



ACCEL
MATH 1113 Pre-Calculus
COURSE SYLLABUS
Spring Semester 2016
Web-Enhanced

Semester: Spring 2016

Course Title: Pre-Calculus

Course Number: MATH 1113

Credit Hours/ Minutes: 3 / 2250

Class Location: Room 320

Class Meets: 8:00-8:50 M-R

CRN:

Instructor: Jimmy Dupree

Office Hours: 7:00-8:00AM, 1:30-3:00PM

Office Location: Room 409

Email Address: jdupree@southeasterntech.edu

Phone: 912-538-1957

Fax Number: 912-538-3156

Tutoring Hours: Upon request

REQUIRED TEXT: Blitzer, R. Precalculus (4th edition). New Jersey: Prentice Hall. ISBN: 0321559843 © 2010. This textbook package includes the required MATHXL Access Code, the Student Solutions Manual, the CD Lecture Series, and the Prentice Hall Tutor Center. Students must either purchase the package or the textbook and a standalone mathxl access code.

REQUIRED SUPPLIES & SOFTWARE: **Supplies:** 3 ring binder notebook, computer access, loose-leaf paper, pencils, notebook, highlighter, graphing calculator (TI-83+ preferred), and graph paper. **Software:** The text may come with Web Assign software. The instructor will guide the class if the software is used for the class.

COURSE DESCRIPTION: **MATH 1113 – Pre-Calculus** (3 credit hours, 2250 minutes)

Prepares students for calculus. The topics discussed include an intensive study of polynomial, rational, exponential, logarithmic, and trigonometric functions and their graphs. Applications include maximum and minimum problems, exponential growth and decay.

MAJOR COURSE COMPETENCIES/OUTLINE:

1. Define a logarithm and use logarithmic properties
2. Define and graph a logarithmic function; find domain and range; and solve applications
3. Define, determine domain and range, and graph the six circular functions
4. Define the six trigonometric functions; use to solve right/oblique triangles and solve applications
5. Use trigonometric identities to prove other identities and work with the inverse trig. Functions
6. Define and work with vectors
7. Define and work with complex numbers
8. Define basic concepts related to functions and their graphs
9. Graph a function using a graphing calculator
10. Define and graph linear functions and solve applications involving them
11. Define and graph quadratic functions and solve applications involving them
12. Perform operations involving functions including finding the inverse of a functions
13. Define and graph polynomial functions including end behavior and zeros (real and imaginary)
14. Define and graph rational functions including basic characteristics and transformations
15. Define, evaluate, and graph exponential functions and use them to model phenomena

PRE-REQUISITE: Regular Admission and MATH 1111 with C or better

GENERAL EDUCATION CORE COMPETENCIES: STC has identified the following general education core competencies that graduates will attain:

1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.

STUDENT REQUIREMENTS: Students are expected to keep assigned work in a notebook and pass competency tests at scheduled times. Students are also expected to do all homework and assignments as scheduled and are expected to

have all supplies and access to software required by the course syllabus. Some courses may be web-enhanced and require the use of Angel, textbook websites, or textbook software. Quizzes and homework grades may be given at any time without prior notice, and makeups or late work on these assessments may or may not be accepted upon the discretion of the instructor. Students are expected to show high-quality, detailed work and/or explanations when completing all assignments.

ATTENDANCE PROCEDURE: It is essential that educational programs maintain requirements and standards necessary for successful employment of its graduates in business and industry. In view of the intensive nature of the educational programs, it is necessary for every student to be present and on time every day for all classes.

Attendance is counted from the first scheduled class meeting of each semester. To receive credit for a course a student must attend at least 90% of the scheduled instructional time. All work missed due to tardiness or absences must be made up at the convenience of the instructor. Any student attending less than the required scheduled instructional time as noted on each syllabus will receive a "W" for the course if removed from the course on or before midterm. After the semester midterm, any student who has maintained a passing grade within a course will receive a 'WP' for the course when attending less than the required scheduled instructional time as stated on each course syllabus. If, however, the student has not maintained a passing grade, he or she will receive a 'WF' for the course. Tardy means arriving after the scheduled time for instruction to begin. Early departure means leaving before the end of the scheduled time. Three (3) tardies or early departures equal one (1) absence for the course involved.

