## BS in Physical Science Education (690128) MAP Sheet
### Physical and Mathematical Sciences, Physical Science Program

For students entering the degree program during the 2021-2022 curricular year.

This major is designed to prepare students to teach in public schools. In order to graduate with this major, students are required to complete Utah State Office of Education licensing requirements. To view these requirements go to [http://education.byu.edu/ees/licensing.html](http://education.byu.edu/ees/licensing.html) or contact the Education Advisement Center, 350 MCKB, (801) 422-3426.

### University Core and Graduation Requirements

#### University Core Requirements:

<table>
<thead>
<tr>
<th>Requirements</th>
<th>#Classes</th>
<th>Hours</th>
<th>Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion Cornerstones</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Teachings and Doctrine of The Book of Mormon</td>
<td>1</td>
<td>2.0</td>
<td>REL A 275</td>
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<tr>
<td>Jesus Christ and the Everlasting Gospel</td>
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<td>2.0</td>
<td>REL A 250</td>
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<tr>
<td>Foundations of the Restoration</td>
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<td>REL C 225</td>
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<tr>
<td>The Eternal Family</td>
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<td>The Individual and Society</td>
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<tr>
<td>American Heritage</td>
<td>1-2</td>
<td>3-6.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Global and Cultural Awareness</td>
<td>1</td>
<td>3.0</td>
<td>SC ED 353*</td>
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<tr>
<td>Skills</td>
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<tr>
<td>First Year Writing</td>
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<tr>
<td>Advanced Written and Oral Communications</td>
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</tr>
<tr>
<td>Quantitative Reasoning</td>
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<td>0-3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Languages of Learning (Math or Language)</td>
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<td>3-20.0</td>
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<tr>
<td>Arts, Letters, and Sciences</td>
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<tr>
<td>Civilization 1</td>
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<td>from approved list</td>
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<tr>
<td>Civilization 2</td>
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<tr>
<td>Arts</td>
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<td>from approved list</td>
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<tr>
<td>Letters</td>
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<td>3.0</td>
<td>PHIL 423*</td>
</tr>
<tr>
<td>Biological Science</td>
<td>1</td>
<td>3-4.0</td>
<td>from approved list</td>
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<tr>
<td>Physical Science</td>
<td>2</td>
<td>7.0</td>
<td>CHEM 105* &amp; PHSCS 105*</td>
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<tr>
<td>Social Science</td>
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</table>

#### Core Enrichment: Electives

<table>
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<tbody>
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<td>personal choice</td>
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<tr>
<td>Open Electives</td>
<td>Variable</td>
<td>Variable</td>
<td>personal choice</td>
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</tbody>
</table>

#### Graduation Requirements:

- Minimum residence hours required: 30.0
- Minimum hours needed to graduate: 120.0

### Suggested Sequence of Courses

#### FRESHMAN YEAR

**1st Semester**
- First Year Writing: 3.0
- Quantitative Reasoning: 3.0
- PHSCS 105: 3.0
- PHSCS 107: 1.0
- Religion Cornerstone course: 2.0
- Total Hours: 15.0

**2nd Semester**
- American Heritage: 3.0
- Biological Science: 3.0
- PHSCS 106 (FWSu): 3.0
- PHSCS 108 (FWSu): 1.0
- Religion Cornerstone course: 2.0
- Languages of Learning: 3.0
- Total Hours: 15-16.0

#### SOPHOMORE YEAR

**3rd Semester**
- CHEM 105 (FWSpSu): 4.0
- GEOL 111 (FW): 4.0
- PHSCS 127 (FWSpSu): 3.0
- Civilization 1: 3.0
- Religion Cornerstone course: 2.0
- Total Hours: 16.0

**4th Semester**
- CHEM 106 (FWSpSu): 3.0
- CHEM 107 (FWSpSu): 1.0
- GEOL 112 (W): 4.0
- Civilization 2 & Arts: 3.0
- PHY S 276: 4.0
- Religion elective (FWSpSu): 2.0
- Total Hours: 17.0

#### JUNIOR YEAR

**5th Semester**
- CHEM 223 (FSp): 4.0
- CHEM 201 (FSp): 0.5
- GEOI 210 (F): 3.0
- CPSE 402: 2.0
- PHSCS 137: 3.0
- Religion Cornerstone course: 2.0
- SC ED 353: 3.0
- Total Hours: 17.5

**6th Semester**
- American Heritage: 3.0
- Biological Science: 3.0
- PHSCS 106 (FWSu): 3.0
- PHSCS 108 (FWSu): 1.0
- Religion Cornerstone course: 2.0
- Languages of Learning: 4.0
- Total Hours: 16.0

#### SENIOR YEAR

**7th Semester**
- CHEM 331: 3.0
- CHEM 333: 3.0
- CHEM 167: 3.0
- Adm. Written & Oral Communication: 3.0
- Religion elective (FWSpSu): 2.0
- IP & T 371: 1.0
- IP & T 372: 1.0
- IP & T 373: 1.0
- Total Hours: 17.0

**8th Semester**
- CHEM 331: 3.0
- CHEM 333: 3.0
- CHEM 167: 3.0
- Adm. Written & Oral Communication: 3.0
- Religion elective (FWSpSu): 2.0
- IP & T 371: 1.0
- IP & T 372: 1.0
- IP & T 373: 1.0
- Total Hours: 17.0

**Note:** The sequence of courses suggested may not fit the circumstances of every student. Students should contact their college advisement center for help in outlining an efficient schedule.

