**Reynolds High School**

**Pre-Calculus 2024 – 2025**

**(Math 111Z and Math 112Z)**

*Building Relationships for Academic Success*

**Instructor: Andrea Hernandez Phone: (503) 667-3186 Ext: 1064**

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**Required Textbook/Materials:**

* *Precalculus with Limits\** by Ron Larson and Paul Battaglia

\*We will go to the library to check out the textbook AND a graphing calculator for use this year.

* A scientific or graphing\* calculator
* Chromebook – charged, decluttered, and updated
* Paper, pencil, eraser
* Optional: graph paper, colored pencils, highlighters

**Course Description**:

This is a full year, one credit honors class at RHS that also offers dual credit at MHCC. Our first semester awards credit for Math 111Z at MHCC, and you will be able to sign up for this during their winter term in November. Our second semester awards credit for Math 112Z at MHCC, and you will be able to sign up for this during their spring term in March.

Successful completion of Algebra 2 is the prerequisite for this course. This course will pull together all your prior knowledge of algebra and geometry. We will work extensively with functions during the first semester and trigonometry the second semester. Please refer to the MHCC Learning Outcomes at the end of this document for a comprehensive list of the required topics to be covered this year. Nearly all work will be from the textbook, with supplemental materials, notes, and videos provided in Schoology.

**Course Requirements:**

This course will require you to complete daily warm-ups, exit-tickets, and assignments. We will have various quizzes and checkpoints to assess understanding before the unit tests. There will be a comprehensive final exam at the end of the semester.

Opportunities to work in collaboration with other students will be encouraged, but all work turned in must be your own. Under no circumstances is it acceptable to turn in work copied from another student or anything that is AI generated.

**Grading Policy Description:**

The gradebook will show three categories: Summative (80%), Formative (15%), and Participation (5%).

* The Summative category is for unit tests, end-of-unit performance tasks, and the final exam.
* The Formative category is for assignments, quizzes, and checkpoints.
* The Participation category is for warm-ups, exit-tickets, and participation in class activities.

ALL work must be made up when you are absent. Please check Schoology and/or see me to figure out what needs to be done. Formative items from a given unit cannot be completed for credit after the summative test for that unit is given.

Every effort must be made to take unit tests on the day they are given. Failure to do so may impact your ability to get MHCC credit or to include the honors designation for your semester grade.

To qualify for the honors designation and for MHCC credit, you can retake no more than one test each semester. If you find that you need to retake more than one test to get the grade you want, then please do so.

Tests can be retaken (up to 90%) at any time before the end of the semester. You will be required to perform a task in preparation for a retake to strengthen the skills needed to improve your score.

Formative items cannot be retaken except under extraordinary circumstances.

**Grade Description & Percentage Breakdown**

|  |  |  |
| --- | --- | --- |
| **Percentage** | **Grade** | **Description**  **[Honors designation (H) carries more stringent requirements regarding retakes and adhering to stated deadlines.]** |
| 100% - 90% | **5/A/AH** | The student understands the content and the course objectives at a mastery level. |
| 89% - 80% | **4/B/BH** | The student understands the content and course objectives at an above average level. |
| 79% - 70% | **3/C/CH** | The student understands the course content and course objectives at an average level. |
| 69% - 60% | **2/D** | The student understands the course content at a below average level and a minimum of course objectives are met. |
| 59% | **1/F**  **0/N** | The student has not met enough, or has not met any, course objectives to pass a minimum level and receives no credit. |

**Class POWER Matrix (Expectations)**:

|  |  |  |
| --- | --- | --- |
| **Letter** | **Stands for** | **What does this look like in our classroom?** |
| **P** | Prepared & Punctual | Be in your seat when the bell rings.  Have your supplies out and ready to use.  Have your assignment out and ready to correct. |
| **O** | Organized | Have a spiral notebook for classwork and notes.  Have a binder or 2-pocket folder for class papers.  Have your computer files named and saved in folders. |
| **W** | Writers | Write assignments and test dates in your planner.  Write the notes and assignments.  Learn and use mathematical notation in your assignments. |
| **E** | Engaged | Do the activities assigned from bell to bell.  Work well alone and with your group.  Stay in class unless it is an emergency. |
| **R** | Respectful | Sit in your assigned seat.  Treat borrowed supplies carefully.  Phones, headphones/earbuds, and food are put away. |

I look forward to working with you this year! I will post my office hours in the classroom weekly to let you know when I am available to offer you extra support. In past years, we have also had after school homework help available. Look for more information about that starting on October.

**The following information is from Mount Hood Community College:**

**Math 111Z Student Learning Outcomes for MHCC:**

Statewide Outcome 1: Explore the concept of a function numerically, symbolically, verbally, and graphically and identify properties of functions both with and without technology.

Statewide Outcome 2: Analyze polynomial, rational, exponential, and logarithmic functions, as well as piecewise-defined functions, in both algebraic and graphical contexts, and solve equations involving these function types.

Statewide Outcome 3: Demonstrate algebraic and graphical competence in the use and application of functions including notation, evaluation, domain/range, algebraic operations and composition, inverses, transformations, symmetry, rate of change, extrema, intercepts, asymptotes, and other behavior.

Statewide Outcome 4: Use variables and functions to represent unknown quantities, create models, find solutions, and communicate an interpretation of the results.

Statewide Outcome 5: Determine the reasonableness and implications of mathematical methods, solutions, and approximations in context.

**Math 112Z Student Learning Outcomes for MHCC:**

Statewide Outcome 1: Translate among various systems of measure for angles including radians, degrees, and revolutions.

Statewide Outcome 2: Represent, manipulate, and evaluate trigonometric expressions in terms of sides of a right triangle and in terms of the coordinates of a unit circle.

Statewide Outcome 3: Graph, transform, and analyze trigonometric functions using amplitude, shifts, symmetry, and periodicity.

Statewide Outcome 4: Manipulate trigonometric expressions and prove trigonometric identities.

Statewide Outcome 5: Solve trigonometric equations using inverses, periodicity, and identities.

Statewide Outcome 6: Define, represent, and operate with vectors both geometrically and algebraically.

Statewide Outcome 7: Apply the law of sines and law of cosines to determine lengths and angles.

Statewide Outcome 8: Use variables, trogonometric functions, and vectors to represent quantities, create models, find solutions, and communicate an interpretation of the results.

Statewide Outcome 9: Determine the reasonableness and implications of mathematical methods, solutions, and approximations in context.

**Mount Hood Community College Dual Credit Statement**

When earning college credits in high school, it is important that students choose credits with a purpose as high school credits can affect future financial aid and Oregon Promise eligibility including the amount of funding available. Beyond one or two classes, the added value of college credit is determined by a student’s future career and academic goals. The credits only add up when they fit within individual career and education plans. For this reason, it is important that students:

* Actively research which careers are of the most interest to them and the required degree certificate needed from a college or university to enter a career field.
* Seek out resources from high school counselors or career and college advisors. Teachers, counselors, and advisors have materials to help with planning.
* Research the colleges they are interested in attending and ask the college for guidance.