### 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>
<td></td>
</tr>
<tr>
<td>Teachings and Doctrine of The Book of Mormon</td>
<td>1</td>
<td>2.0</td>
<td>REL A 275</td>
</tr>
<tr>
<td>Jesus Christ and the Everlasting Gospel</td>
<td>1</td>
<td>2.0</td>
<td>REL A 250</td>
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<tr>
<td>Foundations of the Restoration</td>
<td>1</td>
<td>2.0</td>
<td>REL C 225</td>
</tr>
<tr>
<td>The Eternal Family</td>
<td>1</td>
<td>2.0</td>
<td>REL C 200</td>
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<tr>
<td>The Individual and Society</td>
<td></td>
<td></td>
<td></td>
</tr>
<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>from approved list</td>
</tr>
<tr>
<td>Skills</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>First Year Writing</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Advanced Written and Oral Communications</td>
<td>1</td>
<td>3.0</td>
<td>WRTG 316</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>1</td>
<td>4.0</td>
<td>MATH 112* or 113*</td>
</tr>
<tr>
<td>Languages of Learning (Math or Language)</td>
<td>1</td>
<td>4.0</td>
<td>MATH 112* or 113*</td>
</tr>
<tr>
<td>Arts, Letters, and Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civilization 1</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Civilization 2</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Arts</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Letters</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Biological Science</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Physical Science</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Social Science</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Core Enrichment: Electives</td>
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<td></td>
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</tr>
<tr>
<td>Religion Electives</td>
<td>3-4</td>
<td>6.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Open Electives</td>
<td>Variable</td>
<td>Variable</td>
<td>personal choice</td>
</tr>
</tbody>
</table>

#### Graduation Requirements:

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

### Suggested Sequence of Courses

#### FRESHMAN YEAR

<table>
<thead>
<tr>
<th>1st Semester</th>
<th>2nd Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>C S 142</td>
<td>3.0</td>
</tr>
<tr>
<td>First-year Writing or American Heritage</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 112</td>
<td>4.0</td>
</tr>
<tr>
<td>Religion Cornerstone course</td>
<td>2.0</td>
</tr>
<tr>
<td>General education, university requirements, and/or general electives</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Hours</td>
<td>15.0</td>
</tr>
</tbody>
</table>

#### SOPHOMORE YEAR

<table>
<thead>
<tr>
<th>3rd Semester</th>
<th>4th Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>C S 203</td>
<td>1.0</td>
</tr>
<tr>
<td>C S 224</td>
<td>3.0</td>
</tr>
<tr>
<td>C S 236</td>
<td>3.0</td>
</tr>
<tr>
<td>Biological Science</td>
<td>3.0</td>
</tr>
<tr>
<td>Civilization 1</td>
<td>3.0</td>
</tr>
<tr>
<td>Religion Cornerstone course</td>
<td>2.0</td>
</tr>
<tr>
<td>Total Hours</td>
<td>15.0</td>
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</table>

#### JUNIOR YEAR

<table>
<thead>
<tr>
<th>5th Semester</th>
<th>6th Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>C S 204</td>
<td>1.0</td>
</tr>
<tr>
<td>First-year Writing or American Heritage</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 113</td>
<td>4.0</td>
</tr>
<tr>
<td>Religion Cornerstone course</td>
<td>2.0</td>
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<tr>
<td>Total Hours</td>
<td>16.0</td>
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#### SENIOR YEAR

<table>
<thead>
<tr>
<th>7th Semester</th>
<th>8th Semester</th>
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<tbody>
<tr>
<td>C S 480</td>
<td>3.0</td>
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<tr>
<td>C S Elective</td>
<td>3.0</td>
</tr>
<tr>
<td>WRTG 316</td>
<td>3.0</td>
</tr>
<tr>
<td>Arts</td>
<td>3.0</td>
</tr>
<tr>
<td>Religion Elective</td>
<td>2.0</td>
</tr>
<tr>
<td>Total Hours</td>
<td>16.0</td>
</tr>
</tbody>
</table>
### BS in Computer Science: Software Engineering (693225)
#### 2020-2021 Program Requirements (74 - 76 Credit Hours)

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Course Code/Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grades below C- are not allowed in major courses.</strong></td>
<td></td>
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<tr>
<td><strong>Requirement 1</strong> Complete 16 courses</td>
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<tr>
<td><strong>Core Courses:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C S 456 - Introduction to User Interface Software</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>C S 460 - Computer Communications and Networking</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>C S 462 - Large-Scale Distributed System Design</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>C S 465 - Computer Security</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>C S 486 - Verification and Validation</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td><strong>Requirement 2</strong> Complete 4 courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Supporting Courses:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 112 - Calculus 1</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>MATH 113 - Calculus 2</td>
<td>4.0</td>
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</tr>
<tr>
<td>PHSCS 121 - Introduction to Newtonian Mechanics</td>
<td>3.0</td>
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</tr>
<tr>
<td>*WRTG 316 - Technical Communication</td>
<td>3.0</td>
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<tr>
<td><strong>Requirement 3</strong> Complete 1 option</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Option 3.1</strong> Complete 1 course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 313 - (Not currently offered)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Option 3.2</strong> Complete 2 courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 213 - Elementary Linear Algebra</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>MATH 215 - Computational Linear Algebra</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td><strong>Requirement 4</strong> Complete 1 course</td>
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<td></td>
</tr>
<tr>
<td>STAT 121 - Principles of Statistics</td>
<td>3.0</td>
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</tr>
<tr>
<td>STAT 201 - Statistics for Engineers and Scientists</td>
<td>3.0</td>
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</tr>
<tr>
<td><strong>Requirement 5</strong> Complete 2 courses</td>
<td></td>
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</tr>
<tr>
<td>C S 356 - Designing the User Experience</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>C S 453 - Fundamentals of Information Retrieval</td>
<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>

### Supporting Courses

**Core Courses:**
- C S 456 - Introduction to User Interface Software (3.0)
- C S 460 - Computer Communications and Networking (3.0)
- C S 462 - Large-Scale Distributed System Design (3.0)
- C S 465 - Computer Security (3.0)
- C S 486 - Verification and Validation (3.0)

**Supporting Courses:**
- MATH 112 - Calculus 1 (4.0)
- MATH 113 - Calculus 2 (4.0)
- PHSCS 121 - Introduction to Newtonian Mechanics (3.0)
- WRTG 316 - Technical Communication (3.0)

**Option 3.1:** Complete 1 course
- MATH 313 - (Not currently offered)

**Option 3.2:** Complete 2 courses
- MATH 213 - Elementary Linear Algebra (2.0)
- MATH 215 - Computational Linear Algebra (1.0)

**Requirements:**
- Complete 16 courses
- Complete 4 courses
- Complete 1 option
- Complete 1 course
- Complete 1 course
- Complete 2 courses
- Complete 1 course

**General Education and Program Requirements:**
- Advanced Writing and Oral Communication: Engl 316
- Quantitative Reasoning: Math 112 or 113
- Physical Science: C S 312 or Phscs 121

**Complete Senior Exit interview with the C S department during last semester or term.**
- Note: Math 112, Math 113, Phscs 121, Engl 316, and C S 312 can be used to fill both General Education and program requirements. Advanced Writing and Oral Communication: Engl 316, Quantitative Reasoning: Math 112 or 113, Physical Science: C S 312 or Phscs 121.

**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.

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Brigham Young University
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