

**AUGUSTA TECHNICAL COLLEGE  
SYLLABUS  
MAT 1012**

<b>CRN #</b>		<b>Sec:</b>		<b>Location:</b>	210	<b>Time:</b>		<b>Days:</b>	
<b>Class/Lab/Credits:</b> 5/0/5				<b>Prerequisites:</b> MAT 097 or Admissions placement testing					
<p><b>Instructor:</b> Ms. Nancy Molik  <b>Phone Number:</b> 706 – 771 – 4076  <b>Main Office Number:</b> 706 – 771 – 4111  <b>Office Hours:</b>  <b>Office Location:</b> Room 223, 200 Building  <b>Email address:</b> nmolik@augustatech.edu  <b>Website:</b> <a href="http://www.augustatech.edu/math/molik/">http://www.augustatech.edu/math/molik/</a>  <b>Class Website:</b> <a href="http://www.augustatech.edu/math/molik/1012worksheets.htm">http://www.augustatech.edu/math/molik/1012worksheets.htm</a></p>									

**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, formula manipulation, technical applications, and basic statistics.

**Competencies/Subcompetencies:** After completing this section, the student will be able to:

- I. Solve problems involving fractions, decimals, and percent.
  - a. Solve numerical, order of operation, estimation, and simplification problems involving fractions, decimals, and percent.
  - b. Solve verbal problems involving fractions, decimals, and percent.
  - c. Convert fractions, decimals, and percent from one to the other.
  - d. Convert between decimal numbers and their word names.
- II. Solve problems involving ratio and proportion.
  - a. Solve numerical and verbal proportionality problems.
  - b. Calculate the simplification of ratios and rates in fraction form and as unit rates.
- III. Solve problems involving measurement and conversion.
  - a. Convert units of measure within and between systems of measurement.
  - b. Solve verbal problems using application of measurement and conversion.
- IV. Solve problems involving statistics.
  - a. Solve applications involving circle, bar, and line graphs and involving frequency distributions, and histograms.
  - b. Calculate the mean, weighted mean, median, and mode for a set of data.
- V. Solve problems using formulas.
  - a. Solve for areas of rectangular and circular figures.
  - b. Solve for volumes of cubic, rectangular and cylindrical solids.
  - c. Solve formulas for an unknown and evaluate technical formulas.
  - d. Solve problems involving angles and angle measures.

**Textbooks, Tools, and Supplies:**

- Lial M. L., Salzman S. A., & Hestwood, D. L. (2009). Basic College Mathematics (8th ed.). Boston, MA: Addison Wesley
- A scientific calculator (preferably the TI-30 XA) is recommended for this course.
- This course requires use of a pencil at all times and a notebook with pockets for worksheets and tests.

**Work Ethics:** Students will receive a work ethics grade (3, 2, 1, or 0) for this course. The work ethics grade is designed to evaluate and encourage good work habits. Performance factors and indicators include, but are not limited to, quality of work, ability to follow instructions, productivity, dependability, honesty, reliability, attendance and punctuality, attitude, integrity, enthusiasm, interpersonal skills, and initiative.

**Evaluation and Grading:**

Tests/Projects: 75% of grade

Final: 25% of grade

**Work Ethics Grading:**

**3** = Exceeds Expectations

**2** = Meets Expectations

**1** = Needs Improvement

**0** = Unacceptable

Tests include open-ended problems, which require students to show **all** of their work to receive credit, and various word/verbal problems relating to real-life problems in the various fields of work in which students are pursuing their higher education. All projects will count as a test grade and will not be accepted late. Pop quizzes may be given at any time, many times at the very beginning of class, and will result in a test grade at the end of the quarter. Pop quizzes will **not** be made up if missed. Don't be late!

There are **no** make-up tests or projects for any reason. Your lowest test grade will be dropped. If you miss a test, that will be the test grade you drop. Homework will only be collected if a day's notice is given in advance. In general, most homework is considered practice and will not be collected. If a homework assignment is collected, its completion or lack of completion will be factored into your grade by the addition or subtraction of points from your test average.

