

Prerequisites/Corequisites: MP3 or MTH 116.

Type of Instruction: Lecture and discussion over Google Meet

Meeting Days and Times:

	<i>Section 005</i>	<i>Section 006</i>
M	09:25 am - 10:15 am	12:15 pm - 01:05 pm
TR	09:25 am - 10:40 am	12:15 pm - 01:30 pm

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General Education: This class fulfills 4 credits of the mathematics competency area of the General Education Requirements at Farmingdale State College.

Catalog Course Description: In this course, the topics introduced in College Algebra course will be extended. The course will provide a comprehensive study of functions, which are the basis of calculus and other higher-level mathematics courses. The students will study the properties, graphs, and some applications of polynomial, rational, inverse, exponential, logarithmic, and trigonometric functions. Note: Students completing this course may not receive credit for MTH 117.

Course Learning Outcomes: Upon successful completion of the course a student will be able to

- Define and analyze the standard functions (linear, quadratic, power, polynomial, rational, exponential, logarithmic, and trigonometric functions) including their properties, their graphs, and their transformations.
- Determine and analyze the inverse of a function.
- Solve linear, quadratic, rational, exponential, logarithmic, and trigonometric equations.
- Model exponential growth and decay problems.
- Use the Law of Sines and the Law of Cosines to solve triangle problems.

General Course Requirements:

Homework	20%
Quizzes	50%
Final Exam	30%

Homework

Homework will be assigned in Lumen. Students should check regularly for updates.

Exams

Due to the unusual circumstances of the semester, exams will be replaced by a series of timed quizzes on the chapter material, worth 50% in total. The final will be worth 30%. The date of the final is set by the registrar.

Grade Scale

Grade	Minimum %
A	93
A–	90
B+	87
B	83
B–	80
C+	77
C	73
C–	70
D+	67
D	60
F	0

Required Materials

- Textbook - [Precalculus OpenStax](#)
- Lumen OHM
- Graphing Calculator

Note: Calculators with a computer algebra system (C.A.S) are not allowed.

Makeups: Make-up exams and quizzes will be given to students who miss exams for valid reasons at the discretion of the instructor. In general, acceptable reasons for absence from class include illness, serious family emergencies, special curricular requirements (e.g., field trips, professional conferences), military obligation, severe weather conditions, religious holidays and participation in official university activities such as music performances, athletic competition or debate. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) will be excused. Other reasons also may be approved. In addition, if you are already aware of a conflict with an exam date, then you need to discuss this with your instructor within the first two weeks of class.

Religious Absences: If you are unable to attend class on certain days due to religious beliefs, please consult with your instructor well in advance of the absence so that appropriate accommodation can be made.

Disability Services Center: If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Disability Services Center, Roosevelt Hall, Room 151, or call 631-420-2411 as soon as possible this semester.

Temporary Grades: A grade of “I” (incomplete) is reported when, for some reason beyond their control, the student misses the final examination or has not completed a portion of the required

work for the course. The decision to grant an “I” is at the sole discretion of the instructor. No achievement points are awarded for an incomplete. All incompletes must be resolved and a change of grade submitted no later than 30 days after the beginning of the next semester (fall to spring, winter intersession to spring, spring to fall, summer session to fall). An instructor may grant an extension of an incomplete grade until the end of the semester by documenting and filling the approved form with the Registrar prior to the conclusion of the 30 day period. Any incomplete grade not finalized or extended by the instructor within the 30 day time period mentioned above will automatically be changed to an “F”. An incomplete does not constitute successful completion of a prerequisite.

