



## Math 1012 Foundations of Mathematics

### COURSE SYLLABUS Spring Semester 2020

#### COURSE INFORMATION

Credit Hours/Minutes: 3/2250

Swainsboro/Class Location: Building 2 Room 2106

Class Meets: 11:00-12:15 am, TR, Tuesday and Thursday

Course Reference Number (CRN) 40305

Preferred Method of Contact: Email [Jamie Powers jpowers@southeasterntech.edu](mailto:jpowers@southeasterntech.edu)

#### INSTRUCTOR CONTACT INFORMATION

Instructor Name: Mr. Jamie Powers

Office Location: Swainsboro Campus, Building 2, Room 2106

Office Hours: 3:00pm – 7:30pm Monday/Wednesday Swainsboro Campus

Email Address: [Jamie Powers jpowers@southeasterntech.edu](mailto:jpowers@southeasterntech.edu)

Phone: 478-289-2221

Fax Number: 478-289-2214

Tutoring Hours (if applicable): Made by appointment with instructor

#### SOUTHEASTERN TECHNICAL COLLEGE (STC) CATALOG AND HANDBOOK

Students are responsible for all policies and procedures and all other information included in Southeastern Technical College's [Catalog and Handbook](http://www.southeasterntech.edu/student-affairs/catalog-handbook.php) (<http://www.southeasterntech.edu/student-affairs/catalog-handbook.php>).

#### REQUIRED TEXT

NO REQUIRED TEXT. The text: Bittinger, Marvin L. Basic College Mathematics (12<sup>th</sup> edition): Boston: Pearson Education, Inc. is used. A MathXL Access Code is required. The MathXL Access Code can be purchased from the STC bookstore. The textbook package from the STC bookstore includes a MathXL Access Code that is required to participate and complete all assignments for the course. (The 11<sup>th</sup> edition of the text will still work.)

#### 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, access to a reliable internet connection for use with Blackboard, MathXL(required), mySTC, and college email.

Note: Although students can use their smart phones and tablets to access their online course(s), exams, discussions, assignments, and other graded activities should be performed on a personal computer. Neither Blackboard nor Georgia Virtual Technical Connection (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 take an online

course.

**Students should not share login credentials with others and should change passwords periodically to maintain security.**

### **COURSE DESCRIPTION**

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

### **MAJOR COURSE COMPETENCIES**

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

### **PREREQUISITE(S)**

MATH 0097 - Math II OR Appropriate arithmetic placement test score.

### **COURSE OUTLINE**

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

### **GENERAL EDUCATION CORE COMPETENCIES**

Southeastern Technical College 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. Students should complete all assignments as scheduled and should have all supplies and access to software required by the course syllabus. This course requires the use of Blackboard, textbook websites and textbook software MathXL. Quizzes may be given at any time without prior notice, and homework may be assigned without prior notice. Makeup or late work on these assignments 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. Students meet these requirements by completing MathXL Homework, Quizzes and Tests. MathXL includes homework tutorial features such as the Videos, Study Plan, or View an Example button. In addition, the students complete this requirement by using the additional learning resources provided in our Blackboard course under the Math Resources / Help menu option.

### **TRADITIONAL 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" (Failing 0-59) 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.

### **STUDENTS WITH DISABILITIES**

Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact the appropriate campus coordinator to request services.

Swainsboro Campus: Macy Gay ([mgay@southeasterntech.edu](mailto:mgay@southeasterntech.edu)), 478-289-2274, Building 1, Room 1210

Vidalia Campus: Helen Thomas ([hthomas@southeasterntech.edu](mailto:hthomas@southeasterntech.edu)), 912-538-3126, Building A, Room 165

### **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.

### **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 make arrangements with the appropriate campus coordinator.

Swainsboro Campus: Macy Gay ([mgay@southeasterntech.edu](mailto:mgay@southeasterntech.edu)), 478-289-2274, Building 1, Room 1210

Vidalia Campus: Helen Thomas ([hthomas@southeasterntech.edu](mailto:hthomas@southeasterntech.edu)), 912-538-3126, Building A, Room 165

It is strongly encouraged that requests for consideration be made **PRIOR** to delivery and early enough in the pregnancy to ensure that all the required documentation is secured before the absence occurs. Requests made after delivery MAY NOT be accommodated. The coordinator will contact your instructor to discuss accommodations when all required documentation has been received. The instructor will then discuss a plan with you to make up missed assignments.

