

Alfred State College

Pre-Calculus

Instructor: Mr. Zachary Smith
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Phone: 585-268-7900 EXT 1111
Office Hours: By appointment
Office: RM 1111

MATH 1054
College Credits: 4
Days: M, T, W, R, F
Contact Time: 225 minutes per week
Pre-requisite: Algebra 2

Textbook: Precalculus with Limits by Larson (2nd edition)

General Information

This class is being offered at Genessee Valley Central School through Alfred State College. Students can receive college credits by successful completion of the course and accepted registration from Alfred State. Students should have completed Algebra 2 as a pre-requisite to this class and have a working knowledge of the TI-83+ and/or TI-84+ calculator. This is a college course and will be treated as one. Students will be expected to keep up with the work assigned and handle the quick pace of the class. Students will need to read and utilize the textbook as resource in this class. Mr. Smith is available for extra help by appointment during select periods, before or after school.

Student Learning Objectives (as taken from Alfred State)

At the end of the course the student will be able to do the following:

- 1) Use algebraic manipulations to simplify polynomial, rational, and radical expressions.
- 2) Solve linear, quadratics, absolute value, rational, and polynomial equations and inequalities.
- 3) Graph and describe the end behavior of polynomial functions and asymptotes of rational functions.
- 4) Find an equation of a line, calculate and interpret slope.
- 5) Solve verbal problems by translating them into the appropriate mathematical model.
- 6) Use a graphing utility to find regression equations, to find minimums and maximums, to find zeros, and solve equations.
- 7) Convert between radians and degrees and use the unit circle to determine the six trigonometric functions of a given angle.

- 8) Use/manipulate the concepts of arc length, angular measure, and angular speed to solve related problems.
- 9) Graph and/or interpret sine and cosine functions considering amplitude, period, and phase shift.
- 10) Use the Pythagorean Theorem, the Law of Sines, and the Law of Cosines to solve right and oblique triangles.
- 11) Use the relationship between logarithmic functions and exponential functions to solve equations and problems involving growth/decay, and compounding of interest.
- 12) Use trigonometric identities to simplify trigonometric expressions and solve trig equations.

Grading¿

Your course grade will be determined based on approximately 875 total points. The grade will be the percentage of points earned out of the total points. The breakdown is approximately as follows.

- Exams (7) 350 points total
- Problem Set HW (7) 175 points total
- Semi Weekly Quiz (10) 250 points total
- Final Exam 100 points

Grade.Reporting¿

- The grade reported on each student’s report card will be the grade earned plus 5 points (as per Genesee Valle Central School Policy relating to college courses).
- The grade sent to Alfred State will be a letter grade based on the following scale:

Grade.earned.(not.curved)	Grade.earned.(curved)	Grade.sent.to.Alfred.State
90-100	95-105	A
87-89	92-94	B+
80-86	85-91	B
77-79	82-84	C+
70-76	75-81	C
67-69	72-74	D+
60-66	65-71	D
0-59	0-64	F

Exams¿

There will be seven in-class exams which will be composed of approximately two units each. Each exam is worth 50 points. If you are absent from school, it is expected that you will take the exam the first day you are back in school during a study hall, before or after school. You are responsible for making these arrangements. If it is not done, a zero will be recorded for that grade. Any sharing of information during an exam, electronically or otherwise, will result in a zero for all parties involved.

Weekly.Homework;

Every few weeks a problem set will be assigned. Each assignment is worth 25 points. It is due the day stated by 3:00 PM. An absence will not delay the due date. All homework assignments must be received by Mr. Smith on or before the due date. A 10% penalty is assessed per day for all late work (this includes weekends). Assignments may be submitted electronically. All homework must be neat, organized and easily read. All answers must be accompanied by work or an explanation. A simple numerical answer is insufficient.

Semi_Weekly.Quizzes;

The weekly quiz is given on weeks when there is no exam. Each is worth 20 points. They should take no more than 15 minutes at the end of that class. Students will not be allowed to stay longer in that class to finish.

Final.Exam;

You must get at least a 60 on the final exam for credit to be sent to Alfred State. Extenuating circumstances will be given consideration.

Attendance;

Attendance will be taken every day and is essential for success in this class. You are required to set up a time to meet and go over the material with Mr. Smith. This should be in a timely manner, Mr. Smith has the right to move or not move assignment dates. Excessive absences may result in dismissal from this class.

Pre-Calculus Timeline Fall 2025

Week of	Topics	Tests	Quiz	HW
<i>September 1st</i>	Appendix, Review of Algebra 2		1	
<i>September 8th</i>	Appendix Review of Algebra 2		2	
<i>September 15th</i>	Linear Functions		3	1
<i>September 22nd</i>	Test/ Quadratics and Polynomials	1		
<i>September 29th</i>	Synthetic Division/Zeros		4	
<i>October 6th</i>	Rational Inequalities/Test	2		2
<i>October 13th</i>	Exponentials & Log Functions		5	
<i>October 20th</i>	Exp & Log Equations/Test	3		3
<i>October 27th</i>	Trig		6	
<i>November 3rd</i>	Trig/Radians/Degree/Unit Circle		7	
<i>November 10th</i>	Graph/Applications/Test	4		4
<i>November 17th</i>	Trig Identities		8	
<i>November 24th</i>	Trig Identities cont'd			
<i>December 1st</i>	Trig Equations/Sum and Difference Ident	5		5
<i>December 8th</i>	Law of Sines/Law of Cosines		9	
<i>December 15th</i>	Systems of Equations and Inequal	6		6
<i>December 22nd</i>	Winter Break			
<i>December 29th</i>	Winter Break			
<i>January 5th</i>	Matrices/Applications		10	
<i>January 12th</i>	Test Review for final	7		7
<i>January 19th</i>	Final Exam	Final (TBA)		

Expectations;

See the attached sheet with expectations.

Fall 2025 Pre-Calculus Expectations

Student Expectations:

The student is expected to:

- Be responsible for their learning.
- Be in class on time.
- To do all assignments.
- Put in their best effort.
- Ask questions.
- Seek additional help when needed.
- Follow all classroom and district rules.
- Not be distracted by their iPad.
- Cell phones, air pods/headphones and smart watches will be left in lockers.
- Help keep a positive learning environment.

Teacher Expectations:

The teacher is expected to:

- Provide efficient and reliable instruction.
- Grade in a timely manner and update Power School weekly.
- Correct behaviors that are inappropriate for the classroom setting.
- Provide additional help or instruction when needed.
- Be in communication with parent/guardian.
- Be professional.
- Help keep a positive learning environment.

Parent/Guardian Expectations:

The parent-guardian is expected to:

- Be supportive of the student's learning.
- Work out any issues that arise with the teacher and/or student.
- Be in communication with the teacher.
- Help keep a positive learning environment.

Signatures:

Student's: _____

Teacher's: _____

Parent's: _____

Email: _____

Phone Number: _____