**Math 1314.04**
**College Algebra**
**Fall 2012**
**08/27/12 - 12/14/12**


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|---|---|---|---|
| **Instructor:** | Daniel T. Murphree | **Office Hours:** | MW 10-11 am & 2:30-5:30 pm |
| **Office:** | ET 105 | | TTh: 8:30-9:30 am |
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Welcome to College Algebra! This sheet will tell you about the course, including subject matter, homework, projects, exams, and term grade. Almost all of your questions about the course can be answered by reading this syllabus. **You are responsible for the contents of this syllabus!** If anything is unclear, please feel free to contact me for clarification.

**Course Description:**
MATH 1314 College Algebra (27.0101.5419)(3-0)3 hours
Includes sets, complex numbers, quadratic and quadratic form equations, inequalities, functions, systems of equations and topics selected from exponential and logarithmic functions, matrices, determinants, binomial theorem, math induction and sequences and series. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. The student should be able to probe for mathematical meaning and, perhaps, describe these meanings to others. Placement testing available. (ICOs 3, 6, 9, 11)

**Prerequisites:** MATH 0375 passed with a C or better, high school Algebra II passed with a C or better, or an independent school district/OC dual enrollment form.

**Learning Outcomes:**
After completing this course the student should be able to demonstrate competency in:

1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses.
2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions, and solve related equations.
3. Apply graphing techniques.
4. Evaluate all roots of higher degree polynomial and rational functions.
5. Recognize, solve, and apply systems of linear equations using matrices.

**Required Materials:**
Software: MyMathLab
Course ID: murphree11516 Optional Textbook: College Algebra by Blitzer, 5th Edition, : Pearson Publishing Co. 2010.

**Technology:**
You will need a computer with internet access to access course materials and complete your course work. A valid email address is also required for communications purpose. All out of class communications will be sent to the email address used to register your MyMathLab software, so please access this account regularly to check for any class announcements or other information. There are computers with internet access available in the Math Lab, located in the Electronic Technology building room 120, which you can use as needed. Math Lab hours for this semester are 8:30 am to 8:30 pm Monday through Thursday and 8:30 am to 1:00 pm on Fridays. Calculators are allowed, but not required, on exams so you may wish to have a graphing calculator available. Please keep cell phones and other distracting electronic devices shut off during class time.

**Term Grade:**
Your term grade will be determined according to the following distribution:

| | **Homework** | **Project** | **5 Exams** | **Final Exam** |
|---|---|---|---|---|
| Percentage | 10 | 15 | 10 each | 25 |
| Drops | 2 | 0 | 0 | 0 |

End of term grades will be assigned according to the following scale:

| Percentage | Grade |
|---|---|
| 90–100 | A |
| 80-89.9 | B |
| 70–79.9 | C |
| 60-69.9 | D |
| Below 60 | F |

**Homework:**
There is required homework for all sections covered in this course. It will count for a cumulative 10% of your grade. Homework for a section will be due before the start of the class meeting after the section is covered in lecture. Though you can feel free to print out homework to work on it, it must be completed and submitted through MyMathLab. **Hand written assignments brought to class will not be accepted. Late homework will also not be accepted**, but your two lowest homework scores will be dropped.

**Project:**
We will have one semester-long project that will count 15% of your grade. It will be a challenging application of multiple concepts learned during the course of the semester culminating in a well written report. The project will be completed in groups of 2 or 3 with all team members expected to participate for full credit. Groups will be assigned 2 weeks after the start of term. Though some work will be done as a class, the majority of the project will be completed outside of class time. More information and materials will be provided as the semester progresses.

**Midterm Exams:**
There will be 5 midterm exams, each will count 10% of your grade. Tentative dates for the 5 exams are listed below. Calculators will be allowed, but not required, on all exams. Cell phones and all other electronic devices must be shut off during exams. Failure to shut off such devices will result in the student being asked to leave the exam room without being permitted to complete the exam. **Make-up and late exams will be given only in dire and verifiable emergencies!** For all other instances (such as scheduled conflicts or a change of work schedule) please contact your instructor immediately so that arrangements can be made for you to take the exam early.

