Math 1314.T50 - College Algebra- Fall 2017 Syllabus

Disclaimer: This syllabus is current and accurate as of its posting date, but will not be updated. For the most complete and up-to-date course information, contact the instructor.

Instructor Information

<table>
<thead>
<tr>
<th>Name:</th>
<th>Office Hours:</th>
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</thead>
<tbody>
<tr>
<td>Mrs. Codi Jaynes</td>
<td>M-F 9:00-10:45 am</td>
</tr>
<tr>
<td>Office: MCS 205K</td>
<td>MW 1:30-2:30 pm</td>
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<tr>
<td>Phone: 325-486-5446</td>
<td>or by appointment</td>
</tr>
<tr>
<td>Email: <a href="mailto:codi.jaynes@angelo.edu">codi.jaynes@angelo.edu</a></td>
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</tr>
</tbody>
</table>

This class meets MWF 3:00-4:50 pm in MCS 112.

What is a T-Section?

- A T-Section is college credit bearing course paired with additional support for those students who are not TSI complete.
- T-Sections allow students to take their college level mathematics class (with additional support) immediately rather than having to first spend a semester or two taking developmental mathematics courses prior to being allowed to take college level mathematics. This course design is ideal for students who have math deficiencies, but are willing to put forth the time and effort needed to complete the course satisfactorily.
- The course materials and lessons for the college level course and supplemental instruction will complement each other. In a way, each part of the T-Section reinforces and helps the other part.
- Learning communities are a great way to begin college life. We will heavily stress learning communities. You will work some problems in groups with each person in the group contributing their fair share to the effort. You will be asked at times to be peer tutors for others that are struggling.

Student Expectations: YOU are expected to…

- Attend class consistently and in a timely manner.
- Foster a learning environment by practicing common courtesy at all times.
- Pay attention fully during class.
- Complete each assignment by the specified due date.
- Maintain academic honesty.
- Work outside of class on homework, quizzes, and review materials to master concepts and adequately prepare for exams.
- Utilize, as needed, all available study-aid options (including visiting the math lab, meeting with the instructor, referring to outside text, etc.) to resolve questions.

Math Lab: The Math Learning lab is available on campus that provide FREE math tutoring. Please utilize this great resource- no appointment is necessary.

- MATH LAB- LIB C302 (upstairs)- This won’t be open until Tuesday, September 5.
  - Monday – Thursday: 9:00 am – 8:00 pm
  - Friday: 9:00 am – 12:00 pm
  - Sunday: 4:00 pm – 8:00 pm
**Blackboard/Email:**

- I plan to post notes, test reviews, and other documents on Blackboard. I will expect you to print these documents and bring them with you to class when I tell you to. I will also post grades and other important announcements on Blackboard.
- Blackboard can be accessed through RamPort or by visiting [http://blackboard.angelo.edu](http://blackboard.angelo.edu).
- I may send you information via email. It is your responsibility to regularly check your angelo.edu email account.

**Lecture Notes:** It is your responsibility to print the lecture notes from Blackboard and bring them to class each day. I strongly suggest keeping your notes and other class materials in a 3-ring binder.

**Attendance:** Attendance will be taken daily and is **mandatory for the entire class period.** Excessive absences are reported to the administration and play a definite role in suspension considerations. Remember that I can teach you more in one hour than you can learn on your own in several hours. So, **for your own sake, attend every class!!**

**Homework:** Homework will be assigned over every section through MyMathLab software. To set up your account, go to Blackboard. To set up an account, you will need the following information:

- A valid email address (I recommend you use your angelo.edu email)
- Your student access code (purchased with your textbook or purchased directly from MyMathLab)

You will need to pay for an access code. If you are unable to pay at the start of the semester, you may use the free 14-day trial. However, remember this free trial **only lasts for 14 days!** After that time, you will need to pay for the access code.

Daily work will consist of homework problems completed on a computer-based system and worksheets/textbook problems sets.

- There will be a deduction of **20%** for every day an assignment is past-due.
- I will drop 5 homework/quiz grades at the end of the semester to help compensate for unavoidable circumstances.

**Tests/Final Exam:** There will be four regular exams during the semester and a comprehensive final exam. If it benefits you, your final exam grade will replace your lowest test grade. This means that if you miss one test, your final exam grade will replace it. If you miss a second test, you will receive a grade of zero for it. There will be no make-up exams. If you leave the room during an exam, I may take your test and grade it AS IS!

Approximate exam dates are as follows: 9/22, 10/13, 11/3, 12/1. Exact exam dates and coverage of material will be announce/d in class and on Blackboard.

