

Syllabus for STA 2023 - Introduction to Statistics

Fall 2010

1. Instructional Team

Course Coordinator: Megan Mocko

office: Griffin Floyd 117 B

phone: (352)273-2975

email: mmeece AT stat.ufl.edu

Office Hours: MF 10 to 11:30am & W 11 to noon

Teaching Assistant Information:

Lab Coordinator: Maria Ripol

office: Griffin Floyd 117 C

phone: (352)273-2976

email: mripol AT stat.ufl.edu

Office Hours: MW 6th and 7th period

- Lab Schedule
- Tutoring Room Schedule
- Email addresses for TAs

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, approximately 3 weeks), 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, 1 week.)

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, 5 weeks), 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 approximately 7 weeks).

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**
 - copies of the lecture notes
 - worksheets for the Lab portion of the course
2. **Statistics: The Art and Science of Learning from Data** by Alan Agresti and Christine Franklin 2nd edition, Pearson, 2009.
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. Course Website

1. The course will use the following webpage for announcements for the first few weeks of classes: <http://www.stat.ufl.edu/~mmece/STA2023Fall2010.html>

2. After the first couple of weeks, we will move completely to a password protected website inside **E-Learning**, an integrated, Web based classroom management tool. Currently, the university has two systems, E-Learning (Webct) and E-Learning (Sakai). We will be using the new system, E-Learning (Sakai). Instructions will appear on the course website on how to access it. For more information on E-learning, go to their homepage at: <http://lss.at.ufl.edu/>.

In E-Learning you will be able to:

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

5. Lectures

Live Lectures

Lectures are delivered live MWF 9th period in Norman Hall 137 and MWF 7th period in Norman Hall G520. The lectures will also be videotaped and available to view online. Students can choose to attend these live lectures, or to view the lectures online, regardless of which section they are registered for.

PERIOD	LECTURE	ROOM
MWF 9	live	Norman 137
MWF 7	videotaping	Norman G 520

Online Lectures

Links to the videotaped lectures will be found at the course website. You can also watch the

lectures from any computer on campus (CIRCA labs or libraries) using your Gatorlink account and stereo mini headphones. Information about the CIRCA labs can be found at this link:
<http://labs.circa.ufl.edu/>.

IMPORTANT - We cannot guarantee that the online lectures will work well for each of you. Be prepared to attend the live lectures if that turns out to be the case. Some students find that the online lectures are too slow, or they are frequently interrupted by "internet congestion". These problems are worse if your internet connection is slow, or if you try to watch them during very busy times - between noon and midnight. If you have difficulty watching the lectures online from home, try watching them from a computer on campus. Also remember that everyone is welcome to attend the live lectures, regardless of which section they are registered for.

6. Activity Worksheets

Link to Lab Schedule – Website

- **Attendance required: Starting the first week of classes**, students are required to attend Lab once a week, according to the section for which they are registered.
- **Purpose:** In Lab, groups of around 40 students will meet with a TA to work on a simple, hands-on activity related to the material being covered in class.
- **CBD 220:** Labs will meet in Building 105, room 220 (CBD 220). The building is located directly north of (behind) the empty parking lot across the street from Library West on University Avenue.
- **Lab Worksheets:** Worksheets with instructions for each Lab are included in the Lab Handbook. Students must bring these worksheets to Lab each week. The worksheets must be turned in to the TA before leaving Lab that day. They will be graded on a scale of 6 points.
- **Grade Discrepancy:** We work very hard to make sure that lab grades are recorded accurately. If you feel that there is a discrepancy, you will need to show your TA the grade lab. This must be done by the last day of classes.
- **Conflicts:** If you are registered for a lab section that conflicts with another class, or with several night assembly exams for other classes, you **MUST CHANGE LAB SECTIONS IMMEDIATELY**. STA 2023 Labs will never meet on the days we have an exam. There are usually plenty of opportunities to change sections during Drop/Add period. After Drop/Add is over, you will need to contact the Lab Coordinator to see if any changes are possible - see the Instructional Team section of this Handbook for the Lab Coordinator's contact information.

Lab Attendance and Policies:

- Students **must attend the section they are registered** for - you will get no credit for your work if you attend a different section.
- Students **must be on time** for Labs, and will not be allowed to enter if they are more than five minutes late. Late students would disrupt the activity, and create problems for the rest of the students and the TA, so it will not be tolerated.

- Students **must come prepared to Lab**, having watched the lectures that cover material relevant to the Lab's activity.
- Students **must bring the Lab Worksheet** to Lab with them - you will get no credit for hand written labs.
- Students **will not be permitted to make up any Labs** that they have missed, regardless of the reason. Instead, we will drop the lowest three grades for all labs and quizzes combined.

