Learning statistics is like learning a language – you learn it best by using it actively.

STAT 226 Sections A, B, C, D, E, F, G, XW
Introduction to Business Statistics

Section D Instructor: Brenna Curley
Office: 3410 Snedecor Hall
Office Hours: TBA
E-mail: curleyb@iastate.edu
Time: TR 2:10 – 3:30 pm
Location: 0210 Bessey

Course Description
The objective of this course is to introduce you to statistical analyses of data and to foundational ideas and concepts of descriptive and inferential statistics. The course will illustrate how, using representative data in a meaningful way, statistics provides the basis for making intelligent business decisions.

Key Course Information at a Glance – additional information provided subsequently

1. Tentative topic schedule and tentative Exam dates
   Exam 1       Thursday, February 19th, 2015       Ch. 1-4, 12-13
   Exam 2       Thursday, April 2nd, 2015          Ch. 14.1, 15-16,
   Final Exam** Tuesday, May 5th, 2015             Cumulative: 1-4, 6, 12-16, 19, 21-22

**The Final Exam is comprehensive. Our Final Exam is scheduled from 12:00 – 2:00 pm on Tuesday, May 5th, 2015. Final Exams cannot be taken early!

2. Extra Credit
   There is no extra credit available in this class. Assignments cannot be made up after deadlines.

3. Class Attendance
   Past semesters have shown that skipping class and not taking notes is the single, most detrimental, cause for poor performance in Stat 226.

4. Communication
   For any communication via email you are always required to email me at curleyb@iastate.edu first. Emails that are sent to other instructors will remain unanswered. In the subject line include the statement “Stat 226, Section D” to guarantee a timely response.

5. Missing an Exam
   If an exam is missed for a legitimate (documentable) reason, a comprehensive make-up exam may be allowed, which is given during the week before the final exam (dead week). A student is allowed to take the comprehensive make-up exam only at the discretion of the instructor and the course coordinator.

6. Gradebook
   The Gradebook in Blackboard will be used to store your grades throughout the semester. Make sure to verify your grade on a regular basis.
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Course Objectives

In a world that has become more and more data driven, information generated by data along with data driven decisions are essential to stay competitive. Successful entrepreneurs (and others) have long known this; here are some of their quotes:

- “You are neither right nor wrong because the crowd disagrees with you. You are right because your data and reasoning are right.” (Warren Buffet)
- “The goal is to turn data into information, and information into insight.” (Carly Fiorina, Former HP CEO)
- “You can have data without information, but you cannot have information without data.” (Daniel Keys Moran, computer programmer and science fiction writer)
- “Data really powers everything that we do.” (Jeff Weiner, LinkedIn CEO)
- “Big data is at the foundation of all of the megatrends that are happening today, from social to mobile to the cloud to gaming.” (Chris Lynch, Former Vertica CEO)
- “I keep saying that the sexy job in the next 10 years will be statisticians, and I'm not kidding.” (Hal Varian, chief economist at Google)
- “If we have data, let’s look at data. If all we have are opinions, let’s go with mine.” (Jim Barksdale, Former Netscape CEO)
- “Data is the new science. Big data holds the answers.” (Pat Gelsinger, EMC)

Sources: 25-greatest-data-quotes; beginnersinvest.about.com

The following objectives are part of developing critical thinking skills that are objective and data driven.

At the metacognitive level:
- Monitor your own mindful and meaningful effort for learning. Develop habits of thinking relevant to the understanding and practice of statistics;
- Work effectively individually and with your peers to accomplish course-required tasks.

At the statistical level:
- Communicate statistical information effectively either formally (in writing) or verbally during classroom discussions;
- Understand what constitute data including common data structures and how to analyze data descriptively using graphical and numerical summaries;
- Distinguish between sample and population and statistic and parameter;
- Learn about the use of probability models in statistics;
- Learn what is meant by inferential statistics;
- Distinguish between descriptive and inferential statistics.

At the application level:
- Apply inferential procedures such as confidence intervals or hypothesis testing to real business data;
- Determine valid conclusions from the applied inferential methods;
- Learn how to describe a linear relationship between two quantitative variables’
- Understand how statistics can be used in your business field to make better decisions.

Next are three more articles on the role of statistics in business. We recommend reading all three (click on the link).

What is the importance of statistics in business?