A comprehensive final exam will be Wednesday, December 13 from 3:30 pm – 5:30 pm.

**Grading:**

<table>
<thead>
<tr>
<th>Grades will be roughly determined as follows:</th>
<th>The following table determines how letter grades will be assigned in this course:</th>
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</thead>
<tbody>
<tr>
<td>Homework &amp; Quizzes 20%</td>
<td>90% or above</td>
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<td>Tests 15% each</td>
<td>80%- 89%</td>
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<td>Final Exam 20%</td>
<td>70%- 79%</td>
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<td>60%- 69%</td>
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<td></td>
<td>Below 60%</td>
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<td>A</td>
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</table>
Common Courtesy:

- Please turn off all cell phones or any other electronic devices before entering the classroom. Place these items in your backpacks. I do not want to see them on your desk or in your laps. THIS MEANS NO TEXTING DURING CLASS! I reserve the right to ask you to leave class if I catch you texting.
- Please refrain from carrying on personal conversations once class has started. Be courteous to your peers when they are responding in class by listening to what they have to say.
- You are not given a grade in a college course; you EARN your grade. It is your responsibility to put in as much effort as it takes to earn this grade. This includes utilizing (as needed) all available study aid options (my office hours, the Math Lab, reading outside texts, etc.) to resolve any questions or concerns you might have about any aspect of the course.

University Policies:

- **Student Disability Services**
  
  ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA), and subsequent legislation.

  The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student’s responsibility to initiate such a request by contacting:

  Dallas Swafford  
  Director of Student Disability Services  
  Office of Student Affairs  
  325-942-2047  
  dallas.swafford@angelo.edu

- **Title IX**
  
  Angelo State University is committed to the safety and security of all students. If you or someone you know experience sexual harassment, sexual assault, domestic or dating violence, stalking, or discrimination, you may contact ASU’s Title IX Coordinator:

  Michelle Boone  
  Director of Title IX Compliance  
  325-486-6357  
  michelle.boone@angelo.edu

- **Student Absence for Observance of Religious Holy Days**: A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence.
  
  (http://www.angelo.edu/opmanual/ -- OP 10.19)
• **Incomplete Grade Policy:** It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#) for more information.

• **Student Absence for Observance of Religious Holy Days:** A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. ([http://www.angelo.edu/opmanual/](http://www.angelo.edu/opmanual/) -- OP 10.19)

**Student Conduct Policies**

**Academic Integrity**

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the Statement of [Academic Integrity](#).

**Plagiarism**

Plagiarism is a serious topic covered in ASU’s [Academic Integrity policy](#) in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the [ASU Writing Center](#).

**Copyright Policy**

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

• **General Policies Related to this Course:** All students are required to follow the policies and procedures presented in these documents:
  o [ Angelo State University Student Handbook](#)
  o [ Angelo State University Catalog](#)
Mathematics 1314- College Algebra

Student Learning Outcomes

1. Students will demonstrate factual knowledge including the mathematical notation and terminology used in this course. Students will read, interpret, and use the vocabulary, symbolism, and basic definitions used in college algebra including the real numbers, exponents, radicals, polynomials, factoring, functions, equations, inequalities, and graphs.

2. Students will describe the fundamental principles including the laws and theorems arising from the concepts covered in this course. Students will identify and apply the laws and formulas that result directly from the definitions; for example, the quadratic formula, rules of exponents, and properties of logarithms.

3. Students will apply course material along with techniques and procedures covered in this course to solve problems. Students will use the facts, formulas, and techniques learned in this course to simplify algebraic expressions, graph functions, and solve inequalities, equations, and systems of equations.

4. Students will develop specific skills, competencies, and thought processes sufficient to support further study or work in this field or related fields. Students will acquire a level of proficiency in the fundamental concepts and applications necessary for further study in academic areas requiring college algebra as a prerequisite, or for work in occupational fields requiring a background in algebra. These fields might include education, business, finance, marketing, computer science, physical sciences, and engineering, as well as mathematics.

Course Content

Textbook: College Algebra with Intermediate Algebra: A Blended Course, 1st edition, by Beecher, Bittinger, Johnson, and Penna. The electronic supplement MyMathLab will also be utilized. The following chapters including the particular sections listed are covered.