7. Online Quizzes

- **Time:** We will have online quizzes most weeks. The quizzes run from Monday morning 8am to Thursday night 11:59pm.
- **Material Covered:** These quizzes will cover a small amount of material, and are designed primarily to encourage you to keep up with the lectures (particularly if you choose to watch them on the web at your own pace).
- **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 “My Grades”.
- **No makeups.** There will be no makeup quizzes for any reason. Instead, we will drop the lowest three grades for all labs and quizzes combined.
- **If you have questions,** you are allowed to ask teaching assistants and the instructor questions about submitted attempts on the quiz only. For example, you can take the quiz one time, submit the quiz for grading, and then print out the quiz. You can then bring this printout with you to the tutoring room. The teaching assistants can help you with the problems with which you had questions. You can then go and try attempt 2 on your own.
- **Place:** You can take the quiz on any computer that has internet access. If you are having trouble with your computer, you can do the quizzes from any computer that has internet access. There are computers available in the libraries and in the circa labs (<http://labs.circa.ufl.edu/>) or you could use a friend's computer –but make sure to log in to your own account. You cannot take quizzes in the tutoring room.
- **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 and re-log into webct. Webct should let you continue the quiz. It may give you messages about your time being expired. Ignore them, finish the quiz and submit the quiz. If for some reason, webct does not let you back into the quiz, email the instructor at mmeece@stat.ufl.edu.
- **Time expiration error:** Sometimes, when submitting one try of the quiz you accidentally

open the quiz again and that starts your next trial of the quiz. This can happen if you use the "back" button on your browser instead of WebCT's links. When you come in hours later, it says your time has expired. You are still allowed to save the questions and submit the quiz, even if the time is up, but you get very annoying messages.

8. Exams

There will be three assembly exams, two night exams given during the term (each worth 100 points), and the last one during final exam week (worth 100 points). All of the exams will be completely in Multiple Choice format. There will be 33 multiple choice questions worth 3 points each. This will total 99 points. You can earn the remaining point by bringing a picture ID to the exam and by bubbling in your name, UF ID# and test code (listed on the front page of the exam) correctly. 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. Room assignments for each exam will be announced in class and on the website. The class will be divided up by section. 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. **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	Tuesday, Oct. 12 th	8:20 pm – 10: 00 pm (AT NIGHT)	Ch. 1 – Ch. 6 Sec. 3	1 - 50
Exam 2	Wednesday, Nov., 10 th	8:20 pm – 10:00 pm (AT NIGHT)	Ch. 7 Sec. 1 – Ch. 9 Sec. 2	51 - 86
Exam 3	Saturday, Dec. 11 th	7:30 am – 9:30 am (IN THE MORNING)	Ch. 9 -- Ch. 10 Sec. 4	78 – 121

Makeup Exam Policy

- **In case of conflict with a class:** Assembly exams have priority over regularly scheduled classes. The instructor for the other class must allow you to make up any work you miss because of an assembly exam - contact them early to make arrangements. This is a University of Florida policy, as stated on the Registrar's website <http://www.registrar.ufl.edu/currents/finalexams.html> .
- **In case of conflict with another exam:** Assembly exams have priority over time-of-class exams. If you have two assembly exams scheduled for the same day and time, the course with the higher number has priority. This is a University of Florida policy, as stated on the Registrar's website(<http://www.registrar.ufl.edu/currents/finalexams.html>)Contact the instructor of the appropriate class early, to make arrangements for a makeup exam - do not wait until the last minute. If you need to schedule a makeup exam for STA 2023 because it conflicts with another assembly exam for a course with a higher number, you must contact your Statistics instructor, Megan Mocko at mmeece@stat.ufl.edu at least **ONE WEEK** prior to the regularly scheduled exam.
- **In case of sudden illness or emergency:** 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. The instructor must be contacted by midnight of the day of the exam via email or voice mail.

- **To make arrangements for a makeup exam:** Contact the instructor at mmeece@stat.ufl.edu, in person during office hours, or through the phone (information appears at the top of this page) Makeup exams will cover the same material as the regularly scheduled exam, but will not necessarily be in multiple choice format.
- **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
- pencils (#2 or higher) and eraser for completing the bubble sheets

9. 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.

10. Homework and Practice Questions

- **Homework**
On the homepage in E-Learning, you will find a list of suggested homework problems from the text, by section. These problems are assigned to help you master the material and will not be collected. You can get help with these problems from the tutors in the Tutoring Room. Doing the homework is essential step in succeeding in this class.
- **Answers** to odd numbered problems are available in the back of the text. An **Instructor's Guide with Solutions to all homework problems is available on Reserve at Marston Science Library and in the Tutoring Room.**
- **Doing homework problems using Minitab**
Students also have the option to answer certain homework questions from the textbook using Minitab, a statistical computer program. Information about Minitab appears in the next section. The data sets for most homework problems are included in the data disk that comes with the textbook.

11. Minitab

Minitab is a very easy to use and powerful statistical computer package. It is used by colleges, universities and businesses around the world, and runs on most computer platforms, including Windows and Macintosh. We will use Minitab in several of our Labs - the teaching assistant will give you directions on how to use it. You can also use Minitab to solve some of the homework problems assigned from the book. The data sets for most homework problems are included in the data disk that comes with the textbook Minitab is available at all the CIRCA Labs on campus. You can also buy it for your home computer (or download the demo version - free for 30 days) at the Minitab website at www.minitab.com, or rent a copy of the software for a semester for \$29.99 at www.e-academy.com/minitab.

12. Tutoring Room

Link to Tutoring Room Schedule – Website

The TA's for the class will be available to answer questions about the material covered in class, homework problems, etc, in the Tutoring Room located in Griffin Floyd 104. It will be open approximately 40 hours a week - the exact hours of operation will be announced on the website. There is no need to make an appointment, just go whenever it is convenient for you and the TA on duty will help answer your questions. Please be respectful of other students while in the tutoring room by not talking on your cell phone. Please put your phone on silent mode and leave the room if you wish to answer the call.

13. Course Assessment

Grade Structure	
Exam 1	100 points
Exam 2	100 points
Exam 3	100 points
Labs and Quizzes	100 points
Total	400 points

Grading Scale			
A	4.00	360.00 – 400 points	90 to 100%
A-	3.67	354.00 – 359.99 points	88.5 to 89.99%
B+	3.33	338.00 – 353.99 points	84.5 to 88.49%
B	3.00	320.00 – 337.99 points	80 to 84.49%
B-	2.67	314.00 -- 319.99 points	78.5 to 79.99%
C+	2.33	298.00 -- 313.99 points	74.5 to 78.49%
C	2.00	258.00 – 297.99 points	64.5 to 74.49%
D	1.00	240.00 – 257.99 points	60 to 64.49%
E	0.00	Below 239.99 points	Below 60%

14. Hurricane Policies

Much of the fall 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:
<http://www.stat.ufl.edu/~mmeece/STA2023Fall2010.html>

15. 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 two working days, in most cases. However, we ask you to please refer to this Handbook and the course website to try to find the answers for yourself. Questions regarding the material covered in class, homework problems, or Lab should be asked in person, in the Tutoring Room, in Lab or in class. Statistical questions often require formulas or pictures, which can make it very hard to communicate by email. Emails should include your full name and section number. If you are referring to a quiz, refer to it by 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 bring the course coordinator(Megan Mocko) your letter of accommodations in the first two weeks of classes, during office hours, or make an appointment if you cannot make it during those hours.** This letter must be discussed with the course coordinator directly, not with the lab TA, for accommodations on exams to be made.
- **Class Attendance and Behavior**
Attendance in class is not mandatory, since you will be able to watch the lectures online. Attendance in Lab, however, is mandatory, and you are required to attend the Lab section for which you are registered. For both labs and lectures, we ask that you arrive on time, and to behave in a respectful manner towards the instructors and your fellow students. In fact, no one will be allowed in Lab if they are more than five minutes late. **Please turn your off cellular phones** and refrain from eating, drinking, reading newspapers, working on a laptop, doing homework for other classes, texting, and excessive talking.
- **Makeup Quizzes and Labs**
There will be NO makeup labs or quizzes under any circumstances - instead, we will drop the lowest three grades for all labs and quizzes combined. These three drops are meant to allow for missed labs or quizzes due to illness, personal or family emergency, personal or University sanctioned travel, religious observance, tardiness, laziness, and all other reasons. Do not abuse your drops - you never know if you will need them later.
- **Makeup Exams**
See the section on Exams for exam makeup policy.

- **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.

16. Where to Get Help for this course:

- in class, from your instructor
- in Lab, from your TA
- in the Tutoring Room, Griffin Floyd 104
- during the instructor's office hours
- for many classes, not just statistics, at the Tutoring Lab in the Basement of Broward Hall - a schedule of their hours can be obtained by calling 392-2010 or by accessing www.teachingcenter.ufl.edu.
- as a last resort, by getting (and paying) a private tutor. A list of private tutors can be obtained from the Statistics Department secretary in Griffin-Floyd 103.

17. How to do well in the course

- Keep up with the lectures, either by attending a live class or watching them online.
- Attend Lab regularly and on time.
- Visit the course website regularly, to read announcements and take the online quizzes.
- Do well on the Labs and quizzes, and complete them on time. That is the easiest way to improve your grade.
- Work out the suggested homework problems regularly, soon after the material is covered in lecture. Check your answers at the Marsten Science Library or with the TA's in the Tutoring Room.
- Visit the Tutoring Room regularly to get help from the TA's. Their 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.
- 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.

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

- Set aside time each week to watch the lectures.

- You should watch the lectures within a day or two of it being posted.
- Watch the lectures one at a time and then do a few suggested homework problems. Each section in the notes is labeled with chapter and section headings.
- If I ask the audience to work out a problem, this includes those who watch it online as well. You should also be working out the problems at home.
- Watch the lectures in a low disruption environment. In addition, to watching the lecture, you should not also be 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 class in our limited time frame. Make sure that you are paying attention to all of it.