

The following syllabus for Honors Pre-Calculus at Jay M Robinson High School is subject to change. Please contact your instructor, Caitlin Ireland, with any questions.

## 1 Course Description and Outcomes

The purpose of Precalculus is to build upon the study of algebra, functions, and trigonometry experienced in previous high school mathematics courses. This course will build on students' algebraic skills and understanding of functions to delve into real world phenomena and to deepen understanding of the functions in the course. This course is designed for students pursuing careers in STEM-related fields. Students will be prepared for Calculus, AP Calculus and any entry-level college course.

### 1.1 Course Outcomes

This course is based on the North Carolina Standard Course of Study. The main goals are as follows-

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.
- Use strategies and procedures flexibly.
- Reflect on mistakes and misconceptions.

## 2 Materials Needed and Tentative Schedule

### 2.1 Materials

- Loose leaf notebook paper organized in a folder/binder OR a spiral bound/composition notebook

- Pencils or pens of your choice
- Graph Paper
- Graphing Calculator
- Various mathematics online tools

## 2.2 Schedule

- Introduction/Syllabus/Expectations/Platonic Solid Project
- Week Two-Three: Polynomial and Rational Functions
- Week Four-Five: Exponential and Logarithmic Functions
- Week Six-Seven: Trigonometric Functions and Analysis of Functions
- Week Eight-Nine: Polar and Parametric Equations and Midterm
- Week Ten-Eleven: Complex Numbers, Matrices, Vectors, Bracketology Project
- Week Twelve-Thirteen: Sequences and Series and Conic Sections
- Week Fourteen-Fifteen: Unit Circle and Trigonometry
- Week Sixteen-Seventeen: Applications of Trigonometry
- Week Eighteen: Review and Final

## 3 Policies and Procedures

### 3.1 Attendance

Without question, the biggest reason for students having trouble in school is poor or inconsistent classroom attendance. If you do not come to class regularly you will struggle in my class! Tardies will be handled in accordance with your handbook.

### 3.2 Expectations

- Students will come to class prepared to learn each day just as the teacher will be prepared to teach each day.
- Students will adhere to all school rules.
- Students will respect each other and all other persons in the classroom.

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- Students will complete and submit homework, class work, labs, and projects by the posted due dates.
  - Students will be seated and completing introductory assignments when the tardy bell rings.
  - Phones must be placed in the pockets once you enter the classroom. You will be assigned a designated slot that you will use everyday for the semester. If there is an emergency, please have your parent/guardian email me or call the school. You have a computer and a calculator. You have all the tools you need.
  - Students will have an assigned calculator that they will use everyday for the semester. You are expected to grab it from its cubby upon entering and return it to its cubby before leaving the classroom everyday. Calculators are not to leave the school building. It is highly recommended that you buy your own calculator. Please notify the teacher of any damage you see to the calculator. Repairing or replacing the calculator will be at your own expense. Please refer to the school's Acceptable Use Agreement for Internet privileges.
  - Students must create an E-Hallpass and receive a physical hall pass from the teacher before exiting the classroom for any reason. You may not be out in the hallway without a pass. Students may not leave class for any reason during the 10 minutes after class starts, nor can they leave 10 minutes before class ends. This is in accordance with school policies.

### **3.3 Consequences**

Failure to adhere to the above expectations will result in the following consequences:

- Warning and/or parent contact
- Parent contact and conference
- Parent-Teacher-Student conference or Referral to Office

### **3.4 Cheating and Plagiarism**

If I judge you to have plagiarized an assignment or cheated on a test, then at the very least you will receive no credit for the assignment or test. Plagiarism (“copying”) is presenting someone else’s work as your own. Altering a few words here and there does not make the work your own, nor does eliminating, adding, or switching the order of a few sentences or clauses. It is still copying. Make sure that you present the information in your own words. You may use (“”) to indicate where you have used someone else’s material, but do not let your answer become a string of quotes without any of your own

Class Honor Code: “On my honor I have neither given nor received unauthorized information regarding this work, I have followed and will continue to observe all regulations regarding it, and I am unaware of any violation of the Class Honor Code by others.”

