MAT187 Precalculus

Fall 2023 Syllabus

Section	Format	Credit Hours	Dates	Time	Days	Room
21671	Hybrid*	5	Aug 22-Dec 15, 2023	10:30AM-12:35PM	Tuesdays	CM-467

^{*}HYBRID CLASS: Blends classroom and online instruction.

Professor Jenifer Bohart

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The information contained in this syllabus is subject to change at any time during the semester by the instructor. Any changes will be announced through the email you use to create your MOER account. NOTE: Canvas will not be used for this class.

Required Items

MOER Account

TI-83 or TI-84 Graphing Calculator

- Calculators that perform symbolic manipulation will **not** be permitted: examples include the TI-89, TI-92, TI-Inspire, HP-48, HP-48G, and Casio 9970.
- NOTE: If you are considering buying another brand of graphing calculator, such as the
 Casio or HP, please keep in mind that, although these calculators may have the same
 features as the TI-83 and TI-84, the interface will be different. This will make it much
 harder for you to follow along with the online video tutorials, all of which use the TI.

Course Textbook

- We will be using an open text for this course which can be viewed/downloaded for free.
- Students are NOT required to print or purchase a hard copy of the textbook.
- Links for viewing, downloading, and/or purchasing can be found in MOER

Technical Requirements

- A working email address that you check regularly.
- Reliable, high-speed Internet connection
- Headphones or working speakers connected to the computer
- Webcam (internal or external) and microphone

You will also need...

- A 3-Ring Binder to hold notes and class handouts
- Pencils with erasers
- Colored pencils/pens and highlighters
- Notebook paper and/or graph paper.

Course Technologies

View the Accessibility Statements & Privacy Policies of technologies used in this course.

This course uses key Maricopa systems for course management and communication.

- Student Maricopa Gmail Account
- Maricopa Open Educational Resource Learning System (MOER)

Streaming Media/Audio/Video Tools

- This course delivers video lectures through YouTube.
- Instructor's virtual office hours will be conducted through Google Meet.

MAT187 PRECALCULUS – MCCCD OFFICIAL COURSE DESCRIPTION AND COMPETENCIES

<u>Course Description</u>: Topics in algebra and trigonometry in preparation for calculus.

Requisites: Prerequisites: A grade of C or better in MAT 15+, OR an appropriate district placement.

Course Competencies

- 1. Demonstrate conceptual understanding of asymptotes, continuity, end-behavior, rates of change of polynomial, absolute value, rational, radical, exponential, logarithmic, logistic, power, composite, and piecewise functions, and complex roots of polynomial functions in preparation for Calculus.
- 2. Determine the length of an arc, area of a sector, and linear and angular velocity.
- 3. Use the unit circle to determine angle and reference angle measures in radians and degrees and convert between them.
- 4. Determine triangle measurements using trigonometric ratios and law of sines and law of cosines.
- 5. Analyze (graphically, numerically, algebraically, and verbally) the trigonometric functions and their inverses.
- 6. Use inverse trigonometric functions in solving equations.
- 7. Verify trigonometric identities.
- 8. Use identities in solving trigonometric equations.
- 9. Solve applications involving vectors, their components, and visual representations.
- 10. Model real world situations graphically, numerically, algebraically, verbally, and interpret solutions using a variety of mathematical techniques.

SCC Resources Related to This Class

SCC Math Center:

In-Person <u>and</u> Remote tutoring is available for free through the SCC Math Center. Instructions and hours are on the <u>SCC Math Center website</u>.

Academic & Student Support Services:

A variety of student services can be accessed online. Services are free to all registered SCC students. Refer to the SCC College Resources Home Page.

Accommodations:

Scottsdale Community College provides equal opportunity to qualified students. If you have a documented disability (medical, physical, learning, psychological, etc.) and wish to request disability-related accommodations to complete course requirements, contact Disability Resources & Services (480-423-6517). Course requirements cannot be waived, but reasonable accommodations may be provided based on disability documentation and course objectives.

Course Structure

The topics for this course have been divided into Units which are due weekly, at the dates/times indicated in the MOER Calendar. Each Unit consists of 2-5 Online Lessons and an Online Test.

Before Class: ONLINE LESSONS

- The Online Lessons serve both as an introduction to the topic and as a resource for how you should aspire to write your solutions and express your mathematical work.
- Take careful notes as you watch the videos in these assignments. The more thorough your notes are, the more helpful they will be to you!
- You will have three tries for each problem in the Lesson assignment. After the third attempt,
 you can generate a new problem for full credit. Refer to your notes from the video tutorials as
 needed. Work problem by problem to achieve a score of 100%. Additional video tutorials are
 provided in the unit folder.
- WRITE DOWN your work as you go through the Lesson assignment. Keep this work neat and in
 order, and include notes to yourself on difficult problems. You are creating a resource for
 yourself that will help you as you take the Online Unit Test and prepare for exams. The more
 thorough your notes are, the more helpful they will be to you! Bring this supporting work to
 class.
- Lessons are due at the beginning of class.

