

## MATH 121: COLLEGE ALGEBRA

Section 501 (M/W 12:00 - 2:45), CRN 16738  
Summer 2017

**Instructor: Ian Burch**

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**Office: Academic Center Cubicle 20**

**Office Hours: M/W 8:00-9:00 or appointment**

### Course Prerequisites

In order for you to enroll in this course you will need to meet one of the following criteria:

- ACT score greater or equal to 22
- SAT score greater or equal to 510
- Grade of C or better in MATH 120
- Appropriate placement score

Check with your advisor to determine if you meet one of these requirements.

### Course Overview

College Algebra prepares you for, and is one of the prerequisites for Math 150 (Pre-Calculus), Math 123 (Trigonometry), and Math 180 (Elements of Calculus I). It is also a graduation requirement for many majors at UNM. It is the study of equations, functions and graphs, especially those involving linear, quadratic, exponential, and logarithmic functions. You will also receive an introduction to polynomial and rational functions and their graphs. And you will be asked to handle various types of applications of these functions.

This course emphasizes algebraic problem solving skills, so be ready to work those algebra muscles! If it has been a while since you have done any algebra, plan on spending time “catching up” during the first few weeks of the semester.

### Student Learning Outcomes

A list of the Course Goals and Student Learning Outcomes as posted on the main campus website for this course are listed at the end of this syllabus and on your schedule. You should skim through these to know what to expect from this course.

### Text and Tools - Required

The text for this course is **College Algebra, Tenth Edition, by Sullivan**. The bookstore should have hard copies of the book with MML access codes, or just the access codes available. Or you may purchase the access code when you register in MML for our course. If you want a hard copy of the book, rather than just reading the text, be sure you buy one with a valid MML access code.

1. You will need a Pearson account. If you have used any of the Pearson My Lab products before, you can use the same account you created the first time you used it.
2. You will need a Student Access Code which can be purchased from the Valencia campus Bookstore or online (credit card required) when you register for the course at <http://pearsonmylabandmastering.com/>.
3. You will need to register for our course in MyMathLab. Go to <http://mymathlab.com/> or <http://pearsonmylabandmastering.com/> and follow the steps to register. Our course ID is:

**COURSE ID: burch16738**

Once you register, run the Installation Wizard to make sure you have all the appropriate software installed on your computer.

4. You will need access to Blackboard Learn. This is the primary program we will use for communication in the class. You will use your UNM NetID to log into Learn. You may access it directly via <http://learn.unm.edu>

5. You will need to use a *scientific* calculator for this course. You need not own a *graphing* calculator, any assignments that require the graphing of functions you can also do using free software on the internet.
6. You will also need administrative rights to download free software or plug-ins or add-ons on the computer you plan to use for this course. If you do not own a computer, and you are in the face-to-face course, be sure you schedule time to spend in the computer labs on campus to make sure all of the programs will work properly.

**Time for This Course:** Plan right now to spend a minimum of **12 to 15 hours per week** for this class. This time cannot all be lumped on the weekend or in one day; you will need to spread out the time you allot to this course (see preliminary schedule). There is no guarantee you will pass if you dedicate this amount of time, you still need to learn the material and use your time wisely, but it is not likely you will pass if you don't.

### **Course Grade**

Your Course Grade will be determined in the following way:

- |                      |     |
|----------------------|-----|
| • In-class Work      | 10% |
| • In-class Quizzes   | 10% |
| • Attendance         | 5%  |
| • MyMathLab Homework | 25% |
| • Midterm Exam       | 20% |
| • Final Exam         | 30% |

**You must score at least a 70% on the final exam to earn a passing grade in the course.**

Depending on the grading option you have chosen, your final course letter grade will be determined as follows:

Letter Grade	Final Exam score AND Course Average
A+	70% or better AND 97% or better
A	70% or better AND 92% up to but not including 96%
A-	70% or better AND More than 89% but less than 92%
B+	70% or better AND 88% to 89%
B	70% or better AND 82% up to not including 88%
B-	70% or better AND More than 79% but less than 82%
C+	70% or better AND 78% to 79%
C	70% or better AND More than 69% but less than 78%
CR	70% or better AND More than 69%
D+	Less than 70% AND More than 69%
D	Any AND More than 60% but less than 69%
D-	Any AND 50% up to 60%
F	Any AND Less than 50%
NC	Any AND Less than or equal 69%

