MATH 2020 - Applied Statistics

I. Course Information

Course: MATH 2020 - Applied Statistics
Semester Credit Hours: 3.0
Course CRN and Section: 20125 - 6W2
Semester and Year: Fall 2017
Course Start and End Dates: 10/16/2017 - 12/10/2017
Building and Room: Online Venue - BLACKBOARD

II. Instructor Information

Professor: Chrisnel Lamy
Email:
Phone: 954 - 262-8329

III. Class Schedule and Location

Day	Date	Time	Location	Building/Room
	10/16/2017 - 12/10/2017		On-line Course	Online Venue-BLACKBOARD

IV. Course Description

This course is an introductory course in the use of descriptive and inferential statistics. Topics include graphical and numerical descriptive measures, probability, common random variables and their distributions including the binomial and normal distributions, the Central Limit Theorem, sampling procedures, confidence intervals, and hypothesis testing. This course has been exempted from the requirements of the Writing Across the Curriculum policy. Prerequisite: MATH 1040 or higher. Frequency: Every Fall and Winter.

V. Course Objectives / Learning Outcomes

1) Produce and explain graphical and numerical measures of central tendency and variation in data.
2) Understand probability fundamentals and distributions.
3) Describe data coming from binomial and normal distributions.
4) Produce point and interval estimates for population means and proportions.
5) Conduct proper hypothesis tests for population means and proportions.

VI. Materials and Resources

Book Url: NSU Book Store
Section Required Texts and Material: **Title: Elementary Statistics Plus MyStatLab – Access Card**

Package, 13/E
Author: Mario F. Triola
Publisher: Pearson
Edition: 13th
ISBN-13: 978-0-13-446245-5
ISBN 10: 0-13-446245-9

VII. Course Schedule and Topic Outline

{iSectionSchedule}

Topic Outline: COURSE SCHEDULE AND TOPIC OUTLINE: MATH2020 / 6W2 SYLLABUS (7 Weeks)
SECTIONS TO BE COVERED:

Week1

Chapter1:
1.1: Statistical and Critical Thinking
1.2: Types of Data
1.3: Collecting Sample Data (Note – Sections 1.1 – 1.3 should be reading assignment for students)

Week2

Chapter2:
2.1: Frequency Distributions for Organizing and Summarizing Data
2.2: Histograms
2.3: Graphs That Enlighten and Graphs That Deceive
2.4: Scatter Plots, Correlation, and Regression

Test # 1

Week3

Chapter3:
3.1 Measures of Center
3.2 Measures of Variation
3.3 Measures of Relative Standing and Boxplots **Week4**

Chapter4:
4.2: Basic Concepts of Probability
4.3: Addition Rule and Multiplication Rule
4.5: Complements, Conditional Probability, and Bayes' Theorem
4.6: Counting.

Test # 2

Week5

Chapter5:
5.1: Probability Distribution
5.2: Binomial Probability Distribution

Chapter6:
6.1: The Standard Normal Distribution

Week6

6.2: Real Applications of Normal Distributions
6.4: The Central Limit Theorem
6.6: Normal as Approximation to Binomial.

Test # 3

Week7

Chapter7:
7.1: Estimating a Population Proportion
7.2: Estimating a Population Mean

Chapter8:
8.1: Basics of Hypothesis Testing
8.2: Testing a Claim about a Proportion
8.3: Testing a Claim about a Mean

Final Exam

VIII. Assessments

Evaluation and Class assignments: During this semester two quizzes, three online tests, and one cumulative online final will be used to evaluate the student skills and progress. Also, MyMathLab (MML) online platform will be used to post homework assignment and others learning materials for the class. Students are expected to create an MML account before the beginning of the class, and make sure that all homework are submitted on time.

IX. Grading Criteria

Final Grade:

TYPE OF ASSIGNMENTS	WEIGHT %
TESTS :	35
QUIZZES :	10
HOMEWORK:	25
FINAL EXAM :	30
TOTAL :	**100 Grading Scale:**

GRADING SCALE:

PERCENTAGE	FINAL GRADE
92 - 100	A
88 - 91	A-
86 - 87	B+
82 - 85	B
78 - 81	B-
76 - 77	C+
72 - 75	C
68 - 71	C-
66 - 67	D+
60 - 65	D
Below 60	F

X. Course Policies

General Policy: COURSE REQUIREMENTS:

In order to assure a learning environment as productive as possible, all students are expected to comply with the following rules of conduct and policies:

1. Attendance and Makeup Policy: Students are expected to attend class regularly. Repeated absences might affect your final grade, or might be penalized by an "Failing' Grade if no valid proof of absence has not been submitted to the instructor. Notice that makeup will not be allowed to students who fail to provide a valid proof of absence.

2. Class Participation: Student are expected to get involved in all class activities; any thoughts, ideas, or comments related to the class material are welcome. Don't be shy, feel free to ask any mindful questions that might be helpful to clarify any subject or topics that are presented in class lecture.

3. Calculator and IT Policy: A scientific calculator is greatly recommended for this class; A TI-83 / 84 might be a good one. But, also students are encouraged to use statistical software (Excel, StatCrunch, R, SPSS, Minitab, ect) for homework and class project. Students can use their calculator for any online assignments.

4. Cheating Policy: In any form, cheating is not allowed at NOVA. So, students are expected to comply accordingly with the University academic dishonesty rules. For further detail, please visit the University-Wide Policy Statement web page:

XI. University Policies

Students should visit http://www.nova.edu/academic-affairs/nsu-syllabus-policy.html to access additional required college-wide policies. It is your responsibility to access and carefully read these policies to ensure you are fully informed. As a student in this class, you are obligated to follow these college-wide policies in addition to the policies established by your instructor.
The following policies are described on this website:

- Academic misconduct
- Last day to withdraw
- Email policy
- Student course evaluations
- Student responsibility to register
- Student responsibility for course prerequisites

Academic Resources

Nova Southeastern University offers a variety of resources that may aid in student success. Among these resources are:

Accommodations for students with documented disabilities: For more information about ADA policy, services, and procedures, students may call the Office of Student Disability Services at 954-262-7189 or visit http://www.nova.edu/disabilityservices.

Tutoring and testing center:
Students are encouraged to use the free, individualized tutoring services offered by the Tutoring and Testing Center (TTC). TTC provides a supportive atmosphere in which tutors and students work collaboratively on improving students' writing, math and/or science skills. http://www.nova.edu/tutoring-testing/index.html