**Final Exam:**
The final exam will be comprehensive and will count 25% of your grade. It will be held on Wednesday, December 12th from 11:00 am to 1:30 pm. Please bring a picture ID with you to present before you take the exam. You will be allowed a calculator on the final exam but no notes, cell phones, or other electronic devices will be permitted in the testing area.

**Academic Integrity:**
All student work is intended to be their own. Cheating or copying work from another student will not be tolerated. If you are caught cheating in this class the first occurrence will result in a warning and a grade of 0 on the assignment. A second occurrence will result in permanent removal from the course and a grade of "F" on your transcript. Allowing someone to cheat from your work will result in the same consequences as cheating.

**Dropping:**
Be aware that the last day to drop a course with a grade of W for the fall semester is Wednesday, November 14th.

**Tutoring:**
Tutoring services are available through the Math Lab located in the Electronic Technology building, room 120. Math Lab hours for this semester are 8:30 am to 8:30 pm Monday through Thursday and 8:30 am to 1:00 pm on Fridays.

**Evaluations:**
The SEI process for face-to-face and online courses is scheduled for the week of November 26th.

**Special Needs:**
Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

**Student Success:**
The Odessa College Student Success Coaches will help you stay focused and on track to complete your educational goals. If an instructor sees that you might need additional help or success coaching, he or she may submit a Retention Alert or a Starfish Alert. A Student Success Coach will contact you to work toward a solution.

**Learning Resource Center (The Library):**
The Library, known as the Learning Resources Center, provides research assistance via the LRC's catalog (print books, videos, e-books) and databases (journal and magazine articles). Research guides covering specific subject areas, tutorials, and the "Ask a Librarian" service provide additional help.

**Student Email:**
Please access your Odessa College Student E-mail, by following this link to either set up or update your account: `http://www.odessa.edu/gmail/`.

**Technical Support:**
For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at `https://www.odessa.edu/dept/ssc/helpdesk_form.htm`.

**Expectations for Engagement:**
To help make the learning experience fulfilling and rewarding, the following Expectations for Engagement provide the parameters for reasonable engagement between students and instructors for the learning environment. Students and instructors are welcome to exceed these requirements.

**Reasonable Expectations of Engagement for Instructors:**

1. As an instructor, I understand the importance of clear, timely communication with my students. In order to maintain sufficient communication, I will
    - provide my contact information at the beginning of the syllabus;
    - respond to all messages in a timely manner through telephone, email, or next classroom contact; and,
    - notify students of any extended times that I will be unavailable and provide them with alternative contact information (for me or for my supervisor) in case of emergencies during the time I'm unavailable.
2. As an instructor, I understand that my students will work to the best of their abilities to fulfill the course requirements. In order to help them in this area, I will
    - provide clear information about grading policies and assignment requirements in the course syllabus, and

- communicate any changes to assignments and/or to the course calendar to students as quickly as possible.

3. As an instructor, I understand that I need to provide regular, timely feedback to students about their performance in the course. To keep students informed about their progress, I will

   - return classroom activities and homework within one week of the due date and
   - provide grades for major assignments within 2 weeks of the due date or at least 3 days before the next major assignment is due, whichever comes first.

**Reasonable Expectations of Engagement for Students:**

1. As a student, I understand that I am responsible for keeping up with the course. To help with this, I will

   - attend the course regularly and line up alternative transportation in case my primary means of transportation is unavailable;
   - recognize that the college provides free wi-fi, computer labs, and library resources during regular campus hours to help me with completing my assignments; and,
   - understand that my instructor does not have to accept my technical issues as a legitimate reason for late or missing work if my personal computer equipment or internet service is unreliable.

