

STA 3024

Introduction to Statistics II

Fall 2016

Instructor: Maria Ripol

office: Griffin Floyd 117 C

email: mripol@stat.ufl.edu

phone: (352) 273-2976

web: <http://www.stat.ufl.edu/~mripol>office hours: MW 6th and 7th periods (12:50 - 2:45 pm) or by appointment**Lectures:** MWF 2nd pd, WM100, sec 4432MWF 4th pd, NRN137, sec 4433**Teaching Assistants:** TBA**Course Description and Objectives**

In this course, students learn how to summarize data, analyze it, and make appropriate decisions based on it. This course satisfies General Education Credits in the Mathematical Sciences and is in the general category of M.

The sequence of courses STA 2023-3024 provides students with a firm foundation in the basics of applied statistical methods. The prerequisite for this course is STA 2023, which covered chapters 1-9 the textbook (data collection, graphical and numerical summaries, probability and an introduction to statistical inference). Concepts from STA 2023 will be reviewed as needed.

The course focuses on the following four topics:

1. Analysis of Variance to compare three or more population means.
2. Simple Linear Regression and Multiple Regression to predict a quantitative response.
3. Analysis of Two-Way Tables to study the relationship between two categorical variables.
4. Nonparametric Statistics that do not require a Normal distribution of the response variable.

Materials:

1. Statistics: The Art and Science of Learning from Data, by Alan Agresti and Chris Franklin, 3rd edition, Prentice Hall.
2. Scientific Calculator (around \$10 to \$15) that has some basic statistical functions like mean and standard deviation. Graphing calculators are **not** allowed during the exams.

Course Website in CANVAS: <https://lss.at.ufl.edu/>

This is the portal for UF's E-learning website. You must log on using your gatorlink username and password, and access the course webpages from there. Important information about the course, including this syllabus, announcements, and computer output to supplement the examples done in class, your grades throughout the semester. Online quizzes will be administered there.

Online Quizzes - There will be approximately four online quizzes, administered through E-Learning. You will have three tries for each quiz (with questions randomly generated) over a period of several days. Each quiz will be worth 10 points, for a total of 40 points. Hopefully these quizzes will serve the purpose of improving your grade in the class, as well as be an important tool in learning the material of the course. Quiz dates and details will be announced in class and the course website.

Suggested Homework Problems will appear on the website. They will help you master the material but will not be collected.

Projects - There will be several small data analysis projects to be completed during the semester. All

projects together will be worth 60 points. Project dates and details will be given in class and the course website.

Exams - There will be three exams given during the semester, each worth 100 points. Regular exams are in multiple choice format. Students are required to take the exam in the section they are registered for. All students must bring to the exam: their student ID number, picture ID, a non-graphing calculator and pencils. In case of conflict or illness, if a student is unable to take an exam at the scheduled time, they must get in touch with the instructor prior to the exam time, for any arrangements to be made for makeup. Each case will be reviewed individually. Valid and detailed documentation is a prerequisite under such extenuating circumstances. Makeup exams may not be multiple choice. A grade of zero is the minimum punishment of any type of dishonesty on an exam.

| | | | | | |
|---------------|---|-------------------------|-----------------|---------------------|---------------------------------------|
| Exam 1 | - | Fri September 30 | in class | Ch 10 and 14 | Comparing Groups |
| Exam 2 | - | Wed November 9 | in class | Ch 12 and 13 | Regression |
| Exam 3 | - | Wed December 7 | in class | Ch 11 and 15 | Chi Squared and Nonparametrics |

Grade Structure

| | |
|--------------|-------------------|
| Exam 1 | 100 points |
| Exam 2 | 100 points |
| Exam 3 | 100 points |
| Projects | 60 points |
| Quizzes | 40 points |
| TOTAL | 400 points |

Grading Scale

| | | | | | | | |
|----|-------------|------------|------------|------------|------------|---------------------|---------------|
| | B+ | 84% to 86% | C+ | 74% to 76% | D | 60% to 63% | |
| A | 90% to 100% | B | 80% to 83% | C | 70% to 73% | (No D+ or D- given) | |
| A- | 87% to 89% | B- | 77% to 79% | C- | 64% to 69% | E | 59% and below |

Course Policies:

Email to Instructor - will be answered within one working day in most cases. Please be aware that statistical questions should be answered in person (in class or during office hours) since they often require pictures and formulas that make it very hard to communicate through email.

Attendance - although not required, is very highly recommended. This class is NOT offered online. If you miss a class for any reason, it is your responsibility to get a copy of the notes and all information given in class from another student. Please be aware that sections of this course with a different instructor may cover the material in different order.

Classroom Behavior - during class students should turn off their cellular phones and refrain from eating, drinking, reading newspapers, doing homework, listening to music, excessive talking and all other behaviors that are distracting and disrespectful to the instructor and their fellow students.

Privacy Policy - Student records are confidential. Only information designated "UF directory information" may be released without your written consent. This applies to parents or anyone else who contacts me about your grades.

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.

Grading - grades will be changed only when an error has been made. Negotiation is not appropriate.

Incompletes are only assigned when extraordinary circumstances, 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.

Students with Disabilities - Students who require special accommodations in class or during exams should follow the procedures outlined by the Disability Resources Center (<http://www.dso.ufl.edu/drc>) Please see the instructor in person during office hours, early in the semester, to discuss your accommodation letter confidentially.