

**Nashville State Community College
School of STEM
Mathematics**

Master Syllabus

MATH 1530 Introductory Statistics

The purpose of the syllabus is to tell you how the course is organized, what the expectations are, and how you will be graded. In addition, there is important information about how the college will operate during severe weather and how the college will communicate with you. The syllabus is not a contract. Instead, it is meant to help you succeed in this course. If any of the content changes during the semester, you will be notified.

Course information:

Credits: 3

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

Class Hours: 3

Instructor Information:

Name:

Email:

Office Phone:

Office Location:

Office Hours:

Instructor Zoom Room link:

Class Session Zoom Link Information (if virtual):

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.

Required Textbook(s) & Other Materials:

Once enrolled, all students should verify that they have the correct textbook and materials information by consulting the D2L/NS Online shell for the course. 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 at 615-353-3721, 615-353-3741, or accesscenter@nsc.edu.

Once you have registered for your courses, you should make sure you have the correct textbook and materials for each course. Before courses begin, you can do this by looking up your courses on the bookstore's website (<https://www.bkstr.com/nscstore/home>) using your A# or by entering your course information. If you are registered with the Access Center and need an alternate format for the textbook and other course materials, please contact the Access Center at 615-353-3721, 615-353-3741, or accesscenter@nsc.edu.

Digital Course Materials: These ensure you pay less for your course materials and have easy access through D2L throughout the semester. When you registered for this course, the charge for these materials 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 the end of the second week of classes**. If you opt out, you will be responsible for purchasing the required course materials on your own. For more information, please visit [DCM Information website](#).

- **(Required) MyStatLab Student Access.** See above. Everyone has immediate access to MyStatLab (MSL) as part of their registration fees for this class. NOTE: If you made the decision to opt-out of the DCM fee, your access to the MyStatLab assignments in NS Online will run out after a couple of weeks. You will be directed to purchase and enter an access code to continue working on the required assignments.
- **(Required) TI-83 or 84 Plus Calculator** (The TI-83/TI-84+ graphing calculator is required and used extensively in this course.) Laptops and Calculators can be **checked out** from the NSCC Library for the term. Sign in and complete the required information by clicking the following link, then check your MyNSCC email for pick up information. [Student Device Checkout Form](#) . Calculators can also be purchased new or used (pawn shops and McKay's Books are good options) or rented from the NSCC bookstore. The checkout form can also be found in the second News Post in our Course Home in NSOnline.
- The **ebook** for the course is included with your **MyStatLab** access here in NS Online. You can simply click the **ebook** link or the specific chapter you want to access in the MyStatLab section of NS Online and the ebook will open in a new window. There is also an optional **print upgrade** textbook for students who want a hard copy of the text to supplement the ebook provided. Click on **Upgrade to a Print Copy of the Text** in the MyStatLab section in NS Online. The text is *Elementary Statistics, 13 Edition*, Mario F. Triola.

Honors Option: Honors credit is available for this class. If you are interested in participating in the Honors Program, please see your instructor within the first four weeks of class. Additional coursework in MyStatLab will be assigned for you to complete.

Course Outcomes: At the end of the semester, this is what you should know and/or be able to do:

The following are detailed course competencies, or specific skills or knowledge, intended to help you achieve the course outcomes:

- 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 to Be Covered:

- 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

Course Assessments:

Schedules of due dates for all assignments are posted in MyStatLab and in the schedule posted in MyStatLab section here in Content.

Each student must read all of the pages and will be responsible for fulfilling all requirements and assignments. There are some strict deadlines.

