Academic Advisement Report
UGRD.USCNC.STATDSBS
Undergraduate Career
College of Science Program
Statistics and Data Science Major (BS)
Requirement Term: Fall 2019

MAIN Campus at TUCSON Location

By merging modern data science approaches with a solid mathematical background and practical training, the Undergraduate Degree in Statistics and Data Science provides a curriculum that allows students to make significant contributions at the forefront of knowledge across the vast array of activities in government, education, and industry that rely on statistical thinking.

LEARNING OUTCOMES
- Apply methods and concepts from their coursework to analyze data based scientific problems
- Be able to define mathematical and statistical terms precisely
- Critically evaluate and extend statistical models drawn from current scientific literature
- Effectively communicate their results
- Produce effective analyses from data using a variety of computational, mathematical, and statistical approaches
- Recognize when arguments, especially formal statistical procedures and data visualization, are valid, and identify logical flaws

Undergraduate Graduation Requirements

All course work and requirements for this degree must be completed prior to the date the degree is awarded. The University of Arizona requirements to follow in this audit are required for graduation and awarding of the degree.

Curriculum:
1. The University of Arizona and the Arizona Board of Regents have sole discretion over all curricula changes.
2. Courses, programs & requirements may be suspended, deleted, restricted, or changed in any manner, at any time.
3. Students must remain currently informed about all policies & other info that bears on completing a degree.

Required Units:
Additional units will be required to complete this degree if a student:
A) is admitted to the UA with deficiencies;
B) changes their academic plan(s);
C) fails to meet minimum course/plan requirements;
D) ineffectively plans or fails to execute a course of study that leads directly to degree completion; or
E) Candidates for a second bachelor's degree at The University of Arizona with a different award date than the first must earn no fewer than 30 units of University Credit in addition to the units required for the first degree, and must meet all requirements for the second degree.

The following requirements must be met for graduation.

Units Required and Cumulative GPA
120 units are required at a 2.0 GPA. View the pdf report grid for units earned toward this degree and cumulative GPA.

Completing a second bachelor's degree at The University of Arizona requires no fewer than 30 units in addition to the units required for the first degree, and all requirements for the second degree must be met.

Upper Division Units
Not Satisfied: A minimum of 42 units of upper-division credit are required for this degree.
- Units: 42.00 required, 0.00 completed, 42.00 needed

Units in Residence
Not Satisfied: A minimum of 30 units in residence at The University of Arizona (excluding correspondence credit and credit by exam) is required.
- Units: 30.00 required, 0.00 completed, 30.00 needed

Final Units in Residence
A minimum of 18 of the final 30 units taken toward degree requirements must be in residence at The University of Arizona.
Consult with your academic advisor if you plan to use transfer credits to fulfill your degree requirements.

**Correspondence and/or Exam Credit Limit**

*Satisfied:* A maximum of 60 units of Correspondence Credit and/or Exam Credit may apply toward graduation.

- **Units:** 0.00 completed

**Non Degree Seeking Limit**

A maximum of 15 units completed as a non-degree seeking student may be used for fulfilling undergraduate degree requirements. Units exceeding this limit (shown below) must be subtracted from the units required towards the degree and graduation requirements.

**Non-Community College Units**

*Not Satisfied:* Non-Community College Units: While there is no limit to the total number of units of course work that may be transferred from an accredited community college to The University of Arizona, no more than 64 units from a 2-year institution may be applied toward the requirements for a bachelor's degree. Therefore, to reach the required 120 units for a bachelor's degree, a minimum of 56 units must be completed from 1) coursework at a 4-year institution, 2) approved credit by examination (refer to UA Catalog for approved examinations and scores), or 3) any combination thereof.

- **Units:** 56.00 required, 0.00 completed, 56.00 needed

**Success Course Limit**

*Satisfied:* No more than 3 units will apply toward a student's graduation requirements. All Success courses taken can be seen below. Success Course units exceeding the 3 unit maximum must be subtracted from the total units, residency requirements and cumulative grade point average.

**PE Activity Course Limit**

*Satisfied:* No more than 3 units will apply toward a student's graduation requirements. All PE activity courses taken can be seen below. PE Activity units exceeding the 3 unit maximum must be subtracted from the total units, residency requirements and cumulative grade point average.

**Foundation Mathematics**

*Not Satisfied:* Foundation Mathematics

**GE Substantial Math Strand**

*Not Satisfied:* Complete 1 course.

