

**Program:** Data Science **Dept:** Mathematics and Statistics/Computer Science  
**Major:** Data Science **College:** Mathematics and Science  
**Degree:** Master of Science (M.S.) **Major Code:** 6690

**Data Science, M.S.**

This program is designed to prepare students for positions in a Data Science career in industry and/or prepare highly competent students for continuing graduate school in a Ph.D. program. The curriculum is designed such that more advanced students have the option to undertake independent research as a part of a thesis or graduate project, and students seeking industry experience can earn credit by completing an internship.

**Graduate Advisor (Math):** Dr. Brittany Bannish  
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**Graduate Advisor (Comp. Sci.):** Dr. Myung-Ah Park  
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**Admission Requirements**

Submit the following items to:

Jackson College of Graduate Studies  
 100 N. University Drive, NUC 404  
 Edmond, OK 73034

- Online application for admission ([www.uco.edu/graduate/](http://www.uco.edu/graduate/)).
- Official copies of undergraduate and graduate transcripts from each institution attended with all degrees posted. All transcripts must be from accredited institutions. Undergraduate transcripts must show:
  - A minimum 3.0 GPA overall or 3.0 GPA in the last 60 hours attempted.\*
  - Completion of the following prerequisite courses: Matrix Algebra or Linear Algebra, Statistical Methods I, and Data Structures and Algorithms, and an upper-division 00 design and programming course with design patterns.
- Request for conditional admission may be made by students having an overall undergraduate GPA of at least 2.50 or at least 2.25 with five years of experience in the discipline since the date of their first bachelor's degree.
- The GRE exam is not required, but a minimum combined verbal and quantitative score of 300 is recommended.
- Students with a native language other than English must submit evidence of English language proficiency.

*\*Students falling below these standards may qualify for conditional admission. See [Admissions to Graduate Studies \(p.17\)](#).*

**Other Requirements**

- Plan of Study. Each student must file a plan of study with their graduate advisor and the Jackson College of Graduate Studies by the end of the first semester of graduate work. The plan must be signed and dated by the student and the graduate advisor before it can be considered official.
- Academic Standards. Meet the following course work standards:
  - Minimum cumulative graduate GPA of 3.00 in all graduate courses.
  - No more than six (6) graduate credit hours of C or lower grades.
  - Courses with a grade lower than a C do not apply toward graduation.

- No more than six (6) advisor-approved hours from traditional correspondence courses.
- Apply for graduation through the Jackson College of Graduate Studies by the advertised deadline.
- Thesis (optional). If applicable, complete an acceptable thesis and successfully defend it in public. Submit two paper copies of the thesis and one electronic copy to the library through Proquest and the thesis' original title page, original signature page, summary and abstract page to the JCGS.

**Graduation Requirements**

**Required Courses.....24 Hours**

| Course Prefix | Course No. | Course Title                        |
|---------------|------------|-------------------------------------|
| CMSC          | 5033       | Concepts of Artificial Intelligence |
| CMSC          | 5043       | Applications Database Systems       |
| CMSC          | 5283       | Software Engineering I              |
| CMSC          | 5143       | Algorithms for Machine Learning     |
| STAT          | 5213       | Applied Regression Analysis         |
| STAT          | 5263       | Computer Applications in Statistics |
| STAT          | 5413       | Data Visualization and Exploration  |
| STAT          | 5533       | Data Mining & Statistical Learning  |

**Guided Electives Hours .....9 Hours**

From MATH or STAT Courses ..... 3-6 Hours  
 From CMSC or SE Courses ..... 3-6 Hours

**Thesis, Graduate Project, Internship, or Additional Course Work 3 Hours**

| Course Prefix | Course No. | Course Title                              |
|---------------|------------|---|
| CMSC          | 5990       | Graduate Thesis, <b>OR</b>                |
| STAT          | 5990       | Graduate Thesis, <b>OR</b>                |
| CMSC          | 5980       | Graduate Project, <b>OR</b>               |
| STAT          | 5980       | Graduate Project, <b>OR</b>               |
| CMSC          | 5950       | Internship in Computer Science, <b>OR</b> |
| STAT          | 5950       | Internship in Statistics, <b>OR</b>       |
| CMSC          | 5XXX       | Graduate CMSC Course, <b>OR</b>           |
| SE            | 5XXX       | Graduate SE Course, <b>OR</b>             |
| STAT          | 5XXX       | Graduate STAT Course, <b>OR</b>           |

**TOTAL HOURS REQUIRED..... 36 HOURS**

In the event that a student in this program is a UCO graduate who has already taken classes required for the program, the departmental graduate advisor will select appropriate substitution courses to avoid duplication.