

MPC 092**Algebra II****Course Syllabus****Instructor:** Tyler Wallace**Office:** 1228**E-mail:** tylerw@bigbend.edu**Phone:** (509) 793-2154**Credits:** 5**Term:** Winter 2011**Class Mode:** Lecture (hybrid option)**Class website:** <http://wallace.ccfaculty.org>**Office Hours (in person or virtual):** MTWTh 10:30-11:35 or by appointment.

If I'm not in the virtual office during my hour, call my office and I can connect

Course Goals:

- To present the fundamentals of algebra so that the student will be able to understand and use the basic concepts of algebra to solve simple mathematical problems encountered in consumer education
- To help the student identify and implement changes in attitude, study techniques, classroom dynamics and test taking techniques that will increase the student's success in math studies
- To prepare the student for more advanced work in mathematics, science, and business
- To increase the students' ability to deal with abstract concepts
- To teach students' to think in a logical manner.

Prerequisite: Minimum GPA of 1.0 in MPC 091 or passing score on MPC 095 Module D exam.

Permission by instructor is mandatory.

Text: *Beginning and Intermediate Algebra* by Tyler Wallace

- Paperback from bookstore: \$30.25
- Paperback from <http://www.lulu.com/spotlight/algebratext>: \$22.69 + Shipping (\$3.99 for 5-15 business days, \$8.99 for 2-5 days, \$16.99 for 2 days, \$36.99 for 1 day)
- Ebook from <http://www.lulu.com/spotlight/algebratext>: \$20.00
- Download from class website: Free (Please don't print!)

Evaluation/Methods of Grading: Your grade will be based on the following:

- 75% on four competency tests
- 13% on daily quizzes
- 12% on daily homework

Once calculated, your grade will be assigned as follows:

| Percent | Grade | Percent | Grade | Percent | Grade | Percent | Grade |
|---------|-------|---------|-------|---------|-------|---------|-------|
| 95 | 4.0 | 87 | 3.2 | 79 | 2.4 | 71 | 1.6 |
| 94 | 3.9 | 86 | 3.1 | 78 | 2.3 | 70 | 1.5 |
| 93 | 3.8 | 85 | 3.0 | 77 | 2.2 | 69 | 1.4 |
| 92 | 3.7 | 84 | 2.9 | 76 | 2.1 | 68 | 1.3 |
| 91 | 3.6 | 83 | 2.8 | 75 | 2.0 | 67 | 1.2 |
| 90 | 3.5 | 82 | 2.7 | 74 | 1.9 | 66 | 1.1 |
| 89 | 3.4 | 81 | 2.6 | 73 | 1.8 | 65 | 1.0 |
| 88 | 3.3 | 80 | 2.5 | 72 | 1.7 | ≤ 64 | 0.0 |

Pass/Fail Grades: This only applies to students taking the course under the Pass/Fail grading option. It is the policy of the Mathematics and Science Division to assign a passing grade only if the earned grade for the course is 2.0 or better. This means a 75% is required in the course to receive a passing grade.

Late Work/Missing Test: No Late work will be accepted for any reason. Missing a test will result in a 0 grade and you must use one of the scheduled make up times.

Competency: On each unit you should strive to have a score of at least 75% or 2.0 once quizzes, homework, and tests are averaged together. If your score is below 65% or 1.0 you will be required to retake the module exam. If your score is between 65% and 75% you will be strongly encouraged to retake the exam to improve your grade. Students who earn 75% or higher are much more likely (80% more likely!) to be successful in the next module!

Test Dates Tests must be taken on the following dates during the class session.

- Test 1: Jan 20 (MPC 095 Test E)
- Test 2: Feb 15 (MPC 099 Test A)
- Test 3: Mar 15 (MPC 099 Test E)

Calculators: Calculators are not needed for this course. However, on homework or tests a calculator MAY be used. However only the following calculators may be used in Big Bend MPC courses: TI 30Xa, TI 30XIIs, Casio FX 260, Casio FX 300. Any other calculator, no matter how similar (especially not a MultiView) is not permitted in this or any other MPC course.

