



MATH 1342.045 DC – Introductory Statistics F2F

Course Syllabus: Spring 2021

“Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed.”

Instructor: Olivia Juarez

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Office	Monday	Tuesday	Wednesday	Thursday	Friday	Online
Hours	7:30-7:55 AM 3:30-4:00 PM	7:30-7:55 AM 3:30-4:00 PM	7:30-7:55 AM 3:30-4:00 PM	7:30-7:55 AM 3:30-4:00 PM	7:30-7:55 AM	By Appointment

This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.

Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.

Course Description: This is a first course in statistics with topics that span collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Three hours credit.

Prerequisite(s): 1) TSI Not Complete – Multiple Measures Placement with Corequisite Model
or 2) TSI Complete Status

Student Learning Outcomes:

1342.1 Explain the use of data collection and statistics as tools to reach reasonable conclusions.

1342.2 Recognize, examine and interpret the basic principles of describing and presenting data.

1342.3 Compute and interpret empirical and theoretical probabilities using the rule of probabilities and combinatorics.

1342.4 Explain the role of probability in statistics.

1342.5 Examine, analyze and compare various sampling distributions for both discrete and continuous random variables.

1342.6 Describe and compute confidence intervals.

1342.7 Solve linear regression and correlation problems.

1342.8 Perform hypothesis testing using statistical methods.

Core Curriculum Purpose and Objectives:

Through the core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world; develop principles of personal and social responsibility for living in a diverse world; and advance intellectual and practical skills that are essential for all learning.

Courses in the foundation area of mathematics focus on quantitative literacy in logic, patterns, and relationships. In addition, these courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience.

Program Student Learning Outcomes:

Critical Thinking Skills

CT.1 Students will demonstrate the ability to 1) analyze complex issues, 2) synthesize information, and 3) evaluate the logic, validity, and relevance of data.

Communication Skills

CS.1 Students will effectively develop, interpret and express ideas through written communication.

Empirical and Quantitative Skills

EQS.1 Students will manipulate numerical data or observable facts by organizing and converting relevant information into mathematical or empirical form

EQS.2 Students will analyze numerical data or observable facts by processing information with correct calculations, explicit notations, and appropriate technology.

EQS.3 Students will draw informed conclusions from numerical data or observable facts that are accurate, complete, and relevant to the investigation.

Evaluation/Grading Policy:

Daily Assignments 15%

Exams 45%

Projects 20%

Final Exam (no exemptions) 20%

“A” 90-100%

“B” 80-89%

“C” 70-79%

“D” 60-69%

“F” Below 60%

Required Instructional Materials: Triola, Elementary Statistics, 13th Edition with MyMathLab access code

Publisher: Pearson Publishing Co. (www.pearson.com)

ISBN Number:978-0-13-474853-5

Optional Instructional Materials: none

Minimum Technology Requirements: Graphing Calculator, Microsoft Office (including Excel)

Required Computer Literacy Skills: Communicate via email, saving and reloading saved files, navigate myMathLab

Course Structure and Overview:

This is a 16-week face-to-face course where students are required to access graded activities on MyMathLab via the Blackboard Learning Management System. A typical class involves general participation by all students in discussions involving mathematical and statistical principles and the algorithms to apply these principles. Students are required to complete online homework in addition to weekly in-class quizzes, and over the course of the semester, three projects, three exams and a final exam. It is very important students keep up with course materials and assignments since this is a very fast paced, college-level course. Students are expected to watch posted instructional videos, read course textbook, and complete online assignments located in the Learning Management System, Blackboard by due dates.

Communications:

The college's official means of communication is via your campus email address. I will use your campus email and Blackboard to communicate with you outside of class. Make sure you keep your campus email cleaned out and below the limit so you can receive important messages.

Institutional/Course Policy: No late work will be accepted. It is the student's responsibility to check Blackboard for important information/announcements regarding the course. Students should be working on course material via Blackboard every week. Do not wait until the last minute to complete and submit assignments in case of technology issues.

Alternate Operations During Campus Closure and/or Alternate Course Delivery Requirements

In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Northeast Texas Community College to move to altered operations. During this time, Northeast Texas Community College may opt to continue delivery of instruction through methods that include, but are not limited to, online through the Blackboard Learning Management System, online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor NTCC's website (<http://www.ntcc.edu/>) for instructions about continuing courses remotely, Blackboard for each class for course-specific communication, and NTCC email for important general information.

Additionally, there may be instances where a course may not be able to be continued in the same delivery format as it originates (face-to-face, fully online, live remote, or hybrid). Should this be the case, every effort will be made to continue instruction in an alternative delivery format. Students will be informed of any changes of this nature through email messaging and/or the Blackboard course site.

