

**Text: *Trigonometry, 5<sup>th</sup> Edition: Authors--Larson and Hostetler***

***Analysis of Elementary Functions: Authors--Sorgenfrey and Beckenbach***

**BGSU Firelands Textbook: Pearson Custom Mathematics - Precalculus - Blitzer**

(This will be our PDF textbook available as an additional reference as needed)

**Topics covered this year:**

Unit I: THE TRIGONOMETRIC FUNCTIONS and APPLICATIONS USING A CALCULATOR

Unit II: THE TRIGONOMETRIC FUNCTIONS and THE UNIT CIRCLE

Unit III: GRAPHS OF THE TRIGONOMETRIC FUNCTIONS

Unit IV: TRIGONOMETRIC IDENTITIES

Unit V: THE INVERSE TRIGONOMETRIC FUNCTIONS

Unit VI: APPLICATIONS of TRIGONOMETRIC FUNCTIONS

Unit VII: TRIGONOMETRIC FORM of COMPLEX NUMBERS

Unit VIII: ANALYTIC GEOMETRY: THE CONIC SECTIONS

Unit IX: PARAMETRIC EQUATIONS AND POLAR COORDINATE GRAPHS

Unit X: SEQUENCES AND SERIES

Unit XI: THE ALGEBRA OF FUNCTIONS

Unit XII: EXPONENTIAL AND LOGARITHMIC FUNCTIONS

Unit XIII: POLYNOMIAL FUNCTIONS

FINAL EXAM FOR BGSU FIRELANDS MATH 1280

**Additional Topics to be covered, time permitting:**

Unit XIV: RATIONAL FUNCTIONS

Unit XV: SYSTEMS OF EQUATIONS AND INEQUALITIES with and without MATRICES

Unit XVI: LIMITS

Unit XVII: THE DERIVATIVE and APPLICATIONS OF THE DERIVATIVE

## GENERAL INFORMATION AND COURSE POLICIES

**Learning Outcomes:**

The successful student in MATH 1280 will leave the course with knowledge in the following areas, along with the ability to utilize the knowledge in application problems:

- Solving polynomial, exponential, logarithmic, and trigonometric equations
- Identifying the important characteristics of polynomial, rational, exponential, logarithmic, and trigonometric functions and using these to graph each function
- Finding inverses of algebraic, exponential, logarithmic, and trigonometric functions
- Determining solutions for systems of equations and systems of inequalities
- Working with angle measurements in degrees and radians
- Finding the values of the six trigonometric ratios for various angles
- Demonstrating a thorough knowledge of trigonometric identities and laws

**BGP Learning Outcomes:**

1. Interpret mathematical models such as formulas, graphs, tables, & schematics, and draw inferences from them.
2. Represent mathematical information symbolically, visually, numerically, and verbally.
3. Use arithmetical, algebraic, and graphical methods to solve problems.
4. Estimate and check answers to mathematical problems in order to determine reasonableness, identify alternatives, and select optimal results.
5. Recognize that mathematical methods are based on assumptions and have limits.

**BGP learning outcomes will be measured by the BGP Assessment Exam.**

## **Expectations:**

**#1 Expectation – come to class ready to THINK. I will not always provide all answers as the best way to really understand is to have the chance to figure it out on your own.**

Additional Expectations:

- Preparation for class, including timely completion of daily homework assignments and bringing all required materials to class - books, notebooks, pencils, calculators, etc.
- Well-organized notebook with lecture notes and homework assignments
- No cell phone, tablet, laptop usage during class unless permission is given
- Be Respectful. Be thoughtful about mathematics.
- Work individually and in groups on mathematics and seek help when necessary.
- Maintain a grade appropriate to your ability in math. (Minimum "C")
- Abide by all rules and regulations as stated in the EHS student handbook and BG Code of Conduct

Consequences of not abiding by these expectations are: 1) verbal warning, 2) conference and “no” on responsibility list, 3) detention and/or phone call to parent/guardian, and/or 4) class removal.

## **Attendance:**

It is expected that you attend class regularly. You are responsible for learning all missed content and announcements, and for completing all missed work. All completed lessons will be available in a shared google drive folder for you to reference at any time. Please be on time to class.

## **BGP Exam:**

You will need to complete the BGP assessment for this course to meet Bowling Green requirements. This will consist of questions given to ALL BG 1280 students. It will be given as an exam near the end of the year once we have covered all necessary material.

