

Syllabus for STA 2023 - Introduction to Statistics

Summer B 2011 -- ONLINE

1. Instructional Team

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2. General Course Information

THIS COURSE SATISFIES GENERAL EDUCATION CREDITS IN THE MATHEMATICAL SCIENCES. STUDENTS LEARN HOW TO SUMMARIZE DATA AND HOW TO MAKE APPROPRIATE DECISIONS BASED ON DATA. (This course is the general education category of M.)

Course Description

STA 2023 is an introductory course that assumes no prior knowledge of statistics but does assume some knowledge of high school algebra. Basic statistical concepts and methods are presented in a manner that emphasizes understanding the principles of data collection and analysis rather than theory. Much of the course will be devoted to discussions of how statistics is commonly used in the real world. There are two major parts to this course:

I Data – which includes graphical and numerical summaries to describe the distribution of a variable, or the relationship between two variables (chapters 1, 2 and 3), and data production to learn how to design good surveys and experiments, collect data from samples that are representative of the whole population, and avoid common sources of biases (chapter 4.)

II Probability and Inference – using the language of probability and the properties of numerical summaries computed from a random samples (chapters 5, 6 and 7), we learn to draw conclusions about the population of interest, based on our random sample, and attach a measure of reliability to them (chapters 8, 9, 10).

Course Objective

The primary goal of the course is to help students understand how the process of posing a question, collecting data relevant to that question, analyzing data, and interpreting data can help them find answers to real problems from their world.

3. Required Materials

1. **Lab Workbook for Statistics: The Art and Science of Learning from Data—2nd edition**
2. **Statistics: The Art and Science of Learning from Data** by Alan Agresti and Christine Franklin 2nd edition, Pearson, 2009 with **MyStatLab Access Code**.
3. **Scientific Calculator** that has some basic statistical functions: mean and standard deviation. Many inexpensive calculators (around \$10 to \$15) have these functions; check the manual or look for the following symbols: \bar{x} and either s or σ_{n-1} . All of the more expensive graphing calculator have them as well, but it is not necessary to buy one of them for this class.
4. **A Reliable Computer**
 - A reliable computer running Windows XP (or higher) or Mac OS X (or higher).
 - A web cam with 640x480 video pixel resolution or higher.
 - Headphones or working speakers connected to the computer.

- A working microphone connected to the computer. We recommend a web cam that has a built in microphone.
- A web browser with Adobe Flash Player installed. We recommend Flash Player 10.
- A reliable, high-speed internet connection.
- The ability to allow video and screen-sharing connections to the computer you will be using to take your exam.

4. Course Assessment

Assessment	Percent of Grade
Exam 1	30%
Exam 2	30%
Chapter Quizzes (4 in total)	8%
Lesson Quizzes	8%
Small Group Discussion Board Posts	8%
Class Project	8%
Homework Problems	8%

To find your grade, use the following formula.

$$\text{Grade} = (\text{Exam1})/100 * 30 + (\text{Exam2})/100 * 30 + (\text{ChapterQuizzes})/100 * 8 + (\text{LessonQuizzes}/100) * 8 + (\text{SmallGroupDiscussionBoard}/100) * 8 + (\text{ClassProject})/100 * 8 + (\text{HomeworkProblems})/100 * 8$$

5. Possible Grades for the Course

Letter Grade	Grade Points	Percentage of Points Needed
A	4.00	90 to 100%
A-	3.67	88.5 to 89.99%
B+	3.33	84.5 to 88.49%
B	3.00	80 to 84.49%
B-	2.67	78.5 to 79.99%
C+	2.33	74.5 to 78.49%
C	2.00	64.5 to 74.49%
D	1.00	60 to 64.49%
E	0.00	Below 60%

6. Course Websites

A. We will be using the new system, E-Learning (Sakai). This system can be accessed using your gatorlink id and password. For more information on E-learning, go to their homepage at: <http://lss.at.ufl.edu/>.

In E-Learning you will be able to:

- complete the lessons in the course.
- check the announcement home page
- find any updates to the Syllabus
- check the calendar for upcoming quiz, exam or lab dates
- watch the lectures as streaming video and complete lessons
- take the online quizzes
- check your grades

For any technical problems with E-Learning, please contact 392-HELP or learning-support@ufl.edu.

