

**Instructor:** Maria Ripol

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web: <http://www.stat.ufl.edu/~mripol>office hours: MW 6<sup>th</sup> and 7<sup>th</sup> periods (12:50 - 2:45 pm),F 3<sup>rd</sup> period (9:35-10:25) or by appointment**Lectures:** MWF2<sup>nd</sup>pd, WM100, sec 4432MWF 4<sup>th</sup> pd, NRN137, sec 4433**Teaching Assistants:** TBA in Canvas**Course Description and Objectives**

In this course, students learn how to summarize data, analyze it, and make appropriate decisions based on it.

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 in 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. Recommended Textbook: Statistics, The Art and Science of Learning from Data, by Agresti, Franklin and Klingenberg, 4th edition, Prentice Hall.
2. Required 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.
3. A **shell of the lecture notes** can be purchased at Target Copy starting Thu 8/24 (maybe Wed night). These will have the computer output for examples done in class and an outline of the lecture notes that we will then complete in class, so it will be your class notebook. If you prefer, an electronic version is posted in Canvas.

**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 will be posted here including this syllabus, announcements, your grades throughout the semester and computer output to supplement the examples done in class. 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 for 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 a 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.

<b>Exam 1 - Mon October 2 in class</b>	<b>Ch 10 and 14</b>	<b>Comparing Groups</b>
<b>Exam 2 - Wed November 8 in class</b>	<b>Ch 12 and 13</b>	<b>Regression</b>
<b>Exam 3 - Wed December 6 in class</b>	<b>Ch 11 and 15</b>	<b>Chi Squared and Nonparametrics</b>

### Grade Structure

Exam 1	100 points
Exam 2	100 points
Exam 3	100 points
Projects	60 points
<u>Quizzes</u>	<u>40 points</u>
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

UF Grading Policy: <https://catalog.ufl.edu/ugrad/1617/regulations/info/grades.aspx>

### 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. Requirements for class attendance and make-up exams, assignments and other work in this course are consistent with university policies that can be found at <https://catalog.ufl.edu/ugrad/1617/regulations/info/attendance.aspx>

**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.

**University's Honesty Policy:** UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible

sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel.

**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 with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, [www.dso.ufl.edu/dre/](http://www.dso.ufl.edu/dre/)) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodations. Please see the instructor in person during office hours, as early as possible in the semester, to discuss your accommodation letter confidentially.

**Instructor / Course Evaluations:** Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://evaluations.ufl.edu/>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

**Other University Services:**

**U Matter, We Care:** Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) so that the U Matter, We Care Team can reach out to the student in distress.

A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

**Sexual Assault Recovery Services(SARS):** Student Health Center, 392-1161

**University Police Department,** 392-1 111 (or 9-1-1 for emergencies) <http://www.police.ufl.edu/>

**Weekly Schedule - subject to change if needed. Changes after Hurricane Irma in blue**

Monday	Wednesday	Friday
Intro 8/21	Review Ch 7-10 CI and SigTests 8/23	Continue Review Stats 1 8/25
Continue Review Stats 1 8/28	Continue Review Stats 1 8/30	More + Ch 4 Designing Experiments <b>Q1 starts</b> 9/01
No Class - Labor Day 9/04	Ch 10-ANOVA Theoiy 9/06	No Class - Hurricane 9/08
No Class - Hurricane 9/11	No Class - Hurricane 9/13	One-Way ANOVA examples <b>Q1 ends</b> 9/15
Continue Example and Multiple Comparisons 9/18	Bonferroni <b>Q2 starts</b> 9/20	Continue One-Way ANOVA and Multiple Comparisons 9/22

Finish One-Way ANOVA	9/25	Two-Way ANOVA <b>Q2 ends</b>	9/27	Two-Way ANOVA	9/29
Review	10/02	<b>EXAM 1</b>	10/04	<b>No Class - Homecoming</b>	10/06
Review Ch 3 - Simple Linear Regression	10/09	Ch 12- Regression Analysis	10/11	Continue Inference Reg	10/13
Continue Inference Reg	10/16	Continue Inference Reg	10/18	Ch 13 Multiple Regression <b>Q3 starts</b>	10/20
Regression with Dummy Variables	10/23	More Reg. with Dummy Vars <b>Project 1 INFO</b>	10/25	Quadratic Regression <b>Q3 ends</b>	10/27
More Regression Examples	10/30	More Regression Examples	11/01	Review	11/03
Review <b>Project 1 DUE</b>	11/06	<b>EXAM 2</b>	11/08	<b>No Class - Veteran's Day</b>	11/10
Ch 11 Contingency Tables	11/13	Contingency Tables	11/15	Contingency Tables <b>Project 2 INFO</b>	11/17
Sec 13.6 Logistic Regression <b>Q4 starts</b>	11/20	<b>No Class -Thanksgiving</b>	11/22	<b>Holiday</b>	11/24
Ch 14 Nonparametric Methods	11/27	Nonparametric Methods <b>Q4 ends ECQ starts</b>	11/29	Nonparametric Methods <b>Project 2 DUE</b>	12/01
Review <b>ECQ ends</b>	12/04	<b>EXAM 3</b>	12/06		