NTCC Academic Honesty/Ethics Statement:

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the

Student Handbook. Refer to the student handbook for more information on these subjects.

ADA Statement:

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student’s responsibility to request accommodations. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to the special populations page on the NTCC website.

Family Educational Rights and Privacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children’s educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered “eligible students.” In essence, a parent has no legal right to obtain information concerning the child’s college records without the written consent of the student. In compliance with FERPA, information classified as “directory information” may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student’s name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

Tentative Course Timeline (*note* instructor reserves the right to make adjustments to this timeline at any point in the term):

Course Outline: All due dates for daily assignments are posted in myMathLab, project deadlines will be posted in blackboard and test are paper format due at the end of the class period.

Jan4	School Holiday		Mar22	7.2 Estimating a Population Proportion
Jan5	School Holiday		Mar23	7.3 Estimating a Population Mean
Jan6	Staff Development		Mar24	7.3 Estimating a Population Mean
Jan7	Intro to Statistics		Mar25	7.4 Estimating a Population Standard Deviation or Variance
Jan8	1.2 Statistical and Critical Thinking		Mar26	Cooperative Group Activites page 372, #1,2 and 4
Jan11	1.3 Data Type		Mar29	Cooperative Group Activites page 372, #1,2 and 4
Jan12	1.4 Collecting Sample Data		Mar30	Chapter 7 Review
Jan13	Chapter 1 Review		Mar31	Chapter 7 Test
Jan14	Chapter 1 Test		Apr1	Project Day
Jan15	Survey Sampling and Corrections (students will find online surveys and critique them for statistical bias.		Apr2	Bad Weather Day
Jan18	School Holiday		Apr5	Possible Bad Weather Day

Jan19	2.2 Frequency Distribution		Apr6	8.2 Basics of Hypothesis Testing
Jan20	2.3 Histograms		Apr7	8.2 Basics of Hypothesis Testing
Jan21	2.4 Graphs that Enlighten and Graphs that Deceive		Apr8	8.3 Testing a Claim About a Proportion
Jan22	Chapter 2 Review		Apr9	8.4 Testing a Claim About the Mean
				end of six weeks
Jan25	Chapter 2 Test		Apr12	8.5 Testing a Claim About a Standard Deviation or Variance
Jan26	Chapter 3 Vocabulary (look up, define and represent)		Apr13	Chapter 8 Review
Jan27	3.2 Measures of Center		Apr14	Chapter 8 Test
Jan28	3.3 Measures of Variation		Apr15	9.2 Two Proportions
Jan29	3.4 Measures of Relative Standing and Box Plots		Apr16	9.2 Two Proportions
Feb1	Chapter 3 Review		Apr19	9.3 Two Means (not matched)
Feb2	Chapter 3 Test		Apr20	9.4 Two Means (matched)
Feb3	4.2 Basic Concepts of Probability		Apr21	Chapter 9 Review
Feb4	4.2 Basic Concepts of Probability		Apr22	Chapter 9 Test
Feb5	4.3 Addition Rule		Apr23	10.2 Correlation
Feb8	4.4 Multiplicatin with "and" and with "or"		Apr26	10.3 Regression
Feb9	4.5 Multiplication Rule; Complements and Conditional Probability		Apr27	10.4 Rank Correlation
Feb10	4.6 Counting		Apr28	11.2 Goodness of Fit
Feb11	4.7 Probabilities Through Simulations		Apr29	Review
Feb12	4.8 Baye's Theorem		Apr30	Chapter 10/11.2 Test
Feb15	School Holiday		May3	Project Work Day
Feb16	Project (or Cooperative Group Activites page 193 #1,8, 9)		May4	Project Work Day
Feb17	Chapter 4 Review		May5	Project Presentation Day
Feb18	Chapter 4 Test		May6	Project Presentation Day
Feb19	5.2 Probability Distributions		May7	final exams
	end of six weeks			
Feb22	5.3 Binomial Probability Distributions		May10	final exams
Feb23	5.4 Parameters for Binomial Distributions		May11	final exams
Feb24	Chapter 5 Review		May12	final exams
Feb25	Chapter 5 Test		May13	
Feb26	Begin Semester Project		May14	

Mar1	6.2 The Standard Normal Distribution			
Mar2	6.3 Applications of Normal Distribution			
Mar3	6.4 Sampling Distributions and Estimators			
Mar4	6.5 Central Limit Theorem			
Mar5	6.6 Assessing Normality			
Mar8	6.7 Normal as Approximation to Binomial			
Mar9	Chapter 6 Review			
Mar10	Chapter 6 Test			
Mar11	Work on Projects			
Mar12	Work on Projects			
	Spring Break Begins			