Math 1513
CRN 11285 MWF 9:00–9:50AM MCS 101
Fall 2016

Course: College Algebra
Instructor: Dr. R. Scott Williams
Office: MCS 102
Office Hours: T: 3:30-4:30 p.m.
R: 3:30-4:30 p.m.
F: 11:00-12:00 p.m.
or By Appointment
E-Mail: rwilliams77@uco.edu
Class Webpage: http://math.uco.edu/pages/rwilliams/math1513-fall2016.html

Prerequisites: Intermediate Algebra and/or high school Algebra II.

Course Description: The course content includes functions, equations and inequalities, graphing, complex numbers, variation, systems of equations, matrices, zeros of polynomials, exponentials, logarithms, sequences and series. Credit may be earned for only one course from MATH 1453 or MATH 1513.

Course Objectives:
a. Develop a working knowledge of algebra necessary for application to other fields of study.
b. Develop the necessary skills to study more advanced mathematics and statistics.
c. Serve as a preparatory course for calculus to benefit students whose high school mathematics background is inadequate for this purpose.
d. Assist students in improving their abilities to read, understand and to use mathematics.

Student Objectives:
a. Analyze functions and their graphs.
b. Sketch the graphs of functions including constant, linear, absolute value, square root, polynomial, exponential and logarithmic equations.
c. Compose functions.
d. Solve polynomial, rational, radical, exponential, and logarithmic equations.
e. Solve systems of linear equations.
f. Perform matrix operations.
g. Create mathematical models to solve application problems.
h. Perform basic operations on sequences, including finding the general term of a sequence.
i. Use sigma notation for series, and find the sum of a series.

Course Outline:
Chapter 1: Graphs, Functions and Models, Sections 1.1-1.6
Chapter 2: More on Functions, Sections 2.1-2.6
Chapter 3: Quadratic Functions and Equations; Inequalities, Sections 3.1-3.5
Chapter 4: Polynomial and Rational Functions, Sections 5.1-5.6
Chapter 5: Exponential and Logarithmic Functions, Sections 5.1-5.6
Chapter 6: Systems of equations and Matrices, Sections 6.1, 6.2, 6.4 (may cover 6.6, time allowing)
Chapter 8: Sequences and Series, Sections 8.1-8.3 (may cover 8.4, time allowing)

Attendance: Students are expected to attend every scheduled class. It is the student’s responsibility to keep informed of any announcements, syllabus adjustments or policy changes made during scheduled classes, by email, or posted on our class webpage. Students are also responsible for work missed due to absences, and are expected to initiate a request to make up the class work or examination missed; proper documentation may be required in order to make up work. Students are expected to behave in accordance with the
Student Code of Conduct and the Code of Academic Integrity. These codes and policies can be found at [https://www.uco.edu/academic-affairs/students/expectations.asp](https://www.uco.edu/academic-affairs/students/expectations.asp).

**Homework:** Handwritten homework will be in the form of traditional homework assignments due in class. No late assignments will be accepted. These written assessments will not only be graded on the correctness of your answer, but on your ability to exhibit the steps you took to obtain your answer using correct mathematical notation.

We will also have an online homework component to this course via MyMathLab. To create a MyMathLab see the document titled *Student Registration Instructions* on our class webpage for details on how to register (make sure you register for correct class).

You are encouraged to discuss homework problems with me, with tutors, and especially with each other. However, you are expected to write up your own solutions. If you have a question about a homework problem and want to email me for help, please include be sure to include your name, the section the question comes from, the question number, and any steps you have tried to solve the problem. I will not respond to emails that say “How do I do problem #blank” – at least tell me what you think should be tried to solve the problem. Also, all emails should be written in a professional manner, please use correct spelling, punctuation, capitalization and grammar!

**In-Class Exams:** The three in-class exams are tentatively scheduled for *Wednesday, September 21; Wednesday, October 26* and *Monday, November 21*. In general, there will be no make-up exams in the course, however, in complex and unusual circumstances which are beyond your control, a make-up exam by be given on a case-by-case basis. This will require providing a detailed account of the situation and supporting documents. Approval in these cases is at the sold discretion of the instructor.

**Final Exam:** The final exam will be *Wednesday, December 14 from 9:00-10:50am*. The final is a comprehensive exam (includes Chapter 8). Additional information and a study guide can be found on both our course webpage as the exam nears.

**Grades:** The typical grading scale will be used for this course, and course grades will be computed according to the following scheme:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90% to 100%</td>
<td>Written Homework 5%</td>
</tr>
<tr>
<td>B</td>
<td>80% to 89%</td>
<td>Online Homework 15%</td>
</tr>
<tr>
<td>C</td>
<td>70% to 79%</td>
<td>Exams (3) 15% each</td>
</tr>
<tr>
<td>D</td>
<td>60% to 69%</td>
<td>Final Exam 35%</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 60%</td>
<td></td>
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</tbody>
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**Calculators:** Graphing Calculators are not allowed; however, a scientific calculator is required.

**A.D.A. Announcement:** The University of Central Oklahoma complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. Students with disabilities who need special accommodations must make their requests by contacting Disability Support Services at (405) 974-2516. The DSS Office is located in the Nigh University Center, Room 309. Students should also notify the instructor of special accommodation needs as soon as possible.

**Emergency Closure Policy:** If an emergency occurs that prevents the administration of a final examination, the student’s final course grade will be calculated based on the work in the course completed to that point in time and the faculty member’s considered judgment. Final exams will not be rescheduled, and a grade of “I” will not be given as a result of the missed exam.

**UCO Student Information Sheet and Syllabus Attachment:** Please see the following PDF for additional University Policies: