

# Statistics 213: Introduction to Applied Statistics

Sections 11, Fall 2020, MW 7 - 8:15p

**Instructor:** Ardalan Jalayer    **Email:** [aj145@hunter.cuny.edu](mailto:aj145@hunter.cuny.edu)    **Office hours:** *discussed on first class meeting*

## Learning Outcomes.

This course emphasizes statistical literacy and develops statistical thinking. Statistical literacy is promoted throughout the text in the many examples and exercises, drawn from published research findings and the popular press. Many of the examples and exercises discussed will highlight the central role of probability and statistics in 21<sup>st</sup> century science. Students should understand how to adequately interpret and communicate statistical results. Understanding the nature and role of variability is key to developing sound skills in statistical thinking.

**Textbook:** Introduction to Statistics and Data Analysis, Enhanced Review Edition (5th Edition) by Roxy Peck, Chris Olsen, Jay L. Devore. Duxbury Press; **WebAssign is mandatory!** Webassign comes with online pdf version of the textbook so you do not need to buy the physical textbook, just the Webassign. Go to [www.webassign.net](http://www.webassign.net) and click “enroll in class” in the top right corner. There you will input the Class Key, which is given below. You will see my name and this class and you can then proceed to enter your info and payment.

**Class key** for WebAssign (self-enrollment): **hunter 3785 6948**

## Exams

Exam 1, Exam 2, and the Final Exam will all be conducted on blackboard. The exam dates are indicated clearly on the Course Schedule below. Exam 1 and Exam 2 will both be 75 minutes. The Final Exam is 2 hours. Exam 1 and Exam 2 will be available to start from 7pm, and must be completed by 8:15pm on the dates specified on the Course Schedule. The Final Exam will be available at the date and time indicated in the Course Schedule below.

The Final Exam will count twice. In the end of the semester you will have 4 exam grades. Of the four exam grades I will drop the lowest. Exams are 80% of your grade.

## Homework

There will be 10 webassign homework assignments that follow the course material. They all have a hard due date of **12/16 11:59PM**, but you should not wait until the last days to complete them. Homework is 20% of your grade.

## Office Hour

I will be holding a live office hour every **Monday from 7 - 8pm**. If you have questions you must attend and ask them there. This will be conducted on Blackboard Collaborate Ultra.

## Technology requirements and Student Responsibilities

Students are expected to access our course blackboard page regularly, accessing course material, including powerpoint lecture slides, video lectures, and webassign homework. Exams are conducted online via blackboard.

## AccessABILITY

In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical, and/or Learning) consult the Office of AccessABILITY, located in Room E1214B, to secure necessary academic accommodations. For further information and assistance, please call: (212)772-4857 or (212) 650-3230.

## Incomplete and Credit/Non-Credit

Only students averaging C or above in the course who miss the final exam for documented emergencies are eligible to apply for Incompletes. Students wishing to request a CR/NC grade must do so prior to taking the final exam and must take all the exams, including the final exam, and have at least a 40% average.

## Policy on Cheating

Cheating is an extremely serious offense. A student caught copying someone else's work and claiming it as his/her own will receive an F for this class, and could face disciplinary action, including suspension from Hunter College and loss of

academic benefits. Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offense against the values of intellectual honesty. The college is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures.

### **Dolciani Mathematics Learning Center Resources**

The Dolciani Center is doing online tutoring to help students during the quarantine. Email and website below:

General information: [dmlc@hunter.cuny.edu](mailto:dmlc@hunter.cuny.edu)

Dolciani website: [www.hunter.cuny.edu/dolciani](http://www.hunter.cuny.edu/dolciani)

### **Tentative Course Schedule:**

<b>Date</b>	<b>Topics</b>	<b>Text Sections</b>
Wed 8/26	Introduction	1.1-1.4
Mon 8/31	Graphical summaries of data	3.1-3.3
Wed 9/2	Numerical summaries of data	4.1-4.4
Wed 9/9	Probability	6.1-6.3
Mon 9/14	Random variables	7.1-7.4
Wed 9/16	The binomial distributions	7.5
Mon 9/21	The normal distributions	7.6
Wed 9/23	The sampling distribution of the sample mean	8.1-8.2
Tues 9/29	Review	
Wed 9/30	<b>First midterm exam</b>	
Mon 10/5	Confidence intervals for proportions	8.3, 9.1-9.2
Wed 10/7	Confidence intervals for means	9.3
Wed 10/14	Hypothesis testing	10.1-10.2
Mon 10/19	Hypothesis tests for proportions	10.3
Wed 10/21	Hypothesis tests for means	10.4
Mon 10/26	Comparing two means	11.1
Wed 10/28	Review	
Mon 11/2	<b>Second midterm exam</b>	
Wed 11/4	Paired data	11.2
Mon 11/9	Comparing two proportions	11.3
Wed 11/11	Conditional probability and independence	6.4-6.5
Mon 11/16	Bayes' rule	6.6
Wed 11/18	Inference in two-way tables	3.1, 12.2
Mon 11/23	Bivariate data: scatterplots and correlation	3.4, 5.1
Mon 11/30	Least squares regression	5.2-5.3
Wed 12/2	The simple linear regression model	13.1-13.2
Mon 12/7	One Factor ANOVA	15.1
Wed 12/9	Review (last class meeting)	
Mon 12/14	6:20 - 8:20pm Final Exam	