

BGEN 202: Decision Science 1

Spring 2019; CRN#20105; TR 2:00 – 3:15 PM, RH 303, 3 credit hours

Instructor: Muhammad M. Islam, Ph.D.

Title: Professor

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Office Hours: MW 2:30 - 4 PM, TR 3:15-4:15 PM, and by appointment

Department of Business Administration: www.concord.edu/academics/business/

Text: Anderson, Sweeney, Williams, Camm and Cochran: Statistics for Business and Economics, 13th edition; ISBN: 978-1-305-58531-7

Pre-requisite: Minimum ACT Score of 19

Course Delivery: Lecture, Homework, assigned readings, internet. Lecture may include material not discussed in text.

Hardware/Software Requirements: Internet access, Excel

Course Description: Introduction to the use of statistics in business decision making. Calculation and interpretation of descriptive statistics, probability distribution, sampling distribution, hypothesis tests, time series analysis for univariate data sets and quality control issues. Additionally, statistical relations in bi-variate and multi-variate data sets, including correlations, simple and multiple regressions will be covered.

Learning Goals: Upon completion of this course, student should have basic understanding of statistical analysis and inferences as required of a modern firm

Course Outline

Measures of Central Tendency: Mean, Variance, Standard deviation; chapter 3

Probability distribution: Discrete and Continuous Probability, Normal Distribution, Mean, Variance, Standard deviation; chapter 4 - 6

Sampling distribution: Mean, Variance, Standard deviation, Central Limit Theorem, Practical Applications; chapter 7

Confidence Intervals: Meaning; constructing confidence intervals when population standard deviation is known and unknown; Practical Applications ; chapter 8

Hypothesis Testing: One tail and two tail hypothesis tests; Practical Applications; chapter 9

Exam 1

Statistical Quality Control: Statistical Process Control using sample mean, range and proportions and other topics; ch 19

Time Series and Forecasting: Moving Average forecasting, exponential forecasting, de-seasonalizing time series data, Linear Trend Model; chapter 17

Exam 2

Simple Linear Regression: The Regression Model, Least Square Method, Co-efficient of Determination and Correlation co-efficient, Test of Significance, predictions; chapter 14

Exam 3

Multiple Regression: The Regression Model, Estimation, Co-efficient of Determination, Correlation Co-efficient, Tests of Significance; chapter 15

Other topics will be included if time permits

Exam 4

You will be responsible to learn the out-of-the-book materials that I will discuss. I will help and guide you. Exam questions will not be restricted to the text only.

Evaluation & Grading Policy

- Exam 1 25 points (approximately 2/21/19)
- Exam 2 25 points (approximately 3/19/19)
- Exam 3 25 points (approximately 4/18/19)
- Exam 4 25 points (final exam week; see schedule)

All students must write Exam 4 on the due date and time unless allowed for reasons as mentioned in make-up policy (see below). Do not come to me with any other excuses such as I bought a plane ticket.

**Dates for exam 1 through exam 3 may be changed depending on progress.
(Announcement will be made before each test)**

Make-up Policy: Make up for the tests will be given if the absence is due to: (i) illness requiring visit to the doctor (ii) participation in college related activities (iii) death of an immediate family member. **If you must miss a test, you must notify me prior to the test. If you do not notify me, you may not be given the test.**

Late Work: Homework will not be graded but answers will be discussed in the class. It is most important that you bring the homework when due. If you don't, it may affect your final grade in the event that I give you extra point towards a better grade

Grading Standards

90-100 % = A
80-89% = B
70-79% = C
60-69% = D
Below 60% = F

Class Attendance Policy: Regular class attendance is required. If you miss classes, you may not grasp a lecture which is related to a previous lecture. Also, I may not give you any extra point that I may give others towards a better grade

Accessibility/Accommodations: Concord University is committed to responding to the needs of students with disabilities as defined by the Americans with Disabilities Act. Please inform your instructor at the beginning of the class semester if you have a disability and are requesting accommodations. It is your responsibility to self-disclose that you are requesting accommodations. The University and instructor will provide you with a reasonable accommodation. You should register with CU's Disability Services Office, located in the Athens campus Jerry and Jean Beasley Student Center, Bottom Floor, across from the Campus Post Office. The Disability Services Office phone is 304-384-6086 or you can email the Director, Nancy Ellison, at nellison@concord.edu for assistance.

