bStatistics 213: Introduction to Applied Statistics

Sections

STAT 213.09 Fall 2018, MW 7:00 – 8:15 PM HW 411   <mark>Hunter 1304 9227</mark>
STAT 213.11 Fall 2019, MW 8:25 – 9:40 PM HW 205   <mark>Hunter 3035 9043</mark>

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Office hours: Wednesday 6-7PM @ Adjunct Office at Statistics and Math Department

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 21st 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 for the course.**

Class key for WebAssign (self-enrollment):   Please refer to your section above for class code.

Grading Policy

There are online homework assignments (worth 20% of the grade), and two in-class non-cumulative tests and a final exam (the remaining 80%). The tests and final are closed book exams. Calculators and formula sheets are allowed – one letter size page handwritten note for exam 1 and 2, two pages of hand written notes for the final. **There will be no remake for the tests and final.** See below for details.

Grading : Final Grade =   HW x 0.2 + TEST x 0.8

HW – 20% - your homework grade from Web assign.

Tests – 80% - 3 tests in total: Test 1, Test 2 and Final

> Two scenarios:
> 1.   If Test 1 or 2 is the lowest score, the lowest test score will be dropped, and your final exam will be counted twice.
> i.e Generic student Joe has 40 in Test 1, 80 in test 2 and 90 in final. His exam grade will be calculated by (80+90+90)/3 = 86.7
>
> 2.   If final is the lowest score, your final exam will be counted only once, and your test score will be the average of all three exams.
> i.e Generic student Linda has 80 in test 1, 90 in test 2 and 50 in final. Her exam grade will be calculated by (80+90+50)/3 = 73.3

Incomplete and Credit/Non-Credit

Students wishing to *request an INC grade* must do so in writing explaining the reasons, AND have AT LEAST a C average. Students wishing to *request a CR/NCR grade* must have taken the exams, 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 located in the Library, 7th Floor, East Building. The lab provides multimedia materials (videotape & CDs), as well as tutoring. More information to be distributed shortly by the Center ambassadors.

Tentative Schedule (also see attached printable schedule on BB)

Week 1: August 28 – Class 1
        Introduction
        Chapters1 The Role of Statistics and the Data Analysis Problem
Week 2: September 4, 5. – Class 2, 3
        Chapter 2 Collecting Data Sensibly.
        Chapter 3 Graphical Methods for Describing Data
        Chapter 4 Numerical Methods for Describing Data

Week 3: September 9, 11 – Class 4, 5
        Chapter 4 Numerical Methods for Describing Data
        Chapter 6 Probability

Week 4: September 16, 18 – Class 6, 7
        Chapter 6 Probability

Week 5: September 23, 25 – Class 8, 9
        Chapter 7 Random Variables and Probability Distributions

Week 6: October 2 – Class 10
        Review for test 1

Week 7: October 7– Class 11
        Test 1- Tentative

Week 8: October 16 – Class 12
Chapter 8 Sampling Variability and Sampling Distributions

Week 9: October 21, 23 – Class 13, 14
Chapter 9 Estimation Using a Single Sample (CL)
Chapter 10 Hypothesis Testing Using a Single Sample (Z and T test)

Week 10: October 28, 30 – Class 15, 16
Chapter 10 Hypothesis Testing Using a Single Sample (Z and T test)
Chapter 11 Comparing Two Populations or Treatments (Two sample)

Week 11: November 4, 6 – Class 17, 18
Chapter 11 Comparing Two Populations or Treatments (Two sample)
Review for Test 2

Week 12: November 11, 13 – Class 19, 20
Test 2 - Tentative
Chapter 12 The Analysis of Categorical Data and Goodness-of-Fit Tests

Week 13: November 18, 20 – Class 21, 22
Chapter 5 Summarizing Bivariate Data (LSR, Correlation)

Week 14: November 25, 27 – Class 23, 24
Chapter 5 Summarizing Bivariate Data (LSR, Correlation)
Chapter 13 Simple Linear Regression and Correlation: Inferential Methods (optional)

Week 15: December 2, 4 – Class 25, 26
Chapter 15 Analysis of Variance

Week 16: December 9, 11 – Class 27, 28
Review for the final