**GE Substantial Math Strand**

*Not Satisfied:* Complete 1 course.

- **Units:** 2.67 required, 0.00 completed, 2.67 needed
Undergraduate General Education and Foundation Requirements

Overall Requirement Not Satisfied: Undergraduate General Education and Foundation Requirements

Foundation Composition

Not Satisfied: Complete 1 of the following 4 Foundation Composition options:
1. 3 Course Foundation Composition Sequence
2. 2 course Foundation Composition sequence
3. Honors Composition with grade of C or higher
4. Honors Composition with a grade of D and Second Semester Composition.

Please note: Students who earn a grade of D in Honors Composition may choose to repeat the course in order to earn a higher grade to satisfy the requirement. Please consult with your major advisor.

Mid-Career Writing Assessment - Complete 2nd semester English Composition with a B grade or higher. Students who do not earn a grade of B or better in 2nd semester English Composition must also satisfy a college or department writing requirement. Consult your major advisor if you do not earn a grade of B in 2nd semester English Composition.

Option 1: Foundation Composition - 3 Course Sequence


- Courses: 3.00 required, 0.00 completed, 3.00 needed

Option 2: Foundation Composition - 2 Course Sequence

Not Satisfied: Complete 2 courses. Complete ENGL 101/107 AND ENGL 102/108

- Courses: 2.00 required, 0.00 completed, 2.00 needed

Option 3: Honors Composition

Not Satisfied: Complete 1 course with a C or better.
- **Courses:** 1.00 required, 0.00 completed, 1.00 needed

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**Courses Available**

ENGL 109H

**Foundation Second Language - Second Semester Proficiency**

Not Satisfied: Credit will not be given for a course at an equivalent or lower level than prior language credit earned. Course must be taken for a grade, not as pass/fail. Third semester or higher courses used to fulfill this requirement may also be used to fulfill other requirements. A grade of C or higher is required in the course that satisfies the second language requirement.

Demonstrate second semester proficiency in a second language by completing a sequence of courses through a second semester or higher level or by passing a language proficiency examination at the second semester level or higher.

**Second Semester Language Course**

Not Satisfied: Complete 1 course with a grade of C or better.


- **Courses:** 1.00 required, 0.00 completed, 1.00 needed

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**Courses Available**

AIS 104B, AIS 307B, ARB 102, CHN 102, CRL 102, FREN 102, FREN 112, GER 102, GRK 102, GRK 104, GRK 112, ITAL 102, ITAL 102Z, JPN 102, JUS 103B, KOR 102, LAS 305A, LAT 102, LAT 112, LING 104B, LING 307B, MENA 103B, PORT 102, PORT 305A, PORT 325A, PRS 102, RSSS 102, SERP 370B, SPAN 102, SPAN 103, SPAN 205, TURK 102

**General Education Tier I**

Overall Requirement Not Satisfied: Complete each of the following areas.

**Tier I Individuals & Societies/150s**

Not Satisfied: Complete 2 courses, 6 units total. Transfer students with quarter system credits may satisfy Tier One requirements with 2 courses and 5.34 units.

- **Units:** 5.34 required, 0.00 completed, 5.34 needed
- **Courses:** 2.00 required, 0.00 completed, 2.00 needed

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Courses Available

(**) (###), AFAS 150B1, ANTH 150B1, ART 150B1, ART 150B2, EAS 150B1, EDP 150B1, ENGL 150B1, ESOC 150B1, FREN 150B1, FSHD 150B1, GWS 150B1, HNRS 150B1, LAS 150B1, MAS 150B1, MIS 150B1, PA 150B1, PHIL 150B1, POL 150B1, RCSC 150B1, RELI 150B1, RSSS 150B1, SOC 150B1, SPAN 150B1, TAR 150D1

Tier I Traditions & Cultures/160s

Not Satisfied: Complete 2 courses, 6 units total. Transfer students with quarter system credits may satisfy Tier One requirements with 2 courses and 5.34 units.

- Units: 5.34 required, 0.00 completed, 5.34 needed
- Courses: 2.00 required, 0.00 completed, 2.00 needed

Courses Available


General Education Tier II

Overall Requirement Not Satisfied: Complete each of the following areas.

Tier II Arts

Not Satisfied: Complete 1 course, 3 units total. Transfer students with quarter system credits may satisfy Tier Two requirements with 2.67 units.