To increase productivity ups monitors drivers every move

The Importance of Statistics in Management Decision Making
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**Course Expectations**

**Homework Assignments**
- You are expected to submit one homework assignment approximately every 1—2 weeks. Expect a total of 8—10 assignments. You can locate all the homework assignments under the **Homework Assignment** section on Blackboard.
- The majority of each assignment is set up for automated grading but assignments **will also require answers to free response type questions**. These have to be submitted in Blackboard also. **Solutions written on paper or emailed to an instructor will not be graded.**
- For each homework assignment, you have
  - 3 attempts to submit your answers in Blackboard for questions that are graded automatically. Your best score will count towards your grade.
  - 1 attempt to submit your answers for all questions that require free responses. These submissions will not be graded prior the assignment’s due date.
- **Download the pdf version of a homework assignment first and work out your solutions before entering and submitting them online.**
- Due dates for homework assignments are given in the **Course Calendar** and will be **announced in class.**
- All homework assignments have **firm deadlines.**
- We will drop the lowest scoring homework assignment. All scores are based on percentages.

**Reading Quizzes**
- At the end of most chapters, there will be a quiz over major concepts from the chapter. You may take any quiz as many times as you choose; your highest score will count towards the quiz portion of your grade. When appropriate, quizzes will also be given on individual parts of a chapter.
- Instructors will also give **unannounced in-class quizzes** or **assign quiz points for class participation**. These quizzes cannot be made up or taken in advance.
- The maximum number of quiz points you can earn will be set at 80% of the number of quiz points offered. This allows you to **miss up to 20% of the offered quiz points** and still earn the maximum amount of quiz points possible.

**Midterms & Final Exam**
- Exams will be completed during the lecture periods on the assigned dates provided on this syllabus. Exam dates are also on the **Course Calendar.**
- If, for some legitimate reason, you cannot take the exam at the scheduled time and place with the rest of the class, then you need to **contact your instructor** prior to the scheduled exam time to make arrangements. There are no individual make-up exams for Stat 226.
- If an exam is missed for a legitimate (documentable) reason, a **comprehensive make-up exam** may be allowed given during the week before the final exam. A student is allowed to take the comprehensive make-up exam only at the discretion of the instructor and the course coordinator.

**Class Attendance and Note taking**
- You are required to take notes for every class and to bring notes from all prior lectures. **Use a binder – simple, efficient and effective!**
- Notes with blanks to be completed during lectures are available in Blackboard for every module of the course.
- A good portion of class time will be spent practicing newly introduced concepts. To do so you need a completed set of notes. (see first bulletin)
- If you have to miss a class check with a classmate about what you missed and also to obtain a copy of the notes and handouts.
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Required Text and Materials

Access to *Statistics for Business: Decision Making and Analysis*, Stine, Foster, **Second Edition**. Four copies of the text are on reserve in the Parks library. A calculator that is capable of adding, subtracting, multiplying and division.

**Note:** The 1st edition of the book can be used but instructors will only provide page references for the 2nd edition. It is your responsibility to account for any discrepancies between the 1st and the 2nd edition. You are responsible to ensure sufficient time to access a textbook. Failure to submit a homework assignment because you could not get access to a copy of the book is not a legitimate excuse.

**JMP**

JMP is statistical software that will be used for homework assignments. You are responsible for knowing how to use JMP software but can ask for help during office hours. There are also set of instructions under the **JMP Information** link on Blackboard.

A **JMP and a Help Room** are located in Snedecor Hall. **1205 Snedecor** is tentatively scheduled to serve as the Stat 226 Help Room. Adjacent to this room will be the **JMP Help Room in 1207 Snedecor**. Be aware that the TA scheduled to hold office hour might be helping a student in the JMP Help room next door if you cannot find him/her in the Homework Help Room. A schedule with office hours will be posted at the end of the first week on Blackboard. Help will be provided for any questions related to the lecture material, homework problems and JMP. Questions are welcome but serious effort is expected before seeking help.

**Grading**

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<td>Homework Assignments</td>
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<td>Reading Quizzes</td>
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<td>In-class Quizzes</td>
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<td>Midterm Exam 1</td>
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<td>Midterm Exam 2</td>
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<td>Final Exam</td>
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To see your current grades go to the **My Grades** link on Blackboard. **The grading scale will not be determined until after finals**, but you may use the chart below as a conservative estimate of your letter grade based on your overall course percentage:

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<tr>
<th>Letter Grade</th>
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<td>A-</td>
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**Communication with the Instructor**

E-mail is the best way to reach me. I will reply to all e-mails within 24 hours during weekdays, and as soon as possible on weekends.
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Office Hours with the Instructor
Office hours are meant for you to ask me questions regarding the course material and/or homework. Make use of office hours. Office Hours will be posted by the end of week 1 of classes. You can attend all office hours posted regardless of which instructor is holding the office hour.