### **3.5 Homework and Make-Up Policy**

Homework - There will be homework! Homework should be turned in at the beginning of class on the day it was due. Homework will typically be assigned daily (assigned at the end of class, due at the beginning of class the next day).

Daily checks for understanding, tests, quizzes, and projects will be assigned throughout the year, with adequate notice and preparation time to be completed by the assigned due date. Rubrics will be given for assignments requiring extensive preparation, and will be distributed when the assignment is given.

Late Work - 1 week (5 school days) after the assignment is due with a 25% deduction of points. 2 weeks (10 school days) after the assignment is due with a 50% deduction of points. Any time after that will be at most 60% reduction. This means that if you turn it in a week late but got everything correct, the highest you could get is 75. If you turn it in three weeks late, the highest you could get is 40.

Make-up Work - Students are required to arrange any missed work due to an excused absence from class within 5 school days of the absence. It is the responsibility of the student to contact the teacher before or after class to discuss any assignments or schedule make up work. There will typically be a folder of that weeks assignments and notes available for you to grab the day you return. The following dates are the absolute final deadlines for missing work: 9/23 (progress report 1), 10/27 (end of quarter 1), 12/2 (progress report 2), and 1/20 (end of quarter 2).

Test Retakes - You may retake an alternate form of a test if you made below an 80. You must notify me that you intend to retake AND schedule the retake during a WIN period within five days of the original test date. If you do not, I will assume you are satisfied with your grade. It is your responsibility to plan and study accordingly. In order to be prepared for the retake, you must demonstrate additional study habits by completing the Assessment Retake Contract prior to your retest date. Contracts will be available after each test. Please ask your instructor to receive a contract.

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### **3.6 Extra Help and Parent Contact**

Students may attend scheduled tutoring sessions set up by the student and teacher, during WIN time, or on assigned workdays in class. Students and parents may contact me by my school email. Extra credit opportunities may be presented throughout the semester. Each quarter, an extra credit opportunity will be made available by your instructor, worth an extra quiz grade, for students with an average of 65 or higher. Many online websites will be introduced during class that will be available as supplemental material to the course for students to use when they need extra practice.

### **3.7 Grading Policy**

Jay M Robinson High School utilizes the Mastery learning and Standards-Based grading methods. The goal is to teach the student holistically and to allow for personal growth, achievement, and mastery before continuing onto more advanced topics. Grades will follow the North Carolina Grading Scale:

- A – 90-100
- B – 80-89
- C – 70-79
- D – 60-69
- F – 59 and below

Students may not receive a grade of “0”, but can earn a “1” if: 1) there was no effort attempted on the assignment, 2) the work is not turned in by the final deadline, or 3) if the student is found to have cheated or plagiarized the work. The following breaks down how different assignments will weigh against your grade:

- Informal assessments such as quizzes, classwork, notebook checks, group work, daily homework, bellringers/exit tickets: 60%
- Formal assessments such as tests, projects, research papers: 40%

Your final grade will be calculated as follows: Quarter 1 - 37.5%, Quarter 2 - 37.5%, EOC/Final - 25%. There may be benchmarks or midterms for this course.

Caitlin Ireland  
Jay M Robinson

# Pre-Calculus Syllabus

August 23, 2022

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### 4 Signature

Please sign and have your parents sign that you agree to follow the aforementioned policies and procedures. Please also familiarize yourself with the Student Handbook found on the school's website. You only need to return this page. Keep the rest of this contract for your records. This serves as an acknowledgement by the student, the parent, and the teacher that we strive to work together for a bright future.

Student Signature:

Parent Signature:

Teacher Signature:

Date:

### 5 Information

Please include any information you would like me to know about you or your student, as well as contact information:

Phone:

Email: