Statistics, PhD

Academic Plans

Sample Plan of Study
Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Statistics, PhD

Data Science Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td><strong>Academic Career</strong></td>
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<tr>
<td>Any Semester</td>
<td>76 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website.</td>
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**First Year**

**Fall**
- STAT:5090 ALPHA Seminar 1
- STAT:5100 Statistical Inference I 3
- STAT:5200 Applied Statistics I 4
- STAT:5400 Computing in Statistics 3

**Hours** 11

**Spring**
- STAT:5101 Statistical Inference II 3
- STAT:5120 Mathematical Methods for Statistics 3
- STAT:5201 Applied Statistics II 3

**Hours** 9

**Second Year**

**Fall**
- Written Exam b
- Creative Component c, d
- STAT:6300 Probability and Stochastic Processes I 3
- STAT:6990 Readings in Statistics e 1
- STAT:7100 Advanced Inference I 3
- STAT:7200 Linear Models 4

**Hours** 11

**Spring**
- Present Creative Component f
- STAT:4580 Data Visualization and Data Technologies 3
- STAT:6220 Statistical Consulting 3
- STAT:6990 Readings in Statistics e 1
- STAT:7400 Computer Intensive Statistics 3

**Hours** 10

**Third Year**

**Any Semester**
- Identify dissertation advisor, dissertation topic, and dissertation committee

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<tr>
<td><strong>Fall</strong></td>
<td><strong>Comprehensive Exam</strong> g</td>
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- STAT:4540 Statistical Learning 3
- STAT:7990 Reading Research h 4
- Concentration Area course i 3

**Hours** 10

**Spring**
- DATA:7350 High-Dimensional Probability for Data Science 3
- STAT:7500 Statistical Machine Learning 3
- STAT:7990 Reading Research h 2

**Hours** 10

**Fourth Year**

**Fall**
- STAT:7990 Reading Research h 3
- Concentration Area course i 3

**Hours** 6

**Spring**
- Prospectus Defense j
- STAT:7990 Reading Research h 3

**Hours** 3

**Fifth Year**

**Fall**
- STAT:7990 Reading Research h 3

**Hours** 3

**Spring**
- STAT:7990 Reading Research h 3
- Final Exam k

**Hours** 3

**Total Hours** 76

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a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Written two-part exam to fulfill the master's final exam requirement; taken prior to start of second year fall semester classes.
c Satisfactorily complete the creative component requirement draft by the end of the semester.
d Students must complete a creative component that is related to their application and career interests. It entails writing an 8-15 page report on a suitable topic, under an advisor's supervision with two consecutive 1 s.h. enrollments in STAT:6990, normally during the fall and spring semesters of the second year.
e Two consecutive enrollments are required.
f The creative component requirement must be completed and presented by mid-spring; the paper is then presented orally in a public seminar.
g Typically completed at the beginning of the third year, the comprehensive examination consists of both written and oral components in two of the following four areas: statistical inference, linear models, probability, and statistical computing. See the General Catalog and the department website for specifics.
h Students must complete at least 18 s.h. of Reading Research credit.
i Students must complete a minimum of two courses (6 s.h.) with at least one numbered 7000 or above; see the General Catalog for list of approved courses. Work with faculty advisor to determine appropriate coursework and sequence.
jk Within 18 months of passing the comprehensive exam, students typically present a written and oral prospectus to their PhD committee. See the General Catalog and department website for specifics.
k Dissertation defense.