**Honor Code:**

As a student of Augusta Technical College, you agree to the honor code of the college. More details on the code of conduct are in the Student Handbook and Wellness Guide. Please familiarize yourself with it; you are responsible for the information.

It is an honor to be an Augusta Technical College Student. I pledge to do honor to myself, my classmates and my college by doing my best and by following the college honor code. I will not dishonor myself or my college by lying, cheating or stealing or by doing harm to another person or to any property. I understand that following an honor code is a reflection of my character which is important to my success on the job and in life.

**Attendance:** A basic requirement of this course is that you participate in class and complete writing and reading assignments in a timely manner. Please keep in touch with me if you are unable to attend class or complete an assignment on time. It is **your responsibility** to withdraw using the required procedures in the following circumstances:

- (A) if you should miss more than 10% of the classes (five hours per course for a five-contact-hour course; seven hours for a seven-contact-hour course, etc.) or
- (B) if you realize that you must quit coming to class for reasons beyond your control.

Your failure to withdraw yourself by getting an official Schedule Change Form signed by all necessary personnel may have long-term effects on your present and future academic (GPA), financial, and financial aid standing. If you have questions during the quarter about your continued attendance, please contact me or the dean of the school in which this class is being taught.

If you miss more than 10% of the quarter (in this class, this is more than four class days), you are subject to being dropped or suspended from the class. This may affect your financial aid status. A student who has been suspended from a course has the right to appeal in writing and will

remain in school during the appeal process. Please see the attendance policies in the *Augusta Technical College Student Handbook* for more information.

**Disabilities and Counseling Policy:** If you require special classroom accommodations because of a physical or learning disability, please see your instructor so that acceptable options can be discussed. If you think you may need special accommodations, please call the Disability Counselor at 706-771-4067.

**Tutoring Center:** The Tutoring Center in the Library on the second floor is available every morning and is free of charge for students of Augusta Technical College. Their specific daily hours are posted on their door. They also are available some afternoons and by appointment, so please feel free to make an appointment if necessary.

**Other Items of Note:**

1. All cell phones and beepers should be turned **off** before class starts. Exceptions to this rule need to be discussed with the instructor prior to class time. Texting during class will result in you being asked to leave the classroom.
2. All computers and other equipment in the classroom are property of either Augusta Technical College or me. Unless I have given an assignment that requires the computers or other equipment, those items are off-limits to students during class time. Anyone not respecting this fact may be asked to leave the classroom and will be marked absent for the day. Repeated violations may result in suspension from the class.

**Course Outline/Assignments:**

**Whole Numbers**

**1.10** Learn indicator words p. 91, 1-25 odd, 31-39 odd

**p. 103** Review Exercises: 117-129 odd

**p. 111** Chapter 1 Test: 20-23 all

**Multiplying and Dividing Fractions**

**2.1** 1 – 19 odd, 23, 25

**2.2** 1 – 53 alt. odds, 57 – 67 odd

**2.3** 1 – 11 odd, 29 – 51 alt. odds

**2.4** 1 – 37 odd, 39-49 odd, 53, 55

**2.5** 1 – 35 alt. odds, 37 – 41 odd, 45 – 53 odd

**2.6** 1 – 15 odd, 19 – 23 odd, 27 – 33 odd

**2.7** 9 – 25 odds, 29 – 35 odd, 39 – 45 odd

**2.8** 1 – 23 odd, 25 – 31 odd, 35 – 41 odd

**p. 187** Review Exercises: 1 – 81 odd

**p. 193** Chapter 2 Test: 1 – 25 all

**Adding and Subtracting Fractions**

**3.1** 1 – 31 odd, 35 – 39 odd

**3.2** 13 – 23 odd, 25 – 47 odd

**3.3** 1 – 35 alt. odds, 37 – 43 odd, 47 – 51 odd

**3.4** 1 – 45 odd, 49 – 69 odd

**3.5** 13 – 23 odd, 25 – 35 odd, 39 – 69 odd

**p. 253** Review Exercises: 1 – 45 odd, 51 – 93 odd

**p. 243** Chapter 3 Test: 1 – 15 all, 18 – 25 all

**Decimals**

**4.1** 1 – 35 odd, 37 – 55 odd

**4.2** 11 – 23 odd, 25 – 35 odd

**4.3** 1 – 17 odd, 37 – 59 odd

**4.4** 1 – 19 odd, 39 – 59 odd

- 4.5** 1 – 19 odd, 31 – 61 odd  
**4.6** 1 – 23 odd, 29 – 43 odd, 45 – 73 odd  
**p. 321** Review Exercises: 1 – 81 odd  
**p. 325** Chapter 4 Test: 1 – 24 all

### **Ratios and Proportions**

- 5.1** 1 – 15 odd, 17 – 27 odd, 35 – 47 odd  
**5.2** 1 – 15 odd, 17, 19, 21, 25 – 35 odd  
**5.3** 1 – 35 odd  
**5.4** 1 – 25 odd  
**5.5** 1 – 17 odd, 25 – 31 odd, 35, 37  
**p. 377** Review Exercises: 1 – 67 odd  
**p. 381** Chapter 5 Test: 1 – 20 all

### **Percents**

- 6.1** 1 – 35 odd, 39 – 61 odd, 69 – 87 odd  
**6.2** 1 – 43 odd, 45 – 67 odd, 71 – 83 odd  
**6.3** 45 – 59 odd  
**6.4** 1 – 39 odd, 43 – 69 odd  
**6.5** 1 – 31 odd, 35 – 55 odd  
**6.6** 1 – 23 odd, 27 – 51 odd  
**6.7** 1 – 29 odd, 33 – 45 odd  
**p. 471** Review Exercises: 1 – 99 all  
**p. 477** Chapter 6 Test: 1 – 17 all, 20 – 25 all

### **Measurement and Conversion**

- 7.1** Memorize values in table p. 484  
**7.1** 1 – 29 alt. odds, 31 – 45 odd, 49 – 61 odd  
**7.2** 25 – 43 odd  
**7.3** 29 – 53 odds, 63 – 73 odd  
**7.4** 1 – 15 all  
**7.5** 1 – 17 odd, 27 – 35 odd  
**p. 533** Review Exercises: 1 – 19 odd, 27 – 31 odd, 41 – 55 odd, 61, 63  
**p. 537** Chapter 7 Test: 1 – 33 all

### **Geometry**

- 8.1** 1 – 23 odd  
**8.2** 1 – 16 odd, 19  
**8.3** 1, 3, 13 – 29 odd  
**8.6** 1 – 17 odd, 21 – 33 odd  
**8.7** 1, 2, 7, 8, 13, 14, 18, 19, 23, 24  
**p. 623** 1 – 23 odd, 33, 35, 37, 41, 45, 47, 51, 72, 74, 77, 81 – 89 odd, 92, 95, 96  
**p. 631** 1 – 4 all, 6 – 10 all, 16 – 20 all, 22

### **Statistics**

- 1.9** 1 – 15 odd  
**10.1** 1 – 25 odd, 29 – 35 odd, 37 (a and b), 39  
**10.2** 1 – 22 odd, 25 – 29 odd, 35 – 39 odd  
**10.3** 1 – 11 odd, 15 – 35 odd  
**10.4** 1 – 21 odd, 25 – 29 odd  
**p. 763** Review Exercises: 1 – 9 odd, 13 – 21 odd, 25 – 31 odd, 39 – 51 odd, 53  
**p. 769** Chapter 10 Test: 1 – 11 all, 13 – 18 all, 20 – 22 all, 25 – 30 all

For additional information about school policies and procedures, refer to the *Augusta Technical College Student Handbook*