



MATH 1012 / Foundations of Mathematics

COURSE SYLLABUS

Summer Semester 201616

Semester: 201616 Summer 2016
Course Title: Foundations of Mathematics
Course Number: MATH 1012
Credit Hours/ Minutes: 3 / 2250
Class Location: Building 6 / Room 6218
Class Meets: 8:00-10:15, MW, (Webenhanced)
CRN: 60171

Instructor: Mr. Don Davis
Email Address: ddavis1@southeasterntech.edu
Daytime Instructor: Sonya Wilson
Office Location: Room 6218/Building 6/Swainsboro
Office/Tutoring Hours: By Appointment
Email Address Day Instructor: swilson@southeasterntech.edu
Phone: See Instructor
Fax Number: 1-478-289-2224
Tutoring Hours: By Appointment with Instructor

Students are welcome to stay after class in the lab to continue to work on the webenhanced lab assignments.

This course is taught in a webenhanced format. Webenhanced math classes require the use of online tools such a MathXL and Blackboard to complete work out of class time.

REQUIRED TEXT: Bittinger, Marvin L. (2015). Basic Mathematics (12th edition). Boston: Pearson Education, Inc. A Mathxl Access Code is required. The textbook is packaged with a Mathxl Access code which may be required, at the discretion of the instructor, to participate and complete all assignments for the course. (The 11th edition of the text will still work.)

A Mathxl Access Code is required. The Mathxl Access Code is packaged with the text from the bookstore, or it can be purchased separately from the bookstore, or it can be purchased online at www.mathxl.com. Directions to register for Mathxl, including a Mathxl Course ID #, are included in your Blackboard Course under the **Math Work / MathXL Section** on the course menu. Students who have a non-expired Mathxl Account, may skip registration, login as usual, and use the new Course ID # to enroll in the new course.

REQUIRED SUPPLIES & SOFTWARE: 3-ring binder notebook, loose leaf paper, pencils, black erasable pens (optional per instructor), highlighter, and a Texas Instruments TI-30IIXS scientific calculator or any scientific calculator for limited use in the course. Additional Requirements: Daily, MTWR, access to a reliable internet connection for use with Blackboard, Mathxl (if required), mySTC, and college email.

Note: Although students can use their smart phones and tablets to access the online portion of their course(s), exams, discussions, assignments, and other graded activities should be performed on a personal computer. Neither Blackboard nor GVTC provide technical support for issues relating to the use of a smart phone or tablet so students are advised to not rely on these devices to complete the online portion of the course.

CALCULATOR USAGE: The use of cell phones or other internet capable devices **are not allowed** for calculator usage. Students are expected to bring a calculator appropriate for the course content each day of class. If calculator usage is not allowed for some topics, students are required to adhere to those expectations.

COURSE DESCRIPTION: Emphasizes the application of basic mathematical skills used in the solution of occupational and technical problems. Topics include fractions, decimals, percents, ratios and proportions, measurement and conversion, geometric concepts, technical applications, and basic statistics.

MAJOR COURSE COMPETENCIES: Topics include: Fractions, decimals, percents, ratio and proportion, measurement and conversion, geometric concepts, technical applications, and basic statistics.

PREREQUISITE(S): MATH 0097 - Math II OR Appropriate arithmetic placement test score.

COURSE OUTLINE:

1. Fractions
2. Decimals
3. Percents
4. Ratio and Proportion
5. Measurement and Conversion
6. Geometric Concepts
7. Technical Applications
8. Basic Statistics

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 (Web-enhanced): 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. Courses that are web-enhanced require the use Blackboard, 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. (A software program called MathXL is required. Students meet these requirements by completing Mathxl homework, quizzes, and by using Mathxl homework tutorial features such as the videos, Study Plan, View an Example button, etc... Campus computers are available for use for students who do not have proper access at home. Students are expected to use home computers, the Math Classroom or other labs on campus to complete MathXL assignments.)

ATTENDANCE GUIDELINES: Class attendance is a very important aspect of a student's success. Being absent from class prevents students from receiving the full benefit of a course and also interrupts the learning process. Southeastern Technical College considers both tardiness and leaving early as types of absenteeism. Responsibility for class attendance rests with the student. Regular and punctual attendance at all scheduled classes is required for student success. Students will be expected to complete all work required by the instructor as described in the individual course syllabus.

Instructors have the right to give unannounced quizzes/assignments. Students who miss an unannounced quiz or assignment will receive a grade of 0. Students who stop attending class, but do not formally withdraw, may receive a grade of F and face financial aid repercussions in upcoming semesters.

Instructors are responsible for determining whether missed work may be made up and the content and dates for makeup work is at the discretion of the instructor.

