

**AUGUSTA TECHNICAL COLLEGE
SYLLABUS
MAT 1111**

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| CRN # | | Sec: | | Location: | 210 | Time: | | Days: | |
| Class/Lab/Credits: 5/0/5 | | | | | | Prerequisites: Program admission level math achievement | | | |

Instructor: Ms. Nancy Molik
Phone Number: 706-771-4076
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Office Hours:
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Course Description: This course Emphasizes techniques of problem solving using algebraic concepts. Topics include: algebraic concepts and operations, linear and quadratic equations and functions, simultaneous equations, inequalities, exponents and powers, graphing techniques, and analytic geometry.

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

- I. Perform operations involving fundamental concepts of algebra.
 - A. Determine complements, unions, and intersections of sets.
 - B. Determine the simplest form of algebraic expressions using the fundamental laws of algebra and the laws of exponents and radicals.
 - C. Determine the prime factors of algebraic expressions.
 - D. Calculate arithmetic operations with rational expressions.
 - E. Calculate arithmetic operations with complex numbers.

- II. Solve equations and inequalities.
 - A. Solve problems involving linear, quadratic, and absolute value equations.
 - B. Solve problems involving linear, quadratic, rational, and absolute value inequalities.
 - C. Solve problems involving exponential and logarithmic equations.

- III. Solve simultaneous linear equations.
 - A. Solve systems of linear equations graphically.
 - B. Solve systems of linear equations algebraically.
 - C. Solve systems of linear equations using determinants.

- IV. Analyze different functions and their graphs.
 - A. Define relations and functions.
 - B. Compose a graph of a linear, quadratic, exponential, or logarithmic function.

Textbooks, Tools, and Supplies:

- Lial, Hornsby & McGinnis, *Algebra For College Students*, 6th Edition.
- A scientific calculator (preferably the TI-30 XA) is recommended for this course.
- This course requires use of a pencil at all times, graph paper, a straight edge (ruler), and a folder 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; if I drop you from this class for non-attendance, you may earn a WF in the class. However, since it is your responsibility to drop yourself from any class you stop attending; you may not get dropped from the class and may receive an F instead. Both of these cases 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.

As set forth in its student catalog, Augusta Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, political affiliation or belief, veteran status, or citizenship status (except in those special circumstances permitted or mandated by law).

Title IX/Title VI Coordinator: Randy Davis, Building 100, Room 129, 706-771-4081

Tutoring Center: The Tutoring Center in Room 218 of the 200 building is available every morning and some afternoons and is free of charge for students of Augusta Technical College. Their specific daily hours are posted on their door. They also are available 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 or on vibrate before class starts. Exceptions to this rule need to be discussed with the instructor prior to class time. Cell phones and beepers distract those who are trying to learn and especially those of us who have learning disabilities or ADD/ADHD, so please be considerate of those around you and take care of this before class starts. 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:

- 1.1 (p. 12) : 23, 43 – 57, 65 – 71 odd
1.2 (p. 23) : 11 – 23, 35 – 45, 61 – 67, 79 – 85 odd
1.3 (p. 32) : 23 – 35, 41 – 47, 53 – 75 odd
1.4 (p. 41) : 11 – 37 odd
- 2.1 (p. 60) : 11 – 43, 49 – 61 odd
2.2 (p. 68) : 7 – 17 odd, 21, 23
2.3 (p. 81) : 7 – 17 odd, 29, 31, 33
2.4 (p. 92) : 9 – 15 odd, 21, 25, 27, 41, 43 [p.97: 1, 9, 13, 17, 19]
2.5 (p. 108) : 11 – 41, 49 – 55 odd
2.6 (p. 119) : 7 – 14 all
2.7 (p. 129) : 9 – 31, 35 – 57 odd
- 3.1 (p. 157) : 3 – 9, 13 – 31, 37 – 53 odd
3.2 (p. 170) : 5 – 17, 21 – 29, 33 – 75 odd
3.3 (p. 186) : 7 – 19, 23 – 39, 43 – 53, 57 – 69 odd
3.5 (p. 211) : 23, 27, 31, 35, 37 [domain only]; 41 – 55, 67 – 81 odd
- 4.1 (p. 238) : 9 – 51 odd
App D (p. 960) : 3 – 8 all, 22 – 27 all
4.3 (p. 259) : 3, 5, 9, 11, 17, 19, 21, 33, 35
- 5.1 (p. 296) : 17 – 47, 69 – 119, 127 – 149 odd
5.2 (p. 306) : 29 – 47, 51 – 61, 79 – 83 odd
5.4 (p. 324) : 5 – 23, 47 – 51, 59 – 63 odd, 85, 89
5.5 (p. 331) : 5 – 11, 17 – 25 odd, 31, 39, 49
- 6.1 (p. 350) : 1 – 19, 33 – 43, 47 – 51 odd
6.2 (p. 358) : 5 – 43, 59 – 63 odd
6.3 (p. 364) : 7 – 15 odd, 21, 23
6.4 (p. 368) : 1 – 9 odd, 15, 19, 21, 23, 25, 27, 31, 33, 35, 39, 41, 43, 51, 55, 57, 59, 61, 65
6.5 (p. 376) : 3 – 31 odd, 55, 58, 60
9.2 (p. 554) : 5 – 15, 19 – 23 odd, 29, 31
9.5 (p. 583) : 7 – 21 odd, 33, 37, 39, 41, 43
10.2 (p. 615) : 3 – 11, 21 – 35 odd
- 7.1 (p. 398) : 25 – 41, 49 – 55, 61, 63, 67 – 83 odd
7.2 (p. 407) : 23 – 35, 39 – 67, 71 – 75 odd
7.3 (p. 416) : 3 – 23 odd
7.4 (p. 423) : 15, 23 – 33 odd
- 8.1 (p. 471) : 13 – 35, 59, 63 – 67 odd
8.2 (p. 479) : 11 – 33, 61 – 75 odd
8.3 (p. 489) : 23 – 33, 39 – 49 odd, 61, 65, 69
8.7 (p. 521) : 7 – 13, 27 – 37, 41 – 49 odd, 53, 55, 59, 61, 63
- 11.2 (p. 684) : 5 – 11, 15 – 25 odd
11.3 (p. 692) : 3 – 17, 21 – 35 odd, 39, 53, 55
11.4 (p. 701) : 7 – 15, 21 – 29 odd
11.6 (p. 721) : 25 – 29, 33 – 43 odd