



# Introduction to Statistics - Math 1342.NM1

## Course Syllabus: Spring 2018

“Northeast Texas Community College exists to provide responsible, exemplary learning opportunities.”

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
		By Appointment		By Appointment		As needed, by appointment

*The information contained in this syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.*

### SYLLABUS

**Catalog 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: collection, analysis, presentation and interpretation of data, frequency distributions, probability, random sampling, central tendency, dispersion, normal distribution, binomial distribution, sampling distributions, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended.

**Credit Hours:** Three semester hours of college credit.

**Textbook and Supplies:**

- **Required:**
  - a. NMP loose leaf book – Math 1342 Statistical Reasoning Course Student Pages (from Bookstore), which includes MyStatLab access code
  - b. 3-ring binder for this class only (maybe 2)
  - c. TI-84 Plus (or equivalent) graphing calculator.
  - d. Writing materials – Pencils, eraser, highlighters, ruler, etc.
  - e. Working myEagle email account
  - f. Basic computer skills to access online resources and information including Excel.
- **Optional:** USB drive

**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.

### **SCANS Skills:**

N/A

**Readiness competencies:** Students enrolling in *Introduction to Statistics* should be able to do the following:

- Demonstrate number sense, including dimensional analysis and conversions between fractions, decimals, and percentages. Determine when approximations are appropriate and when exact calculations are necessary.
- Solve linear equations, graph and interpret linear models, and read and apply formulas.
- Demonstrate a basic understanding of displays of univariate data – such as bar graphs, histograms, dotplots, and circle graphs, including appropriate labeling.
- Take charge of their own learning through good classroom habits, time management, and persistence. Participate in the class community through written and oral communication.

**Learning Goals:** This is a statistical reasoning course in which students will learn to use, understand, and communicate about statistical information. The course has five goals:

- **Communication goal:** Students will interpret and communicate quantitative information and mathematical and statistical concepts using language appropriate to the context and intended audience.
- **Problem-Solving goal:** Students will make sense of problems, develop strategies to find solutions, and persevere in solving them.
- **Reasoning goal:** Students will reason, model and make decisions with mathematical, statistical, and quantitative information.
- **Evaluation goal:** Students will critique and evaluate quantitative arguments that utilize mathematical, statistical, and quantitative information.
- **Technology goal:** Students will use appropriate technology in a given context.

**Attendance:** Be present and on time. If you miss a class, it is your responsibility to contact me or another student for assignments before the next class. **Please be aware that work assigned during your absence and due the next class meeting is due for you as well.**

**Classroom Etiquette:** Our classroom will have an environment conducive to learning. Examples of disruptive behavior include, but are not limited to, talking while the instructor is teaching, discussing non-mathematical issues during class, coming to class late, leaving class early, using profane language, sleeping, texting during class, etc.

### **Evaluation/Grading Policy:**

The grade for this course will be based on the following:

1. **Homework** – Practice and preview assignments will be completed for each lesson. Homework grades will include print checks, notebook checks, classroom participation, quizzes, projects, and the Preview and Practice assignments. These will all average together to count as 30% of your final grade.
  - a) Students must log in to MyStatLab often and with a timely process to access and complete Math 1342 homework assignments and quizzes.

**Please note that the homework assignments are done online in MyStatLab and are separated into two parts:**

    - 1) **Practice Assignments:** Homework over the lesson tasks and activities being completed
    - 2) **Preview Assignments:** Homework to prepare for what is coming up for the next class
  - b) Notebook – Chronological order of work completed in class as well as printed pages from Preview and/or Practice assignments. A Notebook Check will occur during each test to help monitor student learning.
  - c) Participation/Discussion – Students enrolled are expected to participate, as a learning community, by being prepared for class, engaging in group activities, joining class discussions, communicating their understanding of mathematics, and explaining their work to others.
  - d) Productive Persistence – Students are encouraged to read through the tasks and activities using a think-pair-share method. Students will be working either individually or in groups, and finally discussing the material with the entire class. This is part of the learning process, so participation from each student is required during class and outside of class.
  - e) Late Work – No Late work will be accepted.

2. Tests – will count as 45% of your final course grade. Three major tests will be given this semester. Partial credit will be given. The more work you show, the more credit possible! Each student is required to take all exams, including the final exam. Make-up Exams may be allowed if students contact the professor before the next class meeting and the make-up grade may be lowered by a letter grade.
3. Final Exam – will count as 25% of your final course grade. The final exam will be a comprehensive exam and is mandatory for all students.

**NOTE:** Any assignment, quiz, or exam not submitted will receive a grade of zero. There is no provision for earning extra credit in this course. Assignment of a letter grade will be made according to the following scale:

Exam #1	15 %
Exam #2	15 %
Exam #3	15 %
Homework	30 %
Final Exam	25 %
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TOTAL	100 %

**A** = 90-100%,   **B** = 80-89%,   **C** = 70-79%,   **D** = 60-69%,   **F** = 59% or lower

**Tutoring:** Tutoring is available in the Academic Learning Center and in Mrs. Siler’s office, MS Bldg, Office I, by appointment, and participation is highly suggested.

**Student Responsibilities/Expectations:**

Regular and punctual attendance at all scheduled classes is expected. Attendance is necessary for successful completion of course work. There is no make-up for in-class quizzes and WebAssign assignments.

**NTCC Academic Honesty Statement:**

"Students are expected to complete course work in an honest manner, using their intellects and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. NTCC upholds the highest standards of academic integrity. This course will follow the NTCC Academic Honesty policy stated in the Student Handbook."

**Academic Ethics:**

The college expects all students to engage in academic pursuits in a manner that is beyond reproach. Students are expected to maintain complete honesty and integrity in their academic pursuit. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. Refer to the student handbook for more information on this subject.

**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 Shannin Garrett, Academic Advisor/Coordinator of Special Populations located in the College Connection. She can be reached at 903-434-8218. For more information and to obtain a copy of the Request for Accommodations, please refer to the [NTCC website - Special Populations](#).

**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.

**6 Drop Rule:** "Students who enrolled in Texas public institutions of higher education as first-time college students during the Fall 2007 term or later are subject to section 51.907 of the Texas Education Code, which states that an institution of higher education may not permit a student to drop (withdraw with a grade of "W") from more than six courses. This six-course limit includes courses that a transfer student has previously dropped at other Texas public institutions of higher education if they fall under the law. Students should be sure they fully understand this drop limit before they drop a course. Please visit the admissions office or counseling/advising center for additional information and assistance."

**Other Course Policies:**

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.

The college's official means of communication is via your campus email address. I will use your campus email address 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.

**Campus Safety:** Northeast Texas Community College (NTCC) is committed to maintaining the safety of the students, faculty, staff, and guests while visiting any of our campuses. See NTCC's website for details and to receive emergency notifications automatically by phone. In the event of an emergency contact NTCC Police at 903-434-8127.