2. As a student, I understand that it is my responsibility to communicate quickly with the instructor any issue or emergency that will impact my involvement with or performance in the class. This includes, but is not limited to,

   - missing class when a major test is planned or a major assignment is due;
   - having trouble submitting assignments;
   - dealing with a traumatic personal event; and,
   - having my work or childcare schedule changed so that my classroom attendance is affected.

3. As a student, I understand that it is my responsibility to understand course material and requirements and to keep up with the course calendar. While my instructor is available for help and clarification, I will

   - seek out help from my instructor and/or from tutors;
   - ask questions if I don't understand; and,
   - attend class regularly to keep up with assignments and announcements.

**Important School Policies:**
For information regarding student support services, academic dishonesty, disciplinary actions, special accommodations, or student's and instructors' right to academic freedom can be found in the Odessa College Student Handbook.

| Tentative Schedule | |
|---|---|
| **Date** | **Lecture Topic** |
| Aug. 27 | Section 2.1: Functions and Graphs |
| Aug. 29 | Section 2.2: More on Functions and Graphs |
| Sept. 31 | Section 2.5: Transformations of Functions |
| Sept. 3 | **LABOR DAY** |
| Sept. 5 | Section 2.6: Combinations of Functions Part I |
| Sept. 7 | Section 2.6: Combinations of Functions Part II |
| Sept. 10 | Section 2.7: Inverse Functions |
| Sept. 11 | Section 2.8: Distance and Midpoint Formulas |
| Sept. 14 | Section 2.8: Circles |
| Sept. 17 | Chapter 2 Review |
| Sept. 19 | **Chapter 2 Exam** |
| Sept. 21 | Section 3.1: Quadratic Functions |
| Sept. 24 | Section 3.2: Polynomial Functions and Their Graphs |
| Sept. 26 | Section 3.3: Dividing Polynomials |
| Sept. 28 | Section 3.4: Zeros of Polynomial Functions Part I |
| Oct. 1 | Section 3.4: Zeros of Polynomial Functions Part II |
| Oct. 3 | Section 3.5: Rational Functions and Their Graphs Part I |
| Oct. 5 | Section 3.5: Rational Functions and Their Graphs Part II |
| Oct. 8 | Chapter 3 Review |
| Oct. 10 | **Chapter 3 Exam** |
| Oct. 12 | Section 4.1: Exponential Functions |
| Oct. 15 | Section 4.2: Logarithmic Functions |
| Oct. 17 | Section 4.3: Properties of Logarithms |
| Oct. 19 | Section 4.4: Exponential & Logarithmic Equations |
| Oct. 22 | Section 4.4: Exponential & Logarithmic Equations |
| Oct. 24 | Section 4.5: Exponential Growth and Decay |
| Oct. 26 | Chapter 4 Review |
| Oct. 29 | **Chapter 4 Exam** |
| Oct. 31 | Section 5.1: Systems of Linear Equations in 2 Variables |
| Nov. 2 | Section 5.2: Systems of Linear Equations in 3 Variables |
| Nov. 5 | Section 6.1: Matrix Solutions to Linear Systems |
| Nov. 7 | Section 6.2: Inconsistent and Dependent Systems |
| Nov. 9 | Section 6.5: Determinants |
| Nov. 12 | Section 6.5: Cramer's Rule |
| Nov. 14 | Chapters 5 & 6 Review |
| Nov. 16 | **Chapters 5 & 6 Exam** |
| Nov. 19 | Section 8.1: Sequences & Summation Notation |
| Nov. 21 | **Thanksgiving Holiday** |
| Nov. 23 | **Thanksgiving Holiday** |
| Nov. 26 | Section 8.2: Arithmetic Sequences |
| Nov. 28 | Section 8.3: Geometric Sequences |
| Nov. 30 | Chapter 8 Review |
| Dec. 3 | **Chapter 8 Exam** |
| Dec. 5 | Review for Final Exam |
| Dec. 5 | Project Wrap Up & Review for Final Exam |
| **Dec. 12** | **11:00 am–1:30 pm: Final Exam** |