# STAT 6201 Mathematical Statistics

# **AUTUMN 2016**

# **Contact information**

Lecturer: Radu Herbei, Ph.D. (lastname [at] stat.osu.edu)

Office hours: 223 Cockins Hall, MW 9:20am-10:00am and by appointment.

### Class information

Location: Lecture: MWF 8:00am - 9:15am, Bolz Hall 316.

Website: http://academics.rherbei.com/ (u: stat6201, pw: mathstat) Grades will be posted on

http://carmen.osu.edu/

Required text: Probability and Statistics, Fourth Edition, by Morris H. DeGroot and Mark J. Schervish, Pearson

Education, 2012.

Please read the textbook as the course progresses, as I will not cover everything in class.

# Course description and objectives

Statistics 6201 offers an introduction to some of the core concepts from probability theory and statistical inference. The goals for this course include: understanding basic probability theory, random variables, expectations and conditioning, basic modeling of certain phenomena using probability distributions as well as basic statistical inference including point estimation and hypothesis testing.

## **Prerequisites**

MATH 2153 (multivariable differential and integral calculus) or permission of instructor. This course is not open to students with credit for STAT 6301.

## **Evaluation**

Homework - 20%, Midterm exam I - 25%, Midterm exam II - 25%, Final exam - 30%.

#### Homework

Homework will be assigned regularly. Late assignments will NOT be accepted. Students are required to write clear and detailed answers to all homework problems. You are encouraged to discuss homework problems with other students but you have to prepare and present your own solutions. Feel free to ask me for help after you have made an attempt to solve the problems. Do not copy any part of a homework.

### Midterms and final exam

There will be two midterms and one final exam. All exams are in-class and closed book. For each exam (including the final exam) you are allowed to bring two 8.5"x11" sheets of handwritten notes (both sides) and a scientific calculator (something similar to a TI-83). You will not be allowed to use your cell phone, tablet, laptop, smart watch, or any other device with capability to connect to the Internet, or to other devices. The final exam will be comprehensive. There will be NO make-up exams, for any reason. Missed exams will automatically be assigned a score of 0. Missed exams with an excused absence (documented, with a verifiable source) will be replaced by the final exam.

Midterm I will be on Friday, October 7, 2016 in class.

Midterm II will be on Wednesday, November 9, 2016, in class.

The **Final exam** will be on Monday, December 12, 2016, 8:00am - 9:45am, in class.

# Attendance policy

It is strictly required to attend all the classes. It is the student's responsibility to make up for the material covered in class during any absence.

#### Communication

All electronic communication (email) will be done through an "name.#@(buckeyemail.)osu.edu" email address. I will not read or respond to correspondence coming from any other email server (gmail, yahoo, etc.) I will do my best to respond to your emails within a reasonable time frame, during business hours.

# **Special accommodations**

If you need any accommodations based on the impact of a documented disability, contact the instructor privately to discuss specific needs, within a week. You should also contact the Office of Disability Services to coordinate special accommodations.

### Academic misconduct

Academic misconduct will not be tolerated and will be dealt with procedurally in accordance with university policy.

#### **Disclaimer**

This syllabus should be taken as a fairly reliable guide for the course content. However, you cannot claim any rights from it and in particular I reserve the right to change the methods of assessment. Official announcements will ALWAYS be those made in class.