### **WITHDRAWAL PROCEDURE**

Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% point of the term in which student is enrolled (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" (Withdrawn) is assigned for the course(s) when the student completes the withdrawal form.

Important – Student-initiated withdrawals are not allowed after the 65% point. After the 65% point of the

term in which student is enrolled, the student has earned the right to a letter grade and will receive a grade for the course. Please note: Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of "F" (Failing 0-59) being assigned.

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

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 assessed due to the withdrawal. A grade 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.

### **EXIT EXAM**

There is no Exit Exam. The course does require completion of a comprehensive Final Examination, which counts as 25% of the course grade. Each student will also take a standardized Math Competency Exam at the end of the Semester. This Exam is used by STC to measure the effectiveness of Mathematics instruction. Students will have 10% of their Math Competency Exam score added to their Final Examination grade.

### **MAKEUP GUIDELINES (TESTS, QUIZZES, HOMEWORK, PROJECTS, ETC.)**

Failure to take tests or quizzes on the scheduled day will result in a grade of zero "0". No Make-up tests or quizzes will be given. MathXL assignments have a due date, which must be met. ALL MathXL work must be complete by the due date. All MathXL work not started in MathXL by the due date receives a grade of zero "0", all work in progress but not complete receives the grade in MathXL as of the due date.

### **ACADEMIC DISHONESTY POLICY**

The Southeastern Technical College Academic Dishonesty Policy states that 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 Southeastern Technical College Catalog and Handbook.

### **PROCEDURE FOR ACADEMIC MISCONDUCT**

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

#### **1. 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.

#### **2. Second Offense**

Student is given a grade of "WF" (Withdrawn Failing) 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.

#### **3. 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 third 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

The Technical College System of Georgia (TCSG) and its constituent Technical Colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, political affiliation or belief, genetic information, disabled veteran, veteran of the Vietnam Era, spouse of military member, or citizenship status (except in those special circumstances permitted or mandated by law). This nondiscrimination policy encompasses the operation of all technical college-administered programs, federally financed programs, educational programs and activities involving admissions, scholarships and loans, student life, and athletics. It also applies to the recruitment and employment of personnel and contracting for goods and services.

All work and campus environments shall be free from unlawful forms of discrimination, harassment and retaliation as outlined under Title IX of the Educational Amendments of 1972, Title VI and Title VII of the Civil Rights Act of 1964, as amended, the Age Discrimination in Employment Act of 1967, as amended, Executive Order 11246, as amended, the Vietnam Era Veterans Readjustment Act of 1974, as amended, Section 504 of the Rehabilitation Act of 1973, as amended, the Americans With Disabilities Act of 1990, as amended, the Equal Pay Act, Lilly Ledbetter Fair Pay Act of 2009, the Georgia Fair Employment Act of 1978, as amended, the Immigration Reform and Control Act of 1986, the Genetic Information Nondiscrimination Act of 2008, the Workforce Investment Act of 1998 and other related mandates under TCSG Policy, federal or state statutes.

The Technical College System and Technical Colleges shall promote the realization of equal opportunity through a positive continuing program of specific practices designed to ensure the full realization of equal opportunity.