Academic Dishonesty

Academic dishonesty is morally unacceptable as well as destructive to the learning and teaching atmosphere. Academic dishonesty includes the giving or receiving of improper help on examinations or assignments, falsifying documents, and plagiarism (the act of stealing and using, as one's own, the ideas or the expression of the ideas of another). Such dishonesty can lead to a variety of penalties — including but not limited to failure of assignment, failure of course, loss of institutional privileges, or dismissal from the University. (See University Catalog Academic Policies and Procedures.)

Concord University Honor Code

A Concord University Honor Code was approved by students, staff, faculty, administration, and the CU Board of Governors. The Code states: "As a member of the Concord University Community I will act with honesty and integrity in accordance with our fundamental principles and I will respect myself and others while challenging them to do the same." The Honor Code is intended to unite the Concord community behind a culture of honesty, integrity, and civility.

Class/Online Attendance Policy

Regular class attendance is part of a student's academic obligation at Concord. Irregular attendance may affect academic performance adversely and is detrimental to the atmosphere of a class. (See University Catalog Academic Policies and Procedures.)

Emergency Alert System

In an effort to increase safety and security on our campus, Concord University encourages everyone to register for instant text message alerts. Alerts will only be used for security and safety notices. All students, faculty, and staff are eligible to receive text message alerts on their cell phones or email alerts. Please contact the IT Help Desk for further assistance (304-384-5291).

Emergency Information

Emergency/courtesy telephones are located at the main entrance of each residence hall and at various other locations on campus. Emergency telephones can be identified by the flashing blue light and will provide the user with a direct link to Public Safety at the press of a button. To report an on-campus emergency, call 304-384-5357 or 911. The Office of Public Safety is located on the bottom floor of the Rahall Technology Center. For further emergency information go to: <http://www.concord.edu/administration/office-public-safety>.

Inclement Weather Policy

As a general policy, the University will remain in normal operations during adverse weather conditions. In the event of severe weather conditions, the following may occur:

University Closure: No students or employees are to report.

Classes Cancelled: Students do NOT report BUT employees are expected to report to work at their normal time.

Operating on an Inclement Weather Delay Under this schedule, all 8 a.m. classes will start at 10 a.m. Students and faculty will follow the Inclement Weather Schedule. (See <http://www.concord.edu/emergency-alerts> for Athens/Beckley Inclement Weather Schedules.); **2:20-3:20 PM for this class**

*Announcements invoking the late schedule or other options referenced above are aired on area radio and television stations and are sent as text and email messages to those enrolled for this service.

Student Conduct

In classrooms, online, laboratories, and during any activities that are part of course requirements, students are expected to observe reasonable rules of conduct.

Sexual Harassment & Assault

Federal law, Title IX, and Concord University policy prohibits discrimination, harassment, and violence based on sex and gender (Including sexual harassment, sexual assault, domestic/dating violence, stalking, sexual exploitation, and retaliation). If you or someone you know has been harassed or assaulted, you can receive confidential counseling support through the Concord University Counseling Center (304-384- 5290). Alleged Violations can be reported non-confidentially to the Concord University Title IX Coordinator at 304-384-6327 or titleix@concord.edu. Reports to Campus Security can be made at (304- 384-5357). As an employee at Concord University, I am a mandatory reporter which means I must report any sexual misconduct I am made aware of. This includes verbal or written (such as in an assignment) disclosures of sexual harassment or sexual assault.

Syllabus Disclaimer "This syllabus is subject to change based on the needs of the class. Please check it regularly."