- **Homework:** Homework is 10% of your overall grade. All Homework assignments are completed using MyStatLab and due dates will be every 3-4 days. These due dates are in MyStatLab and in the posted schedule. You should be logging in and working on a daily basis. Understand that you should not put off an assignment until the last minute, as you may experience technical difficulties or run out of time when attempting to do the work. It is your responsibility to manage your time carefully. All homework should be completed by the listed due date and time. To raise your score, simply rework missed problems (you do not need to repeat the whole assignment) until your overall score reaches a score you are happy with (ideally 90% or higher). It is suggested that you rework any problem you guess on or do not get correct the first attempt to ensure you have mastered the material. **Note:** Review assignments and assignments marked "optional" in MyStatLab will not count toward your Homework average. If you do not complete a Homework assignment by the due date listed in MyStatLab, you CAN and should continue to work on the assignment, but will receive a deduction in overall points.
- **Quizzes:** Quizzes are 10% of your overall grade. MyStatLab quizzes correspond to MyStatLab homework assignments, so be sure you complete all of the required Homework before attempting the corresponding Quiz. Quizzes will be given firm deadlines which are posted on MyStatLab and in the schedule. Quiz deadlines correspond with the Test due dates. Students will have **unlimited** attempts

for each quiz but unlike the homework, you will not be able to rework individual problems. Instead, you should study in between attempts and when ready, retake the entire quiz to improve the quiz grade. Only the highest of your quiz attempts for each quiz will be used for your cumulative quiz average. It is strongly suggested that you wait to complete a quiz until you have completed the corresponding MyStatLab Homework assignments with a score of at least 90%, but the Homework is not a prerequisite for the Quiz. Students should take each Quiz until they are able to score at least an 80% without the use of notes or help. The extra practice will help on the tests and can improve your overall average. If your score drops on a later attempt – rest assured, only the highest score for each quiz will be considered. So, use as many attempts as you need to master the material! **IMPORTANT! To review a quiz after you have closed it, go to the MyStatLab Gradebook, and click “review” by the quiz you need to review.**

- **Review Homework and Review Quizzes** are available for each Test. These are recommended but optional Reviews and not factored into your Homework or Quiz average.
- **Tests:** There are three Tests throughout the term, each over several chapters of material. Each Test is 20% of your overall grade. Please see the section below regarding missed Tests. Tests 1 and Test 3 are taken in MyStatLab and have firm deadlines. All work for each test is due when the Test closes. The Midterm/Test 2 is taken in class (no notes) and the assignments are due the start of class the day of the Test.
- **Final Exam:** The Final Exam is a **required** cumulative Test taken **in class and without notes**. The Final is worth 20% of your grade. If the Final Exam score exceeds the lowest Test score for Test 1, Midterm/Test 2 or Test 3, it will automatically replace the lower score. It will not replace the lowest Test score if it does not exceed that score but still counts 20%.
- **Helpful Advice:** To pass this class, you need to do consistent work. You should do a little bit of homework every day if possible. Watch the videos. Take notes. Re-watch the videos. Understand that understanding the videos is very different from being able to complete the work yourself, so be prepared to sometimes get stuck on the homework. Get help when you need it – don't just stop. The Quizzes and Reviews are your best predictor of your readiness for tests. Try to take each Quiz and the Test Review at least one time without your notes to be sure you have mastered the concepts for the test. Practice is incredibly important in this class.

Basic Requirements for Success

- Each student should become familiar with every page in this Course Shell. If you are new to NS Online, check out the tutorials found in the **How This Course Works** section in the **Basic Course Information** section in the Course Content in NS Online.
- Students should attend class regularly and take notes. Students should make use of the videos, handouts, worked examples and the ebook to learn the material.
- Each student should examine and take full advantage of all the learning tools that are available in MyStatLab.
- Students must pay close attention to the due dates for Homework, Quizzes and Tests. There are no extensions for missed assignments and so students need to be logging into MyStatLab on a daily basis to stay ahead of the due dates. Do NOT start an assignment the day it is due. Work ahead.
- Each student needs to get help when they need it. In addition to emailing your instructor or using the MyStatlab Learning Aid "Ask My Instructor," Nashville State has tutors in the White Bridge Campus Learning Center and virtual tutoring will also be available. The information for that is found in the **How This Course Works** section in the **Basic Course Information** section in the Course Content in NS Online.
- **Each student is expected to log into NS Online several times a week to read any email messages or announcements that may have been posted.**

Grading Policy:

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

- Test 1 over Chapters 1-4 is worth 20%
- The Midterm/Test 2 over Chapters 1-6 is worth 20%
- Test 3 over Chapters 7-9 is worth 20%
- MyStatLab Homework is worth 10%
- MyStatLab Quizzes are 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, The Midterm/Test 2 or Test 3.

