Statistics (B.S.)
College of Sciences
Department of Statistics,
Computer Center II, Room: 212
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Admission Requirements
- None

Degree Requirements
- Students who change degree programs and select this major must adopt the most current catalog.
- Departmental Residency Requirement: at least 15 semester hours of regularly scheduled 3000-4000 level courses must be taken from the UCF Statistics Department.
- Students must earn at least a “C” (2.0) in each course with a STA prefix.
- Students must achieve a minimum 2.0 cumulative GPA in all computer science and mathematics courses satisfying major requirements.
- Students must achieve a minimum cumulative GPA of 2.0 in all courses satisfying major requirements.
- Co-op or internship credit cannot be used in this major.
- Students should consult with a departmental advisor.
- All prerequisites of courses taught within the College of Sciences will be enforced.
- Courses designated in 1 (General Education Program) are generally spread over 4 years, and those designated in 2 (Common Program Prerequisites) are usually completed in the first 60 hours.
- All statistics courses except the following, and those protected by Florida Common Course Numbering must be taken from, or approved by the Statistics Department at UCF.

1. UCF General Education Program (GEP) (39 hrs)
   - Certain courses must be selected in the GEP for this major bringing the total hours to more than 36.
   - A: Communication Foundations (9 hrs)
     - Required：MAC 2311C Calculus with Analytic Geometry I 4 hrs
   - B: Cultural & Historical Foundations (9 hrs)
     - Required：STA 2023 Statistical Methods I 3 hrs
   - C: Mathematical Foundations (7 hrs)
     - Required：STA 3023 Probability and Statistics for Engineers 3 hrs
   - D: Social Foundations (6 hrs)
     - Required：ECO 2013 Principles of Macroeconomics 3 hrs
   - Social Sciences: Select one. 3 hrs
     - Required：ANT 2000 General Anthropology or 3 hrs
     - Required：PSY 2012 General Psychology or 3 hrs
     - Required：SYG 2000 Introduction to Sociology or 3 hrs
   - E: Science Foundations (8 hrs)
     - Required：BSC 2010C Biology I 3 hrs
   - Life Science: 4 hrs
     - Required：BSC 2010C Biology I 4 hrs
   - Physical Science: 4 hrs
     - Required：CHM 2053C College Physics I 4 hrs
2. Common Program Prerequisites (CPP) (11 hrs)
   - See "Common Prerequisites" in the Transfer and Transitions Services section for more information, including some possible substitutes.
   - COP 3223C Introduction to Programming with C 3 hrs
   - MAC 2311C Calculus with Analytic Geometry I 4 hrs
   - MAC 2312 Calculus with Analytic Geometry II 4 hrs
   - MAC 2313 Calculus with Analytic Geometry III 4 hrs
   - STA 2023 Statistical Methods I 3 hrs

Complete two laboratory courses designed for science majors;
- The state of Florida requires Statistics majors to take two laboratory-based science courses designed for science majors. Students must complete 8 credits of the following courses, and depending on what was taken in the GEP, this requirement may already be satisfied.
- Note: both semesters do not have to be in the same subject area.
- Note: depending on which courses were taken in the GEP, this requirement could require between 0 and 8 credits to complete.

Select two semesters within the following;
- See Basic Core for details.

3. Core Requirements: Basic Level
- All courses specifically identified in the preceding Common Program Prerequisites section of this catalog are also required in the Basic Core, and must be taken;
- Core: Required, satisfies the CPP
  - COP 2333C Introduction to Programming with C and CPP
  - MAC 2311C Calculus with Analytic Geometry I and CPP
  - Mandatory in the Basic Core, and must be taken;
  - STA 2023 Statistical Methods I and CPP

- and two semesters equivalent within the following:
- These satisfy the requirement for two semesters equivalent of science courses with labs designed for majors.
  - CHM 2045C Chemistry Fundamentals I or CPP
  - CHM 2046C Chemistry Fundamentals II and CPP
  - or complete both

- or an alternate sequence,
- These two semesters only count as one, and are considered as equivalent to the above course.
  - CHM 2040 Chemistry Fundamentals IA and CPP
  - CHM 2041 Chemistry Fundamentals IB and CPP

4. Core Requirements: Advanced Level (40 hrs)
- Complete two laboratory courses designed for science majors;
- The state of Florida requires Statistics majors to take two laboratory-based science courses designed for science majors. Students must complete 8 credits of the following courses, and depending on what was taken in the GEP, this requirement may already be satisfied.
- Note: both semesters do not have to be in the same subject area.
- Note: depending on which courses were taken in the GEP, this requirement could require between 0 and 8 credits to complete.

Select from the following courses;
- See Basic Core for details.

4. Core Requirements: Advanced Level (40 hrs)
- Complete two laboratory courses designed for science majors;
- The state of Florida requires Statistics majors to take two laboratory-based science courses designed for science majors. Students must complete 8 credits of the following courses, and depending on what was taken in the GEP, this requirement may already be satisfied.
- Note: both semesters do not have to be in the same subject area.
- Note: depending on which courses were taken in the GEP, this requirement could require between 0 and 8 credits to complete.

