

Introductory Statistics (Math 227 – 1495)

Winter 2015

Syllabus

Instructor: Aaron Simo

Office: MSB 214 or MSA 109

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Office Hours: M-F for 30 minutes after class

Classroom: MSA 109

Class Time: M-F 10:45-1:20pm

Prerequisites: Completion of Math 125 with a grade of C or better

Course description: This 4-unit course is an introduction to probability, measures of central tendency and dispersion, descriptive and inferential statistics including sampling estimation, hypothesis testing, analysis of variance, chi-square and student's t test, linear correlation and regression analysis.

Textbook: Statistics: Informed Decisions Using Data, 3rd Edition by Sullivan. You may be able to rent one from the Bookstore. However, it might be less expensive to buy a used copy online. ISBN: 0321568028 OR 978-0-321-56802-1-0-321-56802-8

Calculators: A calculator is required for this class. TI-83 or 84 are recommended. (Plus, Silver, etc.) IT-89 and Nspire are also ok. You can rent calculators online. For example www.ticalculator.org, or www.graphtr.com.

Homework: Will be shown to me Tuesdays and Fridays. On Tuesday you'll line up in the beginning of class, and show me the homework from Wednesday, Thursday and Friday. On Friday you'll line up in the beginning of class, and show me the homework from Monday, Tuesday. If you did half of the homework you'll get 0.5, if you did all of it, you'll get 1, etc.

Classwork: Will be done most classes. I'll give you a problem similar to what is covered in the lecture. You'll solve it, and then show me. If it's correct, then you'll get credit.

Midterms: There will be 3 midterms. No make-up exams will be given! If you know in advance that you'll miss an exam, then it's possible to arrange to take it in advance, but no exam will be given after the class has taken it. The final exam score may replace your lowest score.

Final Exam: The final exam is cumulative, so keep your midterms to use as a study guide.

Grade is calculated in the following way:

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Tests	55%	90-100%	A
Homework/Classwork	20%	80-89%	B
Final	25%	70-79%	C
		60-69%	D
		59% and below	F

Attendance: If you miss three classes or two consecutive classes you will be dropped from the class.

Math 227 Winter 2016, Tentative Schedule: Subject and likely to change.

M	T	W	Th	F
12/4/2015 Ch. 1, 2.1,2, 3.1,2,4	5 5.1,2	6 5.3,4	7 5.5,6, 6.1	8 6.2, 7.1
11 Test 1 (Up to 6.2), 7.2	12 7.3, 4	13 7.5, 8.1	14 8.2	15 9.1, 9.2
18 Holiday	19 9.3, 9.4	20 10.1, 10.2	21 Test 2 (7.1 to 9.4), 10.2	22 10.3, 10.4
25 10.5, 11.1	26 11.2, 3	27 11.4, 12.2	28 13.1	29 4.1,2,3
1 Test 3 (10.1 to 13.1), 14.1	2 Review	3 Review	4 Review	5 Final Exam (Includes all sections from the class)

STUDENTS WITH DISABILITIES: Students with disabilities who believe they may need accommodations in this class are encouraged to contact Disabled Students Programs and Services located in SSB 320 (phone 310-287-4450) immediately to improve the chances that such accommodations can be implemented in a timely manner. The instructor will do everything possible to comply with ADA and all other mandates.

Official Institutional SLOs—Student Learning Outcomes
Critical Thinking: Analyze problems by differentiating fact from opinions, using evidence, and using sound reasoning to specify multiple solutions and their consequences.
Quantitative Reasoning: Identify, analyze, and solve problems that are quantitative in nature
Technical Competence: Utilize the appropriate technology effectively for informational, academic, personal, and professional needs. Official

Program SLOs. 1.) Apply quantitative thinking processes using basic mathematical operations to solve common academic, workplace, and family problems. (Theme: mathematical operations) 3.) Use mathematical tools essential for analyzing quantitative problems and for producing solutions. (Theme: mathematical tools) 5.) Select appropriate math strategies for solving and handling real life problems involving finance, economics, and family issues. (Theme: mathematical problem-solving)

Course Objectives (as stated in the Course Outline of Record)

1. Compute the measures of Central Tendency: the mean, mode, median, as well as the quartiles and percentiles of grouped or ungrouped data. 2. Compute the measures of variations, standard deviations, variance, and range of grouped or ungrouped data. 3. Find and exhibit the probability of events and the Z-score of sample data. 4. Identify, demonstrate and apply the use of the Binomial and Normal Distribution in statistical applications. 5. Explain and use the Central Limit Theorem. 6. Make inferences of population parameters. 7. Describe and use the Chi Square distribution. 8. Describe and explain statistical estimation and test of hypotheses. 9. Test hypotheses of population parameters from sample data. 10. Discuss and write a linear model for the relationship between two variables.