

# **MTH 113: Intermediate Algebra**

## **(3 units)**

### **Spring 2017**

**Point Loma Nazarene University**  
**College of Natural and Social Sciences**

#### **PLNU Mission**

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service is an expression of faith. Being of Wesleyan heritage, we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

#### **Instructor:**

Dr. Benjamin Mood  
[bmood@pointloma.edu](mailto:bmood@pointloma.edu)  
619 849 2269  
RS 216

#### **Meeting Times and Locations:**

##### **Lecture:**

M/W/F: 2:55pm – 3:50pm LA 102

#### **Office Hours:**

Monday: 10:45am – 12:15pm  
Tuesday: 9:30am – 11:15am  
Wednesday: 10:45am – 12:30pm  
Thursday: 9:30am – 11:15am, 3:00pm – 4:30pm  
Friday: 10:45am – 12:30pm

#### **Books**

*Intermediate Algebra* by Lial, Hornsby, and McGinnis

#### **Course Description:**

A review and extension of elementary algebra, solutions of linear and quadratic equations, radicals, inequalities, linear and quadratic functions, polynomial functions, exponential and logarithmic functions, conic sections, sequences and series and graphing. Offered every semester.

## **Learning Outcomes:**

Students will be able to solve complicated polynomial equations.

Students will be able to use graphing to solve equations.

Students will be able to solve problems using polynomial, rational, exponential and logarithmic functions.

## **Department Mission:**

The Mathematical, Information, and Computer Sciences department at Point Loma Nazarene University is committed to maintaining a curriculum that provides its students with the tools to be productive, the passion to continue learning, and Christian perspectives to provide a basis for making sound value judgments.

## **Additional Course Information:**

**Topics Covered:** Linear Equations, Inequalities, graphs and functions, systems of equations, polynomials, factoring and factoring methods, rational expressions and functions, roots, and quadratic equations.

**Math Placement Test:** After looking at the material for this class, if you feel you should have tested out of this test you are allowed to retake the math placement test a single time (you can take the math placement test two times in total). If you have already taken it twice, you cannot retake it again. Please see the secretary of the MICS department, Stephanie Krahenbuhl, on the second floor of Rohr Science, room 208. It is recommended you schedule a time to retake the math placement test by emailing her at [skrahenb@pointloma.edu](mailto:skrahenb@pointloma.edu) rather than just walk in.

**MLC:** On the second floor of Rhor Science, room 230, there is a math tutoring center called the *Math Learning Center*. It is staffed by math majors who will help you with what we learned in lectures. No appointment is required, but don't expect them to do your homework for you. The MLC schedule should be posted by the end of the second week of classes.

**Lectures:** There will be lectures during most of the class periods. During these lectures there will be explanations, group work, and times for students to come to the board to solve example problems. You are expected to attend each lecture. Attendance will be taken (see the PLNU attendance policy below for more information). Let me know if you will be absent for school sanctioned reasons.

**Quizzes:** There will sometimes be quizzes at the start of class on questions from the previous class. If you are able to complete the homework, you should be fine on the quizzes. They cannot be made up for any reason, but the lowest two will be dropped.

**Homework:** There will be homework assigned for each lesson. All previously assigned homework is due each Friday. I am not planning on taking late homework.

When there is no Friday for the week, homework is not due that week.

You get 50% credit for trying each problem and 50% credit for the right answer. If you do not show your work on problems that require work, you will receive a 0 on that problem. Showing your work means you need to show how you arrived your answer, for instance, if you had to figure out you needed to divide 6 by 2 to get your answer, then put  $6 / 2 = 3$  rather than just 3. If you need help, then please visit the MLC or my office hours.

I will drop the lowest 2 homework scores.

Please leave answers as fractions.

**Tests:** There are two tests in the class in addition to the final, if you do not show work on the tests then you will not receive credit.

Notes on Tests: You can use the front and back a sheet of paper for notes on any test or the final.

**Final:** There is a final for this class. The final time is Wednesday 1:30 – 4:00pm

**Missed Classes:** Homework missed due to PLNU activities (i.e., sports teams, choirs, etc), can be turned in the next Friday the student is back. Missed Exams must be scheduled before the student leaves (exception is dire circumstances). It is the student's responsibility to inform the professor of when they will be gone.

**Cell Phones & Laptops:** Please don't use them in class without permission.

**Be Courteous and Respectful.**

### **Grading:**

A student must pass at least one test with a score of  $\geq 60\%$  in order to pass this class. A student who does not pass at least one test will receive an F regardless of any other point totals.

