Course Instructor
Professor Barron
Address: 224-A1 LC (South)
Phone: 319.335.5425
Email: sbarron@uiowa.edu

Online (or In-Person) Office Hours
MWF 10:30 – 11:30 am
Other times, by arrangement

Course Site
Log onto http://myui.uiowa.edu
using your Hawk ID and password,
then choose ICON

Academic Course Home
CLAS (College of Liberal Arts and Sciences)
DEO: Joseph Lang
Phone: (319) 335-0712
Email: joseph-lang@uiowa.edu

Course Description
This course provides an overview of the logic and techniques involved in statistics. For most of the semester, we will be discussing real research from fields such as neuroscience, health science, social science, and business. This course will help you

• Use the power of simple summaries of data.
• Use, create, and evaluate data visualizations.
• Explore methods to quantify the degree of the relationship between variables.
• Develop an understanding of the foundational concepts of statistical inference.
• Use inferential statistics to uncover new knowledge in a world filled with variability.
• Evaluate research for common statistical flaws and misstatements.
• Understand and be able to recognize common misunderstanding involving statistical information.

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 exercised in the presentation and evaluation of mathematical or other formal systems. Students learn and practice methods of statistical reasoning. Students also learn to evaluate statistical arguments and become familiar with the major concepts and ways of formulating questions embodied in the field of data analysis.
Students interact with the course material using videos, reading assignments, spreadsheets, and online assessments. Our focus is on conceptual understanding, practical skills, and enhanced statistical reasoning ability. Although math is used in this course, more focus is devoted to developing students’ comprehension and reasoning faculties.

**Course Materials**
We will be using ICON Direct this semester. This means that the course material (readings, practice exercises) is available in our ICON course site. To access the course textbook, click on “Unizin Engage” in the Course Navigation. You may opt out of this content, but the consequences of doing so may affect your outcomes in this course.

- You will lose access to any additional content your instructor might add to the eTextbook, such as links to other content; additional supplemental resources; and highlights, annotations, and any study tips your instructor may add to guide your engagement and learning in the course.
- You risk falling behind in the course if you have not acquired alternate versions of the same materials prior to the first day of the class.
- Faculty are not responsible for providing you with alternative materials or waiving course/class requirements.

**Grading Criteria**
Final course grades are based on your accomplishments in the following areas:

<table>
<thead>
<tr>
<th>Items</th>
<th>% of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion Forum (12, drop lowest)</td>
<td>30%</td>
</tr>
<tr>
<td>Quizzes (12, drop lowest)</td>
<td>20%</td>
</tr>
<tr>
<td>Exams (4, replace lowest w/ final)</td>
<td>50%</td>
</tr>
</tbody>
</table>

There are occasional opportunities to earn bonus points, called experience points (XP). Watch for these!

Final course grades are assigned as follows:

98-100 % A+  85-90% B+  70-74% C+  55-59% D
94-98% A  80-85% B  65-69% C  Below 55% F
90-94% A-  75-80% B-  60-64% C-

If your score is at a cut point when rounded to the tenths place, you will receive the higher grade. For example, 89.9545 would round to 90.0 and would result in an A-.
Course Structure

This web-based course is offered as a one-term instructor-paced course. We will not meet as a class, however we do have assignments, quizzes, and exams with set due dates.

Students login to the course site on ICON to access the course materials (syllabus, assignments, schedules), and the discussion forum. For details on the course assignments and activities, see the “Course Work” section of this syllabus. Course content consists of the textbook and materials on ICON.

Students are expected to visit the course site regularly to:

- Access the course “Announcements” and/or “Calendar”;
- Access assigned course videos, reading assignments, and practice exercises;
- Participate in the “Discussion” forum.

Course Work

Discussion Forum (12, drop lowest):

Each week, other than exam weeks, there will be a graded discussion assignment consisting of two parts. Part 1 involves creating your own post. Part 2 involves interacting with other students about the content.

Most discussion forums involve posting a 4-6 minute screen recording explaining or demonstrating a concept. Topics relate to the assigned textbook chapters and course videos, and frequently involve the use of EXCEL.

The discussion forum can be accessed via “Discussions” in the Course Menu. Your original post is due by Thursday and all comments and fixes are due on Sunday.

Quizzes (12, drop lowest):

Each week, other than exam weeks, there is a graded quiz. The quizzes are open-book and open-note. However, they are not collaborative. You are expected to do your own work on the quizzes.

The quiz will be available under “Quizzes” in the Course Menu on Friday of each week and are due by midnight on Sunday.

Exams (3 midterms, 1 final, Option to replace lowest midterm with final exam):

The largest piece of your grade is based on four exams, spaced evenly throughout the course schedule. Each exam is worth 12.5% of your grade. The exams have 50-60 items – of which roughly 60% are multiple choice. You have a 2-hour window to complete the exam -- Time to finish is not typically an issue.
Exams are closed book. You are allowed to bring a calculator (any calculator is fine as long as it is not capable of connecting to the Internet\(^1\)), any statistical tables needed (normal, t, chi-square), and one page of notes (8 ½ x 11 double-sided, handwritten or typed). For the final exam, you may use two pages of notes.

