

Nashville State Community College
STEM Division
Mathematics
2020 Master Course
MATH 1530 Introductory Statistics

Credit Hours: 3 credits (3 class hours)

Prerequisite: Level 2 placement or higher in Math or concurrent enrollment in MATH 0835.

This syllabus sets forth the expectations for course content, work, and grading as well as expectations for student performance and conduct. The syllabus does not constitute a contract between the student and the instructor or the College. The information contained here is subject to change at any time. Students will be notified if any changes are made. Though changes are possible, it is expected that the course will be conducted as described in this syllabus.

Instructor Name:

Instructor Email:

Instructor Office Hours:

Course Description

An introduction to basic concepts and formulas for both descriptive and inferential statistics. Topics include the nature of data, uses and abuses of statistics, methods of sampling, summarizing data, pictures of data, counting techniques, measures of central tendency, measures of variation, measures of position, understanding probability, binomial and normal distributions, central limit theorem, confidence intervals, fundamentals of hypothesis testing for both one and two samples, and linear regression.

Course Learning Outcomes

After completing this course, students should be able to do the following as well as perform the related mathematical manipulations:

- Solve problems using mathematics, and determine if solutions are reasonable.
 - Analyze and solve counting and probability application problems.
 - Analyze and solve problems relating to the binomial and normal distributions.
 - Analyze a linear correlation and determining if it is reasonable.
- Apply mathematical concepts to solve real-life problems using formulas (deduction) and interpret the meaning of the solutions.
 - Perform multiple types of hypothesis tests such as proportions, means, one sample and two-sample.
- Construct meaningful connections (transfer of knowledge) between mathematics and other disciplines.
- Apply technology for mathematical reasoning and problem solving.
 - Use graphing calculators, computer software, and tables in an appropriate manner to assist in solving descriptive and inferential related problems in the study of statistics.
- Analyze data/graphs by using mathematical modeling and/or statistical reasoning.
- Calculate sample size, as well as use a given sample, to determine the true population parameter within the established constraints utilized in the Central Limit Theorem.
- Construct frequency distribution tables, histograms, graphs, and charts from raw data sets using traditional methods as well as computer software and/or graphing calculators.
- Apply and utilize correct statistical terms.

Topics

- Frequency Tables
- Histograms, Statistical Graphs
- Measures of Center
- Measures of Variation
- Measures of Relative Standing
- Probability
- Counting
- Probability Distributions, Mean, Variance, Expectation
- Binomial Distribution
- Standard Normal Distribution
- Applications of Normal Distributions
- Central Limit Theorem
- Estimate Population Proportion, Sample Size
- Basics of Hypothesis Testing/Proportions (& p-value)
- Testing a Claim about a Mean: σ Not Known
- Testing a Claim about a Standard Deviation and Variation
- Inferences about Two Means (Independent t-test)
- Correlation/Significance of Correlation
- Linear Regression
- Contingency Tables
- Test for Independence

Required Course Materials

This course is part of the NSCC Digital Course Materials (DCM) program. To ensure the lowest cost for students, this course includes a materials fee. When you registered for this course, the charge appeared on your account. If you decide you do not want to purchase the course materials embedded in NS Online, you can opt out of the program until September 6th, 2020. If you opt out, you will be responsible for obtaining the required course materials on your own (at a higher price point). The required digital textbook for this course, Elementary Statistics, Thirteenth Edition by Mario F. Triola, is delivered to you in digital format here in NS Online to ensure the lowest possible cost. A MyStatLab access code (see below) is provided so you can begin work immediately.

- **(Required) MyStatLab Student Access. See above. Everyone has immediate access to MyStatLab (MSL) as part of their registration fees for this class. Instructions on how to get registered and working are provided in the MyStatLab section here under Content. ([Follow these steps to get registered for MyStatLab link](#)). If you made the decision to opt-out of that fee, you will need to purchase the MyStatLab access immediately (at a higher cost) using a credit card at [the Pearson Website](#). You will need the Course ID provided on the MyStatLab registration handout mentioned above. **MyStatLab ISBN: 9780134748535**). Everyone can and should begin work on the first day. Even students who opted out of the fee will be able to use the access code temporarily. It will expire within 2 weeks so be sure to purchase a permanent access in the meantime.**
- **Required** TI-83 or 84 Plus Calculator (The TI-83/TI-84+ graphing calculator is required and used extensively in this course.) Calculators can be purchased new or used or rented from the NSCC bookstore: Rental Price New: \$65.00 Rental Price Used: \$47.50.
- **Optional:** There is also an optional **print upgrade** textbook in the NSCC bookstore for students who want a hard copy of the text to supplement the ebook provided. The upgrade cost is \$52.50. ISBN for the print upgrade is 9780134463063. Elementary Statistics, Thirteenth Edition, Mario F. Triola.

