BS in Statistics: Biostatistics (695233) MAP Sheet
Physical and Mathematical Sciences, Statistics
For students entering the degree program during the 2017-2018 curricular year.

### 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><strong>Religion Cornerstones</strong></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>
</tr>
<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>
</tr>
<tr>
<td><strong>The Individual and Society</strong></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><strong>Skills</strong></td>
<td></td>
<td></td>
<td></td>
</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>from approved list</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>1</td>
<td>4.0</td>
<td>MATH 112*</td>
</tr>
<tr>
<td>Languages of Learning (Math or Language)</td>
<td>1</td>
<td>4.0</td>
<td>MATH 112*</td>
</tr>
<tr>
<td><strong>Arts, Letters, and Sciences</strong></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>1-2</td>
<td>3-7.0</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><strong>Core Enrichment: Electives</strong></td>
<td></td>
<td></td>
<td></td>
</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>

*THESE CLASSES FILL BOTH UNIVERSITY CORE AND PROGRAM REQUIREMENTS (9 hours overlap)*

#### 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
- MATH 112* (FWSpSu): 4.0
- STAT 121: 3.0

**2nd Semester**
- Biological Science: 3.0
- Religion Cornerstone course: 2.0
- General electives: 1.0

**Total Hours**: 16.0

#### SOPHOMORE YEAR

**3rd Semester**
- MATH 313 (FWSpSu): 3.0
- STAT 240: 3.0
- Civilization 1: 3.0

**4th Semester**
- Global and Cultural Awareness: 3.0
- Religion Cornerstone course: 2.0
- General electives: 1.0

**Total Hours**: 15.0

#### JUNIOR YEAR

**5th Semester**
- MATH 314 (FWSpSu): 3.0
- STAT 123 or STAT 124: 3.0
- Letters: 3.0

**6th Semester**
- Advanced Written and Oral Communication: 3.0
- Religion elective: 2.0
- General electives: 4.0

**Total Hours**: 15.0

#### SENIOR YEAR

**7th Semester**
- Department recommendation: Internship during Spring/Summer

**8th Semester**
- Statistics elective from requirement 6: 3.0
- Letters: 3.0

**Total Hours**: 15.0

Note 1: 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 2: 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.

Note 3: Students must have the statistics core completed before their senior year in order to graduate within four years.
### BS in Statistics: Biostatistics (695233)
#### 2017-2018 Program Requirements (50 Credit Hours)

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Complete 1 course</td>
<td>3.0</td>
</tr>
<tr>
<td>2</td>
<td>Complete 2 courses</td>
<td>4.0</td>
</tr>
<tr>
<td>3</td>
<td>Complete 8 courses</td>
<td>3.0</td>
</tr>
<tr>
<td>4</td>
<td>Complete 2 courses</td>
<td>3.0</td>
</tr>
<tr>
<td>5</td>
<td>Complete 9.0 hours from the following course(s)</td>
<td>3.0</td>
</tr>
<tr>
<td>6</td>
<td>Complete 6.0 hours from the following course(s)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Notes:
- Requirements 1 and 2 may be counted toward this requirement.
- Courses used for Requirement 5 will not double count for Requirement 6. Note: No more than 3 credit hours of Stat 496R may be counted toward this requirement. Note: It is strongly recommended that students interested in graduate study in biostatistics include Math 341 and 342 in their elective lists.
- C S 142 - Introduction to Computer Programming 3.0
- HLTH 345 - Principles of Epidemiology 3.0

### Courses Required for Graduate Study in Statistics and Biostatistics
- BI 160 - Introduction to Computer Programming 3.0
- MATH 325 - Calculus of Several Variables 3.0
- STAT 437 - Statistical Models for Financial Economics 3.0
- STAT 381 - Statistical Computing 3.0
- STAT 420 - Big Data Science 1 3.0
- STAT 421 - Big Data Science 2 3.0
- STAT 435 - Nonparametric Statistical Methods 3.0
- STAT 437 - Applications in Biostatistics 3.0
- STAT 451 - Applied Bayesian Statistics 3.0
- STAT 466 - Introduction to Reliability 3.0
- STAT 469 - Applied Time Series and Forecasting 3.0
- STAT 497R - Introduction to Statistical Research 3.0
- STAT 496R - Academic Internship: Statistics 3.0
- STAT 495R - Special Topics in Statistics 3.0
- STAT 469R - Special Topics in Statistics 3.0

### Note:
- You may take up to 3 credit hours.

### Career Opportunities:
The increase of big data and analytics in personalized medicine, genomics, and bioinformatics is creating new challenges and opportunities for biostatisticians. Students with undergraduate degrees in biostatistics are wellprepared to apply for graduate programs in statistics and biostatistics but they also stand out as applicants to medical and dental schools and residencies. Statistical training prepares these students to take part in basic and clinical research during medical or dental school and residency.

### Advising:
- **SAS Certified Base Programmer and SAS Certified Advanced Programmer.** Students can take the SAS Certification exams after completing Stat 124 and 224. Information and exam registration is available at support.sas.com/certify/creds/index.html.

### Internship:
The National Institutes of Health support a Summer Institute for Training in Biostatistics at nine university biostatistics programs. Program/application information is found at www.nhlbi.nih.gov/funding/training/redbook/sibsweb.htm.

### 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.

### Department Information
BS in Statistics: Biostatistics (695233)
2017-2018

Department of Statistics
Brigham Young University
223 TMCB
Provo, UT 84602
Telephone: (801) 422-4505

FACULTY ADVISOR:
Del T. Scott
223C TMCB
Brigham Young University, Provo, UT 84602
Telephone: (801) 422-7054

ADVISEMENT CENTER INFORMATION
FOR UNIVERSITY CORE OR PROGRAM QUESTIONS CONTACT
THE ADVISEMENT CENTER
Physical and Mathematical Sciences College Advisement Center
Brigham Young University
N-181 ESC
Provo, UT 84602
Telephone: (801) 422-2674