## **Grading:**

**The final BGSU Firelands grade is based approximately upon:**

|                                      |     |
|--------------------------------------|-----|
| Check your understanding assignments | 10% |
| Quizzes/Tests                        | 60% |
| Classwork                            | 10% |
| BGP Exam/Final Exam                  | 15% |

### **The Edison Grading Scale:**

|    |               |
|----|---------------|
| A+ | 97% and above |
| A  | 94% - 96%     |
| A- | 90% - 93%     |
| B+ | 87% - 89%     |
| B  | 84% - 86%     |
| B- | 80% - 83%     |
| C+ | 77% - 79%     |
| C  | 74% - 76%     |
| C- | 70% - 73%     |
| D+ | 67% - 69%     |
| D  | 64% - 66%     |
| D- | 60% - 63%     |
| F  | 0% - 59%      |

### **The BGSU grading Scale does not use + and - :**

|   |              |
|---|--------------|
| A | 90% - 100%   |
| B | 80% - 89.49% |
| C | 70% - 79.49% |
| D | 60% - 69.49% |
| F | 0% - 59.49%  |

### Calculator and Computer Requirements:

You may use a TI-84 to complete your assignments. A school calculator will be provided for you if you do not have your own. You are responsible for any damage to the calculator that you are assigned. Please bring the calculator and chromebook to class daily. Many assignments will be turned in using google classroom. **Calculators are allowed for SOME TESTS but for the most part, calculators are NOT USED.** You will always know in advance if a calculator is permitted on an assignment or on a test. **However, you may always use the awesome calculator located between your ears!**

### Entrance Exam:

You will be given a test during the first week of school that covers Algebra and Geometry concepts required for successful completion of this class. You should aim to get a 100% on this test by the end of the first quarter. To pass the Entrance Exam, a student must present *flawless* solutions to all problems. By “flawless”, we mean that a solution must be 100% correct in terms of computation AND presentation. A misplaced equal sign or an omitted parenthesis would make a problem incorrect. You will have opportunities to retake this test (or portions of this test) to earn your 100%. If you are not able to show fluency in these concepts you may be asked to switch classes as these are necessary concepts that you need in order to complete the problems we will be doing in Pre-calculus.

### Check Your Understanding:

Practice is usually assigned EVERY day but will not always be collected. This practice is for YOU to check your understanding and so it is your responsibility to complete it. **ALL WORK is to be shown on the problems!! Blank paper is preferred!** The only way for me to see if you really understand is to **grade your thought process by examining your work!! You would not believe how many times a “correct” answer is obtained by making several errors.**

Check Your Understanding will typically be collected after class discussion of the problems. Answers will usually be provided before class so that you can check your answers before coming to class. Your **name, page numbers, and problem numbers** should appear in the **upper right** hand corner of your paper. Occasionally, this practice will be collected BEFORE any class discussion of the problems depending on the topic. At other times, you will have flexibility on which practice problems must be completed and you may not be required to do all problems if you can show that you understand the concept being checked.

Daily assignments are posted in google classroom. If you are absent, please check with me to find out what you missed. It is your responsibility to complete all assignments missed due to absence.

Late assignments will be accepted on a limited student-by-student basis; they will receive a maximum of half credit and any student who abuses this policy will receive no credit. Additional condition apply:

1. **All** assignments must be completed BEFORE the unit test is given. Review assignments must be completed by the due date to receive credit. If the review assignment is not completed the day it is due, the student will NOT be allowed to take a make-up test.
2. No more that two assignments are missing at any given time. [Exceptions will be given in the case of an extended absence.]
3. Late assignments will not receive full credit!!

**All assignments and tests are to be completed using a PENCIL!!!!!! Papers completed using ink will not be accepted.**

### Disabilities:

If you have a disability, please notify me during the first week of classes in order to assure that appropriate accommodations are made.

### **Discipline Code:**

You are required to conduct yourself in accordance with all high school policies. Class disruptions will not be tolerated. Copying of homework (or any type of plagiarism) is unacceptable and will result in disciplinary action. This includes looking up or copying homework, take-home assessments, lab work, and other out-of-class assignments. You are also required to following the Code of Conduct for BGSU and disciplinary action can be taken by the university for cheating or plagiarism.

### **Google Classroom:**

You will be expected to check both the stream and classwork section of Google Classroom every day, as well as check your student emails for information. A weekly schedule will be provided on Monday of each week in the weekly planner posted in classroom so that you can plan for the week, but it is subject to change as the schedule does not always go according to plan. Due dates will be posted in Google Classroom and should be adhered to. Please let me know if are struggling to find the information you need in Google Classroom or on any other website that we use in class.

### **Communication with the Teacher:**

I believe that communication is necessary for learning. Please see me if you have questions. My plan period is 2<sup>nd</sup> period and I am also available before and after school for extra help or to get questions answered.

I also understand that there will be times that you need to email me with questions or concerns. Please understand that I will not be able to immediately answer questions when they are emailed to me. I will try to respond to your email ASAP. I will not always be able to respond to emails sent after 3:30 pm so please keep in this in mind as well.

### **BSGU Required Language**

#### CLASSROOM EXPECTATIONS

In order to promote an inclusive and constructive learning environment, demeaning, marginalizing, and otherwise negative language and behavior will not be tolerated in the classroom. Respect and courtesy toward the instructor, classmates, and classroom guests are expected. Language and behaviors that are disruptive, abusive, or harassing may result in disciplinary action as specified by the Student Code of Conduct.

#### COVID POLICY

Students are expected to follow BGSU COVID-19 protocols at all times, which includes wearing a face covering in all classrooms, studio, lab, and office spaces for as long as a university mandate is in place. Failure to comply with these protocols may result in disciplinary action under the Code of Student Conduct. Please refer to the BGSU COVID-19 website for the most current information about expectations and requirements.

#### STUDENT ACADEMIC SUPPORT

The Teaching and Learning Center at Firelands provides free tutoring services to all BGSU Firelands students and is located on the 2nd floor of the North Building. You can find some information at <https://www.firelands.bgsu.edu/tlc.html>. If you need online help with the writing process, visit <https://www.firelands.bgsu.edu/tlc/writing-lab.html>.

The BGSU Firelands Library supports the teaching, learning and research mission of BGSU by advancing scholarship and creativity through access to collections and user-centered services that connect faculty and students to high quality information resources. For more information, visit: <https://www.firelands.bgsu.edu/library.html>; 419-372-0739; [lmallia@bgsu.edu](mailto:lmallia@bgsu.edu).

#### TECHNOLOGY SUPPORT

Students needing technology support of any kind should contact BGSU Firelands Technology Support Services, <https://www.firelands.bgsu.edu/offices/technology-support.html>, 2nd Floor North Building, 419-372-0743, [otss@bgsu.edu](mailto:otss@bgsu.edu), Monday-Friday: 8am to 5pm, After Hours Support: 419-372-0999.

### RELIGIOUS HOLIDAYS

It is the policy of the University to make every reasonable effort allowing students to observe their religious holidays without academic penalty. In such cases, it is the obligation of the student to provide the professor with reasonable notice of the dates of religious holidays on which he or she will be unable to participate in the course. Missing discussions or examinations for religious reasons does not relieve the student of responsibility for completing required work missed. Following the necessary notification, the student should consult with the professor to determine what appropriate alternative opportunity will be provided, allowing the student to fully complete his or her academic responsibilities. This policy is contained in the [Academic Charter](#).

### STUDENT VETERAN-FRIENDLY CAMPUS

BGSU educators recognize student veterans' rights when entering and exiting the university system. If you are a student veteran or reservist, please communicate this to the professor so that reasonable accommodations can be made for absence when called for drills or active duty. Please see [www.bgsu.edu/veteran/](http://www.bgsu.edu/veteran/) for more information.

### ACCESSIBILITY SERVICES

The Office of Accessibility Services for Students coordinates services and accommodations for students with disabilities based on appropriate documentation, nature of disability, and academic need. In order to initiate services, students should meet with the AS staff at the start of the semester to discuss reasonable accommodations. If a student does not request accommodation or provide documentation, the professor is under no obligation to provide accommodations. You may contact AS at 419-372-0703. AS is located in 105 George Mylander Hall on the Firelands Campus or 38 College Park Office Building on the BG Campus. You can email Accessibility Services at [access@bgsu.edu](mailto:access@bgsu.edu).

### HARASSMENT AND DISCRIMINATION POLICY

Bowling Green State University (BGSU) is committed to providing a safe learning environment for all students that is free of all forms of discrimination and harassment. Sexual misconduct and relationship violence in any form are antithetical to the university's mission and core values, violate university policies, and may also violate federal and state law. Faculty members are considered "Mandatory Reporters" and are required to report incidents of sexual misconduct and relationship violence to the Title IX Coordinator, Seth Campbell ([setcamp@bgsu.edu](mailto:setcamp@bgsu.edu); 419-372-0621; 135 George Mylander Hall). If you or someone you know has been impacted by sexual harassment, sexual assault, dating or domestic violence, or stalking, please visit [www.bgsu.edu/TitleIX](http://www.bgsu.edu/TitleIX) to access information about university support and resources.

### COUNSELING SERVICES

The BGSU Counseling Center is an available resource for students who are experiencing difficulties with a variety of stressors and/or mental health concerns. Services include group and individual counseling, consultation, educational groups and workshops, crisis intervention, alcohol and drug prevention and intervention, and campus programming to foster mental wellness, grit, and skills for helping others. Counseling Center services are confidential and covered by your standard student fees. To access services, contact the Center during call-in hours (10am-4pm) at 419-372-2081. For emergencies, an on-call counselor is available on weekdays from 8a to 5pm, using the same phone number. More information on services and resources as well as mental health and wellness can be found at [www.bgsu.edu/counseling](http://www.bgsu.edu/counseling).

### CODES OF CONDUCT AND ACADEMIC HONESTY POLICY

The professor and students in this course will adhere to the University's general Codes of Conduct defined in the BGSU Student Handbook. The Code of Academic Conduct (Academic Honesty Policy) requires that students do not engage in academic dishonesty. Any instances of academic dishonesty will be reported to the Associate Dean. For a first offense, you should expect no less than a 0 on the project in question. A second offense can result in far more serious consequences. Do not compromise your integrity or that of our fine institution: do your own work. For further details on university policy, please see the BGSU [Student Handbook](#) and the BGSU [Academic Charter](#) on the BGSU website.