TRADITIONAL ATTENDANCE ADDENDUM: This class meets 45 times. The maximum number of days a student may miss for this class is equivalent to 5 class days during the semester including tardiness and early departure infractions. (Minutes are counted as absence time for tardies or early departures which are excessive in time-frame.) *(Any tardy or early departure that is over 1/3 of the class time will be counted as 1/2, 3/4, or a full absence upon the discretion of the instructor.)*

SPECIFIC ABSENCES: Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

SPECIAL NEEDS: Students with documented special needs may be provided with an individualized Instructional Plan with specifications for scheduled instructional time. It is the student's responsibility to inform the Special Needs Specialist as students and instructors are required to have documented evidence prior to receiving or allowing special accommodations. See the STC Catalog and Student Handbook, Student Affairs section for further information regarding special needs.

SPECIAL NEEDS ADDENDUM: *Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact Helen Thomas, Room 108 Vidalia Campus, 912-538-3126, to coordinate reasonable accommodations.*

ATTENDANCE REWARD: Students who do not exceed the attendance policy will be allowed to drop their lowest chapter test grade not including such items as the mid-semester exam, final exam, or a proctored online exam.

MAKEUP GUIDELINES (Tests, quizzes, homework, projects, etc...): Failure to take tests on the scheduled day will result in a grade of zero for the test not taken. No Make-up tests will be given, but an attendance reward will be given for applicable competency exams. (See the Attendance Reward for the specifics.) A grade of zero may be assigned for any quiz that is missed or homework that is not turned in as scheduled. Some instructors may allow a "one-class day" late deadline for a handwritten assessment scheduled outside of class time that has a due date. In this case, the highest allowed will be a grade of 80.

ACADEMIC DISHONESTY POLICY: The STC Academic Dishonesty Policy states *All forms of academic dishonesty, including but not limited to cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline.* The policy can also be found in the *STC Catalog and Student Handbook.*

Procedure for Academic Misconduct

The procedure for dealing with academic misconduct and dishonesty is as follows:

--First Offense--

Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.

--Second Offense--

Student is given a grade of "WF" for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.

--Third Offense--

Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The Registrar will input the incident into Banner for tracking purposes.

STATEMENT OF NON-DISCRIMINATION: Southeastern Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, disabled veteran, veteran of Vietnam Era or citizenship status, (except in those special circumstances permitted or mandated by law). This school is in compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin; with the provisions of Title IX of the Educational Amendments of 1972, which prohibits discrimination on the basis of gender; with the provisions of Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap; and with the American with Disabilities Act (ADA).

ACCESS TO TECHNOLOGY: Students can now access Blackboard, Remote Lab Access, Student Email, Library Databases (Galileo), and BannerWeb via the mySTC portal or by clicking the Current Students link on the STC website at www.southeasterntech.edu.

GRADING POLICY :

Quizzes	10%
Comp exams	50%
Math XL	15%
Final exam	25%

GRADING SCALE

A: 90-100
B: 80-89
C: 70-79
D: 60-69
F: 0-59

TCSG GUARANTEE/WARRANTY STATEMENT: *The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.*

Additional Grading Information:

15% Category: The average of the Mathxl homework assignments will count twice as grades in this category. The text homework will also count in this category and can be taken up at any time. The instructor will grade approximately 5-20 problems on text homework and students will not know which ones in advance. Additional homework expectations can be added at the discretion of the instructor.

***** Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact Helen Thomas in the Special Needs Office, Room 108, Vidalia Campus, 912-538-3126, to coordinate reasonable accommodations.**

TUTORING OPTIONS – You Have So Many Options!!

- 1. Mathxl Provides a Study Plan Button which will allow you to work examples from each section of your book. It will provide hints and explanations. A few of my students have used this and have bragged about it. You must register for mathxl using your mathxl access code and my course id code before you can use this option. If your instructor does not use Mathxl, you can just use www.interactmath.com which looks the same as mathxl.**
- 2. We have tutoring hours through an online program called SmartThinking. This connects you with a real online tutoring. We will have to get you a username and password through the General Education Dean of Instruction, Ms. Cheryl West.**
- 3. Your textbook provides a tutorial website for your specific book at www.interactmath.com. The problems will look almost exactly like the Mathxl Study Plan problems. If your instructor requires mathxl, you should use the Study Plan instead.**
- 4. STC provides tutoring. The tutors are usually campus instructors who have designated specific times they are available for tutoring.**
- 5. You may know a math tutor. As long as you are just getting help with homework and a basic learning of the material, it is fine to use your own tutor. It is not appropriate to use a tutor on things like quizzes and tests. Your complete honesty is expected. Academic Dishonesty is a serious offense. You do not want to be associated with cheating in any way. Your career could be at stake if you give in to the temptation.**
- 6. We often have volunteer tutors within our classes. This option varies on the availability of the volunteer tutors.**

