STATISTICS: ACTUARIAL SCIENCE, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2024-2025. Learn more about University Academic Regulation 3.1 (http://catalog.okstate.edu/university-academic-regulations/#matriculation).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (http://catalog.okstate.edu/university-academic-regulations/#english-composition)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one from the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Analytical & Quantitative Thought (A)		
MATH 2144	Calculus I (A)	4
MATH 2153	Calculus II (A)	3
Humanities (H)		
Courses designated (H)		6
Natural Sciences (N)		
Must include one Laboratory Science (L) course		
Courses designated (N)		6
Social & Behavioral Sciences (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
ECON 2103	Introduction to Microeconomics (S)	3
Additional General Education		
Courses designated (A), (H), (N), or (S)		3
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		
(Transfer students with 15 hours exempt)		1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CS 1103	Computer Programming (A)	3
or CS 1113	Computer Science I (A)	
CS 2133	Computer Science II	3
or MATH 2233	Differential Equations	
CS 3513	Numerical Methods for Digital Computers	3
or CS 4513	Introduction to Numerical Analysis	
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of '"C" in each course.		
No more than 29 hours from ACCT, BADM, ECON, EEE, FIN, LSB, MGMT, MKTG, MSIS may be applied to the degree.		
Statistics Core Courses:		
MATH 2163	Calculus III	3
MATH 3013	Linear Algebra (A)	3
STAT 4013	Statistical Methods I (A)	3
STAT 4023	Statistical Methods II	3
STAT 4043	Applied Regression Analysis [1]	3
STAT 4193	SAS and R Programming	3
STAT 4203	Mathematical Statistics I	3
STAT 4213	Mathematical Statistics II	3
STAT 4981	Statistics Capstone I	1
or STAT 4991	Statistics Capstone II	
Actuarial Science:		
Select 18 hours from:		18
ACCT 2103	Financial Accounting [1]	
ACCT 2203	Managerial Accounting	
ECON 2203	Introduction to Macroeconomics [1]	
ECON 4213	Econometric Methods [1]	
ECON 4223	Business and Economic Forecasting [1]	
FIN 3113	Finance [1]	
FIN 3613	General Insurance	
FIN 4223	Investments	
FIN 4333	Financial Management [1]	
or FIN 4763	Financial Futures and Options Markets	
STAT 4980	Internship in Statistics (max 3 hours)	
STAT 5053	Time Series Analysis [1]	
Select 6 hours from:		6
ECON 3113	Intermediate Microeconomics	
MATH 4013	Calculus of Several Variables	
MATH 4453	Mathematical Interest Theory	
MGMT 3013	Fundamentals of Management (S)	
or any upper-division AGEC, ECON, FIN.		
Hours Subtotal		**49**
Electives		
Select 18 hours.		18
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.		

MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.

Hours Subtotal	18
Total Hours	120

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Minimum grade of "B" required for the Society of Actuaries' Validation by Educational Experience (VEE) certification.

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.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. 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 required from one department.
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, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). 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 course in Non-Western Studies (N.W.). 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).
   e. 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 applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   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 (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   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 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

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 2030.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
MATH 2144	Calculus I (A)	4

General Education and Elective courses (MSIS 2103 recommended)		11
	Hours	**16**
Spring		
MATH 2153	Calculus II (A)	3
ECON 2103	Introduction to Microeconomics (S)	3
General Education courses		9
	Hours	**15**
Sophomore		
Fall		
MATH 2163	Calculus III	3
STAT 4013	Statistical Methods I (A)	3
ACCT 2003	Survey of Accounting	3
General Education courses		6
	Hours	**15**
Spring		
MATH 3013	Linear Algebra (A)	3
STAT 4023	Statistical Methods II	3
CS 1103 or CS 1113	Computer Programming (A) or Computer Science I (A)	3
FIN 3113	Finance	3
College and Elective courses		3
	Hours	**15**
Junior		
Fall		
STAT 4193	SAS and R Programming	3
CS 2133 or MATH 2233	Computer Science II or Differential Equations	3
3 hours from Actuarial Science courses		3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
STAT 4043	Applied Regression Analysis	3
MATH 4453	Mathematical Interest Theory (Recommended: SOA Exam FM Preparation)	3
Major Elective		3
College and Elective courses		6
	Hours	**15**
Senior		
Fall		
STAT 4203	Mathematical Statistics I	3
CS 3513 or CS 4513	Numerical Methods for Digital Computers or Introduction to Numerical Analysis	3
STAT 4981	Statistics Capstone I (if Grad School bound)	1
3 hours from Concentration		3
Major, College, and Elective courses		5
	Hours	**15**
Spring		
STAT 4213	Mathematical Statistics II	3
STAT 4991	Statistics Capstone II (if Industry bound)	1
3 hours from Actuarial Science courses		3
Major elective		3
Elective courses		4
	Hours	**14**
	Total Hours	**120**