Introductory Statistics – MATH 1342.991 TR

Course Syllabus: Spring 2022

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

Instructor: Amanda Ysasi

Office: Online
Phone: 903-572-8096 ext. 514
Email: aysasi@ntcc.edu or aysasi@chisddevils.com

Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	As needed	As needed	6-7:20 by ZOOM	As needed	As needed	As needed

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: Students will complete assignments on Pearson's MyLab Math program. There will be 3 exams and a comprehensive final exam. There will be projects throughout the semester.

Assignments/Quizzes*	15%
Exams	45%
Projects	20%
Final Exam (no exemptions)	20%

Required Instructional Materials: Pearson's MyLab Math purchased with Inclusive Access

Publisher: Triola, *Elementary Statistics*, 13th Edition **ISBN Number:** 978-0-13474853-5
Students will check out textbooks at CHHS.

Optional Instructional Materials: None

Minimum Technology Requirements: Graphing Calculator is required. TI-84 is preferred, but other models may be approved by the instructor. Access to Microsoft Office (including Excel) is required. Microsoft Excel has more functions than Google Sheets. Therefore, Microsoft Excel is what we will use for certain projects.

Required Computer Literacy Skills:
1) Communicate via email;
2) Saving and reloading saved files;
3) Navigate Blackboard to access posted materials and MyMathLab assignments.

Course Structure and Overview:
Work must be shown for each assignment on MyLabMath which must be turned in when requested. It is recommended to work the problems in a spiral notebook so they can be kept together.

Communications:
Emails will be responded to within 24 hours during the week and 48 hours on the weekend.

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: There will be a penalty of 25% for each assignment that is turned in late. It is the student's responsibility to check Blackboard for important information and 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 Schedule: (Subject to Change)

Weeks	**Topics**	**Assignments**
Week 1: 1/18/22	Ch. 1 Introduction to Statistics 1-1, 1-2	Syllabus Acknowledgement, MLM Orientation, 1.1 Worksheet, Crash Course Video notes #1 and 2
Week 2: 1/24/22	Ch. 1 and 2: Summarizing and Graphing Data Sections: 1-3, 2.1, 2.2, 2.3	MLM online assignment
Week 3: 1/31/22	Ch. 2 and Ch. 3 Describing, Exploring, and Comparing Data Sections 2-4, 3-1, 3-2,	Project I: Statistical Graphs MML online assignment
Week 4: 2/7/22	Ch. 3 Describing, Exploring, and Comparing Data Section 3-3, 3-4	MML online assignment Review
Week 5: 2/14/22	Ch. 4 Probability Sections 4-1, 4-2,	Exam 1 – Ch. 1, 2, 3 MML online assignment Project II - Probability
Week 6: 2/21/22	Ch. 4 Probability and Ch. 5 Discrete Probability Distributions Sections 4-3, 4-4, 5-1	MML online assignment
Week 7: 2/28/22	Ch. 5 Discrete Probability Distributions and Ch. 6 Normal Probability Distributions Section 5-2, 6-1, 6-2	MML online assignment Project II - Probability
Week 8: 3/7/22	Ch. 4, 5, 6 Review and Exam	MML online assignment Exam 2: Ch 4, 5, 6.1, 6.2
3/14/22 – 3/18/22	**Happy Spring Break!**	
Week 9: 3/21/22	Ch. 6 Normal Probability Distributions Sections 6-3, 6-4, 6-5, 6-6	MML online assignment
Week 10: 3/28/22	Ch. 7 Estimating Parameters and Determining Sample Sizes Sections 7-1, 7-2, 7-4	MML online assignment

Week 11: 4/4/22	Ch. 8 Hypothesis Testing Sections 8-1, 8-2, 8-3	MML online assignment Project III: Surveys
Week 12: 4/11/22	Exam 3 – Ch. 6, 7, 8 Ch. 11 Goodness-of-Fit and Contingency Tables Section 11-2	Exam 3 6.3, 6.4, 6.5, 7.1, 7.2, 7.4, 8.1, 8.2, 8.3
Week 13: 4/18/22	Ch. 9 Inferences from Two Samples Sections 9.1, 9-2	MML online assignment
Week 14: 4/25/22	Ch. 10 Correlation and Regression Sections 10-1, 10-2	MML online assignment
Week 15: 5/2/22	Project IV and Review	Project IV: Real Data Analysis
Week 16: 5/9/22	Final Exam Review	Final Exam