Grading Scale:

Letter Grade	Percentage Range
A	90–100%
B	80-89%
C	70-79%
D	60-69%
F	59% or below

FA

If you stop attending class or if you are in an online class and stop submitting assignments, but do not turn in a withdrawal form by the deadline, you are still enrolled in class. You will be given a grade of FA, which means you have failed due to not attending class and not completing your assignments. Please refer to the current academic calendar available on the Nashville State web site, looking for the date that indicates it is the “Last Day to Earn F for Attendance (FA).” If you stop attending your course after this date, you will receive an F. See information below regarding attendance.

FN

An FN is awarded if you have never attended your course or done any of the work in an online course.

Note: The last day to withdraw from the course and receive a W is listed in the academic calendar.

General Policy

- *Absences in a course may affect your final grade.*
- *Tardiness may also affect your final grade.*
- *You are responsible for all work/tests that occur during any missed course session(s) regardless of reason(s) for absence.*
- *If you are not well enough to attend a course session (class), you must notify the instructor as soon as possible before the scheduled course time.*
 - *If you are unable to notify an instructor before the scheduled course time, you must contact the instructor as soon as reasonably possible.*
- *If you have an unavoidable conflict with a scheduled course session, you must notify the instructor before the course session.*

- *If you are unable to notify an instructor before the scheduled course time, you must contact the instructor as soon as reasonably possible.*

For financial aid purposes, attendance is measured by participation in the course. Instructors can determine your level of participation in several ways. Some of those ways are:

- continued attendance
- participation in on-ground or virtual class sessions
- participating in D2L as prompted
- responding to an instructor's email
- posting to a discussion board
- completing and submitting assignments

In this course, for financial aid purposes, attendance will be measured by completion of assignments in MyStatLab.

Late Work Policy & Make-up Procedures for Missed Assignments and Work:

- **Missed Homework and Quizzes:** All Homework and Quizzes are open from the beginning of the term and are given due dates in MyStatLab (and included in the schedule). It is the student's responsibility to keep track of due dates. Homework and Quizzes must be completed by the due date posted in MyStatLab (coinciding with Test dates). ***Assignments will not be reopened after they close.***
- **Missed Tests:** Test dates are posted on the schedule and announced in class. If you miss a Test, the Test will be counted as a zero. There are no make-up Tests or extensions given in MATH 1530. We have a replacement policy that allows you to move forward and stay on pace: the lowest Test score (including a zero for a missed Test) will be replaced by the Final Exam grade. This replacement is 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. Please see the Academic Misconduct section below regarding 0's earned for cheating.

Technology Statement

- All classes at the College are web enhanced. "Web enhanced" means that components of the course, such as assignments and online discussions, may be located online in the class D2L/NS Online course shell and used in the course, even if the course meets in a classroom on ground.
- You must 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.
- You may also be required to use free video conferencing platforms (examples: Zoom, Teams, etc.) for course sessions and meetings.
- You will be responsible for appropriate dress while on video. This means that you are expected to dress as if you were in a classroom.
- You will be responsible for a distraction free environment while on video. This means that the professor and others in the course should not be able to hear noise in your home, such as cell phones, TVs, or barking dogs. The best way to do this is to keep yourself on "mute" until you need to speak.
- You will be responsible for making sure your background is neutral. Keep in mind that students and professors come from all around the world, and you are all a part of our community. Therefore, please avoid having images in your background that may be offensive to your classmates.
- Certain publisher materials, such as textbook figures, may not work on cellphones and may require a laptop or a tablet.
- If you have questions or concerns regarding access to a computer or internet resources, please contact your instructor. Additional information is available on this website: [Student Website for Technology](#)

[Access](#). You can follow that link by going to the online version of the syllabus in our NS Online course shell.

