



# Introductory Statistics – MATH 1342.053 (Dual Credit)

Course Syllabus: Spring 2020

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

## Amanda Ysasi

Adjunct Instructor of Mathematics

**Office: CHHS Room 514**

**Phone: 903.572.8096 ext. 514**

**Email: [aysasi@ntcc.edu](mailto:aysasi@ntcc.edu) or [aysasi@chisddevils.com](mailto:aysasi@chisddevils.com)**

| Office Hours | Monday       | Tuesday      | Wednesday    | Thursday     | Friday | Online    |
|--------------|--------------|--------------|--------------|--------------|--------|-----------|
|              | 3:45-4:15 PM | 3:45-4:15 PM | 3:45-4:15 PM | 3:45-4:15 PM | None   | 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 an elementary course in statistics, designed to meet the needs of nursing, business, education and behavioral science students. Included are the following topics and their applications in various fields: frequency distributions, probability, random sampling, central tendency, dispersion, normal distribution, binomial distribution, sampling distributions, confidence intervals, hypothesis testing, Chi square, analysis of variance (ANOVA), and linear regressions analysis.

**Prerequisite(s):** Appropriate test score / TSI placement with multiple measures

### Student Learning Outcomes:

Upon successful completion of this course, students will

- 1342.1** Demonstrate an understanding of descriptive statistics.
- 1342.2** Exhibit an understanding of the basic principles of sampling.
- 1342.3** Determine values using various probability distributions.
- 1342.4** Develop an ability to generalize from sample to population.
- 1342.5** Utilize various hypothesis tests including linear regression and correlation.

### 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.

## College 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

|                            |     |
|----------------------------|-----|
| Assignments/Quizzes*       | 15% |
| Exam 1                     | 15% |
| Exam 2                     | 15% |
| Exam 3                     | 15% |
| Projects                   | 20% |
| Final Exam (no exemptions) | 20% |

Minimum requirements for Final Course Grade:

|               |   |
|---------------|---|
| "A" 90%       | *The daily grade is an average grade of quizzes and homework assignments.   |
| "B" 80%       | * In-class quizzes must be taken according to class schedule.   |
| "C" 70%       | * The lowest in-class quiz grade will be dropped. The highest in-class quiz grade will be doubled.  |
| "D" 60%       | * Online assignments are graded homework exercises posted on MyMathLab.   |
| "F" Below 60% | * Homework problems can each be reworked up to three times.<br>* The last grade earned for each homework assignment will be posted for the final grade. |

## Required Instructional Materials:

Triola, *Elementary Statistics*, 13<sup>th</sup> Edition  
Printed textbook with MyMathLab access code

**Publisher: Pearson Publishing Co. ([www.pearson.com](http://www.pearson.com))**

**ISBN Number-978-0-13-474853-5** (Inclusive Access Content – MyMathLab access code)

**ISBN Number-978-0-13-446306-3** (Loose-leaf print upgrade)

Note: The NTCC Bookstore link is at [www.ntcc.edu](http://www.ntcc.edu)

**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.

**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:**

This is a dual credit class held on the Chapel Hill ISD campus. Students are required to follow the attendance and dress code, as well as all other rules and acceptable use policies stated in the CHHS student code of conduct. Students are expected to behave as responsible college students; therefore, no academic information about a student can be given to another individual or parents without the expressed written consent of the student. Regular and punctual attendance at all scheduled classes is expected. Attendance is necessary for successful completion of course work.

There will be no cell phone usage in the classroom. Students will be warned if caught using a phone during class. A student will be removed from class if the disruption continues.

If you are absent, it is your responsibility to follow up with the instructor to get notes and assignments.

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.

Work must be shown for each assignment on Blackboard which must be turned in on the due date.

**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/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.

**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.

**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 special population 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)

| <u>Weeks</u>              | <u>Topics</u>  | <u>Assignments</u>   |
|---------------------------|--|--|
| Week 1: 1/21/20 – 1/26/20 | Ch. 1, 2 Overview  | Syllabus acknowledgement                                   |
| Week 2: 1/27/20 – 2/2/20  | Ch. 3 Describing, Exploring, and Comparing Data<br>Sections 3-1, 3-2   | Weekly quiz 1<br>MML online assignment                     |
| Week 3: 2/3/20 – 2/9/20   | Ch. 3 Describing, Exploring, and Comparing Data<br>Section 3-3   | Weekly quiz 2/6/2020<br>MML online assignment              |
| Week 4: 2/10/20 – 2/16/20 | Project I: Statistical Graphs  | Exam 1 – Ch. 1, 2, 3<br>MML online assignment<br>Project I |
| Week 5: 2/17/20 – 2/23/23 | Ch. 4 Probability<br>Sections 4-1, 4-2, 4-3  | Weekly quiz<br>MML online assignment                       |
| Week 6: 2/24/20 – 3/1/20  | Ch. 4 Probability<br>Sections 4-4, 4-5<br><br>Ch. 5 Discrete Probability Distributions<br><br>Section 5-1, 5-2 | Weekly quiz<br>MML online assignment                       |
| Week 7: 3/2/20 – 3/8/20   | Ch. 6 Normal Probability Distributions<br><br>Sections 6-1, 6-2  | Weekly quiz<br>MML online assignment                       |

|                            |   |  |
|----------------------------|---|--|
| Week 8: 3/9/20 – 3/15/20   | Exam 2 – Ch 4, 5, 6-1, 6-2<br>Project II - Probability  | Exam 2<br>MML online assignment<br>Project II                |
| <b>3/16/20 – 3/22/20</b>   | <b>Happy Spring Break!</b>  |  |
| Week 9: 3/23/20 – 3/29/20  | Ch. 6 Normal Probability Distributions<br>Sections 6-3, 6-4, 6-5  | Weekly quiz<br>MML online assignment                         |
| Week 10: 3/30/20 – 4/5/20  | Ch. 6 Normal Probability Distributions<br>Section 6-6<br>Ch. 7 Estimating Parameters and Determining Sample Sizes<br>Sections 7-1, 7-2, 7-4 | Weekly quiz<br>MML online assignment                         |
| Week 11: 4/6/20 – 4/12/20  | Ch. 8 Hypothesis Testing<br>Sections 8-1, 8-2, 8-3<br>Project III: Surveys  | Weekly quiz<br>MML online assignment                         |
| Week 12: 4/13/20 – 4/19/20 | Exam 3 - 6-3, 6-4, 6-5, 7-1, 7-2, 7-4, 8-1, 8-2, 8-3<br>Ch. 11 Goodness-of-Fit and Contingency Tables<br>Section 11-2                       | Weekly quiz<br>MML online assignment<br>Exam 3               |
| Week 13: 4/20/20 – 4/26/20 | Ch. 9 Inferences from Two Samples<br>Sections 9.1, 9-2, 9-3<br>Project IV: Real Data Analysis   | Weekly quiz<br>MML online assignment<br>Project III: Surveys |
| Week 14: 4/27/20 – 5/3/20  | Ch. 10 Correlation and Regression<br>Sections 10-1, 10-2  | Weekly quiz<br>MML online assignment                         |
| Week 15: 5/4/20 – 5/10/20  | Exam 3: 7.3, 9.1 – 9.6  | MML online assignment<br>Project IV: Real Data               |
| Week 16: 5/11/20 – 5/21/20 | Final Exam Review:<br>Comprehensive   | Final Exam: Comprehensive                                    |