**I grade:** There are sometimes circumstances that will allow me to assign the I or Incomplete grade. In order to receive the I grade you need to be passing the class at three-fourths of the way into the summer session (on July 13) and have had a major circumstance occur that does not allow you to complete the work for the class. You may need to provide documentation. If you receive the I grade, you will also need to meet with me to determine how you will complete the course work to have the I grade removed. It is best if you make a plan to complete the work as soon as possible. You should not re-enroll for the course in order to have the I grade removed.

**W grade:** Also, if you withdraw from the course after the “census date” (after 5:00 PM MDT on June 16) you will be assigned the W grade. If the course is full, with a waiting list, I reserve the right to drop you if you have not logged in by the third day of classes (June 7). If you drop before 5:00 PM MDT on June 16, the course will not show up on your transcript and you will be eligible for a 100% refund. I can also drop you upon specific request any time before grades open. Once the registrar opens Banner for entering final grades, I will no longer be able to drop you from the course.

**Reasons I will drop you from the course:**

- Student who does not log into Learn during the first three days of class
- Student who does not complete the course agreement and send it to me by June 14.
- Student who has not begun working in MML by the end of the first week of class. You can have access to our course in MML for 14 days before you have to pay.

***If you do not log into MyMathLab by the fourth day of classes – June 14th – you will be dropped from the course.***

**Midterm and Final Exams:** The midterm exam and the departmental final exam must be taken in person. If you cannot come to Valencia Campus to take these exams, you will need to make arrangements to have the exam proctored. Talk to me as soon as possible about how to find a proctor. The midterm counts 10% of your course grade and the final counts 30% of your course grade. Also, you must score at least a 70% on the final exam to pass the course.

### **Plagiarism and Not Doing Your Own Work**

It's a bad idea to plagiarize or to have other people do your work for you. Refer to the UNM-Valencia Catalog for the campus policy on “Dishonesty in Academic Matters.” If I receive assignments from two or more people that are supposed to be done individually (for example, the guided notes), and that are basically identical, you will *all* receive a zero for that assignment and possibly the course.

### **ADA and Students with Disabilities**

If you have a documented disability, please provide me with a copy of your letter from Equal Access Services as soon as possible to ensure that your accommodations are provided in a timely manner. The person to call for evaluation and documentation is Jeanne Lujan at (505)925-8910. Also, here is their web site so you can check out accommodations and support that is available to you:

<http://www.unm.edu/~vcadvise/equalaccess.htm> .

**Title IX Statement:** In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered “responsible employees” by the Department of Education (see page 15 - <http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf>). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity ([oeo.unm.edu](http://oeo.unm.edu)). For more information on the campus policy regarding sexual misconduct, see: <https://policy.unm.edu/university-policies/2000/2740.html>.

## **Student Learning Outcomes**

By the end of the course, students will be able to

**A. Understand the concept of a function**

1. Apply the definition of a function
2. Identify domain and range. Interpret in context when appropriate.
3. Use function notation to evaluate functions.

**B. Build New Functions from Existing Functions**

1. Use graphing transformations
2. Use function arithmetic
3. Find inverse functions

**C. Build and Analyze Graphs**

1. Understand the relationship between a function's equation, table and graph.
2. Identify or sketch the following key features of a graph:
  - intercepts;
  - intervals where the function is increasing, decreasing, positive, or negative;
  - relative maximums and minimums;
  - symmetries;
  - slope;
  - vertex;
  - end behavior.
3. Create graphs using key features.
4. Write the equation of a function or circle given its graph based on the key features shown.  
(reverse of above outcome)
5. Interpret key features of functions in context.

**D. Apply Algebraic Techniques**

1. Evaluate numeric expressions in exact form and find decimal approximations for irrational numbers.
2. Solve equations and inequalities
3. Simplify algebraic expressions to analyze functions and graphs.