B. We will also be using MyStatLab for homework.

What you need to begin:

- **A Student Access Kit** (packaged inside a new textbook, purchased online in step 3, or with a standalone access
- **A valid Gatorlink email address**
- **Your school's zip code:** 32611
- **"Course ID" Number:** mocko40745

Student Registration:

1. Go to www.coursecompass.com.
2. Click on the **Register** button below Students
3. Review the **Before You Start** information. If you have everything you need to register, click **Next**.
4. Enter your **Course ID** exactly as provided by your instructor and click **"Find Course."** *Your course information should appear. If not, contact your instructor to verify the correct Course ID.*
5. Select **Access Code** and type your **Access Code** in the fields provided (one word per field) and click **Next**.
6. Read the License Agreement and Privacy Policy and click **"I Accept."**
7. On the Access Information Screen, you'll be asked whether you already have a Pearson Education Account.

Click:

- **"YES"** if you have registered for other Pearson online products and already have a login name and password. It will appear for you to enter your existing login information.
 - **"NO"** if this is the first time you have registered for a Pearson online product. Boxes will appear for you to create your login name and password.
 - **"NOT SURE"** if you want to check for a pre-existing account and receive an email with your login name and password.
8. Simply follow the registration screens and enter your information as prompted. You will enter your name, email address, school information, and provide a security question/answer to ensure the privacy of your account. **(You must use your gatorlink id, so that I can easily update your grades.)**

Once your registration is complete, you will see a **Confirmation** screen (this information will also be emailed to you). Simply print your confirmation and you are now ready to Log in and access your resources!

Important: You **MUST** install all required software **plugins** to use this website from a home or work computer. A link to these plugins is located from within the MyStatLab – Look for the **Installation Wizard** or **Browser Check**,

often found under Announcements or as a button on the left. AOL users must minimize that browser and use Internet Explorer. You must also disable any pop-up blockers for this site only.

Technical Support

Contact Product Support at <http://www.mymathlab.com/contactus.html> or M-Fr Noon-8pm EST, 800-677-6337

for student "getting started" information, to fill out an online request form, or use Pearson's live Chat feature to talk with a member of the support team.

7. Lessons

Each day in the course (5 days a week) you are going to be completing a lesson. This lesson will include text and video about the day's assigned material. It will also have several activities and short quizzes for you to accomplish. You should expect this lesson and the homework to take you about 2 to 3 hours per day. After you have finished the quizzes, you will want to submit your scores to a ScoreTracking Center. To do this at the end of the lesson (on the bottom of the last page), you will see a space that asks you to "Type in your name or identifier", put in your gatorlink id. (For example, my email address at UF is mmeece@ufl.edu. So, I would put in mmeece into that space.) After you have entered your gatorlink id, click on submit scores. A new screen will appear that says "Your score has been sent." The ScoreTracker Center gets the results when you send it. Make sure that you complete the lesson at one time. It will not remember that you answered a question yesterday. You can take the lesson quiz multiple times until you are happy with the score and then submit the score, but you will have to close the browser and start the lesson over to do this. The lesson must be completed by midnight of the third day that it is assigned. It is o.k. to complete lessons early. All lessons will be posted by the first day of classes. After the midnight on the third day, I will upload the lesson quiz scores to Sakai. Please check your scores in a timely manner. All corrections to scores must be made by August 3rd 6pm EST. To get your grade for this section, total up your points from each lesson and divide by the total number of points. Take this number and multiply by 100 to get your grade for this part.

8. Online Quizzes

Time: We will have 4 online chapter quizzes.

Quiz	Chapters	Dates
1	Chapters 1 -3	Tuesday, July 5 th , 2011 8am to Friday, July 8 th , 2011 11:59pm
2	Chapters 4 -6	Friday, July 8 th , 2011 8am to Tuesday, July 12 th , 2011 11:59pm
3	Chapters 7 – 8	Thursday, July 21 st , 2011 8am to Tuesday, July 26 th , 2011 11:59pm
4	Chapters 9 – 10	Monday, August 1 st , 2011 8am to Wednesday, August 3 rd , 2011 11:59pm

Three attempts: You will be allowed three attempts for each quiz – each randomly generated, so the questions won't be identical. The highest grade is counted. Given all these opportunities, all students should do extremely well on the quizzes. Hopefully they will serve the purpose of improving your grade in the class, as well as be an important tool in learning the material for the course. To see your grade, click on “Gradebook 2”.

No makeups. There will be no makeup quizzes for any reason.

If you have questions, you are allowed to ask teaching assistants and the instructor questions about submitted attempts on the quiz only. Do not post questions about quiz questions on the discussion board when the quiz is still running. Email the instructor or the TA. Make sure that you show the work that you did on the problem.

Place: You can take the quiz on any computer that has internet access.

Popup Blockers: If you have a pop-up blocker activated on your machine, you need to allow pop-ups for this page. If you click on the quiz and nothing happens, you need to allow pop-ups for this website. If you need help to do this, contact the CIRCA help desk at 392-HELP.

Technical Problems: If you have problems with E-Learning, please contact the CIRCA help desk at 392-HELP for assistance.

Computer crashes in the middle of the quiz or electricity goes out? Restart the computer immediately and re-log into E-Learning. E-Learning should let you continue the quiz. If for some reason, E-Learning does not let you back into the quiz, email the instructor at mmeece@stat.ufl.edu.

Grade: To get your grade for this part, add up the four quiz scores.

9. Exams

There will be two online proctored exams. All of the exams will be completely in Multiple Choice format. There will be 33 multiple choice questions worth 3 points each and one question worth 1 point. This will total 100 points. Exams will cover a larger amount of material than the quizzes and will also place more emphasis in the understanding of concepts and ideas behind the formulas. Graphing calculators may be used during the exam, but only for programs native to the calculator when you purchased it. Notes for the course and formulas for the course should not be typed into your calculator. Accessing notes and formulas from the course on your calculator during the exam is cheating. You will be asked to clear the RAM on your calculator. **Academic dishonesty** on any exam will result in a grade of *zero* on that exam.

Assembly Exam Dates

Exams	Date	Time	Chapters in Book	Handbook Pages
Exam 1	Wednesday, July 13 th	7pm to 10pm EST (must be finished by 10pm)	Ch. 1 – Ch. 6 Sec. 3	1 - 50
Exam 2	Thursday, Aug. 4 th	7 pm to 10pm EST (must be finished by 10pm)	Ch. 7 Sec. 1 – Chapter 10 Sec. 4	51 - 121

Makeup Exam Policy

- Contact the instructor prior to the exam - as soon as you realize you will be unable to take the test at the scheduled time. Each case will be reviewed individually. Valid and detailed documentation is a prerequisite for scheduling a makeup exam under such extenuating circumstances.
- If you have an emergency on the day of the exam. The instructor must be contacted by midnight of the day of the exam via email.
- **To make arrangements for a makeup exam:** Contact the instructor at mmeece@stat.ufl.edu. Makeup exams will cover

the same material as the regularly scheduled exam, but will not necessarily be in multiple choice formats.

- **Additional Note:** Being on vacation is not a valid reason to request a makeup.

Students are required to bring to each exam:

- a calculator
- student ID
- UF ID number
- a blank sheet of paper

ProctorU Information

You will be taking your exam through an online proctoring company. I have posted their information here for your convenience.

What We Do

ProctorU is a revolutionary new service that allows students to complete their assessment at any location while still ensuring the academic integrity of the exam for the institution. Using almost any web cam and computer, you can take exams at home, at work, or anywhere you have internet access.

Preparing for Your Exam

You will be connected to a live person during your exam that will be there to guide you through the process and assist with any technical problems. If you have any questions, please call our proctor line at 205-870-8122.

Appointments

Appointments are required to use ProctorU and all appointments need to be made at least four days in advance. Reservations made within four days of your exam are subject to a \$5 late reservation fee. Late registrations are subject to availability and same day appointments cannot be made online. To make an appointment, simply create an account at <http://go.proctoru.com>, log in, click on the "new exam" link and select the exam, date, and time you desire. You will receive a confirmation email of your reservations at the email address that you provided to ProctorU.

Procedure

Plan ahead for your session. Make sure you have a quiet, private location in which to take the test. The area and room around your computer will be scanned using a web cam prior to your exam, so all non-authorized materials should be put away and the area should be clutter-free. If you are using a public computer lab, you must have a web cam connection and use headphones, so you won't disturb others. You will also be required to show picture identification to your proctor at the time of your exam. Approved forms of identification include, but are not limited to, a driver's license, military identification card, passport, or school-issued identification card. No breaks are allowed during your testing session and cell phones and other devices will not be permitted in the testing area. No other people are allowed in the area in which the test is being taken. Any unauthorized notes or other attempts to cheat will abort the test session and will be reported to your instructor.