Grading

Grades will be based on three Tests, MSL homework, MSL quizzes, and a Comprehensive Final Exam as follows:

- Test 1 covers Chapters 1-4 and is worth 20%
- Test 2 covers Chapters 5-6 and is worth 20%
- Test 3 covers Chapters 7-9 and is worth 20%
- MyStatLab Homework is worth 10%
- MyStatLab Quizzes is worth 10%
- The **Required** Final Exam is a comprehensive exam covering Chapters 1-11 and is worth 20%. Note: The Final Exam is worth 40% if the Final replaces a lower (or missed) score for Test 1, 2 or 3.
- **Tests and missed tests:** If you miss a test, the test will be counted as a zero. There are no make-up tests given in MATH 1530. However, the lowest test score (including a zero for a missed exam) will be replaced by the Final Exam grade provided that the Final Exam grade is higher than the test grade that it replaces. This will only apply to one test. If you miss more than one test, the second zero will stand. Tests can be taken early but cannot be taken late. You are given a testing window of a minimum of 3 days to find a suitable time to test. Please see the Academic Misconduct section below regarding 0's earned for cheating.

Grading Scale

A range is 90-100%

B range is 80-89%

C range is 70-79%

D range is 60-69%

F range is 59% or below.

FA - According to NSCC policy, an FA is awarded to students who do not officially withdraw from a course and do not attend after the cut-off date provided in the academic calendar (10/30/20). Students who stop attending on or before this date receive an FA; students who stop attending after this date receive an F. "Attendance" in this class will be determined by completion of assignments. Students who fail this course and whose last assignment is submitted on or before 10/30/20, will earn an FA for the course. Students who fail a course and whose last assignment is submitted after 10/30/20, will earn an F for the course.

FN - an FN grade is awarded to students who never attended class.

Note: The last day to withdraw from the course and receive a W is 10/30/2020.

Every student will receive a grade for the course based on the exact same criteria (homework assignments, quiz assignments, and exams). No extra credit assignments will be provided and due dates will not be extended.

Attendance Policies

The College is not an attendance taking institution as defined by 34 CFR 668.22(b)(1) in the Code of Federal Regulations; however, students are expected to attend all scheduled classes and laboratories.

- Absences in a course may affect a student's final grade.
- Tardiness may also affect a student's final grade.
- Students are responsible for all work/tests that occur during any missed class session(s) regardless of reason(s) for absence.
- Students who are sick or not well enough to attend class must notify the instructor as soon as possible before the scheduled class time, unless incapacitated or unable to do so. In that case, students must contact the instructor as soon as reasonably possible.
- If a student has an unavoidable conflict with a scheduled class session, students must notify the instructor, preferably before the class session, or as soon as possible.

For purposes of financial aid continued attendance is determined via engagement in the course. This can be accomplished in several ways including, but not limited to, continued attendance and/or participation in on-ground class sessions, participating in D2L as prompted (e.g., responding to an instructor's email, posting to a discussion board), and/or completing and submitting assignments.)

To the extent that attendance is kept in this class it is not for the purpose of the College but is instead associated with the instructor's individual grading rubric. The attendance policy for this class is:

- Students must complete the Attendance Requirements before the deadline (see the course shell for step by step directions).
- Students are expected to complete the work in MyStatLab.

ADA Compliance Statement

Nashville State complies with the Americans with Disabilities Act (ADA). If you require accommodations for any courses in which you are enrolled, contact the Access Center at 615.353.3741 or 615.353.3721, or e-mail accesscenter@nsc.edu. If you are registered with the Access Center and require an alternate format for the textbook and other course materials, please contact the Access Center. A link to the Access Center web page is provided on the "Get Help" page in **Getting Started** on the Content page.

D2L/NSOnline and MyNsc Email

It is the student's responsibility to check NS Online and MyNSCC email on a regular basis. These are the official communication channels between the college and students. Students are responsible for the information communicated through those channels. NS Online contains specific course information, and MyNSCC contains information important for other purposes.

Technology Statement

- All classes at the College are web enhanced.
- It will be essential for students to have access to a computer and an internet connection to complete assignments, engage in online discussions, and access various course materials through D2L/NS Online course shells.
- Students may also be required to use free video conferencing platforms (ex: Zoom, Teams) for classes and meetings.
- Students will be responsible for appropriate dress while on video, to ensure a distraction free environment (mute sound as needed) and to ensure their background is neutral for others to view.

