Candidates also complete a secondary education professional program. Grade required for endorsement courses: C (2.0) or better. Course substitutions must be clearly noted below.

### Physics and Mathematics

- ASTR 315 - The Solar System
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I and MATH 125 - Calculus and Analytic Geometry II
  - MATH 134 - Calculus I Honors and MATH 135 - Calculus II Honors
- MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 204 - Elementary Linear Algebra and MATH 331 - Ordinary Differential Equations
  - MATH 203 - Linear Algebra and Differential Equations I and MATH 303 - Linear Algebra and Differential Equations II
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 360 - Euclidean and Non-Euclidean Geometry
- MATH 419 - Historical Perspectives of Mathematics
- MATH 483 - Methods of Teaching Secondary Mathematics
- At least two of the following:
  - MATH 307 - Mathematical Computing
  - MATH 341 - Probability and Statistical Inference
  - MATH 410 - Mathematical Modeling
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- PHYS 220 - Physics with Calculus IV
- PHYS 224 - Modern Physics I
- PHYS 225 - Modern Physics II
- PHYS 322 - Fundamentals of Electronics
- PHYS 326 - Tools and Data Analysis
- PHYS 363 - Classical Mechanics
- PHYS 391 - Junior Lab
- SCED 370 - Science and Society
- SCED 481 - Fundamentals of Teaching Science
- SCED 491 - Methods in Secondary Education for Science Teachers
- 6 additional credits of upper-division physics or astronomy courses
- NES Physics Test Code 308
- NES Mathematics Test Code 304

### Add Science (Optional)

You can add a science add-on endorsement by passing the NES Science Test Code 311 (Pathway 1). You can be recommended by WWU, waive the OSPI fee, and get test preparation through taking the following coursework:

- One course from:
  - ASTR 103 - Intro to Astronomy
  - ASTR 113 - Sun, Moon, and Planets
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
  - BIOL 205 - Introduction to Cellular and Molecular Biology
  - BIOL 206 - Introduction to Organismal Biology
  - CHEM 161 - General Chemistry I
  - CHEM 162 - General Chemistry II
  - CHEM 163 - General Chemistry III
  - GEOL 211 - Physical Geology
  - GEOL 212 - Historical Geology
  - NES General Science Test Code 311

◊ These classes at WWU have associated prerequisites not listed in the above endorsement requirements. When planning your course of study, please attend to these. You are encouraged to talk with an advisor about how to do this.

- PHYS 322/326: CSCI 140 or CSCI 141
- PHYS 363: Phase II Physics BS majors or Phase II Geophysics BS majors

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**Outstanding Courses:**