- Units: 2.67 required, 0.00 completed, 2.67 needed
- Courses: 1.00 required, 0.00 completed, 1.00 needed

Courses Available

AFAS 218, AFAS 318, AFAS 371, ANTH 318, ARC 304, ARC 325, ARE 130, ARH 201, ARH 202, ARH 203, ARH 312, ARH 314, ARH 315, ARH 316A, ARH 316B, ARH 319, ARH 320, ARH 321, ARH 322, ARH 324, ARH 325, ARH 329, ART 203, ART 242, ART 282, ART 329, ART 358, CLAS 310, CLAS 329, DNC 100, DNC 101, DNC 112A, DNC 112B, DNC 112C, DNC 143, DNC 144A, DNC 144B, DNC 144C, DNC 152A, DNC 152B, DNC 152C, DNC 175, DNC 176A, DNC 176B, DNC 177C, DNC 177D, DNC 179A, DNC 200, DNC 276A, ENGL 201, ENGL 209, ENGL 210, ENGL 300,
Tier II Humanities

Not Satisfied: Complete 1 course, 3 units total. Transfer students with quarter system credits may satisfy Tier Two requirements with 2.67 units. Prerequisite course work in Tier 1 Traditions and Cultures (TRAD) must be completed prior to taking. If LAT 201 or 202 are used to fulfill Foundation Second Language Proficiency, they cannot be used to fulfill Tier II Humanities.

- Units: 2.67 required, 0.00 completed, 2.67 needed
- Courses: 1.00 required, 0.00 completed, 1.00 needed

Courses Available

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Tier II Individual & Societies

Not Satisfied: Complete 1 course, 3 units total. Transfer students with quarter system credits may satisfy Tier Two requirements with 2.67 units. Prerequisite course work in Tier 1 Individuals and Societies (INDV) must be completed prior to taking.

- Units: 2.67 required, 0.00 completed, 2.67 needed
- Courses: 1.00 required, 0.00 completed, 1.00 needed

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Courses:


Diversity Emphasis Course

Not Satisfied: One course must be taken that focuses on Gender, Race, Class, Ethnicity, Sexual Orientation or Non-Western Area Studies.

Courses used to fulfill this requirement may also be used to fulfill other requirements.

Diversity Emphasis Course

Not Satisfied: General Education Diversity Emphasis Course: Gender, Race, Class, Ethnicity, Sexual Orientation or Non-Western Area Studies.

- Courses: 1.00 required, 0.00 completed, 1.00 needed

Additional Coursework

Courses listed in this section may include general elective credits. UA courses and transferable courses from other institutions. Consult with your advisor to determine if courses listed in this section may be used to fulfill a requirement or sub-requrement in your degree program.
Courses taken for Pass/Fail option can only count as elective credit. They cannot fulfill any General Education, Major, or Minor requirements.

**BS in Statistics and Data Science**

**Overall Requirement Not Satisfied:** BS in Statistics and Data Science

**Statistics and Data Science Laboratory Science Sequence**

**Not Satisfied:** Students must complete a two-semester sequence in a laboratory science. Choose from: Chemistry, Geosciences, Biology, Physiology, or Physics.

Courses used to fulfill this requirement may also be used to fulfill other requirements.