- If you have questions or concerns regarding access to a computer or internet resources, please contact your instructor. Additional information available: <https://www.nsc.edu/current-students/student-online-resources/access-to-internet-and-technology>.
- Certain publisher materials may not work on cellphones.

Computer Labs

Computers are available for student use at each campus during campus open hours. Open computer lab availability for Fall 2020 may vary from campus to campus. Students should check NSCC website for current hours of operation.

Equity Statement

Nashville State Community College has a relentless commitment to the transformation of our institution through the intentional design of college experiences that expect and promote excellence from students, faculty, staff and administration. We consider equity to be an obligation of higher education. We strive to ensure that each student receives what that student needs to be successful, with goals of success beyond the classroom. We do this through an evidence-based and collaborative effort, understanding that our student population has diverse needs that must be addressed. We recognize that this effort may not always be comfortable and that partnering with students is the driving force to overcome barriers to success.

Communication Statement

In this time of uncertainty due to COVID-19, communication between student and faculty is key. At times, situations arise for one or both that makes that communication difficult or delayed. This can include but is not limited to health issues and/or problems with technology. If you have attempted to contact your instructor, and have waited the turnaround time as outlined in the syllabus but have not yet received a response, please reach out for additional support using this survey:

<https://forms.gle/rM7rxFarksRFeA3b8>

Academic Misconduct

Any form of academic dishonesty, cheating, plagiarizing, or other academic misconduct is prohibited. Students are responsible for understanding and abiding by the Academic Misconduct Policy in the Nashville State [Student Code of Conduct](#). In addition to other possible disciplinary measures that may be applied through regular college procedures as a result of academic dishonesty, the instructor has the authority to assign an “F” or a “zero” for the exercise, paper, or examination, or to assign an “F” for the course. Students may appeal through the appropriate college grade appeal procedures.

RAVE Emergency Alert System

Emergency events can happen at any time, and Nashville State Community College wants to notify students if and when they occur. For this reason, all students have been enrolled in the free RAVE alert system. If you have not already done so, please log in at <https://www.getrave.com/login/nsc> to confirm and update your contact information and notification preferences. It is critical that your information be correct so that you will receive any emergency notifications. Your RAVE Username is your NSCC email address. If you've never received an email from RAVE with your password, or if you need to reset your password, select “Forgot your password?” and a new password will be emailed to you. Should the RAVE system indicate “user not found”, select Register and create your own RAVE account.

Academic Early Warning System

Nashville State Community College uses an Early Alert System to let students know of a faculty member's concern in one or more of these academic areas: lack of attendance, lack of classroom participation, late or missing assignments, and/or poor performance on assignments/tests. *Please note that Early Alerts do not affect a student's academic standing. If you receive an Early Alert email, please see your instructor and your academic advisor as soon as possible.

Classroom/Online Misconduct

Nashville State Community College has a zero-tolerance policy for disruptive conduct in the classroom. Students whose behavior disrupts the classroom will be subject to disciplinary measures. Please review the Nashville State [Student Code of Conduct policy](#). Please be aware that children are not allowed in class or to be left unattended on campus.

Inclement Weather & Campus Closings

Nashville State will use the RAVE alert system to send a text message to students, staff, and faculty about adjusted hours of operation and/or closings at individual campuses. All students should check the Nashville State web site home page at www.nsc.edu for announcements on campus closures, which may vary from campus to campus. Campus closures will also be announced on local television stations. Students should use their own best judgment in determining whether to report to campus during inclement weather when classes are not cancelled.

Even when campuses are closed, students are still responsible for completing all assigned work. When classes are cancelled, faculty will post online assignments and any additional instructions in the D2L/NS Online course shell. Check D2L/NS Online for a message from your instructor regarding your online assignment requirements. Faculty have discretion over adjusting deadlines or due date for assignments, but students are responsible for completing all assigned work by the due date established by the instructor.

Class Cancellation Policy

If the class is cancelled, the instructor will notify all students by posting in the D2L/NS Online course, e-mailing through D2L/NS Online, and/or by posting a sign on the classroom door. In the event of class cancellation, students must access D2L/NS Online to complete classwork and the assignment that will be posted in the course D2L site.

Student Wellness

- The general well-being of students is an important component of their academic success. With this in mind, Nashville State Community College has several resources available to provide support when needed:
 - Students with general, non-academic questions and concerns about COVID-19 may email virusinfo@nsc.edu.
 - Five free telephone therapy sessions are available via Agape Counseling by calling 615-781-3000.
 - Online tutoring is available via NetTutor within the D2L course shells.
 - A comprehensive list of online student resources may be found at <https://www.nsc.edu/current-students/student-online-resources>
 - A comprehensive list of student support services may be found at <https://www.nsc.edu/current-students/on-campus-resources/student-support-services>