Course Syllabus

STA 3024 Introduction to Statistics II Summer B 2021

Instructor: Maoran Xu

email: maoranxu@ufl.edu

*The lectures will be person-to-person, but the office hours and the TA office hours will be hold online.

office hours: T,R 3:30 – 5:00 pm or by appointment.

Zoom link: https://ufl.zoom.us/j/7649808097

Lectures: M,T,W,R,F I Period 4 (12:30 PM - 1:45 PM) *The exams will be taken at class time 12:30 PM - 1:45 PM.

Teaching Assistant: Zoom link: See Canvas

Tingting Wang 10:00am-noon Mon

Email: wangt1@ufl.edu

Eleni Dilma 10:00am -noon Wed

Email: edilma@ufl.edu

Saurabh Bhandari 10:00am -noon Fri

Email: s.bhandari@ufl.edu

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. (Access via Canvas->myLab)
- 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. **Lecture notes:** available from the course homepage in Canvas, you will need to fill in the blanks while following the lectures. You can use them electronically if you can take notes on a pdf file, or print them to write on them.

Course Website in CANVAS: https://elearning.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 three 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 20 points, for a total of 60 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 lectures and the course website.

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

Project - There will be one small data analysis project to be completed during the semester. It will be worth 40 points. Project date and details will be given later in the semester in the course website.

Exams - There will be three exams given during the semester, each worth 100 points. The days are posted below. Regular exams are in multiple-choice format and consist of about 30 questions. 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. This semester all exams will be conducted online and proctored electronically by the vendor determined by the university. All exams are closed book, closed notes and closed internet. Used a wired connection, not wireless, if possible. A digital formula sheet will be provided for your use, including statistical tables. You may use a scientific calculator during the exam, but NOT a cell phone or any type of device that connects to the internet or other people. Accessing notes and formulas from the course, accessing your cell phone or communicating with another individual during the exam is considered cheating. It is an honor code violation to copy, take pictures or disseminate any of the exam questions anywhere, to anyone. For exam security reasons, all students must take the exam at the same time. Academic dishonesty on any exam will result in a minimum penalty of a grade of zero on that exam.

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.

| Exam 1 - | Fri July 9 | Ch 10 and 14 | Comparing Groups |
|----------|--------------|--------------|---------------------------------------|
| Exam 2 - | Fri July 23 | Ch 12 and 13 | Regression |
| Exam 3 - | Fri August 6 | Ch11 and 15 | Chi Squared and Nonparametrics |

Grade Structure

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

Grading Scale:

| A | 90% to 100% | | 84% to 80% to | | 74% to 68% to | D | 60% to | 63% |
|----|-------------|-----------------------------|---------------|--|---------------|-----|----------|--------|
| A- | 87% to 89% | ¹ / ₀ | 77% to | | 64% to | (No | D+ or D- | given) |
| | | | | | | Е | 59% and | below |

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

Course Policies:

Email to Instructor – Please be aware that statistical questions should be answered in office hours since they often require pictures and formulas that make it very hard to communicate through email. When you email anything about the course, include "STA 3024" in the subject of your email.

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 the instructor 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 (such as 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. Information on Medical Withdrawal can be found at https://umatter.ufl.edu/ Information on how to Drop a class can be found in UF's Academic Catalog https://catalog.ufl.edu/

Students with Disabilities - Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, 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. Students with disabilities should follow this procedure as early as possible in the semester. This letter must be discussed with the

instructor directly, not with the TA, for accommodations on exams to be made. Accommodations will not be made retroactively, but only forward from the day that the letter was received. Special circumstances should be discussed in person with the instructor.

Instructor / Course Evaluations: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals or in their Canvas course menu under GatorEvals.

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 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, 392-1111 (or 9-1-1 for emergencies) http://www.police.ufl.edu