The following individuals have been designated to handle inquiries regarding the nondiscrimination policies:

<b>American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) – Office of Civil Rights (OCR) Compliance Officer</b>	<b>Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer</b>
Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 165 Phone: 912-538-3126 Email: <a href="mailto:Helen.Thomas@southeasterntech.edu">Helen Thomas</a> <a href="mailto:hthomas@southeasterntech.edu">hthomas@southeasterntech.edu</a>	Lanie Jonas, Director of Human Resources Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 138B Phone: 912-538-3230 Email: <a href="mailto:Lanie.Jonas@southeasterntech.edu">Lanie Jonas</a> <a href="mailto:ljonas@southeasterntech.edu">ljonas@southeasterntech.edu</a>

## ACCESSIBILITY STATEMENT

Southeastern Technical College is committed to making course content accessible to individuals to comply with the requirements of Section 508 of the Rehabilitation Act of Americans with Disabilities Act (ADA). If you find a problem that prevents access, please contact the course instructor.

## GRIEVANCE PROCEDURES

Grievance procedures can be found in the Catalog and Handbook located on Southeastern Technical College'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 [Southeastern Technical College's Website \(www.southeasterntech.edu\)](http://www.southeasterntech.edu).

## **TECHNICAL COLLEGE SYSTEM OF GEORGIA (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.*

### **GRADING POLICY**

<b>Assessment/Assignment</b>	<b>Percentage</b>
Homework	25%
Quizzes	10%
Tests	40%
Final Exam	25%

### **GRADING SCALE**

<b>Letter Grade</b>	<b>Range</b>
A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

## Math 1012 Foundations of Mathematics

### Spring Semester 2020 Lesson Plan

Week/Class	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
Week 1 Jan 7 - 13	Chapter 1 / 1.1-1.5 Whole Numbers NOTE: Calculator may not be used on Chapters 1 - 4	1.1 Standard Notation 1.2 Addition 1.3 Subtraction 1.4 Multiplication 1.5 Division	Lecture MathXL: Homework Due: Jan 20	Course Competencies (CC): 1,2,3,4,5,6,7,8 General Core Competencies (GC): a,b,c
Week 2 Jan 14 - 20	Chapter 1 / 1.6-1.9 Whole Numbers NOTE: Calculator may not be used on Chapters 1 - 4	1.6 Rounding and Estimating; Order 1.7 Solving Equations 1.8 Applications and Problem Solving 1.9 Exponential Notation and Problem Solving	Lecture MathXL: Homework Test Due: Jan 20	Course Competencies (CC): 1,2,3,4,5,6,7,8 General Core Competencies (GC): a,b,c
Week 3 Jan 21 - 27	Chapter 2 / 2.1-2.7 Fractions NOTE: Calculator may not be used on Chapters 1 - 4	2.1 Factorizations 2.2 Divisibility 2.3 Fractions and Fraction Notation 2.4 Multiplication and Applications 2.5 Simplifying 2.6 Multiplying, Simplifying, and Applications 2.7 Division and Applications	Lecture MathXL: Homework Test Due: Jan 27	CC: 1, 7 GC: a,b,c
Week 4 Jan 28 – Feb 3	Chapter 3 / 3.1-3.3 Fraction Notation and Mixed Numbers NOTE: Calculator may not be used on Chapters 1 -4	3.1 Least Common Multiples 3.2 Addition and Applications 3.3 Subtraction, Order, and Applications	Lecture MathXL: Homework Test Due: Feb 10	CC: 1, 7 GC: a,b,c
Week 5 Feb 4 - 10	Chapter 3 / 3.4-3.7 Fraction Notation and Mixed Numbers NOTE: Calculator may not be used on Chapters 1 -4	3.4 Mixed Numerals 3.5 Addition and Subtraction Using Mixed Numbers 3.6 Multiplication and Division Using Mixed Numbers 3.7 Order of Operations; Estimation	Lecture MathXL: Homework Test Due: Feb 10	CC: 1, 7 GC: a,b,c