Online Office: During my office hours (by appointment) I will also be available in an online office. You can use the direct link to my page at <http://wallace.ccfaculty.org>. Click on our course “MPC 092” and there will be a link at the top of the page for online office.

Recorded Videos of Class Lecture: All class lectures are recorded and stored online. You access them through the course website at <http://wallace.ccfaculty.org> and click our course “MPC 092”. Scroll down to the bottom of the page where you will see a calendar.

Special Needs: Any student who feels he or she may need a reasonable accommodation for any type of disability, please make an appointment to see me during office hours. You also want to contact Disability Services in the 1400 building or by calling 793-2027 as soon as possible. The disability must be documented in order to receive accommodations.

Cheating: Don't cheat. Cheating will result in a 0.0 for the course. Complete honesty is required. It is the students' responsibility to avoid even the *appearance* of cheating. This means (but not limited to): not sitting right next to another student during the test, not copying quizzes or other work, not using notes of any kind (audio, written, visual, etc) on tests unless explicitly allowed by the instructor, giving test questions or answers to other students, receiving test questions or answers from other students, or anything else that might even APPEAR as academic dishonesty.

No Name: Be sure to put your name on your paper. I will not give credit for no name papers. They will be thrown away.

Contacting the instructor: The best way to contact me is during my office hours or by E-mail, phone is good to, but I don't respond to those messages as quickly.

How the instructor will respond to students: I always respond to E-mail within 24 hours. If you don't get a response in 24 hours, I never received the message (Please only use Big Bend E-mail so I'm sure to receive the message!). Phone calls will be returned by the next day classes are in session

Expectations of Student Response: I expect students to be checking their E-mail regularly for important course information. Please respond immediately if it is something that requires your response.

Course Level (Modular) Learning Objectives: Students will complete an assessment every 8 class days where they will demonstrate the ability to solve problems on the following topics:

- Evaluate, simplify, multiply, divide, add and subtract rational expressions and solve basic applications of rational expressions.
- Solve compound inequalities, absolute value inequalities, and systems of equations
- Use function notation and solve problems using exponential, logarithmic, and trigonometric functions.

How you the student will be successful in this course (aka – show me you understand the objectives!)

- Attend Class every day
- Complete daily homework and check your answers for mastery of topics (this is not turned in; rather you will indicate on quizzes that you have completed the daily assignments) Homework will count for 10% of your grade!
- Complete daily quizzes. These are turned in for each section covered. Quizzes will count for 15% of your grade!
- Modular exams are opportunities to demonstrate your mastery of the course objectives. Exams will count for 75% of your grade (25% each)!
- Success in the course is considered a 2.0 or 75% weighted average from the homework, quizzes, and tests. A score of at least 1.0 or 65% is required to pass the course.

Test Retakes: You will have the opportunity to retake each test once, the week immediately following the test, to improve your score. Test results will be given out the day after the test, you must sign up for this retake the same day you receive your score and cannot reschedule this date/time. Space is limited; if a time is full you will need to schedule another time.

Retakes will be required of students who score lower than 65% weighted averages on the module, and highly encouraged of students who score lower than 75% weighted average on the module.

Description of Assignments/Assessments: Daily homework is assigned out of the textbook. The answers for all the problems are provided in the back of the book. It is important that you plan time each day to work through the problems, check your answers, and contact your instructor regarding any questions you may have. These assignments are designed to prepare you for the assessments, a written test given every 8 class days that will be very similar to the assigned problems. Quizzes are done during the first 5 minutes of class. Being late to class will result in a 0 quiz grade. Daily quizzes are given as a check on your progress in the class; these quizzes are an important tool to identify key areas you may need to study. Just coming to class and taking notes is not enough to prepare for the written assessments. Daily practice is important for mastery of objectives.

How soon will I know my grade? Once graded, results will be shown on the angel website. Tests will be graded and returned before the next class session.

