### Statistics, Ph.D.

#### 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, Ph.D.

#### Data Science Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT:5090</td>
<td>ALPHA Seminar</td>
<td>1</td>
</tr>
<tr>
<td>STAT:5100</td>
<td>Statistical Inference I</td>
<td>3</td>
</tr>
<tr>
<td>STAT:5200</td>
<td>Applied Statistics</td>
<td>4</td>
</tr>
<tr>
<td>STAT:5400</td>
<td>Computing in Statistics</td>
<td>3</td>
</tr>
<tr>
<td>STAT:6300</td>
<td>Probability and Stochastic Processes I</td>
<td>3</td>
</tr>
<tr>
<td>STAT:6990</td>
<td>Readings in Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT:7100</td>
<td>Advanced Inference I</td>
<td>3</td>
</tr>
<tr>
<td>STAT:7200</td>
<td>Linear Models</td>
<td>4</td>
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<tr>
<td>STAT:7500</td>
<td>Statistical Machine Learning</td>
<td>3</td>
</tr>
<tr>
<td>STAT:7990</td>
<td>Reading Research</td>
<td>2</td>
</tr>
</tbody>
</table>

#### Fall
- Comprehensive Exam
- STAT:4540 Statistical Learning 3
- STAT:7990 Reading Research 4
- Concentration Area course 3

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

#### Fourth Year

#### Fall
- STAT:7990 Reading Research 3
- Concentration Area course 3

#### Spring
- Prospectus Defense
- STAT:7990 Reading Research 3

#### Fifth Year

#### Fall
- STAT:7990 Reading Research 3

#### Spring
- STAT:7990 Reading Research 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 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.

*d Satisfactorily complete the creative component requirement draft by the end of the semester.

*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.

j 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.