

**Nashville State Community College**  
**Division Name: Science, Technology, Engineering and Math**  
**Program Name: Mathematics**

**2018 Master Course Syllabus**

**Math 1710, Precalculus Algebra**

**Course Information: Math 1710**

**Course Title: Precalculus Algebra**

**Credits: 3**

**Class Hours: 3**

**Course Description:** A traditional course in precalculus algebra. Topics include polynomial, radical, rational, exponential, and logarithmic expressions and equations; polynomial, radical, rational, exponential, logarithmic, and logistic functions, graphs, and their applications; polynomial and rational inequalities and their applications; and inverse functions. PREREQUISITE: Initial Level 2 placement or higher in Math or MATH 1000.

**Instructor Information:**

**Name:**

**Email:**

**Office Phone:**

**Office Location:**

**Office Hours:**

**Required Textbook(s) & Other Materials:**

Students must check with the instructor before purchasing any materials.

**Textbook:** OPTIONAL: Text only OR MyMathLab Student Access Kit only

Textbook only: Precalculus: Graphs and Models, A Right Triangle Approach, 6th edition,  
by Bittenger/Beecher Publisher: Pearson; ISBN 9780134179056

MyMathLab Student Access Kit only: ISBN 032119991X

**Reference Materials:** OPTIONAL Student Solution Manual only, ISBN 9780134265230

**Supplies:** A graphing calculator is required (TI-84 or TI-83 or TI-83+ are recommended). Calculators like the TI-89 will not be allowed (those with a Computer Algebra System - CAS). The TI-nspire calculator will only be allowed with the TI-84 Plus keypad (during tests).

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](mailto:accesscenter@nsc.edu).

### **Course Outcomes:**

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

- Solve problems using mathematics, and determine if solutions are reasonable.  
Solve logarithmic equations and rational inequalities, find the domain of rational functions and logarithmic functions, and find the difference quotient, and determine if the solution/result is reasonable.
- Apply mathematical concepts to solve real-life problems using formulas (deduction) and interpret the meaning of the solution.  
Create, analyze, and interpret graphs of polynomial, rational, exponential and logarithmic functions.
- Construct meaningful connections (transfer of knowledge) between mathematics and other disciplines.
- Apply technology for mathematical reasoning and problem solving.  
Solve real-world problems by applying mathematical models using polynomial, rational, exponential and logarithmic functions.
- Analyze data/graphs by using mathematical modeling and/or statistical reasoning.  
Use appropriate technology to approximate local (relative) extrema and increasing/decreasing intervals and real zeros of a function.

### **Topics to Be Covered:**

Introduction to graphing, distance formula, midpoint formula; Functions and graphs, domain, applications; Linear functions, slope, applications; Equations of lines, modeling, linear regression; Linear Equations, functions, zeros, applications; Linear inequalities; Increasing and decreasing and constant intervals, relative maxima, relative minima, piecewise functions; Algebra of functions, difference quotients; Composition of functions; Symmetry, even and odd functions; Transformations; Complex numbers; Quadratic equations, functions, zeros, models; Analyzing graphs of quadratic functions; Rational and radical equations; Absolute value equations and inequalities; Polynomial functions, modeling; Graphing polynomial functions; Polynomial division, remainder theorem, factor theorem; Theorems about zeros of polynomial functions; Rational functions; Polynomial and rational inequalities; Inverse functions; Exponential functions and graphs; Logarithmic functions and graphs; Properties of logarithmic functions; Exponential and logarithmic equations; Exponential growth and decay, compound interest, logistic functions

### **Course Assessments:**

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

*Each instructor will include their class assessment information here.*

### Grading Policy:

*Each instructor will determine the exact values based on the following ranges:*

*Final Exam: 20 percent to 25 percent*

*Other tests: 50 percent to 60 percent*

*Other (homework, quizzes, projects, etc.): 15 percent to 30 percent*

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

*Each instructor will provide policy.*

### 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.

*Each instructor will provide policy, especially how attendance influences student assessment and grading.*

### Grading Scale:

Letter Grade	Percent Range
A	90 to 100
B	80 to 89
C	70 to 79
D	60 to 69
F	0 to 59

#### 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").

*Each instructor will make additional statements or provide examples that would clarify the policy for students.*

#### 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](mailto: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.

*Each instructor will outline his/her expectations for academic integrity and provide individualized information about consequences for academic misconduct.*

## **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](http://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.