Academic Honesty: This course expects all students to act in accordance with the [Academic Integrity Policy](#) at the Farmingdale State College. If you work on the homework with your classmates, you must write your own solutions individually. There should be no help given or received on midterms or the final exam. Academic misconduct includes, but is not limited to, providing or receiving assistance in a manner not authorized by the instructor in the creation of work to be submitted for academic evaluation (e.g. papers, projects, examinations and assessments - whether online or in class); presenting, as one’s own, the ideas, words or calculations of another for academic evaluation; doing unauthorized academic work for which another person will receive credit or be evaluated; using unauthorized aids in preparing work for evaluation (e.g. unauthorized formula sheets, unauthorized calculators, unauthorized programs or formulas loaded into your calculator, etc.); and presenting the same or substantially the same papers or projects in two or more courses without the explicit permission of the instructors involved. A student who knowingly assists another student in committing an act of academic misconduct shall be equally accountable for the violation, and shall be subject to the sanctions. Such sanctions include failing the assignment in question and depending on the severity of the incident failing the course and/or other remedies.

Copyright Statement: Course material accessed from Blackboard or the Farmingdale website is for the exclusive use of students who are currently enrolled in the course. Content from these systems cannot be reused or distributed without written permission of the instructor and/or the copyright holder. Duplication of materials protected by copyright, without permission of the copyright holder, is a violation of the Federal copyright law, as well as a violation of SUNY copyright policy.

Cancellation of Classes: Weather and other campus-wide cancellations will be listed on the home page, Facebook and Twitter and you can also sign up for RAVE and SUNY Alert. Go to the Rave web page and use your Farmingdale user ID and password to enter the site. For SUNY-Alert, please visit the University Police web page. You may also be notified via email of class cancellations.

Electronic Devices Policy: Please silence all electronics while in class. Use of electronics during exams is prohibited.

Attendance Policy: This course will not deduct points for absences. For absences on exam or quiz days please see the make-up policy above.

Use of Email: It is Farmingdale State College policy that instructors and students use the Farmingdale email system or the Blackboard email system to contact one another.

Disclaimer: The instructor reserves the right to adjust the syllabus. By taking this course, you acknowledge that you have read this syllabus and abide to it and any such changes.

Weekly Schedule:

Week	Section	Content
Week 1	Supplemental	Common sets of Numbers, Distance and Midpoint Formula.
	1.1	Functions and Function Notation
	1.2	Domain and Range
	1.4	Composition of Functions
Week 2	2.1	Linear Functions
	2.2	Graphs of Linear Functions
	3.2	Quadratic Functions
	1.6	Absolute Value Functions
Week 3	1.5	Transformations of Functions
	3.3	Power Functions and Polynomial Functions
	3.4	Graphs of Polynomial Functions
Week 4	3.5	Dividing Polynomials
	3.6	Zeros of Polynomial Functions
	3.7	Rational Functions
Week 5 - Catch up and Review		
Week 6	1.7	Inverse Functions
	3.8	Inverses and Radical Functions
	4.1	Exponential Functions
Week 7	4.2	Graphs of Exponential Functions
	4.3	Logarithmic Functions
	4.4	Graphs of Logarithmic Functions
Week 8	4.5	Logarithmic Properties
	4.6	Exponential and Logarithmic Equations
	4.7	Exponential and Logarithmic Models
Week 9	5.1	Angles
	5.2	Unit Circle: Sine and Cosine Functions
	5.3	The Other Trigonometric Functions
	5.4	Right Triangle Trigonometry
Week 10 - Catch up and Review		
Week 11	6.1	Graphs of the Sine and Cosine Functions
	6.2	Graphs of the Other Trigonometric Functions
	6.3	Inverse Trigonometric Functions
Week 12	7.1	Solving Trigonometric Equations with Identities
	7.2	Sum and Difference Identities
	7.3	Double-Angle, Half-Angle, and Reduction Formulas
Week 13	7.4	Sum-to-Product and Product-to-Sum Formulas
	7.5	Solving Trigonometric Equations
	7.6	Modeling with Trigonometric Equations
Week 14	8.1	Non-right Triangles: Law of Sines
	8.2	Non-right Triangles: Law of Cosines
Week 15 - Catch up and Review		