Your overall exam score makes up 50% for your grade in the class. However, to limit the penalty for a single bad test score, you can replace your lowest midterm score with your score on the final exam\(^2\).

In other words, if you do better on the comprehensive final exam than you did on your lowest midterm exam, the final exam score will replace the lowest exam score. See the tables below for the implications of this rule.

**Without Replacing the Lowest Midterm Score**

<table>
<thead>
<tr>
<th>Student</th>
<th>Exam 1</th>
<th>Exam 2</th>
<th>Exam 3</th>
<th>Final Exam</th>
<th>Overall Exam Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joe</td>
<td>55%</td>
<td>65%</td>
<td>85%</td>
<td>75%</td>
<td>70%</td>
</tr>
<tr>
<td>Sarah</td>
<td>75%</td>
<td>70%</td>
<td>70%</td>
<td>65%</td>
<td>70%</td>
</tr>
</tbody>
</table>

**Replacing the Lowest Midterm Score**

<table>
<thead>
<tr>
<th>Student</th>
<th>Exam 1</th>
<th>Exam 2</th>
<th>Exam 3</th>
<th>Final Exam</th>
<th>Adjusted Exam Average*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joe</td>
<td>55%-75%</td>
<td>65%</td>
<td>85%</td>
<td>75%</td>
<td>75%</td>
</tr>
<tr>
<td>Sarah</td>
<td>75%</td>
<td>70%</td>
<td>70%</td>
<td>65%</td>
<td>70%</td>
</tr>
</tbody>
</table>

In the case of Joe, his first midterm was lower than his final exam score so the final exam score replaced his Exam 1 score, changing his exam average to 
\[(75+65+85+75)/4 = 75.\]

In the case of Sarah, her final exam score was the lowest exam score, so no exam score was replaced and her adjusted average is identical to the overall average.

**Note:** Eligibility for this adjustment requires that the student take all four exams as scheduled. Skipping an exam without a valid excuse will result in a 0 that is not eligible for replacement!

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\(^1\) Calculators on cell phones are NOT allowed.

\(^2\) You cannot replace your final exam score.
Course Schedule

This is an instructor-paced course (see weekly schedule below). Although we will not meet as a group in a physical classroom, we will progress through the course materials as a class. For this reason, you must manage your time effectively in order to participate in the discussion forums and submit the quizzes according to the firm deadlines listed on the course calendar. The course is divided into four units, each of which lasts four weeks.

The schedule follows the same structure for each unit.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Module</th>
<th>Week</th>
<th>Dates</th>
<th>Chapters</th>
<th>Uses Material from Chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1/14 – 1/20</td>
<td>1, 2, 3</td>
<td></td>
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<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>1/21 – 1/72</td>
<td>4, 5</td>
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<td></td>
<td>3</td>
<td>3</td>
<td>1/28 – 2/3</td>
<td>6</td>
<td></td>
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<td></td>
<td>4</td>
<td>2/4 - 2/8</td>
<td>Exam I (2/7-2/8)</td>
<td></td>
<td></td>
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<td>2</td>
<td>5</td>
<td>5</td>
<td>2/11 – 2/17</td>
<td>7, 8</td>
<td>1</td>
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<tr>
<td></td>
<td>6</td>
<td>6</td>
<td>2/18 – 2/24</td>
<td>10</td>
<td>1-5</td>
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<tr>
<td></td>
<td>7</td>
<td>7</td>
<td>2/25 – 3/3</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>3/4– 3/8</td>
<td>Exam II (3/7-3/8)</td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>9</td>
<td>9</td>
<td>3/11 – 3/17</td>
<td>12, 13</td>
<td>5, 10, 11</td>
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<td></td>
<td>10</td>
<td>10</td>
<td>3/25 – 3/31</td>
<td>14, 15</td>
<td>10, 11</td>
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<td></td>
<td>11</td>
<td>11</td>
<td>4/1 – 4/7</td>
<td>16</td>
<td>15</td>
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<td></td>
<td>12</td>
<td>4/8 – 4/12</td>
<td>Exam III (4/11-4/12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>13</td>
<td>13</td>
<td>4/15 – 4/21</td>
<td>17, 18</td>
<td>6</td>
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<tr>
<td></td>
<td>14</td>
<td>14</td>
<td>4/22 – 4/28</td>
<td>19</td>
<td>6, 7, 8</td>
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<tr>
<td></td>
<td>15</td>
<td>15</td>
<td>4/29 – 5/5</td>
<td>20</td>
<td>6, 7, 8</td>
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<tr>
<td></td>
<td>16</td>
<td>5/6 – 5/10</td>
<td>Final Exam (5/9-5/10)</td>
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Course and University Policies

As a registered student in a Continuing Education course through The University of Iowa, you are responsible for the course and university policies posted below.

