STATISTICS OPTION

This option is offered within the following major(s):

- Mathematics - College of Science (http://catalog.oregonstate.edu/college-departments/science/mathematics/mathematics-bs-hbs)

The Statistics option offers Mathematics majors an opportunity to concentrate their senior level course work in the area of statistics and probability after completing core junior and lower-division mathematics requirements. This degree option is designed to allow a focus on the study of the mathematical theory underlying statistics while simultaneously developing expertise in statistical applications.

A grade of at least C– and a GPA of 2.25 are required in all mathematics courses used to fulfill degree requirements. No course used to fulfill requirements for the mathematics major or any of its options may be taken S/U.

The lower-division requirements for the Statistics option are the same as those for the Mathematics BS degree. The upper-division requirements are as follows.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 311 &amp; MTH 312</td>
<td>ADVANCED CALCULUS and ADVANCED CALCULUS</td>
<td>8</td>
</tr>
<tr>
<td>MTH 341</td>
<td>LINEAR ALGEBRA I</td>
<td>3</td>
</tr>
<tr>
<td>MTH 342</td>
<td>LINEAR ALGEBRA II</td>
<td>4</td>
</tr>
<tr>
<td>MTH 343</td>
<td>INTRODUCTION TO MODERN ALGEBRA</td>
<td>3</td>
</tr>
<tr>
<td>MTH 355</td>
<td>DISCRETE MATHEMATICS</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following writing intensive courses (WIC):

- MTH 323 *MATHEMATICAL MODELING
- MTH 333 *FUNDAMENTAL CONCEPTS OF TOPOLOGY
- MTH 338 *NON-EUCLIDEAN GEOMETRY

- MTH 463 PROBABILITY I
- MTH 464 PROBABILITY II
- ST 411 METHODS OF DATA ANALYSIS
- ST 412 METHODS OF DATA ANALYSIS
- ST 421 INTRODUCTION TO MATHEMATICAL STATISTICS
- ST 422 INTRODUCTION TO MATHEMATICAL STATISTICS

Select one of the following:

- MTH 465 PROBABILITY III
- MTH 467 ACTUARIAL MATHEMATICS
- MTH 411 REAL ANALYSIS
- MTH 483 COMPLEX VARIABLES
- MTH 420 MODELS AND METHODS OF APPLIED MATHEMATICS
- MTH 427 INTRODUCTION TO MATHEMATICAL BIOLOGY
- MTH 480 SYSTEMS OF ORDINARY DIFFERENTIAL EQUATIONS
- MTH 481 APPLIED ORDINARY DIFFERENTIAL EQUATIONS
- MTH 465 PROBABILITY III
- MTH 467 ACTUARIAL MATHEMATICS
- MTH 411 REAL ANALYSIS
- MTH 483 COMPLEX VARIABLES
- MTH 420 MODELS AND METHODS OF APPLIED MATHEMATICS
- MTH 427 INTRODUCTION TO MATHEMATICAL BIOLOGY
- MTH 480 SYSTEMS OF ORDINARY DIFFERENTIAL EQUATIONS
- MTH 481 APPLIED ORDINARY DIFFERENTIAL EQUATIONS
- MTH 465 PROBABILITY III
- MTH 467 ACTUARIAL MATHEMATICS
- MTH 411 REAL ANALYSIS
- MTH 483 COMPLEX VARIABLES
- MTH 420 MODELS AND METHODS OF APPLIED MATHEMATICS
- MTH 427 INTRODUCTION TO MATHEMATICAL BIOLOGY
- MTH 480 SYSTEMS OF ORDINARY DIFFERENTIAL EQUATIONS
- MTH 481 APPLIED ORDINARY DIFFERENTIAL EQUATIONS

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<tr>
<td>MTH 321</td>
<td>INTRODUCTORY APPLICATIONS OF MATHEMATICAL SOFTWARE</td>
<td>3</td>
</tr>
</tbody>
</table>

1. MTH 321 INTRODUCTORY APPLICATIONS OF MATHEMATICAL SOFTWARE can be substituted for one of the two area classes.

Option Code: 658