Minimum technical skills: To use all the features of angel and the online classroom/office it is suggested (though not required) that you are comfortable navigating the internet. If you have questions on navigating the angel site or the course website, please contact your instructor for a brief training on how to use the course.

Technical Support: Should you have any technical issues it will be important you contact your instructor immediately. You can also reach the technical support desk at the following number: 793-2066

Support Services: There are many options available to you should you have a question. These include the following:

- Math Lab is open Mon-Thur 8am-8pm and Friday 9am-12pm
- My office hour
- Tutor.com link through the portal (contact me if you can't find the link!)
- Student Support Services offers tutors to failing students
- Set up an appointment with me on a Friday or an afternoon during the week

Is there a final? No. Your grade is calculated from an average of the 5 modules.

Course Calendar (subject to change)

Listed are required problems, it is suggested that you work additional problems to master the concepts!

| Date | Section | Topic | Assignment |
|-------------|---------|--------------------------------------|--------------------------|
| 1/3 | 0.2 | Fractions | 10 (1-81 eoo) |
| 1/4 | 7.1 | Rational expressions | 245 (1-43 odd) |
| 1/5 | 7.2 | Multiply/divide rational expressions | 249 (1-43 odd) |
| 1/6 | 7.3 | Least common denominator | 254 (1-29 odd) |
| 1/10 | 7.4 | Add/subtract rational expressions | 259 (1-43 odd) |
| 1/11 | | Problem solving day | |
| 1/12 | 7.6 | Proportions | 270 (1-39 odd) |
| 1/13 | 7.8 | Dimensional analysis | 283 (1-29 odd) |
| 1/18 | | Review 095 E | |
| 1/19 | | Open questions | |
| 1/20 | | Test 095 E | |
| 1/24 | 3.2 | Compound inequalities | 127 (1-31 odd) |
| 1/25 | 3.3 | Absolute value inequalities | 132 (1-45 odd) |
| 1/26 | 4.1 | Graphing systems of equations | 138 (1-29 odd) |
| 1/27 | 4.2 | Systems with substitution | 144 (1-39 odd) |
| 1/31 | 4.3 | Systems with elimination/addition | 150 (1-33 odd) |
| 2/1 | 4.4 | Systems with three variables | 156 (1-27 odd) |
| 2/2 | | Problem solving day | Extra Credit 157 (29-32) |
| 2/3 | 4.5 | Value problems | 164 (1-23 odd, 43) |
| 2/7 | 4.5 | Interest problems | 165 (25-41 odd) |
| 2/8 | 4.6 | Mixture problems | 172 (1-43 odd) |
| 2/9 | | Problem solving day | |
| 2/10 | | Review 099 A | |
| 2/14 | | Open questions | |
| 2/15 | | Test 099 A | |
| 2/16 | 10.1 | Functions | 387 (1-39 odd) |
| 2/17 | 10.2 | Algebra of functions | 393 (1-39 odd) |
| 2/21 | 10.2 | Composition of functions | 394 (41-59 odd) |
| 2/22 | 9.11 | Graphs of quadratics | 380 (1-19 odd) |
| 2/23 | 9.11 | Graphs of other functions | 379 – memorize graphs |
| 2/24 | 10.3 | Inverse functions | 400 (1-39 odd) |
| 2/28 | 10.4 | Exponential functions | 404 (1-39 odd) |
| 3/1 | 10.5 | Logarithmic functions | 408 (1-39 odd) |
| 3/2 | 10.6 | Compound interest | 413 (1-15 odd) |
| 3/3 | | Loan project | Loan Project |
| 3/7 | 10.7 | Trigonometry | 418 (1-39 odd) |
| 3/8 | 10.8 | Inverse trigonometry | 427 (1-39 odd) |
| 3/9 | | Review 099 E | |
| 3/10 | | Open questions | |
| 3/14 | | Test 099 E | |
| 3/15 | | Return tests | |
| 3/17 | | Test 099 E retakes @ 8:00 | |