

Nashville State Community College
Division of Science, Technology, Engineering & Mathematics

2018 Master Course Syllabus

MATH 1710 – PreCalculus Algebra (web course)

(This master course syllabus template is a general guide for providing an overview of each course offered at Nashville State. Each instructor will further clarify specific criteria for grading, classroom procedures, attendance, exams and dates, etc. on his/her individual course syllabus. Prompts for individual adaptations are italicized and in parentheses; faculty should remove or replace these prompts when creating master syllabi and their own individual syllabi if they have not been removed previously.)

Course Information

Course Title: MATH 1710 PreCalculus Algebra

Credit Hours: 3 credits

Prerequisite: Initial Level 2 placement or higher in Math or MATH 1000.

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.

Instructor Information

Name:

Email:

Office Phone:

Office Location:

Office Hours:

Required Textbook(s) and Other Materials

- MyMathLab Access Code: ISBN 032119991X (Instructor course code and high-speed Internet access required)
- Calculator: Graphing Calculator Reference card (download under the Content tab). 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).

STRONGLY RECOMMENDED:

- Textbook only: *PreCalculus: Graphs & Models*, Bittinger et al., 6th ed., Publisher: Pearson, ISBN 9780134179056

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 complete the following Course Competencies:

Course Competencies

The following are detailed course competencies intended to support the course outcomes:

1. 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.
2. 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.
3. Construct meaningful connections (transfer of knowledge) between mathematics and other disciplines.
4. 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.
5. 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:

Students will have a possible of 1000 points in the course. This is the breakdown of the points:

14 Homework Assignments: 10 points each

14 Quizzes: 10 points each

6 Discussions: 10 points each

4 Tests: 125 points each

1 Final: 200 points

The final grade for the course will be based on 1000 points. Note: There are more than 1000 points possible to earn in the course, so extra points are built in.

Grading Policy The grade for the course will be based on unit tests, homework and quizzes, and a final exam determined by the above distribution.

Grading Scale

The final letter grade is based on the following scale:

900-1000 points A

800-899 B

700-799 C

600-699 D

0-599 F

The instructor will issue a student a failing grade for the course if the student misses the deadlines (dates) on the course outline and published in the Assignments, Instructions and Schedules link(s) for a two week period without contacting the instructor.

FA – failure, see below

FN – failure, see below

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 (*published in the Academic Calendar*), the student will receive a grade of FA (i.e., "Failure for Attendance Reasons").

An FN is awarded to students who never attended class.

Class Policies, Late Work & Make-up Procedures for Missed Assignments

The first assignment is Discussion 1. These must be submitted by the end of the day on Friday of the first week of class. You must have registered for Mymathlab by the end of the first week of class.

- Report Course Attendance to your instructor by submitting assignments in MyMathLab. Failure to do this will result in a failing grade.
- The homework and quizzes are accessed by selecting "Do Homework" on the left navigation bar after login to MyMathLab. Make sure to select "Show All" to see both Homeworks and Quizzes. Complete homework and quiz assignments for each chapter section by the due date listed.

- Students are expected to view the MyMathLab video lectures and complete the assigned problems, on time, no exceptions. Students are also expected to complete Projects, Test Reviews and course Discussions by accessing this NS Online website and submit them on or before the posted due dates. Tests must be taken on campus at the campus testing center by the dates listed on the Assignments, Instructions and Schedules links under Content.
- Netiquette rules when communicating online must be observed.
- Tests and final exam are only accessible in the Testing Center of the Library on the main campus and at all other campus sites. The tests must be taken ON or BEFORE the due date listed on the Course Outline and on the Schedules links. Submitting homework, quizzes, projects, discussions or testing on the last possible date indicates that a student is behind schedule and is in jeopardy of not successfully completing the course. Extensions on the submission deadline dates will not be granted for any reason.
- Take tests per the schedule. The student can obtain test grades within one week of receipt via NSOnline by selecting the "Grades" tab. NOTE - If a student submits a test at an off-campus testing center, there may be a delay in grade posting.

