminster College | Math 323 | Complex Analysis |
| Weber State University | Math 4210 | Introductory Real Analysis I |

Personalized Choice

Pick one additional course to complete the endorsement

| Institution of Higher Education | History of Math | Discrete Mathematics | Additional Geometry Course | Introduction to Proof | Computer Programming | Advanced Probability | Data Science | Advanced Statistics | Abstract Algebra (rings and polynomials) | Mathematical Modeling |
|---------------------------------|-----------------------------|----------------------|----------------------------|-----------------------|----------------------|----------------------|--------------|---------------------|--|-----------------------|
| Brigham Young University | Math 300 OR MthEd 300 | | | | | | | | Math 371 | |
| Dixie State University | Math 3000 | Math 2200 | | | | | | | Math 4010 | |
| Snow College | | Math 3310 | | | | | Math 1120 | | | |
| Southern Utah University | | | | | | | | | Math 4220 | Math 3770 |
| UMEP | | | | | | | | | | |
| University of Utah | Math 3010 | Math 2200 | | | | | Math 4100 | | | Math 5740 |
| Utah State University | Math 4400 | Math 3310 | | | | Math 5710 | | Math 5720 | Math 4310 | |

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|------------------------|---------------------|-----------|--|--|----------|--|----------|--|---------------------|-----------|
| Utah Valley University | Math 3000* Required | Math 3310 | | | | | | | Math 3300* Required | |
| Westminster College | | Math 210 | | | DATA 360 | | DATA 360 | | Math 312 | |
| Weber State University | Math 3050 | Math 1630 | | | | | | | | Math 3550 |

College Major or Minor

- Major/Minor in Mathematics or related field (must include Geometry and Statistics coursework)

Content Exam

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

Requirement Area 2: Middle School Mathematics Dispositions, Skills, and Pedagogy ([P.1-4, D.1-5, S.1-6](#))

University Courses

- [Secondary Mathematics Endorsement Course List](#)

Probability & Statistics OR Statistics for Secondary Mathematics Teaching

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|-------------------------------------|--|
| Brigham Young University | Stat 121 or MthEd 301 | Principles of Statistics or Teaching Statistics and Probability |
| Dixie State University | Math 1040 or Math 3400 | Introduction to Statistics or Probability & Statistics |
| Snow College | Math 1040 or Math 2040 or Math 3040 | Introduction to Statistics or Applied Statistics or Statistics for Scientists and Engineers |
| Southern Utah University | Math 1040 | Statistical Inference |
| UMEP | Stat 4010 | Statistics and Probability for Secondary Mathematics Teaching |
| University of Utah | Math 1040 or Math 3410 | Statistics or Statistics for Secondary Math Teaching |
| Utah State University | Stat 1040 or Stat | Introduction to Statistics or Statistics for Scientists or Probability & Statistics for Teachers |

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|------------------------|------------------------------|--|
| | 3000 or Stat 4010 | |
| Utah Valley University | Math 4040 | Statistics & Probability for Secondary Mathematics Teaching |
| Westminster College | | |
| Weber State University | Math 3410 or MTHE 3060 | Probability and Statistics I or Probability and Statistics from a Teaching Perspective |

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

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|-------------------------|--|
| Brigham Young University | MathEd 362 or MthEd 562 | Survey of Geometry or Euclidean Geometry: Content, Learning, and Teaching |
| Dixie State University | Math 3100 or Math 3020 | Euclidean/Non-Euclidean Geometry or Geometry and Statistics for Secondary Mathematics Teaching |
| Snow College | | |
| Southern Utah University | Math 3130 or Math 3020 | Modern Geometries or Math for Secondary Education II |
| UMEP | Math 5010 | Geometry for Secondary Mathematics Teaching |
| University of Utah | Math 3100 or Math 3420 | Foundations of Geometry or Geometry for Secondary Mathematics Teachers |
| Utah State University | Math 3110 | Modern Geometry |
| Utah Valley University | Math 4030 | Geometry for Secondary Mathematics Teaching |

| | | |
|------------------------|---|---|
| Westminster College | Math 314 | Foundations of Geometry |
| Weber State University | Math 3120 or MTHE 2120 or MTHE 3070 | Foundations of Euclidean & Non-Euclidean Geometry or Geometry from a Teaching Perspective or Geometry for Elementary Teachers |

Algebra for Secondary Mathematics Teaching*

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|------------------------------|---|
| Brigham Young University | ? | ? |
| Dixie State University | Math 3010 | Algebra for Secondary Mathematics Teaching |
| Snow College | | |
| Southern Utah University | Math 3010 | Math for Secondary Education I |
| University of Utah | Math 3430 | Algebra for Secondary Mathematics Teachers |
| UMEP | Math 3010 | Algebra for Secondary Mathematics Teachers |
| Utah State University | Math 3010 or Math 4400 | Pedagogical Foundations of Algebra History of Math and Number Theory |
| Utah Valley University | Math 3030 | Algebra for Secondary Mathematics Teaching |
| Westminster College | | |
| Weber State University | MTHE 4110 | Algebra from a Teaching Perspective |

Methods of Teaching Secondary Mathematics

| Institution of Higher Education | Course Code | Course Name |
|---------------------------------|-------------------------|--|
| Brigham Young University | MathEd 377 & MathEd 378 | Mathematics Teaching in the Public Schools AND Practicum in Mathematics Educaiton |
| Dixie State University | Math 4500 | Methods Teach Secondary Math |
| Snow College | | |
| Southern Utah University | Math 4900 | Methods of Teaching Secondary Mathematics |
| UMEP | Math 4500 | Methods of Teaching Secondary Mathematics |
| University of Utah | Math 4090 | Teaching of Secondary School Mathematics |
| Utah State University | Math 4500 or Math 6500 | Methods of Secondary School Mathematics Teaching or Methods of Secondary School Mathematics Teaching |
| Utah Valley University | Math 3010 | Methods of Secondary School Mathematics Teaching |
| Westminster College | EDUC 387 | Methods of Teaching Secondary School Math |
| Weber State University | MTHE 3010 | Methods and Technology for Teaching Secondary Mathematics |

College Major or Minor

- Major in *Mathematics Education*

Microcredentials

- [Secondary Mathematics Methods](#)
- [Algebra for Secondary Mathematics Teaching](#)
- [Statistics and Probability for Secondary Mathematics Teaching](#)
- [Geometry for Secondary Mathematics Teaching](#)

Certificate or Experiences

- [Adolescence and Young Adult National Board Certified Teacher in Mathematics](#) (AYA NBCT Math)
- [Presidential Award for Excellence in Mathematics and Science Teaching](#) (PAEMST) Awardee or Finalist