R. Review of Basic Algebra:
The Set of Real Numbers, Operations with Real Numbers, Exponential Notation and Order of Operations, Introduction to Algebraic Expressions, Equivalent Algebraic Expressions, Simplifying Algebraic Expressions, Properties of Exponents and Scientific Notation

1. Solving Linear Equations and Inequalities:
Solving Equations, Formulas and Applications, Applications and Problem Solving, Sets, Inequalities, and Interval Notation, Intersections, Unions, and Compound Inequalities, Absolute-Value Equations and Inequalities

2. Graphs, Functions, and Applications:
Graphs of Equations, Functions and Graphs, Finding Domain and Range, Linear Functions: Graphs and Slopes, Finding Equations of Lines; Applications

3. Systems of Equations:
Systems of Equations in Two Variables, Solving by Substitution, Solving by Elimination, Solving Systems of Equations in Three Variables, Applications

4. Polynomials and Polynomial Functions:
Introduction to Polynomials and Polynomial Functions, Multiplication of Polynomials, Introduction to Factoring, Factoring Trinomials: Leading coefficient 1, Factoring Trinomials: Leading coefficient not 1, Special Factoring, Factoring: A General Strategy

5. Rational Expressions, Equations, and Functions:
Rational Expressions and Functions: Multiplying, Dividing, and Simplifying, LCMs, LCDs, Addition, and Subtraction, Division of Polynomials, Complex Rational Expressions, Solving Rational Equations, Applications and Proportions

6. Radical Expressions, Equations, and Functions: Radical Expressions and Functions, Rational Numbers as Exponents, Simplifying Radical Expressions, Addition, Subtraction, Multiplication, and Division of Radical Expressions, Solving Radical Equations, Applications

7. Quadratic Functions and Equations:
The Complex Numbers, Quadratic Equations, Functions, Zeros, and Models, Analyzing Graphs of Quadratic Functions

8. Polynomial Functions and Rational Functions
Polynomial Inequalities and Rational Inequalities

9. Exponential Functions and Logarithmic Functions
Exponential Functions and Graphs, Logarithmic Functions and Graphs, Properties of Logarithmic Functions, Solving Exponential and Logarithmic Equations, Applications

Appendix:
Partial Fractions

Subject Matter: (tentative schedule- subject to change)
The subject matter schedule listed below is tentative, and subject to change. For current, updated information, contact the instructor or see Blackboard.