Homework and Quizzes: Interacting with and exposure to the material is the best way to learn mathematics. The homework and quizzes will be assessed through MyMathLab. MyMathLab will be used for drill, practice, and the exposure needed to learn the material. The homework exercises in MyMathLab have tutorial help by choosing "View an Example." In addition, MyMathLab has videos and animation to work with certain problems. You must register for MyMathLab by the end of the first week of class. Failure to register MyMathLab will result in you not having access to assignments. Permission will not be granted to register for MyMathLab after the registration deadline. Understand that you cannot 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.**

Assignments are given **firm** deadlines. All work must be completed by the listed due date & time. You should score a 70% or above on each homework for full mastery of course topics. To raise your score to 70%, simply rework missed problems (you do not need to repeat the whole assignment) until your overall score reaches 70%. **Late assignments will not be accepted for any reason.**

Discussions: Submit discussions by selecting the "Discussions" tab or clicking on the "discussion" link within the module. Instruction for how to submit discussions are on the NS Online homepage. You must complete the discussion before the due date to receive credit. Each discussion will be worth a maximum of 10 points.

Unit/ Module Tests: The tests are accessed by selecting Quizzes link on the top, left navigation bar in NS Online. The tests are online and are password protected, so you must come to a campus testing center to take them. The password will be entered by the test monitor at the NSCC testing site that is used. They are proctored and you must show a picture ID. The only materials allowed in the testing area is a calculator, a pencil and a 4x6 notecard. Other notes, textbooks, and communication devices are NOT allowed. Test must be taken ON or BEFORE the due date listed on the Course Outline below or at "Assignments, Instructions, and Schedules" on the Content page. Check your testing center for specific hours of operation.

Failure to complete a test by the deadline will result in a 0 for the test. There will be no extension for any reason.

Test 1 is over Sections 1.1 - 1.6 is accessed by selecting the Quizzes link on the top, left navigation bar in NS Online. The tests are online and are password protected. The password will be entered by the test monitor at the Testing Center. The test must be taken on or before the due date at the bottom of this syllabus. A score of zero will be recorded after the test due date.

Test 2 is over Sections 2.1 - 2.4 and 3.1 - 3.5 is accessed by selecting the Quizzes link on the top, left navigation bar in NS Online. The tests are online and are password protected. The password will be entered by the test monitor at the Testing Center. The test must be taken on or before the due date at the bottom of this syllabus. A score of zero will be recorded after the test due date.

Test 3, which covers Sections 4.1 - 4.6, is accessed by selecting the Quizzes link on the top, left navigation bar. The tests are online and are password protected. The password will be entered by the test monitor at the Testing Center. The test must be taken on or before the due date at the bottom of this syllabus. A score of zero will be recorded after the test due date.

Test 4 cover Sections 5.1 - 5.6 is accessed by selecting the Quizzes link on the top, left navigation bar. The tests are online and are password protected. The password will be entered by the test monitor at the Testing Center. The test must be taken on or before the due date at the bottom of this syllabus. A score of zero will be recorded after the test due date.

Final Exam: The final exam is accessed by selecting Quizzes link on the top, left navigation bar. The same rules for tests apply to the final exam. The final exam must be taken ON or BEFORE the due date. There will be no extension for any reason.

Technical Difficulties: You may experience technical difficulties related to computer connections or equipment during the term. This cannot be used as an excuse for failure to complete assignments or to participate online. It is your responsibility to locate the computer hardware, software and Internet connections necessary to stay connected and current with your course work online. You should seek alternate Internet connections available through the college's computer labs, the college's library, the public library, and any friends, relatives, or neighbors if your personal computer equipment is not working.

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.

Attendance will be taken by the submission of homework, quizzes, discussions, and tests. Two assignments must be submitted to establish attendance and course participation, an email and

a discussion post. The required email sent to the instructor on the first day of class is the first attendance report. This email must be sent through NS Online and can be accessed by clicking on the Email link or Classlist link above. This email should tell the instructor that the student has:

1. Completed the NSCC Online Orientation or attended a live session,
2. Watched the video orientation if needed,
3. Examined all content in the course, and
4. Verify that the course requirements are understood.

The instructor will issue a student a failing grade for the course if the student misses the deadlines (dates) on the course outline and published in the Assignments, Instructions and Schedules link(s) for a two week period without contacting the instructor.

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 Desire2Learn (D2L) course shells. Computers are available for student use at each campus during campus open hours.

D2L/Brightspace/NSOnline 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 email 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 sanctions. Please review [Nashville State Student Code of Conduct policy](#). Please be aware that children are not allowed in class or unattended on campus. All electronic devices are to be turned off during class unless prior written consent has been given by the instructor.

Academic Misconduct

Any form of academic dishonesty, cheating, plagiarizing, or other academic misconduct is prohibited. Students are responsible for understanding and aiding 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://getrave.com/login/nscc> 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 Policy

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