## STATISTICS, BS

Requirements for Students Matriculating in or before Academic Year 2017-2018. Learn more about University Academic Regulation 3.1 ([http://catalog.okstate.edu/university-academic-regulations/#matriculation](http://catalog.okstate.edu/university-academic-regulations/#matriculation)).

Minimum Overall Grade Point Average: 2.00

Total Hours: 120

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENGL 1113</td>
<td>Composition I</td>
<td>3</td>
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<tr>
<td>or ENGL 1313</td>
<td>Critical Analysis and Writing I</td>
<td>3</td>
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Select one of the following:

- ENGL 1213 Composition II
- ENGL 1413 Critical Analysis and Writing II
- ENGL 3323 Technical Writing

### American History & Government

- HIST 1103 Survey of American History
- POLS 1113 American Government

### Analytical & Quantitative Thought (A)

- MATH 2144 Calculus I (A)
- MATH 2153 Calculus II (A)

### Humanities (H)

Courses designated (H)

### Natural Sciences (N)

Must include one Laboratory Science (L) course

Courses designated (N)

### Social & Behavioral Sciences (S)

- SPCH 2713 Introduction to Speech Communication (S)

### Additional General Education

Courses designated (A), (H), (N), or (S)

### Hours Subtotal

40

### Diversity (D) & International Dimension (I)

May be completed in any part of the degree plan

Select at least one Diversity (D) course

Select at least one International Dimension (I) course

### College/Departmental Requirements

#### First Year Seminar

- A&S 1111 A&S First Year Seminar (transfer students with 15 hours exempt)

#### Arts & Humanities

See note 2.a.

#### Natural & Mathematical Sciences

- CS 1113 Computer Science I (A)
- CS 2133 Computer Science II
- MATH 2233 Differential Equations
- CS 3513 Numerical Methods for Digital Computers
- CS 4513 Numerical Mathematics: Analysis

#### Foreign Language

See note 3

### Upper-Division General Education

Select 6 hours outside major department

### Hours Subtotal

13

### Major Requirements

Minimum GPA 2.50 with a minimum grade of “C” in each course

#### Section 1

- MATH 2163 Calculus III
- MATH 3013 Linear Algebra
- STAT 4013 Statistical Methods I (A)
- STAT 4023 Statistical Methods II (A)
- STAT 4043 Applied Regression Analysis
- STAT 4091 Sas Programming
- STAT 4203 Mathematical Statistics I
- STAT 4213 Mathematical Statistics II
- STAT 4981 Statistics Capstone I
- or STAT 4991 Statistics Capstone II

#### Section 2

Select 9-18 hours of the following:

- CS 3443 Computer Systems
- CS 3653 Discrete Mathematics for Computer Science
- CS 4323 Design and Implementation of Operating Systems I
- CS 4343 Data Structures and Algorithm Analysis I
- ECON 3113 Intermediate Microeconomics
- ECON 4213 Econometric Methods
- ECON 4223 Business and Economic Forecasting
- FIN 3113 Finance
- FIN 4223 Investments
- FIN 4333 Financial Management
- FIN 4763 Financial Futures and Options Markets
- IEM 3703 Manufacturing and Service Systems and Tools II
- IEM 4013 Introduction to Operations Research
- IEM 4103 Introduction to Quality Control
- IEM 4113 Industrial Experimentation
- IEM 4613 Production Planning and Control Systems
- IEM 4713 Introduction to Systems Simulation Modeling
- MATH 3613 Introduction to Abstract Algebra
- MATH 4013 Calculus of Several Variables
- MATH 4233 Intermediate Differential Equations
- MATH 4453 Mathematical Interest Theory
- MATH 4553 Linear and Nonlinear Programming
- MATH 4663 Combinatorics
- MSIS 3223 Operation Analytics
- MSIS 3233 Management Science - Prescriptive Analytics
- MSIS 3243 Managerial Decision Theory
- MSIS 3393 Advanced Spreadsheet Modeling and Programming
STAT 4463 Multivariate Methods
STAT 5053 Time Series Analysis

Section 3
Select 0-9 hours upper-division related courses 1

Hours Subtotal 9

Electives
Select 26 hours
May need to include 6 hours of a foreign language (see note 3)
May need to include 6 hours upper-division general education outside major department (see note 2.c.)

Hours Subtotal 26

Total Hours 120

1 Total of 18 hours from Sections 2 and 3.

Other Requirements
- See the College of Arts and Sciences Requirements.
- Upper-Division Credit: Total hours must include at least 40 hours in courses numbered 3000 or above.
- Hours in One Department: Hours in one department in excess of 54 will be added to the minimum total of 120 required for graduation.

