Statistics

Department Information

- **Department Location:** Morrill Hall
- **Department Phone:** 701-231-7532
- **Department Email:** ndsu.stats@ndsu.edu
- **Department Web Site:** www.ndsu.edu/academics/programs/
- **Credential Offered:** B.S., B.A.
- **Plan Of Study Sample:** bulletin.ndsu.edu/programs-study/undergraduate/statistics/

Major Requirements

Major: Statistics

Degree Type: B.A. or B.S.
Minimum Degree Credits to Graduate: 120

University Degree Requirements

1. Satisfactory completion of all requirements of the curriculum in which one is enrolled.
2. Earn a minimum total of 120 credits in approved coursework. Some academic programs exceed this minimum.
3. Satisfactory completion of the general education requirements as specified by the university.
4. A minimum institutional GPA of 2.00 based on work taken at NDSU.
5. At least 36 credits must be in courses numbered 300 or higher.
6. Transfer Students: Must earn a minimum of 60 credits from a baccalaureate-degree granting or professional institution.
   a. Of these 60, at least 36 must be NDSU resident credits as defined in #7.
   b. Within the 36 resident credits, a minimum of 15 must be in courses numbered 300 or higher and 15 credits in the major field of study.
7. At least 36 credits must be NDSU resident credits. Resident credits include credits registered and paid for at NDSU.

For complete information, please refer to the Degree and Graduation Requirements section of this Bulletin.

University General Education Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Communication (C)</td>
<td></td>
</tr>
<tr>
<td>ENGL 110</td>
<td>College Composition I</td>
<td>12</td>
</tr>
<tr>
<td>ENGL 120</td>
<td>College Composition II</td>
<td></td>
</tr>
<tr>
<td>COMM 110</td>
<td>Fundamentals of Public Speaking</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Upper Division Writing †</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quantitative Reasoning (R) †</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Science and Technology (S) †</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Humanities and Fine Arts (A) †</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Sciences (B) †</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Wellness (W) †</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Cultural Diversity (D) ††</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Global Perspectives (G) ††</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>39</td>
</tr>
</tbody>
</table>
Statistics

* May be satisfied by completing courses in another General Education category.
† General education courses may be used to satisfy requirements for both general education and the major, minor, and program emphases, where applicable. Students should carefully review major requirements to determine if specific courses can also satisfy these general education categories.

- A list of university approved general education courses and administrative policies are available here (http://bulletin.ndsu.edu/academic-policies/undergraduate-policies/general-education/#genedcoursertext).

College Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bachelor of Arts (BA) Degree – An additional 12 credits Humanities and</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Social Sciences and proficiency at the second year level in a modern</td>
<td></td>
</tr>
<tr>
<td></td>
<td>foreign language.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bachelor of Science (BS) Degree – An additional 6 credits in Humanities</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>or Social Sciences</td>
<td></td>
</tr>
</tbody>
</table>

* Humanities and Social Sciences may be fulfilled by any course having the following prefix: ADHM, ANTH, ARCH, ART, CJ, CLAS, COMM, ECON, ENGL, FREN, GEOG, GERM, HDFS, HIST, LA, LANG, MUSC, PHIL, POLS, PSYC, RELS, SOC, SPAN, THEA, WGS, or any course from the approved list of general education courses in humanities and social sciences (general education categories A and B). These credits must come from outside the department of the student’s major.

Major Requirements

A grade of ‘C’ or better is required in ALL courses used toward the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistics Major Requirements</td>
<td></td>
</tr>
<tr>
<td>CSCI 160</td>
<td>Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 222</td>
<td>Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or MATH 270</td>
<td></td>
</tr>
<tr>
<td>MATH 129</td>
<td>Basic Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 165</td>
<td>Calculus I (May satisfy general education category R)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 166</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 265</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>STAT 367</td>
<td>Probability</td>
<td>3</td>
</tr>
<tr>
<td>STAT 368</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>STAT 461</td>
<td>Applied Regression Models</td>
<td>3</td>
</tr>
<tr>
<td>STAT 462</td>
<td>Introduction to Experimental Design (Capstone)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Electives: Select 15 credits from the following (can choose only one</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>CSCI course):</td>
<td></td>
</tr>
<tr>
<td>CSCI 161</td>
<td>Computer Science II</td>
<td></td>
</tr>
<tr>
<td>CSCI 418</td>
<td>Simulation Models</td>
<td></td>
</tr>
<tr>
<td>MATH 329</td>
<td>Intermediate Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>STAT 460</td>
<td>Applied Survey Sampling</td>
<td></td>
</tr>
<tr>
<td>STAT 463</td>
<td>Nonparametric Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 464</td>
<td>Discrete Data Analysis</td>
<td></td>
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<tr>
<td>STAT 467</td>
<td>Probability and Mathematical Statistics I</td>
<td></td>
</tr>
<tr>
<td>STAT 468</td>
<td>Probability and Mathematical Statistics II</td>
<td></td>
</tr>
<tr>
<td>STAT 469</td>
<td>Introduction to Biostatistics</td>
<td></td>
</tr>
<tr>
<td>STAT 470</td>
<td>Statistical SAS Programming</td>
<td></td>
</tr>
<tr>
<td>STAT 471</td>
<td>Introduction to the R Language</td>
<td></td>
</tr>
<tr>
<td>STAT 472</td>
<td>Time Series</td>
<td></td>
</tr>
</tbody>
</table>

Minor Requirement

A minor is required in one of the following disciplines: Social Science, Physical Science, Biological Science, Business, Mathematics, or Computer Science.

Total Credits 65

Program Notes

- Except for courses offered only as pass/fail grading, no course may be taken Pass/Fail.
## Minor Requirements

### Minor: Statistics

#### Standard Track

**Required Credits: 22**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>MATH 165</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 166</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>STAT 331</td>
<td>Regression Analysis</td>
<td>2</td>
</tr>
<tr>
<td>or STAT 461</td>
<td>Applied Regression Models</td>
<td></td>
</tr>
<tr>
<td>STAT 367</td>
<td>Probability</td>
<td>3</td>
</tr>
<tr>
<td>STAT 368</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>STAT 462</td>
<td>Introduction to Experimental Design</td>
<td>3</td>
</tr>
<tr>
<td>STAT Elective</td>
<td>400 Level</td>
<td>3</td>
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<tr>
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<td><strong>Total Credits</strong></td>
<td>22</td>
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</tbody>
</table>

#### Applied Statistics Track

**Required Credits: 17**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>STAT 330</td>
<td>Introductory Statistics</td>
<td>3</td>
</tr>
<tr>
<td>STAT 331</td>
<td>Regression Analysis</td>
<td>2</td>
</tr>
<tr>
<td>STAT Electives</td>
<td>Select 4 department approved 400-level, 3 credit statistics courses.</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

### Minor Requirements and Notes

- A minimum of 8 credits must be taken at NDSU.