Select from the following courses;
- See Basic Core for details.
5. Restricted Electives (9 hrs)
- Select from upper division or graduate (5000 level), statistics, mathematics, or computer science courses.
- Selected courses in engineering or business may be used but must first be approved by the Statistics Department.
- The following courses cannot be used to satisfy this requirement:
  - MAC 2233 Concepts of Calculus 3 hrs
  - MAC 2253 Applied Calculus 3 hrs
  - MAC 2254 Applied Calculus II 3 hrs
  - MHF 4404 History of Mathematics 3 hrs
All MAE courses

6. Capstone Requirements
- None

7. Foreign Language Requirements
Admissions
- Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.
Graduation
- None

8. Electives
- Select primarily from upper level courses after meeting with a departmental advisor. Courses may be outside the department.
- The following courses from business may be used without prior approval by the Statistics Department.
  - ACG 2021 Principles of Financial Accounting 3 hrs
  - ACG 2071 Principles of Managerial Accounting 3 hrs
  - ECO 2023 Principles of Microeconomics 3 hrs
  - FIN 3403 Business Finance 3 hrs

9. Additional Requirements
- None
10. Required Minors
- None
11. Departmental Exit Requirements
- Students must earn at least a “C” (2.0) in each course with a STA prefix.
- Students must achieve a minimum 2.0 cumulative GPA in all computer science and mathematics courses satisfying major requirements.
- Students must achieve a minimum cumulative GPA of 2.0 in all courses satisfying major requirements.
- Take SOA Exam P (Probability) and report the score to the department.
12. University Minimum Exit Requirements
- A 2.0 UCF GPA
- 60 semester hours earned after CLEP awarded
- 48 semester hours of upper division credit completed
- 30 of the last 39 hours of course work must be completed in residency at UCF.
- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted.
- Complete the General Education Program, the Gordon Rule, and nine hours of Summer credit.

Total Semester Hours Required
- 120
Honors in Major
- None

Related Programs
- Mathematics - Applied Track
- Mathematics Education

Certificates
- None

Related Minors
- Statistics
- Mathematics

Advising Notes
- It is the student’s responsibility to ensure they have satisfied course prerequisites before registering for a class.

Transfer Notes
- Lower division courses do not substitute for upper division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

Acceptable Substitutes for Transfer Courses
- The following substitutions are acceptable for Common Program Prerequisites if taken as part of the AA course work.
  - Computer Science: any COP programming language course will satisfy the CPP. However, the listed course is a prerequisite for Computer Sciences courses and still may need to be taken.
  - Biology: any 2 laboratory courses for majors with BSC, CHM, or PHY prefixes will satisfy the CPP. However, the listed biology courses are also a core requirement and will need to be taken.
  - Statistics: although any STA 2XXX course will satisfy the CPP, the listed course is required in the program’s core and will still need to be taken.

Plan of Study (120 hrs)
- This is one of numerous possible plans of study.
- See program description for all requirements. Consult a departmental advisor for alternate, new or more appropriate selections.
- Prior to enrolling in Chemistry, take Chemistry Placement Test ~ http://knightsource.sdes.ucf.edu/placement
- Prior to enrolling in Math, take Math Placement Test ~ http://ultc.sdes.ucf.edu
- Although all classes are listed as being taken during the academic year, you may be required to complete 9 hours of them during the Summer. Consult with an advisor to determine if you are exempt.

Freshman Year - Fall
- MAC 2311C Calculus with Analytic Geometry I 4 hrs
- STA 2023 Statistical Methods I 3 hrs
- ENC 1101 Composition I 3 hrs
- GEP 3 hrs

Freshman Year - Spring
- MAC 2312C Calculus with Analytic Geometry II 4 hrs
- BSC 2010C Biology I 4 hrs
- ENC 1102 Composition II 3 hrs
- Select one course:
  - CHM 2045C Chemistry Fundamentals I or 4 hrs
  - PHY 2053C College Physics I 4 hrs

Sophomore Year - Fall
- MAC 2313C Calculus with Analytic Geometry III 4 hrs
- STA 4163 Statistical Methods II 3 hrs
- ECO 2013 Principles of Macroeconomics 3 hrs
- GEP 3 hrs

Sophomore Year - Spring
- STA 4164 Statistical Methods III 3 hrs
- COP 3223C Introduction to Programming with C 3 hrs
- Core Course 3 hrs
- Core Course 4 hrs

Junior Year - Fall
- STA 4321 Statistical Theory I 3 hrs
- Restricted Elective 3 hrs
- Restricted Elective 3 hrs
- Core Course 3 hrs
- Core Course 3 hrs

Junior Year - Spring
- STA 4322 Statistical Theory II 3 hrs
- Core Course 3 hrs
- Free Elective 3 hrs
- Elective / Minor 3 hrs
- Elective / Minor 3 hrs
### Senior Year - Fall 15 hrs
- STA 4102 Computer Processing of Statistical Data 3 hrs
- COT 4500 Numerical Calculus 3 hrs
- ENC 3241 Writing for the Technical Professional 3 hrs
- Core Course 3 hrs
- Elective / Minor 3 hrs
- Take SOA EXAM P (Probability).

### Senior Year - Spring 15 hrs
- GEP 3 hrs
- GEP 3 hrs
- Elective / Minor 3 hrs
- Elective / Minor 3 hrs
- Elective / Minor 3 hrs

**Program Academic Learning Compacts**
- Program Academic Learning Compacts (student learning outcomes) for undergraduate programs are located at:
  
  http://www.oeas.ucf.edu/alc/academic_learning_compacts.htm