# Algebra II

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| Instructor | Ms. Lopez | Phone | 510-370-3334 |
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| Office Hours | 4:00pm-4:30pm or upon request |  | Quarter 4 |

### Text:

McDougal Little, Algebra II

### Description:

During this quarter, you will review many of the concepts introduced at the end of Algebra I, such as solving for variables, linear equations, and linear systems. The focus will shift from technique to applications, as you gain a higher level of fluency in the algebraic concepts presented. As you explore the content, try to examine how some of these techniques can apply to aspects of the world around you.

### Essential Understanding:

Continuing from Algebra I, you will discover techniques to easily solve seemingly complex and difficult equations. We will review many of the concepts previously seen, and refine them to account for the nuances presents in society. In doing so, you will begin to understand the complexities of daily life and the extent in which Mathematics can both describe the present and predict the future.

### General Guidelines:

## Lessons:

Lessons will be given throughout the class depending on the math level that you are in. You will have multiple lessons a week. If you are struggling with a concept it is your responsibility to review the lesson and ask questions. **It is a requirement to come to the lesson area and take notes**. I will be checking your notebook, making sure you are taking notes for credit. If you are absent on one of the days that there is a lesson it is your responsibility to get the notes either from google classroom or a peer.

## Individual Work:

33.33% of your grade is based on completing the assignments that will be assigned to you after every lesson. All assignments will be out of 10 points and assignments will be collected every week (Fridays). Use your class time properly, if you do not understand the individual work it is a good time for you to ask help from either your peers or me. **You must show work to receive full credit.**

## Group Work:

33.33% of your grade is based on completing and participating in group work. You must communicate with your group and do the group work together. If your team completes the group work however, you did not participate you will be getting no credit for that assignment. **You will not be able to make up any group work**.

## Final/Assessments:

33.33% of your grade is based on assessments and your final**. You will be able to use a 3 X 5 index card during the assessments and final.** You must make at least 70% to ‘pass’ the assessment. If you do not pass an assessment you may choose to retake a similar assessment however, you will not be allowed to use notes. You may also do test corrections for half of the remaining of the credit missed. You will not be able to make up the final exam nor make corrections on the final exam.

## Late Policy:

You will be able to make up any work if you have an **excused absent** for full credit and will be given extra days equal to the amount of days missed. If you need an extension you must fill out the extension request and have it signed by your parents and myself before the day that the assignment is due. If I see that you are not using your class time properly you will not be given the extended time. If you get the extended time you will be able to receive full credit. If you turn in your assignment late without an extension you will be given a 7 out of 10 (C).

### Goals:

Exponents

Graphing

### Requirements:

Group Work

### Resources:

Touring with Mr. Niemann, Ms. Sun, or myself

Khan Academy

### Course Schedule:

| Week | Guiding Question | Topic | Individual Work |
| --- | --- | --- | --- |
| April 9th- April 13th | **What are the two different ways that you can write a function?** | **6.3 Perform Function Operations and Composition**  **6.4 Use Inverse Function** | **Vocabulary:**  -Power Function composition  -Inverse Relation  -Inverse Function  **DUE: Monday April 9th**  **6.3 (P. 432 #’s 3-19 odds)**  **DUE: Friday April 13th at 4:30pm** |
| April 16th-April 20th |  | **6.5 Graph Square Root and Cube Functions** | **Vocabulary;**  **-**Radical Function  -Parent Function  **DUE: Monday April 16th**  **6.4 (P. 442 #’s 3-21 odds)**  **6.5 (P. 449 #’s 3-15 odds)**  **DUE: Friday April 20th at 4:30pm** |
| QUIZ | **6.3-6.5** | **FRIDAY** | **April 20th** |
| April 23rd-April 27th | **What should be the first step in solving a radical equation?** | **6.6 Solve Radical Equations**  **7.3 Use Functions Involving *e*** | **Vocabulary:**  -Radical Equation  -Extraneous Solution  -Natural Base *e*  **DUE: Thursday April 26th**  -**6.6** **(P. 456 #’s 3-21 odds)**  **-7.3 (P. 495 #’s 3-29 odds)**  **DUE: Friday April 27th at 4:30 pm** |
| April 30th-May 4th |  | **7.4 Evaluate Logarithms and Graph Logarithmic Functions** | **Vocabulary:**  -Logarithm of *y* with base *b*  -Common Logarithm  -Natural Logarithm  **DUE: Tuesday May 1st**  **7.4 (P. 503 #’s 3-35 odds)**  **DUE: Friday May 4th at 4:30 pm** |
| MIDTERM | **6.3-7.4** | **FRIDAY** | **MAY 4TH** |
| May 7th-May 11th | **What can you model in real life with logarithms?** | **-7.5 Apply Properties of Logarithms**  **-7.6 Solve Exponential and Logarithmic Equations** | **Vocabulary:**  -Base  -Exponential Equation  -Logarithmic equation  -Extraneous Solution  **DUE: Tuesday May 8th**  -**7.5 (P. 510 #’s 3-29 odds)**  **DUE: Friday May 4th at 4:30pm** |
| May 14th-May 18th |  |  | -**7.6 (P. 519 #’s 3-23 odds)**  **DUE: Friday May 18th by 4:30pm** |
| QUIZ | **6.6-7.4** | **THURSDAY** | **MAY 17th** |
| May 21st-May 25th | **Describe and compare characteristics of the following families of functions: quadratics with complex roots?** | -**8.2 Graph simple Rational Functions** | **Vocabulary:**  - Rational Function  -Domain  -Range  -Asymptote  -**8.2 (P. 561 #’s 3- 21 odds)**  **DUE: Friday May 25th at 4:30pm** |
| May 28th- June 1st |  | **-8.4 Multiply and Divide Rational Expressions** | **Vocabulary:**  -Simplified form pf a rational expression  -Reciprocal  **DUE: Tuesday May 29th**  -**8.4 (P. 577 #’s 3-17 odds)**  **DUE: Friday June 1st at 4:30pm** |
| FINAL | **7.5-8.4** | **THURSDAY** | **JUNE 7TH** |
| June 11th- June 14th |  | **Group Work** |  |

### Examinations:

FINAL EXAM

**THURSDAY June 7th**