Exam Logistics:
- This course requires a proctored examination.
  - Local students will take the exam in the UI Test Center.
  - Distance students may take exams using an online proctoring service. Access to a computer with a webcam and microphone in a quiet/private location is required if using an online proctoring service to complete exams. See the Exam Information page-located in the left navigation bar in ICON-for further instructions.
- Information regarding exam registration, scheduling, and policies will be available under “Exam Information” in the Course Menu.
- Both local and off-campus students will access and complete their exams via ICON. During the examination, the proctor will release the exam in ICON for completion.
- Questions should be directed to Distance and Online Education (doe-exams@uiowa.edu).

Email & Communications: Email is the official method of communication for this course. Students can expect to receive weekly communications from the instructor (via email) introducing assigned course-work. I will send email to students’ University email address. If you do not check your UI email frequently, you may want to set it up so that course-related email is forwarded to your preferred email address.

Assignment Format: All assignments are accessed via ICON.

Due Dates and Missed Deadlines: All due dates are listed in the course schedule and available in the ICON calendar. Posting to the discussion board closes at 11:59 pm on Sundays — no submissions are possible after that. Quizzes may be submitted late, but there is a 10% penalty for any submission after the due date. The penalty increases for quizzes submitting more than 1 day late and/or for students who chronically submit quizzes late.

Netiquette: The term “netiquette” refers to the do’s and don’ts of online communication. As it applies to this online course, it is my expectation that students will communicate effectively and respectfully with each other, the instructor, and any guest speakers (if applicable).
Media/System Requirements

Technical requirements for completing University of Iowa online classes require a student-provided personal computer.

Sufficient technology and Internet access is required to complete online classes when you take a course at The University of Iowa.

While tablets, smartphones, and other mobile devices may allow for some completion of coursework, they are not guaranteed to work in all areas. Please ensure you have a Windows or Mac based computer available to complete coursework in the event your selected mobile device does not meet the needs of the course.

Listed below are the media/system requirements applicable to this course:


- The latest version of Adobe Reader and the Microsoft Silverlight Player must be installed in your computer in order to access course materials posted on ICON, such as the pre-recorded lectures and lesson study guides.

- Computer with broadband access (desktop or laptop vs. tablet or smartphone). A wired Ethernet connection to the internet is very strongly suggested. Wireless, or cellphone data, connections may experience connection problems. Android and iOS operating systems are not fully supported at this time.

Students who need assistive technologies will have different computer and technology requirements. Please check with your Student Disability Services to determine the requirements for the specific technologies needed to support your online classes.

For questions, with virtual classrooms (i.e. Zoom) or UICapture (Panopto), please contact Distance and Online Education Support (319-335-3925).

Need help with ICON or your HawkID? Please contact the ITS Helpdesk (319-384-HELP).
University Policies:

**Special Modifications:** Subsequent to course enrollment, students needing accommodations should register with **Student Disability Services**, 3100 Burge Hall, (319) 335.1462, and obtain a Student Academic Accommodation Request (SAAR) form. The form will specify what course accommodations are judged reasonable for that student. The Division of Continuing Education is committed to both Section 504 of the Rehabilitation Act of 1973 and Section 508 of the Workforce Investment Act of 1998.

**Academic Misconduct:** All forms of plagiarism and any other activities that result in a student presenting work that is not his or her own are academic fraud. All academic fraud is reported to the departmental DEO and then to the Associate Dean for the Office of Academic Programs and Student Development. All incidents of academic misconduct (plagiarism and cheating) will be subject to the rules and regulations of the College of Liberal Arts and Sciences as defined and stated in section IX of the Academic Policies Handbook ([http://clas.uiowa.edu/students/handbook](http://clas.uiowa.edu/students/handbook)).

**Understanding Sexual Harassment:** Sexual harassment is reprehensible and will not be tolerated by the University. It subverts the mission of the University and threatens the well-being of students, faculty, and staff. Visit this site ([http://www.sexualharassment.uiowa.edu/](http://www.sexualharassment.uiowa.edu/)) for definitions, assistance, and the full University policy.

**Complaint Procedures:** If at any time you have concerns about this class or your performance in it, please do not hesitate to contact me. If you do not feel that your concern has been resolved satisfactorily, you may contact the Department Chair (contact information provided at the top of page one of this syllabus). If you still do not feel that your concern has been resolved satisfactorily, you may contact the College of Liberal Arts and Sciences Office of Academic Programs and Student Development, 120 Schaeffer Hall, (319) 335-2633, clasps@uiowa.edu. All complaints must be made within six months of the incident. The College’s complaint procedures are in section IX of the Academic Policies Handbook ([http://clas.uiowa.edu/students/handbook](http://clas.uiowa.edu/students/handbook)).

**Administrative Home of the Course:** The administrative home of this course is the College of Liberal Arts and Sciences, which governs academic matters relating to the course such as the add/drop deadlines, the second-grade-only option, issues concerning academic fraud or academic probation, and how credits are applied for various graduation requirements. Different colleges might have different policies. If you have questions about these or other CLAS policies, contact your academic advisor or the Office of Academic Programs and Student Development, 120 Schaeffer Hall, (319) 335-2633, clasps@uiowa.edu. The CLAS Academic Policies Handbook also contains important CLAS academic policy: [http://clas.uiowa.edu/students/handbook](http://clas.uiowa.edu/students/handbook).