

**Instructor:** Ray Bai

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web: <http://people.clas.ufl.edu/raybai07/sta3024-spring-2016>office hours: MWF 4<sup>th</sup> pd (10:40-11:30 am) and 8<sup>th</sup> pd (3:00 – 3:50 pm) or by appointment**Lectures:** MWF 3<sup>rd</sup> pd (9:35-10:25 am), PUGH170, sec 7454**Teaching Assistants:**

Ruoyang Zhang

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office hours: MWF 5<sup>th</sup> pd (11:45am-12:35 pm)

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Tuo Chen

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office hours: Tue.,Thu. 6<sup>th</sup> pd (12:50-1:40 pm)

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**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 1-10 in the textbook (data collection, graphical and numerical summaries, probability and an introduction to statistical inference).

The course begins with a review of STA 2023 and then 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. **Course Notes.** The course notes are posted on CANVAS under the Files tab. These incomplete notes are general outlines of topics that will be filled in during lecture. Students should print these out and bring them to every lecture.
2. **Textbook.** *Statistics: The Art and Science of Learning from Data*, by Alan Agresti and Chris Franklin, 3rd edition, Prentice Hall.
3. **Statistical Software.** We will use the statistical computer package, Minitab, for homework. You can access it from UF Apps for free through <http://info.apps.ufl.edu/> or on any PC computer labs on campus (find locations and hours at: <https://labs.at.ufl.edu/>).

**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 your grades throughout the semester.

**Hand-In Assignments** - There will be six short homework assignments to be handed in. Assignments will be announced on Canvas exactly one week before they are due. Students **must show work to receive credit**. Because the solutions will be posted on Canvas the **same** day that they are to be handed in, **late assignments will not be accepted**. Towards the end of the semester, there will also be an extra credit assignment worth 15 points.

Homework 1	Assigned Fri., Jan. 15. Due Mon., Jan. 25 <b>in class</b> .
Homework 2	Assigned Wed., Feb. 3. Due Fri., Feb. 12 <b>in class</b> .
Homework 3	Assigned Wed., Feb. 24. Due Wed., Mar. 9 <b>in class</b> .
Homework 4	Assigned Fri, Mar. 11. Due Fri., Mar. 18 <b>in class</b> .
Extra Credit	Assigned Mon., Mar. 28. Due Mon., Apr. 4 <b>in class</b> .
Homework 5	Assigned Wed., Apr. 6. Due Wed., Apr. 13 <b>in class</b> .
Homework 6	Assigned Wed., Apr. 13. Due Wed., Apr. 20 <b>in class</b>

These assignments will consist of several computational problems and one data analysis problem in Minitab. Students may work together but must hand in their own solution. Directly copying another student's work is not allowed; should copying occur, both the student who copied work from another student and the student who gave material to be copied will automatically receive a zero for the assignment. Penalty for violation of this Policy can also be extended to include failure of the course and University disciplinary action.

**Suggested Homework Problems** will appear on the website. These problems are from the textbook. They will help you master the material but will not be collected.

**Exams** - There will be three exams given during the semester. The first two exams are non-cumulative, and the final exam is cumulative (2/3 of the material on the final will be post-exam 2 material). Regular exams are in multiple choice format. All students must bring to the exam: their student ID number, picture ID, a 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 will be 20% short answer**. A grade of zero is the minimum punishment of any type of dishonesty on an exam.

<b>Exam 1 – Fri., Feb. 19, 8:20 pm, PUGH 170</b>	pp. 4-48 in Course Notes (Ch. 10 and 14 in the textbook)
<b>Exam 2 – Fri., Mar. 25, 8:20 pm, PUGH 170</b>	pp. 49-82 in Course Notes (Ch. 12, Sec. 13.1-13.5 in the textbook)
<b>Exam 3 – Wed., Apr. 27, 7:30 am (morning), PUGH 170</b>	pp. 83-119 in Course Notes (Sec. 13.6, Ch. 11 and 15 in textbook), plus earlier material

**Grade Structure**

Exam 1	100 points
Exam 2	100 points
Exam 3	140 points
Hand-in Assignments	130 points
<b>TOTAL</b>	<b>470 points</b>

## Grading Scale

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

The final grading scale may be loosened. It will not be made more stringent. Additionally, exams will be curved only if the class average is below 77. In that case, the difference between the actual class average and 77 will be computed and added to everyone's score to bring the average up to 77.

## 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.