<b>Week/Class</b>	<b>Chapter/Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
Week 6 Feb 11 - 17	Chapter 4 / 4.1-4.4 Decimal Notation NOTE: Calculator may not be used on Chapters 1 -4	4.1 Decimal Notation; Order; Rounding 4.2 Addition and Subtraction 4.3 Multiplication 4.4 Division	Lecture MathXL: Homework Test Due: Feb 24	CC: 2, 7 GC: a,b,c
Week 7 Feb 18 - 24	Chapter 4 / 4.5-4.7 Decimal Notation NOTE: Calculator may not be used on Chapters 1 -4	4.5 Converting: Fraction to Decimal 4.6 Estimating 4.7 Applications and Problem Solving TEST REVIEW CHAPTERS 1-4 NO CALCULATOR ALLOWED	Lecture MathXL: Homework Test TEST Due: Feb 24	CC: 1,2,3,4, 7 GC: a,b,c
Week 8 Feb 25 – Mar 2	Chapter 5 / 5.1-5.5 - Ratio and Proportion	IN CLASS TEST CHAPTERS 1-4 NO CALCULATOR ALLOWED 5.1 Introduction to Ratios 5.2 Rates and Unit Prices 5.3 Proportions 5.4 Application of Proportions 5.5 Geometric Applications	Test: Feb 25 Lecture MathXL: Homework Test Due: Mar 2	CC: 3,6,7 GC: a,b,c
Week 9 Mar 3 - 9	Chapter 6 / 6.1-6.3 - Percent Notation	6.1 Percent Notation 6.2 Percent and Fraction Notation 6.3 Solving Percents: Percent Equation	Lecture MathXL: Homework Test Due: Mar 16	CC: 3,4,7 GC: a,b,c
Week 10 Mar 10 - 16	Chapter 6 / 6.4-6.6 - Percent Notation	6.4 Solving Percents: Percent Proportion 6.5 Percent Applications 6.6 Sales Tax, Commission, Discount	Lecture MathXL: Homework Test Due: Mar 16	CC: 3,4,7 GC: a,b,c
Week 11 Mar 17 - 23	Chapter 7 / 7.1-7.4 Data, Graphs, and Statistics	7.1 Average, Median, and Modes 7.2 Tables and Pictographs 7.3 Bar Graphs and Line Graphs 7.4 Circle Graphs	Lecture MathXL: Homework Test Due: Mar 23	CC: 1, 2, 3, 4,6, 7, 8 GC: a,b,c



<b>Week/Class</b>	<b>Chapter/Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
Week 12 Mar 24 - 30	Chapter 8 / 8.1-8.4 Measurement	8.1 Linear Measures: American Units 8.2 Linear Measures: Metric Units 8.3 Converting between American/Metric 8.4 Weight and Mass: Medical Apps	Lecture MathXL: Homework Test Due: Apr 13	CC: 1,2,3, 5, 7 GC: a,b,c
Week 13 Mar 31 – Apr 13	Chapter 8 /8.5-8.7 Measurement	8.5 Capacity: Medical Apps 8.6 Time and Temperature 8.7 Converting Units of Area	Lecture MathXL: Homework Test Due: Apr 13	CC: 1,2,3, 5, 7 GC: a,b,c
Week 14 Apr 14 - 20	Chapter 9 / 9.1-9.4 Geometry	9.1 Perimeter 9.2 Area 9.3 Circles 9.4 Volume	Lecture MathXL: Homework Test Due: Apr 28	CC: *6 GC: a,b,c
Week15 Apr 21 - 28	Chapter 9 / 9.5-9.6 Geometry	9.5 Angles and Triangles 9.6 Square Roots and Pythagorean Theorem Final Exam Review Competency Exam Given FINAL EXAM in Class	Lecture MathXL: Homework Test Due: Apr 28 Competency Exam Apr 23 Final Exam Apr 28 or Apr 30	CC: All GC: All

**COURSE COMPETENCY AREAS (CC): (TAKEN FROM STATE STANDARDS)**

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

**GENERAL CORE EDUCATIONAL COMPETENCIES (GC):**

- a) The ability to utilize standard written English.
- b) The ability to solve practical mathematical problems.
- c) The ability to read, analyze, and interpret information.