College of Arts and Sciences Requirements

1. General Education Requirements
No more than two courses (or eight hours) from the major department may be used to meet General Education and College and Departmental Requirements. The General Education required English Composition, required U.S. History, required American Government, one required MATH or STAT course, and required foreign language for B.A. degrees do not count against the two-course maximum.

2. A&S College/Departmental Requirements
a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (A), PHIL 3003 Symbolic Logic (A) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.

b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOL, BIOL, BOT, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.

c. The required six hours of upper-division General Education may not include courses from the student’s major department. This requirement may be satisfied by courses also used to satisfy any part of a student’s degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

d. Non-Western Studies Requirement for B.A. and B.F.A.; One 3-hour course in Non-Western Studies from:

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<thead>
<tr>
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<tr>
<td>AMIS 2013</td>
<td>Introduction to American Indian Studies (D)</td>
<td>3</td>
</tr>
<tr>
<td>AMIS 4013</td>
<td>American Indian Sovereignty (D)</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 3443</td>
<td>Peoples of Mesoamerica (IS)</td>
<td>3</td>
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ANTH 4223 The Aztec Empire (H) 3
ART 3693 Survey of Asian Art (H) 3
ART 3733 History of Latin American Art I 3
ART 4603 History of Ancient Egyptian Art 3
ART 4653 History of Indian Art 3
ART 4663 History of Chinese Art (H) 3
ART 4673 History of Japanese Art 3
ART 4683 Modern and Contemporary Art in Asia 3
ART 4703 Art East and West: Biases and Borrowings 3
ART 4713 The Visual Culture of the Islamic World (HI) 3
ART 4763 Native American Art and Material Culture 3
CHIN 1813 Elementary Chinese II 3
ENGL 2963 Survey of Nonwestern Traditions (HI) 3
ENGL 3183 Native American Literature (DH) 3
ENGL 3190 Readings in Postcolonial and Multiethnic Literature (African Novel) 3
ENGL 4330 Studies in Native American Literature 3-6
FLL 1000 Special Studies in Foreign Languages and Literatures (Arabic 2 & Mvskoke2) 1-10
GEOG 3053 Introduction to Central Asian Studies (IS) 3
GEOG 3733 Russia and Its Neighbors (IS) 3
GEOG 3753 Asia (IS) 3
GEOG 3763 Africa (IS) 3
GEOG 3783 The Middle East (IS) 3
HIST 1713 Survey of Eastern Civilization (H) 3
HIST 3013 Ancient Egypt and Israel (H) 3
HIST 3043 Ancient Mesopotamia: Iraq, Iran & Syria from 4000-333 B.C. (H) 3
HIST 3053 Introduction to Central Asian Studies (IS) 3
HIST 3123 The History of Modern Africa (HI) 3
HIST 3133 African Diaspora History (H) 3
HIST 3153 Russia to 1861 (H) 3
HIST 3163 Russia Since 1861 (HI) 3
HIST 3203 The Medieval World, 500-1500 (H) 3
HIST 3403 East Asia to 1800 (H) 3
HIST 3413 East Asia Since 1800 (HI) 3
HIST 3423 Modern Japan (HI) 3
HIST 3433 Modern China (HI) 3
HIST 3443 Gender Relations in Chinese History (H) 3
HIST 3503 Medieval Islamic History (H) 3
HIST 3513 Modern Middle East (HI) 3
HIST 3523 History of South Asia 1700 - Present (HI) 3
HIST 3543 Israel & Palestine in Modern Times (HI) 3
HIST 3553 Media and Popular Culture in the Arab Middle East (HI) 3
HIST 3583 Minorities and Diversity in the Middle East (H) 3
The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses.

3. Foreign Language Proficiency
   a. The foreign language requirement for the B.A. may be satisfied by 10 hours college credit in the same language, or equivalent proficiency (e.g., passing an advanced standing examination, completing a second-year or higher college-level course in the language, etc.).
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 5 hours college credit in the same language with no grade below C (or pass an advanced standing examination equivalent to 5 hours of college credit).
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 5 hours college credit in the same language with no grade below C (or pass an advanced standing examination equivalent to 5 hours of college credit).

4. Exclusions
   a. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54 hour maximum allowed from one department.
   b. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

5. Teacher Certification
   Students can satisfy the requirements for secondary schools teaching certification while earning a B.A. or B.S. in the College of Arts & Sciences. Those interested should see their Arts and Sciences adviser and the OSU Professional Education Unit in room 325 Willard.

Additional State/OSU Requirements
   • At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
   • Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
   • Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
   • Degrees that follow this plan must be completed by the end of Summer 2023.