Students will not be withdrawn by an instructor for attendance; however, all instructors will keep records of graded assignments and student participation in course activities. The completion dates of these activities will be used to determine a student's last date of attendance in the event a student withdraws, stops attending, or receives an F in a course.

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.

WITHDRAWAL PROCEDURE: Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% portion of the semester (date will be posted on the school calendar) must speak with a Career Counselor in Student Affairs and complete a Student Withdrawal Form. A grade of "W" is assigned when the student completes the withdrawal form from the course.

Students who are dropped from courses due to attendance (see your course syllabus for attendance policy) after drop/add until the 65% point of the semester will receive a "W" for the course. Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of 'F' being assigned.

After the 65% portion of the semester, the student will receive a grade for the course. (Please note: A zero will be given for all missed assignments.)

There is no refund for partial reduction of hours. Withdrawals may affect students' eligibility for financial aid for the current semester and in the future, so a student must also speak with a representative of the Financial Aid Office to determine any financial penalties that may be accessed due to the withdrawal. All grades, including grades of 'W', will count in attempted hour calculations for the purpose of Financial Aid.

Remember - Informing your instructor that you will not return to his/her course does not satisfy the approved withdrawal procedure outlined above.

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: Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact Jan Brantley, Room 1208 Swainsboro Campus, 478-289-2274, or Helen Thomas, Room 108 Vidalia Campus, 912-538-3126, to coordinate reasonable accommodations.

PREGNANCY

Southeastern Technical College does not discriminate on the basis of pregnancy. However, we can offer accommodations to students who are pregnant that need special consideration to successfully complete the course. If you think you will need accommodations due to pregnancy, please advise me and make appropriate arrangements with the Special Needs Office. Swainsboro Campus: Jan Brantley, Room 1208, (478) 289-2274 -- Vidalia Campus: Helen Thomas, Room 108, (912) 538-3126.

ACADEMIC ENGAGEMENT REWARD (Web-Enhanced Math – Mr. Don Davis): Students who are academically engaged **each week** will receive a reward to replace a low test grade in the 50% category of the grading policy. To achieve this reward for Sonya Wilson's Web-Enhanced Math Class:

- Students must attend 90% of the scheduled class meetings. We meet 30-31 times. Students must attend 26 full class days to achieve the reward. 3 tardies = an absence. 3 early departures = an absence. Tardiness/departures over 10 minutes will be counted by minutes towards an absence.

Students who meet the academic engagement expectation will be allowed to replace their lowest, 50% category, competency test grade with their final exam grade. The replaced grade will be a competency exam (chapter test grade) and will not include such items as a mid-semester exam, final exam, or a proctored online exam. If the final exam grade is lower than the lowest competency test grade, then the final exam will not be used as a replacement grade and the lowest competency test grade will be left in place. Students who receive their lowest test score due to cheating are not eligible for the attendance reward. **This is a great reward to work for! It can have a very positive effect on most averages. All it takes is a steady weekly commitment to do all assignments.**

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 an 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).

GRIEVANCE PROCEDURES: Grievance procedures can be found in the Catalog and Handbook located on STC's website.

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

15% Homework
10% Quizzes
50% Tests
25% Comprehensive Final

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.*

15% Homework Category (Hybrid Mr. Don Davis): The homework average will be updated and displayed in Blackboard after major due dates – usually after test dates. Individual homework grades will be recorded in mathxl. The individual homework grades will consist of homework given in the mathxl program as well as several off-line homework assignments that may be required by your instructor. An *off-line homework assignment* is one that is done outside of the mathxl environment. The additional off-line homework grades will still be recorded in mathxl so they can be included in the overall homework average that will be transferred to the Blackboard Gradebook. (Note: The Blackboard Gradebook is a tool that acts as a spreadsheet that averages your grades according to the categories noted above.)

10% Quizzes Addendum: The quiz average will be updated and displayed in Blackboard after major due dates. Individual quiz grades will be recorded in mathxl. The individual quiz grades will consist of quizzes given in the mathxl program as well as several off-line quizzes that may be required by your instructor. An off-line quiz is a traditional handwritten quiz or a quiz that is done outside of mathxl. The additional off-line quizzes will be recorded in mathxl so they can be included in the overall quiz average that will be transferred to the Blackboard Gradebook.