SI (Supplemental Instruction)
SI sessions will be available for Stat 226. Announcements will be made during the first 2 weeks of the semester.

Tips for Student Success
Research shows that “you can be as smart as you want,” but the amount you will learn depends on the effort you will invest. Students who successfully demonstrate mastery of the student learning outcomes in this class:

- Actively attend class and only miss class due to extenuating circumstances;
- Bring notes provided by instructor to class and take additional notes during lecture;
- Review lectures notes on their own and read recommended texts before completing reading quizzes and homework assignments;
- Complete all assignments;
- Keep a running list of questions and routinely ask them of selves, peers and the instructor;
- Actively practice and do statistics, that is work additional practice problems or rework practice problems from worksheets or homework assignments.

Blackboard Learn for Students at ISU

General Help with Blackboard:
- Blackboard Help: FAQs, Searchable Topics, and Step-by-step Instructions
  - Brief Video Tutorials for Students (http://ondemand.blackboard.com/students.htm)
- Video Tutorials at Lynda.com
  Lynda.com provides several dozen brief video clips to help students get up-to-speed in all of the most frequently used tools, features, and functions of Blackboard Learn. To access the tutorials and files, simply login to Lynda.com (www.lynda.com) with your Iowa State University NetID and password. Once you are on the Lynda.com site, look under the Software menu and select Blackboard.

Basic Troubleshooting (if Bb Learn is not working)
1. If you get an error message, check for Browser and Java Issues on your computer (http://www.celt.iastate.edu/elearning/?page_id=4786).
2. If you are unable to access course content or activities (e.g., Tests, Discussions, Assignments, etc.), contact your instructor.
3. Check general Technology Support for Students (http://www.celt.iastate.edu/elearning/?page_id=141).
4. Contact the Solution Center (http://www.it.iastate.edu/solution/) at 515-294-4000 or solution@iastate.edu.
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**Academic Misconduct**
The class will follow Iowa State University's policy on academic dishonesty. Anyone suspected of academic dishonesty will be reported to the Dean of Students Office and receive a 0 on the assignment. [http://www.dso.iastate.edu/ja/academic/misconduct.html](http://www.dso.iastate.edu/ja/academic/misconduct.html)

**Plagiarism:** Plagiarism is the act of representing directly or indirectly another person’s work as your own. It can involve presenting someone’s speech, wholly or partially, as your; quoting without acknowledging the true source of the quoted material; copying and handing in another person's work with your name on it; and similar infractions. Even indirect quotations, paraphrasing, etc., can be considered plagiarism unless sources are properly cited. Plagiarism will not be tolerated, and students could receive an F grade on the test/assignment or an F grade for the course. The Iowa State University policy for academic misconduct can be found in the Student Disciplinary Regulations.

**Tendering of Information:** Students may not give or sell their work to another person who plans to submit it as his or her own work. This includes giving their work to another student to be copied, giving someone answers to exam question during the exam, taking an exam and discussing its contents with students who will be taking the same exam, or giving or selling a term paper to another student.

**Disability Accommodation**
Iowa State University complies with the Americans with Disabilities Act and Sect 504 of the Rehabilitation Act. If you have a disability and anticipate needing accommodations in this course, please contact me to set up a meeting within the first two weeks of the semester or as soon as you become aware of your need. Before meeting with me you will need to obtain a SAAR form with recommendations for accommodations from the Disability Resources Office, located in Room 1076 on the main floor of the Student Services Building. Their telephone number is 515-294-7220 or email [mailto:disabilityresources@iastate.edu](mailto:disabilityresources@iastate.edu). Retroactive requests for accommodations will not be honored.

**Dead Week**
This class follows the Iowa State University Dead Week guidelines as outlined in [http://catalog.iastate.edu/academiclife/-deadweek](http://catalog.iastate.edu/academiclife/-deadweek)

**Harassment and Discrimination**
Iowa State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, genetic information, or status as a U.S. veteran. Any student who has concerns about such behavior should contact his/her instructor, Student Assistance at 515-294-1020 or email [dso-sas@iastate.edu](mailto:dso-sas@iastate.edu), or the Office of Equal Opportunity and Compliance at 515-294-7612.

**Religious Accommodation**
If an academic or work requirement conflicts with your religious practices and/or observances, you may request reasonable accommodations. Your request must be in writing, and your instructor or supervisor will review the request. You or your instructor may also seek assistance from the Dean of Students Office or the Office of Equal Opportunity and Compliance.

**Contact Information**
If you are experiencing, or have experienced, a problem with any of the above issues, email [academicissues@iastate.edu](mailto:academicissues@iastate.edu).

This syllabus is subject to change.