Statistics - BS

Program Requirements

The following is a suggested schedule that includes the required courses for the BS in Statistics. It is recognized that many students will change the sequence and number of courses taken in any semester. Deviations from the prescribed course sequence, however, should be made with care to ensure that prerequisites for all courses are met.

First Year

Fall

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Semester Credit Hours</th>
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<tbody>
<tr>
<td>15</td>
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</tbody>
</table>

ENGL 104 Composition and Rhetoric 3
MATH 171 Calculus I 1 4
STAT 182 Foundations of Statistics 1

Select one of the following: 4
ASTR 111 Overview of Modern Astronomy
BIOL 111 Introductory Biology I
BIOL 112 Introductory Biology II
CHEM 119 Fundamentals of Chemistry I
CHEM 120 Fundamentals of Chemistry II

PHYS 206 Newtonian Mechanics for Engineering and Science
& PHYS 226 and Physics of Motion Laboratory for the Sciences

PHYS 207 Electricity and Magnetism for Engineering and Science
& PHYS 227 and Electricity and Magnetism Laboratory for the Sciences

American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) 3

Semester Credit Hours 15

Spring

MATH 172 Calculus II 1 4
Select one of the following: 3-4
CSCE 110 Programming I
CSCE 111 Introduction to Computer Science Concepts and Programming
CSCE 120 Program Design and Concepts or Introduction to Program Design and Concepts
CSCE 121
CSCE 206 Structured Programming in C

Select one of the following: 4
ASTR 111 Overview of Modern Astronomy
BIOL 111 Introductory Biology I
BIOL 112 Introductory Biology II
CHEM 119 Fundamentals of Chemistry I
CHEM 120 Fundamentals of Chemistry II

PHYS 206 Newtonian Mechanics for Engineering and Science
& PHYS 226 and Physics of Motion Laboratory for the Sciences

PHYS 207 Electricity and Magnetism for Engineering and Science
& PHYS 227 and Electricity and Magnetism Laboratory for the Sciences

American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) 3

Semester Credit Hours 15

Second Year

Fall

MATH 221 Several Variable Calculus 4
POLS 206 American National Government 3
STAT 211 Principles of Statistics I 3
Select one of the following: 3
COMM 203 Public Speaking
COMM 205 Communication for Technical Professions
COMM 243 Argumentation and Debate

Life and physical sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#life-physical-sciences) 3

Semester Credit Hours 16

Spring

MATH 304 or MATH 323 Linear Algebra 3
or Linear Algebra
POLS 207 State and Local Government 3
STAT 212 Principles of Statistics II 3
Select one of the following: 3-4
CSCE 110 Programming I
CSCE 111 Introduction to Computer Science Concepts and Programming
CSCE 120 or Program Design and Concepts
CSCE 121 or Introduction to Program Design and Concepts
CSCE 206 Structured Programming in C

Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) 3

Semester Credit Hours 16

Third Year

Fall

STAT 404 Statistical Computing 3
STAT 414 Mathematical Statistics I 3
Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) 3
Mathematics elective 2 3
Outside specialization elective 3 3

Semester Credit Hours 15

Spring

STAT 408 Introduction to Linear Models 3
STAT 415 Mathematical Statistics II 3
Outside specialization elective 3 3
General elective 6

Semester Credit Hours 15
### Fourth Year

#### Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>STAT 406</td>
<td>3</td>
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<tr>
<td>Design and Analysis of Experiments</td>
<td></td>
</tr>
<tr>
<td>Social and behavioral sciences</td>
<td></td>
</tr>
<tr>
<td>Mathematics or Statistics elective</td>
<td>3</td>
</tr>
<tr>
<td>Outside specialization elective</td>
<td>3</td>
</tr>
<tr>
<td>Statistics elective</td>
<td>3</td>
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<tr>
<td><strong>Semester Credit Hours</strong></td>
<td>15</td>
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#### Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>STAT 482 or STAT 483</td>
<td>3</td>
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<tr>
<td>Statistics Capstone or Interdisciplinary Data Analytics Practicum</td>
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<tr>
<td>Outside specialization elective</td>
<td>3</td>
</tr>
<tr>
<td>Statistics elective</td>
<td>3</td>
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<tr>
<td>General elective</td>
<td>4-5</td>
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<td><strong>Semester Credit Hours</strong></td>
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</tr>
</tbody>
</table>

**Total Semester Credit Hours**: 120

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1. Must make a grade of C or better.
2. Select from ISEN 320, ISEN 340, ISEN 350, ISEN 355; MATH 300, MATH 302, MATH 308, MATH 409, MATH 410, MATH 417 or MATH 437, MATH 442, MATH 446, MATH 447, MATH 469, MATH 470.
3. Students must take 12 hours in an outside specialization area upon approval by a departmental advisor. At least 6 hours must be upper-level hours.
4. Select from ISEN 320, ISEN 340, ISEN 350, ISEN 355; MATH 300, MATH 302, MATH 308, MATH 409, MATH 410, MATH 417 or MATH 437, MATH 442, MATH 446, MATH 447, MATH 469, MATH 470; STAT 315, STAT 335/CSCE 320, STAT 407, STAT 421, STAT 424/MATH 424, STAT 426, STAT 436, STAT 438, STAT 445, STAT 446, STAT 459, STAT 484, STAT 485, STAT 489, STAT 491.

Graduation requirements include a requirement for 3 hours of International and Cultural Diversity courses and 3 hours of Cultural Discourse courses. A course satisfying a Core category, a college/department requirement, or a general elective can be used to satisfy this requirement.