Computer Labs

Computers are available for all Nashville State students to use at each campus during open hours. Open computer lab availability may vary from campus to campus. You should check the NSCC website for current hours of operation.

D2L/NS Online and myNSCC

It is your responsibility to check your email in **both** D2L/NS Online course shells and your @my.nsc.edu (student email) on a regular basis. These are the official communication channels between the college and you. You are responsible for the information communicated through these email channels. D2L/NS Online emails contain specific course information and @my.nsc.edu emails contain important information from college offices, such as Financial Aid.

ADA Compliance Statement

If you need accommodations due to a disability, please do not hesitate to reach out to our Access Center. Disabilities for which you can receive accommodations include documented physical, emotional, and/or learning conditions. Nashville State is committed to supporting your success, and we encourage you to get assistance if needed. 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.

Classroom Misconduct

Disruptive conduct is not allowed in the classroom. Disruptive conduct is any behavior that prevents students from learning and interferes with the ability of the instructor to teach. This may change from course to course; therefore, your individual instructors will give you guidance on what qualifies as “disruptive conduct” in their courses. Please review the [Nashville State Student Code of Conduct policy](#) found in the online version of this syllabus in NS Online. Please be aware that children are not allowed in class or to be left unattended on campus.

Academic Misconduct

You have started this academic journey to prepare for a future career. Because of this, it is important that you learn the materials being presented in your courses. For this reason, cheating, in any form, robs you of your opportunity to learn and master the material that will enable you to succeed in that future career. Nashville State has a clear [Academic Misconduct Policy](#) that you are expected to follow. This link is found in the online version of this syllabus in NS Online. In addition, your instructors will clarify what Academic Misconduct looks like and the consequences for violations in each course that you take. The instructor has the authority to assign an “F” or a “zero” for such violations or for the semester grade. If you earn a zero for cheating on a Test, that zero cannot be replaced by the Final Exam score.

Academic Early Alert System

If you are not doing well in your course, your instructor may send you an Early Alert through your @my.nsc.edu email. This email will go to your academic advisor and Student Success advisor, as well. If you get an Early Alert, contact your instructor immediately. Instructors send these when they want to help you figure out how to get extra support to pass the course. An Early Alert does not mean that you have already failed the course. Rather, it means you are in danger of failing the course if you do not change your learning strategy. Please use an Early Alert to your advantage and as an opportunity to improve your grade.

RAVE Emergency Alert System

You can log in to this free alert system to receive text messages about emergencies related to NSCC campuses: [Get Rave Link](#). This link is found in the online version of this syllabus in NS Online. The instructions for this are listed below.

- 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.

Student Wellness

Your well-being is important to us. With this in mind, the college has several resources available to provide support when needed:

- Free tutoring: [Learning Center Info and Tutoring Schedule Link](#) This link is found in the online version of this syllabus in NS Online.
- NSCC email, scheduling, online courses, textbooks, tech check out and support, computer labs on campuses, academic advising, financial advising, COVID-19 information and procedures on campuses: [Student Resources Link](#) This link is found in the online version of this syllabus in NS Online.
- Services that help with bus passes, food, childcare, textbooks, housing, financial counseling, personal counseling, suicide prevention, health insurance: [Student Support Services Link](#) This link is found in the online version of this syllabus in NS Online.

Equity Statement

We are taking steps to become more aware of the many different needs of students. Faculty, staff and administrators are committed to helping students find ways to meet their needs so that ALL students can reach their goals. Please ask for things you need.

Inclement Weather & Campus Closings

You get notices about campus closings in these places: text messages from RAVE and www.nsc.edu. Even when campuses are closed, you are still responsible for completing all assigned work. Check D2L/NS Online for a message from your instructor so you do not miss important assignments and due dates, which may change due to the campus closure.

Class Cancellation Policy

Our instructors post messages about cancelling classes in the D2L/NSOnline course shells and/or on the classroom door on campus. These messages can be found in the News and Content section or the Email tab in the online shell. Please check these to be sure that you take advantage of opportunities for learning and points toward your grade.