

Pre-Calculus
Mr. Miller, Room 306
2020-2021

COURSE DESCRIPTION: This course is designed to prepare students for topics that would be covered in an elementary Calculus class at the college level. In addition to introducing students to terminology and concepts that would be essential to studying Calculus, this course is also geared to help students develop reasoning and analytical skills which may be applied to real-world problems outside of their mathematics classroom. Topics that we will be discussing throughout the year include: graphs, linear and quadratic functions, polynomial and rational functions, exponential and logarithmic functions, trigonometric functions, analytic trigonometry, applications of trigonometric functions, and counting and probability.

COURSE GOALS: In addition to mastering the State Standards, goals for students in this class are to:

- 1) Develop reasoning and analytical skills
- 2) Increase level of critical thinking and logical thinking skills
- 3) Correctly use technology to enhance the learning experience
- 4) Continue to develop responsibility
- 5) Thrive as a team player

COURSE MATERIALS: Students will be required to bring the following materials to class every day, unless told otherwise. Students will not be allowed to leave the classroom to retrieve materials once the bell has rung.

- 1) Laptop/tablet
- 2) Textbook – Pre-Calculus Enhanced with Graphing Utilities, 2009, Sullivan
- 3) Notebook/loose leaf paper
- 4) Writing utensils (pencils ONLY!!)
- 5) Calculator (TI-83 or TI-84)

ASSESSMENT INFORMATION: Throughout each marking period, students will be required to complete a variety of assessments including homework, POint Gathering Opportunities, and exams.

The grading scale will be as follows:

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

The **honors** grading scale will be as follows:

- 93% - 100% = A
- 85% - 92% = B
- 78% - 84% = C
- 70% - 77% = D
- 69% and below = F

We will have POint Gathering Opportunities every few sections throughout each chapter to determine the students' progress.

Homework will be assigned on a daily basis. Most homework assignments will be graded for completion. All work needs to be shown in order to receive full credit. When I check homework for completion, we will go through the assignment together so you are able to make corrections and ask about any problems you may have done incorrectly or did not understand.

Assignments will now be posted in Microsoft Teams. Turn in assignments in Teams. You may draw or type or upload a picture in the document that is provided with the assignment. Another option is to upload a picture directly to Teams.

Assignments are due by the next school day. If the assignment is turned in one day late, it will still be accepted. Any assignments turned in more than one day late will NOT be accepted and will earn zero points. These points CANNOT be made up. **If you are absent**, please check Teams or the teacher website to see what we did in class and what you missed. Assignments and notes will be posted daily. Additionally, when you are absent, you will have the same amount of days as you were absent to make up a homework assignment or assessment.

Cheating on homework, POint Gathering Opportunities, and exams will not be tolerated and will result in a failing score on that particular assignment for all parties involved. A Dean's detention will be issued as well.

Please have your cameras on during class and be on camera!! This is important for facilitating the uniform check and for class participation. Rubric points will be deducted if you do not turn your camera on or respond when called on during class.

During or after the lecture, we will do one or more practice problems. I will randomly call on students to assist with working the problem.

Please create an account on Deltamath.com. Use your St. Joes email as your username. You will need my teacher code to create the account. The code is: 264474

UNITS COVERED: Below is a list of the units that we will be covering throughout the school year.

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| 1) Graphs | 5) Exponential and Logarithmic Functions |
| 2) Functions and Their Graphs | 6) Trigonometric Functions |
| 3) Linear and Quadratic Functions | 7) Analytic Trigonometry |
| 4) Polynomial and Rational Functions | 8) Applications of Trigonometric Functions |

CLIMATE RUBRIC: I will be assessing students on a *weekly* basis using the SJHS climate rubric as stated in the student handbook.

- Each student is to arrive to class on time every day.
- Each student is to arrive to class in proper dress code.
- Each student is to demonstrate behaviors which are considerate of others and others' property.
- Each student will come to class prepared to learn. That means you have all the required materials including book, notebook, pencil, calculator, and anything else necessary for class.
- Each student is expected to be a positive participant in class activities and the learning process.
- Each student is expected to complete assignment on time and in the prescribed manner.
- Each student will consistently demonstrate respect for the teacher, for other students, and for himself or herself.
- Each student will participate in a positive manner in daily class prayer.
- Each student will demonstrate integrity and responsibility in class, in assignment completion and in dealing with peers and teachers.
- Each student will demonstrate respect for the classroom environment by keeping it clean, not bringing food to class, and respecting the property in the room.
- Each student will use appropriate language when communicating in class or outside the classroom.

If the climate rubric is followed, students will earn one point for each school day during a particular week.

PROFANITY: Students will be expected to use appropriate language in the classroom. If a student does not abide by this rule, they will serve a teacher detention after school and will help clean my classroom.

TARDINESS: You will be considered tardy if you are not in your seat when the bell rings. The first two times that you are tardy will not be penalized. The third tardy will result in a detention with me. Any tardy after that will result in a dean's detention.

EXTRA HELP: I will be available before school and after school. Please let me know ahead of time if you would like to come in and get help.

TECHNOLOGY: You are allowed to use your laptops to take notes if you would like. If you use your tablet for any other reasons that are not allowed, you will lose your privileges. There may be times when I ask you to access a website. In these instances, I will provide the address for the site.

My goal is to create an open, inviting, and educational environment for all students in the classroom.

Please do not hesitate to contact me with any questions or concerns you may have. My email address is David.Miller@stjoeshs.org. Email is the best method to contact me as I check it regularly throughout the day.

Mr. Miller