50% Test Addendum: You may have a combination of traditional class tests and online tests. **The testing methods will be at the discretion of your instructor.** The majority of the tests given summer semester will be in-class paper/pencil tests. In contrast, a test may have a Part 1 in Mathxl and a Part 2 during class. The Part 2 section of the test will be given in a controlled environment to validate that the student can do the required material without external resources. Each problem on Part 2 will either increase the Part 1 grade or reduce the Part 1 grade. (An example is as follows: Part 2 may have 5 problems. The student will lose 10 points for each incorrect answer and will gain 1 bonus point for each correct answer. Students who are absent, for any reason, will lose all the points. The amount of problems and points will vary per test. The official grade of the test will be documented in Blackboard.) (Another method that may be used is to average Part 1 and Part 2. Part 2 will usually be much shorter than Part 1.) **Students who miss the MathXL portion of an exam will receive no lower than a 0 on the exam after Part 2.**

Note about Mathxl: Mathxl is a valuable tool that can greatly enhance your learning of the material. In addition, Mathxl will increase your ability to work in the online environment which is in high demand in today's workforce. 25% (75% if including tests) of your grades are weighed heavily by your use of mathxl. Please take your mathxl assignments seriously because 25% (or 75% including tests) can greatly help or hurt your final average. **Make time in the math classroom, in campus labs, or at home to do your MathXL assignments!!!!**

Note about not giving up: A few bad grades is never a good reason to give-up. Giving up results in an F whereas trying usually results in an A, B, C, or D --- all of which are better than an F. Most students are able to turn things around after a few bad grades if they just try. **Always take time to discuss things with your instructor.** We have to learn to overcome bad circumstances and not run away from them. It is usually easier to turn things around than you think.

How many hours per week should I expect this course to take me? (15 week semester) Students should expect the course to take a minimum of 2 or 2.5 times the contact hours to complete the lecture material, homework, quizzes, tests, and study time. For this class, 2.5 hours class time per week X 2.5 = a minimum of 6.25 hours per week. (Experts say that a 3 semester hour class should take around 6-9 additional hours per week for the semester.) Therefore, students should work several days per week to learn and complete the material. **For a 9 week semester**, students should expect the course to take a minimum of 4.167 hours class time per week X 2.5 = a minimum of 10.4 hours per week.

Are you feeling overwhelmed as you read all your course expectations for each class? That is a natural reaction at the beginning of the semester. Just listen to and communicate with your instructors and classmates. Take time to become organized in each class, and it will all come together soon. Your instructors want you to be successful.

MATH 1012 LESSON PLAN FOUNDATIONS OF MATHEMATICS – 12th edition Subject to Changes and Updates				
Minimester Course				
HOURS/MINUTES 2250m=37.5h	CHAPTER	OBJECTIVES	ASSIGNMENTS (Specific Due Dates will be tentative due to unexpected daily events. The expected dates are on your course calendar or announced by the instructor.)	COMP.
<p>~1 – 3 Instructional Hours</p> <p>Additional Learning time includes mathxl assignments, studying, and tutorials. This can often take 2.5 times the instructional time. Thus, it could take a student 2.5 X 3 hrs = 7.5 hrs to complete and learn the material for chapter 1.</p> <p>Keep a check on your College Email, Blackboard Announcements, and the Blackboard Calendar.</p> <p>Day 1 – Register for Mathxl and/or Enroll using the instructor's Mathxl handout.</p>	<p>1 - Whole Numbers</p> <p>No calculator on chapters 1 - 4</p>	<ul style="list-style-type: none"> *Standard Notation *Addition *Subtraction *Multiplication *Division *Rounding and Estimating; Order *Solving Equations *Applications and Problem Solving *Exponential Notation and Problem Solving 	<p>Mathxl: Register for Mathxl and complete the Chapter 1 Assignments found under the Homework and Tests Button.</p> <p>Register for MathXL with the handout given by your instructor on the first day of class and with the access code purchased from the bookstore. Students who used MathXL last semester, just need to login and change their enrollment using the handout given by the instructor.</p> <p>Textbook Homework: Announced by instructor</p> <p>ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are scheduled and due. Homework (See MathXL) Objective Quiz(zes) Competency Test(s) if needed.</p>	<p>6, 7</p> <p>*a,b,c</p>
<p>4-6 (3 Instructional Hours)</p>	<p>2 - Fractions</p>	<ul style="list-style-type: none"> *Factorizations *Divisibility *Fractions and Fraction Notation *Multiplication and Applications *Simplifying *Multiplying, Simplifying, and Applications *Division and Applications 	<p>Mathxl: Complete the Chapter 1 Assignments found under the Homework and Tests Button.</p> <p>Textbook Homework: Announced by instructor</p> <p>ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are scheduled. Homework (See MathXL)</p>	<p>1, 6, 7</p> <p>*a,b,c</p>

			Objective Quiz(zes) Competency Test(s) if needed.	
7-9	3- Fraction Notation and Mixed Numerals	<ul style="list-style-type: none"> *Least Common Multiples *Addition and Applications *Subtraction, Order, and Applications *Mixed Numerals *Addition and Subtraction *Using Mixed Multiplication and Division *Using Mixed *Order of Operations; Estimation 	<p>Mathxl: Complete the Chapter 2 Assignments found under the Homework and Tests Button.</p> <p>Textbook Homework: Announced by instructor</p> <p>ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are scheduled. Homework (See MathXL) Objective Quiz(zes) Competency Test(s) – Test 1-3</p>	1, 6, 7 *a,b,c
10-12	4 - Decimals	<ul style="list-style-type: none"> *Decimal Notation; Order; Rounding *Addition and Subtraction Multiplication *Division *Converting: Fraction to Decimal *Estimating *Applications and Problem Solving 	<p>Mathxl: Complete the Chapter 4 Assignments found under the Homework and Tests Button.</p> <p>Textbook Homework: Announced by instructor</p> <p>ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are scheduled. Homework (See MathXL) Objective Quiz(zes) Competency Test(s) if needed.</p>	2, 6, 7 *a,b,c
13-17	5 - Ratio and Proportion Start Using a Calculator but show all steps that lead to calculator use to get credit. **A Roman Numerals Quiz will be given	<ul style="list-style-type: none"> *Introduction to Ratios *Rates and Unit Prices *Proportions *Application of Proportions *Geometric Applications 	<p>Mathxl: Complete the Chapter 5 Assignments found under the Homework and Tests Button.</p> <p>Textbook Homework: Announced by instructor</p> <p>ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are scheduled. Homework (See MathXL) Objective Quiz(zes) Competency Test(s) if needed.</p>	4, 6, 7 *a,b,c
18-21	6 - Percent Notation	<ul style="list-style-type: none"> *Percent Notation *Percent and Fraction Notation *Solving Percents: Percent Equation *Solving Percents: Percent Proportion *Percent Applications *Sales Tax, Commission, Discount 	<p>Mathxl: Complete the Chapter 6 Assignments found under the Homework and Tests Button.</p> <p>Textbook Homework: Announced by instructor</p> <p>ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are scheduled. Homework (See MathXL) Objective Quiz(zes) Competency Test(s) – Test 4-6</p>	3, 6, 7 *a,b,c
22-23	7 - Data, Graphs, and Statistics	<ul style="list-style-type: none"> *Average, Median, and Modes *Tables and Pictographs *Bar Graphs and Line Graphs *Circle Graphs 	<p>Mathxl: Complete the Chapter 1 Assignments found under the Homework and Tests Button.</p> <p>Textbook Homework: Announced by instructor</p> <p>ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are scheduled.</p>	1, 2, 3, 7, 8 *a,b,c

			Homework (See MathXL) Objective Quiz(zes) Competency Test(s) if needed.	
24-29	8 - Measurement	*Linear Measures: American Units *Linear Measures: Metric Units *Converting between American/Metric *Weight and Mass: Medical Apps *Capacity: Medical Apps *Time and Temperature *Converting Units of Area **A Three Conversions Methods Quiz will be given. **A Real World Video Assignment Quiz will be given.	Mathxl: Complete the Chapter 1 Assignments found under the Homework and Tests Button. Textbook Homework: Announced by instructor ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are scheduled. Homework (See MathXL) Objective Quiz(zes) Competency Test(s) if needed.	4, 5, 7 *a,b,c
30-34	9 - Geometry	*Perimeter *Area *Circles *Volume *Angles and Triangles *Square Roots and Pythagorean Theorem	Mathxl: Complete the Chapter 1 Assignments found under the Homework and Tests Button. Textbook Homework: Announced by instructor ADDITIONAL: Your <u>course calendar</u> or instructor will detail how and when the following items are scheduled. Homework (See MathXL) Objective Quiz(zes) Competency Test(s)-Test 7-9	6, 7 *a,b,c
35 – 37.5		Final Exam Review Competency Exam Given	Final Exam Given	ALL
Total: 37.5 Instructional Hours				
		Final Exam		ALL
Students who will be graduating this semester should meet with their advisor to ensure all graduation requirements have been met.				

COURSE OUTLINE/COMPETENCIES:		**General Core Educational Competencies
1. Fractions 2. Decimals 3. Percents 4. Ratio and Proportion	5. Measurement and Conversion 6. Geometric Concepts 7. Technical Applications 8. Basic Statistics	a) The ability to utilize standard written English. (i.e. Discussion Boards) 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)

****Disclaimer Statements****

******Instructor reserves the right to change the syllabus and/or lesson plan as necessary.******

*****The official copy of the syllabus is located inside the student's online course shell or will be given to them during face to face class time the first day of the semester. The syllabus displayed in advance of the semester in a location other than the course you are enrolled in is for planning purposes only.*****

Tutoring: Please see your instructor to arrange tutoring times, see the day instructor, or see the Vidalia instructors. In addition, MathXL is a rich tutorial system by using the Study Plan, the videos, and the buttons inside homework. Keep a well-organized notebook when doing online work in MathXL.