Homework	25%
Quizzes	15%
Exams	30%
Final	30%

### Grading scale

93 – 100%	A
90 – 92%	A-
87 – 89%	B+
83 – 86%	B

80 – 82%	B-
77 – 79%	C+
73 – 76%	C
70 – 72%	C-
67 – 69%	D+
63 – 67%	D
60 – 62%	D-
0 – 59%	F

## **PLNU Policies**

### **Attendance:**

Attendance is expected at each class session. In the event of an absence you are responsible for the material covered in class and the assignments given that day.

Regular and punctual attendance at all classes is considered essential to optimum academic achievement. If the student is absent from more than 10 percent of class meetings, the faculty member can file a written report which may result in de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation.

See [http://catalog.pointloma.edu/content.php?catoid=24&navoid=1581#Class\\_Attendance](http://catalog.pointloma.edu/content.php?catoid=24&navoid=1581#Class_Attendance) in the Undergraduate Academic Catalog.

### **Class Enrollment:**

It is the student's responsibility to maintain his/her class schedule. Should the need arise to drop this course (personal emergencies, poor performance, etc.), the student has the responsibility to follow through (provided the drop date meets the stated calendar deadline established by the university), not the instructor. Simply ceasing to attend this course or failing to follow through to arrange for a change of registration (drop/add) may easily result in a grade of F on the official transcript.

### **Academic Accommodations:**

If you have a diagnosed disability, please contact PLNU's Disability Resource Center (DRC) within the first two weeks of class to demonstrate need and to register for accommodation by phone at 619-849-2486 or by e-mail at [DRC@pointloma.edu](mailto:DRC@pointloma.edu). See [Disability Resource Center](#) for additional information. For more details see the PLNU catalog: [http://catalog.pointloma.edu/content.php?catoid=24&navoid=1581#Academic\\_Accommodations](http://catalog.pointloma.edu/content.php?catoid=24&navoid=1581#Academic_Accommodations)

Students with learning disabilities who may need accommodations should discuss options with the instructor during the first two weeks of class.

### **Academic Honesty:**

Students should demonstrate academic honesty by doing original work and by giving appropriate

credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog.

See [http://catalog.pointloma.edu/content.php?catoid=24&navoid=1581#Academic\\_Honesty](http://catalog.pointloma.edu/content.php?catoid=24&navoid=1581#Academic_Honesty) for definitions of kinds of academic dishonesty and for further policy information.

**Final Exam: 5/3 at 1:30pm**

The final exam date and time is set by the university at the beginning of the semester and may not be changed by the instructor. This schedule can be found on the university website and in the course calendar. No requests for early examinations will be approved. Only in the case that a student is required to take three exams during the same day of finals week, is an instructor authorized to consider changing the exam date and time for that particular student.

**Copyright Protected Materials:**

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

**Credit Hour:**

In the interest of providing sufficient time to accomplish the stated course learning outcomes, this class meets the PLNU credit hour policy for a 3 unit class delivered over 15 weeks. Specific details about how the class meets the credit hour requirements can be provided upon request.

**Schedule**

Monday	Tuesday	Weds	Thu	Friday
Jan: 9	10 (it's a Monday!) Intro & 1.1	11 Finish 1.1 & 1.2	12	13 1.3 / 1.4
16 (no class)	17	18 1.5	19	20 1.6
23 1.7	24	25 2.1	26	27 2.2 / 2.3
30 2.4	31	Feb: 1 2.5 / 2.6	2	3 3.1
6 4.1 / 4.2	7	8 4.3	9	10 4.4
13 4.5	14	15 -review-	15	17 <b>EXAM 1</b>
20 5.1	21	22 5.2	23	24 5.3 / 5.4
27	28	March 1	2	3

5.5		6.1		6.2
<b>March: 6 (spring break)</b>	<b>7</b>	<b>8 (spring break)</b>	<b>9</b>	<b>10 (spring break)</b>
13 6.3	14	15 6.4	16	17 7.1
20 7.2	21	22 7.3	23	24 7.4
27 7.5	28	29 <b>-review-</b>	30	31 <b>EXAM 2</b>
April: 3 7.6	4	5 8.1	6	7 8.2
10 8.3	11	12 8.4	<b>13 (Easter break)</b>	<b>14</b>
<b>17 (Easter break)</b>	18	19 8.5	20	21 8.6
24 8.7	25	26 Catch up day	27	28 <b>-review-</b>
May: 1	2	3 <b>FINAL</b>	4	5