<table>
<thead>
<tr>
<th>Course Day</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M, 8/28</td>
<td>Course Intro, Syllabus, MyMathLab, R.1- The Set of Real Numbers</td>
</tr>
<tr>
<td>2</td>
<td>W, 8/30</td>
<td>R.2- Operations with Real Numbers; R.3- Exponential Notation &amp; Order of Operations</td>
</tr>
<tr>
<td>3</td>
<td>F, 9/1</td>
<td>R.4- Introduction to Algebraic Expressions; R.5- Equivalent Algebraic Expressions</td>
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<tr>
<td>4</td>
<td>W, 9/6</td>
<td>R.6- Simplifying Algebraic Expressions; R.7- Properties of Exponents &amp; Scientific Notation</td>
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<tr>
<td>5</td>
<td>F, 9/8</td>
<td>1.1- Solving Equations; 1.2- Formulas &amp; Applications</td>
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<tr>
<td>6</td>
<td>M, 9/11</td>
<td>1.3- Applications and Problem Solving; 1.4- Sets, Inequalities, &amp; Interval Notation</td>
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<td>7</td>
<td>W, 9/13</td>
<td>1.4- Sets, Inequalities, &amp; Interval Notation; 1.5- Intersections, Unions, &amp; Compound Inequalities</td>
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<tr>
<td>8</td>
<td>F, 9/15</td>
<td>1.6- Absolute-Value Equations &amp; Inequalities</td>
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<tr>
<td>9</td>
<td>M, 9/18</td>
<td>2.1- Graphs of Equations; 2.2- Functions &amp; Graphs; 2.3- Finding Domain &amp; Range</td>
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<tr>
<td>10</td>
<td>W, 9/20</td>
<td>Review for Test 1</td>
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<tr>
<td>11</td>
<td>F, 9/22</td>
<td>Test 1</td>
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<tr>
<td>12</td>
<td>M, 9/25</td>
<td>2.5- Linear Functions: Graphs &amp; Slopes; 2.6- More on Graphing Linear Equations</td>
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<tr>
<td>13</td>
<td>W, 9/27</td>
<td>2.7- Finding Equations of Lines &amp; Applications</td>
</tr>
<tr>
<td>14</td>
<td>F, 9/29</td>
<td>3.1- Systems of Equations in Two Variables; 3.2- Solving by Substitution</td>
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<tr>
<td>15</td>
<td>M, 10/2</td>
<td>3.3- Solving by Elimination; 3.5- Solving Systems of Equations in Three Variables</td>
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<td>16</td>
<td>W, 10/4</td>
<td>4.1- Introduction to Polynomials &amp; Polynomial Functions; 4.2- Multiplication of</td>
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<td>Date</td>
<td>Day</td>
<td>Topic</td>
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<tr>
<td>17</td>
<td>F, 10/6</td>
<td>4.3- Introduction to Factoring; 4.4- Factoring Trinomials: Leading coefficient of 1</td>
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<tr>
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<td>M, 10/9</td>
<td>4.5- Factoring Trinomials: Leading coefficient not 1; 4.6-Special Factoring</td>
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<td>W, 10/11</td>
<td>Review for Test 2</td>
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<tr>
<td>20</td>
<td>F, 10/13</td>
<td>Test 2</td>
</tr>
<tr>
<td>21</td>
<td>M, 10/16</td>
<td>4.7- Factoring: A General Strategy; 4.8-Application of Polynomial Equations &amp; Functions</td>
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<tr>
<td>22</td>
<td>W, 10/18</td>
<td>5.1- Rational Expressions &amp; Functions: Multiply, Divide, &amp; Simplify; 5.2- LCMs, LCDs, Addition, &amp; Subtraction</td>
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<td>23</td>
<td>F, 10/20</td>
<td>5.2- LCMs, LCDs, Addition, &amp; Subtraction; 5.3- Division of Polynomials</td>
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<tr>
<td>24</td>
<td>M, 10/23</td>
<td>5.4- Complex Rational Equations</td>
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<tr>
<td>25</td>
<td>W, 10/25</td>
<td>5.5- Solving Rational Equations; 5.6- Applications &amp; Proportions</td>
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<tr>
<td>26</td>
<td>F, 10/27</td>
<td>6.1- Radical Expressions &amp; Functions; 6.2- Rational Numbers as Exponents</td>
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<td>27</td>
<td>M, 10/30</td>
<td>6.3- Simplifying Radical Expressions</td>
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<tr>
<td>28</td>
<td>W, 11/1</td>
<td>Review for Test 3</td>
</tr>
<tr>
<td>29</td>
<td>F, 11/3</td>
<td>Test 3</td>
</tr>
<tr>
<td>30</td>
<td>M, 11/6</td>
<td>6.4- Addition, Subtraction, and More Multiplication; 6.5- More on Division of Radical Expressions</td>
</tr>
<tr>
<td>31</td>
<td>W, 11/8</td>
<td>6.5- More on Division of Radical Expressions; 6.6- Solving Radical Expressions</td>
</tr>
<tr>
<td>32</td>
<td>F, 11/10</td>
<td>7.3- The Complex Numbers; 7.4- Quadratic Equations, Functions, Zeros, &amp; Models</td>
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<tr>
<td>33</td>
<td>M, 11/13</td>
<td>7.4- Quadratic Equations, Functions, Zeros, &amp; Models; 7.5- Analyzing Graphs of Quadratic Functions</td>
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<td>34</td>
<td>W, 11/15</td>
<td>8.6- Polynomial Inequalities &amp; Rational Inequalities</td>
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<td>35</td>
<td>F, 11/17</td>
<td>9.3- Exponential Functions &amp; Graphs; 9.4- Logarithmic Functions &amp; Graphs</td>
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<td>36</td>
<td>M, 11/20</td>
<td>9.5- Properties of Logarithmic Functions</td>
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<td>37</td>
<td>M, 11/27</td>
<td>9.6- Solving Exponential &amp; Logarithmic Equations; Appendix; Partial Fractions</td>
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<td>38</td>
<td>W, 11/29</td>
<td>Review for Test 4</td>
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<tr>
<td>39</td>
<td>F, 12/1</td>
<td>Test 4</td>
</tr>
<tr>
<td>40</td>
<td>M, 12/4</td>
<td>Semester Wrap Up, CORE Assessment</td>
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<td>41</td>
<td>W, 12/6</td>
<td>Final Exam Review</td>
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<td>42</td>
<td>F, 12/8</td>
<td>Final Exam Review</td>
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<tr>
<td>43</td>
<td>W, 12/13</td>
<td>FINAL EXAM</td>
</tr>
</tbody>
</table>

*Selected problems from sections 3.6, 6.7, and 9.7 will also be covered as time permits.

*Please note that this schedule is tentative and subject to change.