**Note:** Students are encouraged to complete an average of 15 credit hours each semester or 30 credit hours each year, which could include spring and/or summer terms. Taking fewer credits substantially increases the cost and the number of semesters to graduate.
This major is designed to prepare students to teach in public schools. In order to graduate with this major, students are required to complete Utah State Office of Education licensing requirements. To view these requirements go to https://www.schools.utah.gov/curr/licensing or contact the Education Advisement Center, 350 MCKB, 801-422-3426.

For students accepted into the major after December 16, 2019, grades below C in any required coursework in a teaching major or teaching minor will not be accepted. Teacher candidates must maintain a cumulative GPA of 2.7 or higher once admitted into the program and to qualify for student teaching.

For additional details on admission and retention requirements for teaching majors and teaching minors, see Educator Preparation Program Requirements in the Undergraduate Catalog.

| REQUIREMENT | 3 Complete 2 options
| -------------- | --------------------------

### PROFESSIONAL EDUCATION COMPONENT:
Licensure requirements: Contact the Education Advisement Center, 350 MCKB, 801-422-3426, to schedule the exit interview to clear your application for the secondary teaching license. You should be registered for your last semester at BYU prior to the scheduled appointment.

#### OPTION 3.1
Complete 9 courses
- CPSE 402 - Educating Students with Disabilities in Secondary Classroom
- IP&T 371 - Integrating K-12 Educational Technology
- IP&T 372 - Integrating K-12 Educational Technology
- IP&T 373 - Teaching in K-12 Online and Blended Learning Contexts
- PHYS 276 - Exploration of Teaching
- PHYS 377 - Teaching Methods and Instruction
- PHYS 378 - Practicum in Secondary Education
- *SC ED 353 - Multicultural Education for Secondary Education
- SC ED 375 - Adolescent Development and Classroom Management

**Note:** FBI fingerprint and background clearance must be completed prior to enrollment in PHYS 276.

#### OPTION 3.2
Complete 12.0 hours from the following course(s)
- PHYS 476 - Secondary Student Teaching
- PHYS 496 - Academic Internship: Secondary Education

Student teachers/interns must complete all required EPP assessments and paperwork in the Educator system.

### THE DISCIPLINE:
The Department of Teacher Education provides a program that licenses secondary teachers for public schools. In addition to content courses in the field(s) in which they plan to teach, students complete professional education courses and practicum experiences that prepare them to teach in a secondary school setting.

### CAREER OPPORTUNITIES:
Secondary education teacher.

### MAP DISCLAIMER
While every reasonable effort is made to ensure accuracy, there are some student populations that could have exceptions to listed requirements. Please refer to the university catalog and your college advisement center/department for complete guidelines.

### ADVISEMENT CENTER INFORMATION
Physical and Mathematical Sciences College Advisement Center
Brigham Young University
N-181 ESC
Provo, UT 84602
Telephone: (801) 422-2674

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<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 105</td>
<td>General College Chemistry 1 with Lab (Integrated)</td>
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</tr>
<tr>
<td>CHEM 106</td>
<td>General College Chemistry 2</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM 107</td>
<td>General College Chemistry Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>CHEM 201</td>
<td>Chemical Handling and Safe Laboratory Practices</td>
<td>0.5</td>
</tr>
<tr>
<td>CHEM 223</td>
<td>Quantitative and Qualitative Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 331</td>
<td>Guided Learning for Chemistry Instruction</td>
<td>3.0</td>
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<tr>
<td>GEOL 100</td>
<td>Physical Geology</td>
<td>4.0</td>
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<tr>
<td>GEOL 112</td>
<td>Historical Geology</td>
<td>4.0</td>
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<tr>
<td>GEOL 210</td>
<td>Field Studies</td>
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<tr>
<td>PHSCS 105</td>
<td>General Physics 1</td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 106</td>
<td>General Physics 2</td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 107</td>
<td>General Physics Lab 1</td>
<td>1.0</td>
</tr>
<tr>
<td>PHSCS 108</td>
<td>General Physics Lab 2</td>
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<tr>
<td>PHSCS 127</td>
<td>Descriptive Astronomy</td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 137</td>
<td>Energy, Climate, and the Environment</td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 167</td>
<td>Descriptive Acoustics of Music and Speech</td>
<td>3.0</td>
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<tr>
<td>PHSCS 310</td>
<td>Physics By Inquiry: Mechanics</td>
<td>3.0</td>
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</tbody>
</table>

*PHIL 423R - History and Philosophy of Science* 3.0

### REQUIREMENT 1 Complete 17 courses

### REQUIREMENT 2 Complete 1 course

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>CREDIT HOURS</th>
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<tbody>
<tr>
<td>GEOL 100</td>
<td>Dinosaurs</td>
<td>3.0</td>
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<tr>
<td>GEOL 351</td>
<td>Mineralogy</td>
<td>4.0</td>
</tr>
<tr>
<td>GEOL 370</td>
<td>Sedimentology and Stratigraphy</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 480</td>
<td>Paleontology</td>
<td>3.0</td>
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</table>