

STA 6209: Design and Analysis of Experiments

Spring 2009

Professor George Casella
Griffin-Floyd 225
casella@ufl.edu

Credits: 3

Prerequisite: STA 6208 or permission of instructor.

Familiarity with the material in STA 6326-6327
would also be helpful

Teaching Assistant:

Ruitao Liu (rliu@stat.ufl.edu)

Lecture and office hours

Lectures: Tues Period 4: 10:40-11:30, Thurs Periods 4 & 5 11:45-12:35

Griffin- Floyd 230

Office Hours: To be announced

Note: For the first month of classes I will teach double periods on both Tuesday and Thursday

Textbook *Statistical Design*. Casella, Springer-Verlag 2008

Course Web Page

The web page for the course is

<http://www.stat.ufl.edu/casella/STA6209/>

Homework There will be seven homework assignments. Due dates are given on the schedule below. Everyone is expected to do every problem that is assigned.

I would like to encourage you to hand in your assignments in Latex, to get you more familiar with it. Latex is available as a free download from <http://www.miktex.org/>.

First Assignment Due Thursday January 15

Exams

Midterm: Thursday MARCH 5

Final: Wednesday APRIL 30

Grades

Homework: 45%

Midterm: 15%

Final: 25%

Project: 15%

Each HW problem will be graded on a scale of 0-4. Homework is due in the TA mailbox by 5pm of the due date. If your homework is late it will be graded on a scale of 1-3.

Course Description

The strategy that I will use will be to go in the order of the text and try to cover as many topics as possible.

Term Project You will be required to write a five page term paper (No more than 5 pages, 1 1/2 spacing, 12pt font) that does the following

- (a) Select a design topic - preferably one that is not covered in class - but that is not a requirement
- (b) Select a paper *written before 1940* that addresses the topic
- (c) Select a paper *written after 1980* that addresses the topic
- (d) Compare and contrast the papers, with particular attention to the evolution of the topic.

The early paper could be one of R.A. Fishers. All of his papers are available at <http://digital.library.adelaide.edu.au/coll/special/fisher/>

Project Due Dates:

- (a) A one-page description of your project is due on **MARCH 26**. This needs to list the topic and the two papers that you will read (complete references).
- (b) The final project report is due **APRIL 30**

Project Grading:

- (a) 5% of your grade is for handing in the outline on March 26. This is a 0-100% grade. There is no late option.
- (b) 10% of your grade is for the completed written project.

Schedule

Refer to the schedule below. You are responsible for knowing when assignments are due and when exams are coming!!!

**Finally, what follows needs to be here according to UF regulations. Make sure you read it carefully.
This is serious stuff.**

Academic Honesty: The University of Florida requires all members of its community to be honest in all endeavors. Cheating, plagiarism, and other acts diminish the process of learning. When students enroll at UF they commit themselves to honesty and integrity. Your instructor fully expects you to adhere to the academic honesty guidelines you signed when you were admitted to UF. As a result of completing the registration form at the University of Florida, every student has signed the following statement: "I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University. Furthermore, on work submitted for credit by UF students, the following pledge is either required or implied: On my honor, I have neither given nor received unauthorized aid in doing this assignment. It is to be assumed all work will be completed independently unless the assignment is defined as a group project, in writing by the professor. This policy will be vigorously upheld at all times in this course.

Students with Disabilities Act: The Dean of Students Office coordinates the needed accommodations of students with disabilities. This includes the registration of disabilities, academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services, and mediating faculty-student disability related issues. Dean of Students Office, 202 Peabody Hall, 392-7066. www.dso.ufl.edu

Campus Helping Resources: Students experiencing crisis or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. Both the Counseling Center and Student Mental Health provide confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career and academic goals, which interfere with their academic performance. The Counseling Center is located at 301 Peabody Hall (next to Criser Hall). Student Mental Health is located on the second floor of the Student Health Services in the Infirmary.

Service	Location	Phone	Services provided
University Counseling Center	301 Peabody Hall	392-1575 www.counsel.ufl.edu	Personal and career counseling
Student Mental Health	Student Health Care Service	392-1171 www.hsc.ufl.edu/shcc/smhs.htm	Personal counseling
Sexual Assault Recovery Services (SARS)	Student Health Care Service	392-1161 counseling	Sexual assault
Career Resource Center	Reitz Union	392-1601	Career development assistance and counseling

Software Use: All faculty, staff and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.

	Tentative Topic	Tuesday	Thursday	Comments
1/5/09	Basics	HW1 Out		
12-Jan	Basics		HW1 Due	
19-Jan	CRD	HW2 Out		
26-Jan	CRD		HW2 Due	
2-Feb	Blocking	HW3 Out		
9-Feb	Blocking		HW3 Due	
16-Feb	Blocking	HW4 Out		
23-Feb	Blocking		HW4 Due	
2-Mar	Review		MIDTERM	Give the Midterm this week
9-Mar	Relax	Spring Break	Spring Break	
16-Mar	Split Plot	HW5 Out		
23-Mar	Split Plot		HW5 Due	Project Outline Due
30-Mar	Confounding	HW6 Out		
6-Apr	Confounding		HW6 Due	Public School Spring Break
13-Apr	Confounding	HW7 Out		
20-Apr			Last Day of Class HW 7 Due	Project due no later than final exam date
Final Exam - Wednesday April 30 5:30pm				
	Homework Schedule			
		Assigned	Due	
	HW1	Mon 1/5	Thurs 1/15	
	HW2	Mon 1/19	Thurs 1/29	
	HW3	Mon 2/2	Thurs 2/12	
	HW4	Mon 2/16	Thurs 2/26	
	HW5	Mon 3/16	Thurs 3/26	
	HW6	Mon 3/30	Thurs 4/9	
	HW7	Mon 4/13	Thurs 4/23	