Course Description

This course provides an overview of the logic and techniques involved in quantitatively analyzing and interpreting empirical data. Methods for displaying data graphically and for describing characteristics of data will be covered in the first part of the course dealing with descriptive statistics. The second part of the course includes topics in elementary probability theory and sampling, forming a basis for techniques of statistical inference. The problem of inference, attempting to make generalizations that go beyond the data at hand, is the focus of the third part of the course.

This is a General Education course in Quantitative or Formal Reasoning. Courses approved in this area have as their primary purpose the development of the analytical powers of the student as they might be exercised in presentation and evaluation of mathematical or other formal symbolic systems. Students will learn and practice methods of statistical reasoning. Students will also learn to evaluate arguments made in the symbolic system embodied in the course and will become familiar with its major concepts and ways of formulating questions.

Course Requirements

- readings (see schedule for textbook chapters)
- exercises and review exercises from textbook (for self study, and for review in discussion sections with the TA; see schedule)
- 3 exams (open book, evenings and Exam Week). See Schedule for dates, times, and locations
- 6 discussion section quizzes (open book, in discussion sections). See Quiz Schedule below for dates.
Discussion Sections

These are scheduled with the course TA for the purpose of answering questions from lectures, reviewing homework problems, and taking quizzes.

Quiz Schedule

<table>
<thead>
<tr>
<th>Quiz</th>
<th>Week</th>
<th>Chapter/Sections</th>
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<tbody>
<tr>
<td>Quiz 1</td>
<td>Sept. 4</td>
<td>Chapters 1-3</td>
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<tr>
<td>Quiz 2</td>
<td>Sept. 18</td>
<td>Chapters 4-6</td>
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<td>Quiz 3</td>
<td>Oct. 9</td>
<td>Chapters 9-11</td>
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<td>Quiz 4</td>
<td>Oct. 23</td>
<td>Chapters 12-13</td>
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<td>Quiz 5</td>
<td>Nov. 13</td>
<td>Chapters 15-16</td>
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<tr>
<td>Quiz 6</td>
<td>Nov. 27</td>
<td>Chapters 17-18</td>
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</tbody>
</table>

Course Grades

- final grades are based on the best five out of six quizzes (5% each, quizzes total = 25%), attendance to the discussion section (5% each), and the three exams (23.33% each, exams total = 70%); any student who receives a combined score of at least 50% correct on all three exams is guaranteed a grade of at least C- in the course

- plus/minus grading will be used

- absence from a quiz or exam must be cleared, by e-mail or in person, with Professor Aloe on or before the exam date

- any student who is absent from a minimum competency or application exam must submit a completed Absence from Class Form to Professor Aloe before being allowed to write a make-up (see [http://registrar.uiowa.edu/absence-class](http://registrar.uiowa.edu/absence-class))

- any unexcused absence from a quiz or exam will result in a score of zero with no opportunity for a make-up

Texts


1 available at UI Bookstore
Attendance and Assigned Exercises

- students are expected to attend all lectures; attendance will be taken
- this is a 3-semester-hour course; therefore, students are expected to spend (on average) 6 additional hours of outside work per week (not including exams), for a total of 9 hours per week if lecture time is included
- students needing extra help are encouraged to attend discussion sessions and utilize TA office hours
- students are expected to do the assigned exercises that are specified in ICON for each section

Attendance and Assigned Exercises

- the final examination schedule for each class is announced around the fifth week of the semester by the Registrar
- this is a 3-semester-hour course; therefore, students are expected to spend (on average) 6 additional hours of outside work per week (not including exams), for a total of 9 hours per week if lecture time is included
- discussion section attendance is compulsory
- students are expected to answer all questions in the exercises and review exercises of the text chapters included in the schedule

Policy Regarding Religious Holy Days

- in order to advance religious diversity on campus, the University makes reasonable accommodations for students whose religious holy days coincide with their classroom assignments and exams
- I am prepared to make reasonable accommodations to exam schedules and classroom attendance expectations in a manner which is consistent with the University Policy on Human Rights
- a statement on religious diversity and the University calendar is provided at [http://registrar.uiowa.edu/religious-holidays](http://registrar.uiowa.edu/religious-holidays)

Students with Disabilities

- I would like to hear from anyone who has a disability which may require some modification of seating, testing, or other class requirements so that appropriate arrangements may be made
- please see me after class or during my office hours
- the Student Disability Services website is at [http://sds.studentlife.uiowa.edu/](http://sds.studentlife.uiowa.edu/)
Academic Misconduct

- plagiarism and cheating may result in grade reduction and/or other serious penalties
- a complete policy description is provided in [http://www.education.uiowa.edu/dean/policies/student-academic-misconduct.aspx](http://www.education.uiowa.edu/dean/policies/student-academic-misconduct.aspx)

Student Complaints Concerning Faculty Actions

- a student who has a complaint is responsible for following the procedures described in [https://www.education.uiowa.edu/dean/policies/cross-enrollment](https://www.education.uiowa.edu/dean/policies/cross-enrollment)

Sexual Harassment

- The University of Iowa policy on sexual harassment can be found at [http://www.uiowa.edu/~eod/policies/sexual-harassment-guide/index.html](http://www.uiowa.edu/~eod/policies/sexual-harassment-guide/index.html) and [http://www.sexualharassment.uiowa.edu/policy.php](http://www.sexualharassment.uiowa.edu/policy.php)