

Nashville State Community College
Division: Science, Technology, Engineering and Mathematics (STEM)
Program: Mathematics

2018 Master Course Syllabus

Math 1420 – Geometry Concepts for Teachers

Course Information:

Course Title: Math 1420 – Geometry Concepts for Teachers

Credits: 3

Class Hours: 3

Course Description: A continuation of MATH 1410 and the second course in math for elementary education, which is restricted to students majoring in Elementary or Early Childhood Education. Topics include introductory elements of probability and statistics and the basic concepts of Euclidean geometry and coordinate geometry including congruence, similarity, measurements, areas, and volumes.

Instructor Information:

Name:

Email:

Office Phone:

Office Location:

Office Hours:

Required Textbook(s) & Other Materials:

Required Materials: WebAssign Access Code

Textbook (optional): *Reconceptualizing Mathematics for Elementary School Teachers*, 3rd ed., by Sowder, Sowder, and Nickerson. Publisher: MacMillan.

ISBN: Students have two options:

- Option 1: Purchase WebAssign using the following ISBN: 9781319147631. This option gives students access to WebAssign (which is required) and it comes with access to the electronic version of the course textbook.
- Option 2: For students who prefer to have a physical copy of the textbook, they can purchase the textbook along with access to WebAssign using the following ISBN: 9781319149055. This bundle package will give students a physical copy of the textbook and the required WebAssign access.

Supplies: Graphing calculator or scientific calculator

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.

Course Outcomes:

Upon successful completion of this course, students should be able to:

- Apply the basic concepts of probability
- Organize and compare data by constructing tables and graphs
- Calculate the measures of central tendency (mean, median, mode) and measures of dispersion for analyzing and comparing data
- Construct graphs using the rectangular coordinate system and the calculator
- Compare and apply the concepts of angles, similarity, congruence, symmetry, ratio, and proportion
- Calculate perimeter, area, surface area, and volume. These computations include the understanding of simple polygons and composite figures and of measuring distance using both metric and standard measurement and conversions between units of measure

Topics to Be Covered:

- Equations in a Cartesian Coordinate System
- How probabilities are determined
- Multi-stage experiments with tree diagrams and geometric probabilities
- Using simulations in probability
- Statistical graphs
- Measures of central tendency and variation
- Abuses of statistics
- Basic notions of geometry
- Linear measure
- Curves, polygons, and symmetry
- Congruence and properties of congruence
- Similar triangles and other similar figures
- Perimeter/circumference of polygons and circles
- Areas of polygons and circles
- The Pythagorean Theorem and Distance formula
- Geometry in three dimensions
- Surface area
- Volume, mass, and temperature
- Translations and rotations (optional)
- Reflections and glide reflections (optional)
- Dilations (optional)
- Tessellations of the plane (optional)

Course Assessments:

The following performance assessments will be used to demonstrate students' understanding, knowledge, and skills:

Testing

There will be 3 regular tests throughout the semester and one cumulative final exam. Each test and exam are worth 20% of your overall grade. If you miss one regular test, I will replace that test with your final exam score. That will only happen for one missed test. If you miss more than one test, the final exam score will replace only one – the others will be zeros. There will be NO make-up tests and NO make-up for the final exam. The final exam is REQUIRED for all students. If you do not miss any of the 3 regular tests, then your final exam score will replace your lowest test score (provided that your final exam score is higher than your lowest test score).

Quizzes

The nature and design of quizzes is up to the discretion of the instructor. Quizzes will be worth no more than 10% of the overall grade.

Homework

The nature and design of the homework is up to the discretion of the instructor. Homework will be worth no more than 10% of the overall grade.

Grading Policy:

Your final grade for the course will be determined by the following percentages:

- Homework – 10%
- Quizzes – 10%
- Test 1 – 20%
- Test 2 – 20 %
- Test 3 – 20%
- Final Exam – 20%

Attendance Policy

Students are expected to attend all scheduled classes and laboratories. Absences in a course may affect a student's final grade. The student is responsible for all assigned work in the course regardless of excused or unexcused absences. Tardiness may also affect a student's final grade.

In online courses, attendance is signaled by logging on to the D2L/NS Online shell, participating as prompted (e.g., responding to an instructor's email, posting to a discussion board) and/or completing and submitting assignments. Campus closures do not affect attendance and assignment completion in online courses.

Absences in a course may affect a student's final grade. The student is responsible for all assigned work in the course regardless of excused or unexcused absences. Tardiness may also affect a student's final grade. Since no late work is accepted and no make-ups are given, it is possible for absences to drastically impact a student's grade or not impact the grade at all, depending on when the absence occurs.

Grading Scale:

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

FA

According to NSCC policy, if a student fails a course, but has not officially withdrawn from the course, and her/his last date of attendance is before the last date to withdraw (*use date appropriate to your section*), the student will receive a grade of FA (i.e., "Failure for Attendance Reasons").

FN

An FN is awarded to students who never attended class.

Technology Statement

Nashville State's classes are considered to be web-enhanced. Faculty have an expectation that students will use a computer and the Internet to complete assignments, engage in online discussions, and access various course materials through D2L/NS Online course shells. Computers are available for student use at each campus during campus open hours.

D2L/NS Online and myNSCC

It is students' responsibility to check D2L/NS Online course shells for all enrolled courses and myNSCC, including student email, on a regular basis. These are the official communication channels between the college and students, who are responsible for the information communicated through those channels. D2L/NS Online contains specific course information and myNSCC contains information important for other purposes.

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.

Classroom 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.

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.

Academic Early Alert 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.

RAVE Emergency Alert System

Emergency events can happen at any time and Nashville State Community College wants to be able 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.

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.