At the date and time of your appointment, return to <http://go.proctoru.com>, log in, and a message will appear saying, "You have an exam. Click here to begin." Click on this button and it will automatically take you to the proctor page. Fill out your personal information and hit submit. You will then be directed to a screen which will connect you to your proctor. Just follow the steps on the screen and a proctor will be connected with you shortly.

Once connected, your designated proctor will walk you through the set up process and you will log into your testing portal. Your proctor will also supply the password for your examination. Your exam time will begin when the proctor enters the examination password on your screen. If you have any problems connecting, please call ProctorU at 205-870-8122. Should you not be able to reach ProctorU via telephone you can email help@proctoru.com. If you have scheduled an exam and you are late, your proctor will attempt to call you at the phone number you provided when you scheduled your exam. Should there be any UF login issues at the time of your scheduled exam your proctor will contact the course instructor or course coordinator and you will be able to reschedule your exam if necessary.

10. Lecture Notes

The notes in the Lab Workbook will be used in class. When you are following the lectures, whether live or on the web, you should always have the lecture notes in front of you. The instructor will go over the definitions and theory, and work out the examples on the spaces provided.

11. Homework Questions

Doing the homework is essential step in succeeding in this class. For every lesson, there will be about 2 to 10 homework problems for you to complete in MyStatLab. You will have about 3 days to complete each of these homework assignments. The help functions have been turned on, so that you will have guidance as you are working on the problems. You may complete the homework problems as many times as you want. The highest score will be recorded. The homework scores will be kept in MyStatLab. Please view the Grade book in MyStatLab to see your homework scores. If you are having trouble understanding homework problems or course concepts, please post your questions on the Question and Answer Discussion Board. This way everyone will benefit from your question. **WARNING:** Because the help functions have been turned on in the course, homework scores are not always a good judge of how you are learning the material. Carefully, reflect on how often you have to use the help functions and how many times you submit the homework. Each homework is worth 10 points. To get your final homework score, add up all of your homework scores and divide by 220. Take this number and multiply by 100 to get your overall score.

12. StatCrunch

StatCrunch is an online statistical software package that comes with your MyStatLab access code. The data sets from the textbook are automatically entered. We will be using StatCrunch to work out problems throughout the semester. The lessons will include videos on how to do certain tasks and quiz you on these activities. You will also be using StatCrunch to complete a class project.

13. Project

You will be asked to complete a class project this semester. Projects must be posted by August 2nd, midnight. More information and a rubric are provided on a link on the sidebar in Sakai. Total up the points on the rubric and divide by 30. Take this number and multiply by 100 to get your grade for this section.

14. Small Group Discussion Posts

You will be divided into small groups of about 12 students each. Each week on Wednesday a new discussion post item will be posted. You will be assigned to your group after the drop/add period. On the small group discussion boards, you are going to be working in a small group to complete a series of activities: such as critic a news article, discuss an ethical situation that a statistician may encounter or to complete a collaborative assignment. Assignments will be posted here on Wednesday and I will visit throughout the posting period. I will assign a grade for your work in the group for each assignment period. Grades will range from 0 to 3. A 0 would be no completed work. A 1 would be for only minimal effort and/or correctness. A 2 would be for reasonable effort and/or some correct information. A 3 would be for good effort with correct information. I will possibly award "4"s for exceptional effort. There will be 5 assignments for this semester. Note: Read the discussion postings carefully many assignments will have you checking back to see what other students have posted as well. To find your grade for this section, total up your points for each of the five discussions and then divide by 15. Take this number and multiply by 100 to get your grade for this section.

15. Virtual Tutoring Room

We will be having a virtual tutoring room during this semester. We will be using the Chat Room and the Elluminate (recently bought by Blackboard Collaborate) software to discuss problems that you may have with the material.

Hours: MWR 11 to noon and Tuesday 4 to 5:30pm

Elluminate System Requirements: <http://support.blackboardcollaborate.com/ics/support/default.asp?deptID=8336&task=knowledge&questionID=683>

If you don't have the system requirements for Elluminate, don't worry we will use the chat feature in Sakai as well throughout the semester. However, we won't be in the chat room and in Elluminate at the same time.

The Elluminate virtual room will be opened after drop/add because we have to account for every person that uses that software. After drop/add, a link will be added within Sakai. During office hours, you will then click on the link and visit the virtual room.