**Option 1. First Semester General Chemistry**

**Not Satisfied:** Complete 4 units from CHEM 141 & 143 or 151 or 161 & 163

- **Units:** 4.00 required, 0.00 completed, 4.00 needed

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**Courses Available**

CHEM 141, CHEM 143, CHEM 151, CHEM 161, CHEM 163, Approved Transfer Course

**AND Option 1. Second Semester General Chemistry**

**Not Satisfied:** Complete 4 units from CHEM 142 & 144 or 152 or 162 & 164

- **Units:** 4.00 required, 0.00 completed, 4.00 needed

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**Courses Available**

CHEM 142, CHEM 144, CHEM 152, CHEM 162, CHEM 164, Approved Transfer Course

**OR Option 2. Geosciences**

**Not Satisfied:** Complete 1 course

- **Courses:** 1.00 required, 0.00 completed, 1.00 needed

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**Courses Available**

GEOS 251
AND Option 2. Geosciences

Not Satisfied: Complete 1 course

- Courses: 1.00 required, 0.00 completed, 1.00 needed

Courses Available

GEOS 302, GEOS 304, GEOS 308, GEOS 322

OR Option 3. Introductory Biology I and II

Not Satisfied: Complete 8 units of lecture and lab

- Units: 8.00 required, 0.00 completed, 8.00 needed

Courses Available

ECOL 182L, ECOL 182R, MCB 181L, MCB 181R

OR Option 4. Human Anatomy and Physiology I and II

Not Satisfied: Complete 8 units

- Units: 8.00 required, 0.00 completed, 8.00 needed

Courses Available

PSIO 201, PSIO 202

OR Option 5. Introductory Mechanics

Not Satisfied: Complete 1 course

- Courses: 1.00 required, 0.00 completed, 1.00 needed
Courses Available

PHYS 141, PHYS 161H

AND Opt 5. Intro Thermodynamics & Optics or Electricity & Magnetism

Not Satisfied: Complete 1 course

- Courses: 1.00 required, 0.00 completed, 1.00 needed

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Courses Available

PHYS 142, PHYS 162H, PHYS 241, PHYS 261H

Statistics and Data Science Application Courses

Not Satisfied: Will appear fully satisfied when student has satisfied 6 units of Application course work.

Courses used to fulfill this requirement may also be used to fulfill other requirements.

Application Courses

Not Satisfied: Complete 6 units

- Units: 6.00 required, 0.00 completed, 6.00 needed

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Courses Available


Statistics and Data Science Supporting Computer Science

Satisfied: Will appear fully satisfied when student satisfies Computer Science requirements.

Courses used to fulfill this requirement may also be used to fulfill other requirements.

Computer Science

Not Satisfied: Complete 1 course

- Courses: 1.00 required, 0.00 completed, 1.00 needed

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Courses Available
CSC 110, ISTA 130

Statistics and Data Science Core Requirements
Overall Requirement Not Satisfied: Will appear full satisfied when student satisfies Calculus I, Calculus II & Vector Calculus, Linear Algebra, Core Courses, and Major Elective.

Calculus I
Not Satisfied: Complete 1 course
- Courses: 1.00 required, 0.00 completed, 1.00 needed

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Courses Available
MATH 122B, MATH 125

Calculus II & Vector Calculus
Not Satisfied: Complete 2 courses
- Courses: 2.00 required, 0.00 completed, 2.00 needed

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Courses Available
MATH 129, MATH 223

Linear Algebra
Not Satisfied: Complete 1 course
- Courses: 1.00 required, 0.00 completed, 1.00 needed

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Courses Available
MATH 310, MATH 313

Core Courses
Not Satisfied: Complete 6 courses
- Courses: 6.00 required, 0.00 completed, 6.00 needed

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Courses Available

DATA 363, DATA 375, DATA 467, MATH 363, MATH 464, MATH 466

Not Satisfied: Complete 1 course

- **Courses**: 1.00 required, 0.00 completed, 1.00 needed

Courses Available

DATA 367, DATA 462, DATA 468, MATH 462, MATH 468, SIE 440

Statistics and Data Science Graduation Requirements

- **Overall Requirement Not Satisfied**: Will appear fully satisfied when student satisfies Mid Career Writing Assessment, Major units, Major GPA, Major Upper Division units, and Major Residency requirement.

Mid Career Writing Assessment

- **Not Satisfied**: Complete 2nd semester English Composition with a B grade or higher. Students who do not earn a grade of B or higher in 2nd semester English Composition must also satisfy a college or department writing requirement. Consult your major advisor if you do not earn a grade of B or higher in 2nd semester English Composition.

- **Courses**: 1.00 required, 0.00 completed, 1.00 needed

Major Units

- **Not Satisfied**: A minimum of 34 units must be completed in the major.

- **Units**: 34.00 required, 0.00 completed, 34.00 needed
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**Major GPA**

**Satisfied:** A minimum 2.0 GPA is required in the major coursework.

- **Units:** 0.00 completed
- **GPA:** 2.000 required, 0.000 completed

**Major Upper Division**

**Not Satisfied:** A minimum of 21 units of upper-division major coursework must be completed.

- **Units:** 21.00 required, 0.00 completed, 21.00 needed

**Major Residency**

**Not Satisfied:** A minimum of 18 units in the pre-major, supporting coursework, professional core, and/or major must be taken at the University of Arizona.

- **Units:** 18.00 required, 0.00 completed, 18.00 needed

**Minor Required**

**Not Satisfied:** A minor outside of the Mathematics Department is required for this major. Consult with your advisor to select a minor or discuss other options such as selecting a second major.