Math 1113 Pre-calculus – Assignment Schedule

HOURS/MINUTES 37.5hr = 2250min	CHAPTER	OBJECTIVES	ASSIGNMENTS	COMP.
		Graphs		*a,b,
		2.4 Dividing Polynomials	Set 2.4 1-46 EOO	7 *a,b,c,
		2.5 Zeros of Polynomial Functions	Set 2.5 1-52 EOO	13 *a,b,c,
		2.6 Rational Functions 2.7 Polynomial and Rational Inequalities	Set 2.6 1-78 EOO Set 2.7 1-60 EOO	14 *a,c,
		Chapter 2 Review	Pages 381-4	
11-16	3	3.1 Exponential Functions 3.2 Logarithmic Functions and Their Graphs	Set 3.1 1-64 EOO Set 3.2 1-100 EOO	15 *a,b,
		3.3 Properties of Logarithms	Set 3.3 1-82 EOO	1, 2 *a,b,c,
		3.4 Exponential and Logarithmic Equations	Set 3.4 1-90 EOO	1, 2, 15
		3.5 Logarithmic Models	Set 3.5 1-58 EOO	1, 2 *a,b,c,
		Chapter 3 Review	Page 453-6	
17-23	4	Trigonometry Introduction 4.1 Radian and Degree Measure	Set 4.1 1-76 EOO	3 *a,
		4.2 Trigonometric Functions: The Unit Circle	Set 4.2 1-70 EOO	3 *a,b,c,
		4.3 Right Triangle Trigonometry	Set 4.3 1-42 EOO	4 *a,b,c
		4.4 Trigonometric Functions of Any Angle	Set 4.4 1-86 EOO	4 *a,b,c,
		4.5 Graphs of Sine and Cosine Functions	Set 4.5 1-60 EOO	3,4 *a,b,c,
		4.6 Graphs of Other Trigonometric Functions	Set 4.6 1-44 EOO	3,4 *a,b,c,
		4.7 Inverse Trigonometric Functions	Set 4.7 1-74 EOO	3,4,5 *a,b,c,

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		4.8 Applications of Trig Functions	Set 4.8 1-62 EOO	3, 4 *a,c,
		Chapter 4 Review	Pages 580-2	
24-29	5	5.1 Verifying Trigonometric Identities	Set 5.1 1-60 ALL	3, 4, 5 *a,b,c,
		5.2 Sum and Difference Formulas 5.3 Double-Angle, Power-Reducing, and Half- Angle formulas	Set 5.2 1-68 EOO Set 5.3 1-78 EOO	3, 4, 5 *a,b,c,
		5.4 Sum and Difference Formulas	Set 5.4 1-38 EOO	3, 4, 5 *a,b,c,
		5.5 Trigonometric Equations	Set 5.5 1-116 EOO	3, 4, 5 *a,b
		Chapter 5 Review		
30-38	6	6.1 Law of Sines	Set 6.1 1-38 EOO	3, 4, 5 *a,b,c,
		6.2 Law of Cosines	Set 6.2 1-30 EOO	3, 4, 5 *a,b,c,
		6.5 Trigonometric Form of a Complex Number	Set 6.5 1-76 EOO	6 *a,b,c,
39-42		6.6 Vectors in the Plane	Set 6.6 1-52 EOO	6 *a,b,c,
		6.7 Vectors and Dot Product	Set 6.7 1-50 EOO	6 *a,b,c,
43-45		Review/Final Exam		All

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14. Define and graph rational functions including basic characteristics and transformations
15. Define, evaluate, and graph exponential functions and use them to model phenomena

****General Core Educational Competencies**

- a) The ability to utilize standard written English. (i.e. Application Problems requiring written answers)
- b) The ability to solve practical mathematical problems. (i.e. Entire Course)
- c) The ability to read, analyze, and interpret information. (i.e. Entire Course, Applications)
- d) The ability to utilize basic computer skills. (i.e. Entire Course, Text Software, Angel – powerpoints, videos, etc...)

*****Instructor reserves the right to change the lesson plan as necessary.**