To get acquainted with how the software works, watch this short intro video. Go to <http://www.illuminate.com/Services/Training/?id=70> and click on Recorded Training, Quick Reference Guides and User Guides for V10 and then click on Elluminate Live! V10 Participant Orientation.

16. Question and Answer Discussion Board

All students will have access to a Question and Answer Discussion Board in Sakai. This board is for discussion of the material. You are able to ask questions about lessons, videos, lesson quizzes, and homework questions. **DO NOT POST QUESTIONS ABOUT SAKAI QUIZZES OR TESTS.** Students who post Sakai quiz answers on the Discussion Board will be penalized. It will be considered an honor violation. Please send an email to the instructor to discuss private matters such as grades, medical excuses and DRC letters.

17. Hurricane Policies

Summer B semester overlaps with the hurricane season.

- **If a hurricane approaches the coast of Florida, but classes are not canceled at the University of Florida.** The course will continue as scheduled. You are required to keep up with the lectures, quizzes and labs. If you believe that your situation requires special consideration, please send an email or call the instructor immediately.
- **If a hurricane approaches the coast of Florida, and classes at the University of Florida are canceled,** the lectures, labs and quizzes will be suspended until the university re-opens. The University will announce this closure on the University of Florida homepage. Any announcements about the course will be posted at the course website.

18. Course Policies

- **Privacy Policies:** Student records are confidential. Only information designated "UF directory information" may be released without your written consent. UF views each student as the primary contact for all communication. If your parents contact me about your grade, attendance or other information that is not "UF directory information", I will ask them to contact you.
- **Email**
Email relating to information about the class should be sent to your TA emails listed at the top of document or to the instructor at mmeece@stat.ufl.edu. Your message will be answered within one working day, in most cases. However, we ask you to please refer to this Syllabus and the course website to try to find the answers for yourself. Questions regarding the material covered and homework problems should be asked on the Question and Answer Discussion Board. Questions about the quiz should be sent to your instructor and it should include the quiz number, attempt number and question number.
- **Instructor's Honor Code**
We the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.
- **Academic Dishonesty**
We adhere to the University of Florida rules and guidelines for handling instances of academic dishonesty. Please refer to the Office for Student Services for detailed information about the current policies.
- **Students with Disabilities**
Students who require special accommodations in class or during exams should follow the procedures outlined by the Disability Resources Program (<http://www.dso.ufl.edu/drc/>) **Please send the course coordinator (Megan Mocko) your letter of accommodations as soon as you receive the information. I must be emailed the form 7 days before the exam date for accommodations to be arranged.**
- **Grading**
Grades will be changed only when an error has been made; negotiation is not appropriate.
- **Incompletes**
Incompletes are only assigned when extraordinary circumstances (such as an accident, or extended hospitalization), arising after the date for dropping the course, prevent the student from completing the course requirements. Having a failing grade in the course is not a valid reason for requesting an Incomplete.

19. Where to Get Help for this course:

- During Virtual Office Hours and Tutoring Room Hours

- Question and Answer Discussion Board in Sakai

20. How to do well in the course

- Keep up with the lessons. Set a schedule for yourself and stick with it.
- Visit the course website regularly, to read announcements and take the online quizzes.
- Do well on the lesson quizzes, chapter quizzes, discussion board posts and homework.
- Use the help function in MyStatLab to help you work out homework problems.
- Visit the Virtual Tutoring Room regularly to get help from the TA and your instructor. Our job is to clarify any questions that you may have, and to help you understand the material and learn to do the problems.
- Get to know other students in the class and get together regularly to work on homework problems, and to study for quizzes and exams. This can be done in the Small Group Discussions.
- Prepare carefully for exams by going over the lectures, doing your homework and practice questions, studying your quizzes and reading the book. Pay special attention to the understanding of concepts and ideas behind the formulas.

21. How to get the most out of the online lectures

- Set aside time each week to watch the lectures.
- You should watch and read the lessons on a regular schedule.
- Complete the lessons and then do suggested homework assignment.
- Actively involve yourself in the lesson. Be inquisitive. Work out the lesson quizzes and activities. Learning is not a spectator sport. Jump in and work on the problems.
- Watch the lecture videos and complete the lessons in a low disruption environment. In addition, to watching the lecture, you should not be also texting, instant messaging, emailing, reading a website, watching TV, etc. Your attention should be focused on the lecture.
- I have carefully considered what needs to be discussed in the lessons. Make sure that you are paying attention to all of it.