During Class:

- In class, we will review the topics from the Lessons, and spend time working on more challenging problems.
- REQUIRED: Turn all cell phones and other electronic devices OFF before the start of class. Your cell phone may not be used during class.
- You are expected to be on time and prepared for class, be an active participant in group work and class discussions, and stay the full length of the class period. Otherwise, you will be marked absent. Being prepared means having the proper materials with you when you arrive in class (graphing calculator, notes, pencil, paper) as well as all assignments completed.
- Assignments due at the start of class will not be accepted at any other time during the class period. Have them ready to hand in when you arrive in class. If you arrive in class late, you will not receive credit for assignments that were to be handed in at the beginning of class.
- All assignments given in class are due at the time collected during the class period. These assignments will be graded for correctness *and* quality of work shown.
- If you have to miss a class, message me as far in advance as possible, to ask for any handouts/reviews that will be done in class. It may be possible to turn these in early for full credit. If there are any written assignments due in class that day, scan them and email them to me before class starts. Please make sure all pages are right side-up and in order.

After Class: ONLINE UNIT TEST

- You may use your calculator and notes on Online Tests, but no other assistance is permitted.
- Online Tests are **timed**. You have one hour to complete a Unit Test. Any problems not submitted within this time limit will receive a score of zero.
- Online Tests are due on (or before) the dates indicated on the Course Schedule. Give yourself plenty of time to complete assignments and get help as needed **before the due date**.

TEST CORRECTIONS (Required for every Online Test)

- As you are completing your test, the correct answer will be shown after your last attempt at each question. You can click on the observation button next to the answer box to see the correct answers for the problems you missed.
- To access your completed test after the due date, click the Gradebook link, then click on your *test score*. This will open your completed test, where you can see all of the questions and your answers. Correct answers will be shown after the due date.
- At the top of a clean sheet of notebook paper (or graph paper), write your name, the test number, test score, and LIST all problems missed. For every missed problem
 - 1. Copy the question onto your paper and <u>explain the error</u>. Show as much work as possible and explain clearly where the mistake was. I may be able to give partial/full credit on the missed problems based on the work and explanation provided.
 - 2. Work the problem correctly, showing all possible work and (if an application problem) writing your answer in a complete sentence. *All work must be shown neatly and correctly in order to receive full credit for the Test Corrections.*
- Test Corrections are due at the beginning of the class following the test due date.
- If you get a perfect score on the online test, you automatically receive 100% on the test corrections.
- If you miss a test, you will automatically receive a score of 0% on test corrections.

Notes to the Student:

- Give yourself plenty of time to complete assignments and get help as needed. **Do not wait** until the last minute!!!
- Read instructions carefully! Work that does not meet specified criteria will lose points and may receive a score of zero. You will not be able to "redo" assignments. Always show your best work and ask questions before an assignment is due.
- All written work must be of collegiate quality: neat, organized, easy to read, and with all
 possible work shown. Otherwise, it will lose points, and may receive a score of zero.
 (Please use pencil!)

Exams

• Three exams will be given in class. See MOER calendar for exam dates.

EXAM 1: Covers material from Units 1-4 **EXAM 2:** Covers material from Units 5-8

EXAM 3 / FINAL EXAM: Covers material from Units 9-13

You may use your graphing calculator but NO NOTES on these exams.

- A formula sheet will be provided by your instructor on each exam. Check MOER to see which formulas will be provided and which formulas you will need to memorize.
- Calculators that perform symbolic manipulation will **not** be permitted during any exam: examples include the TI-89, TI-92, TI-Inspire, HP-48, HP-48G, and Casio 9970.
 Your cell phone may not be used as a calculator during an exam.
- Your calculator program memory will be checked prior to each exam and may be cleared if it contains any programs, notes, or formulas related to exam topics.
- REQUIRED: Turn all cell phones, computers, and other electronic devices OFF before the start of every class. Your cell phone may not be used during any class. If you are wearing a "smart" watch, you will be asked to remove it before taking a test/exam.
- If an emergency arises that is **beyond your control**, you must contact me **on or before** the day of the exam to arrange for a make-up. Make-ups are possible only in special circumstances and at the instructor's discretion. All make-ups for Exams 1 and 2, if granted, must be completed *before* the next class meeting. All make-ups for the Final Exam, if granted, must be completed on or before Friday, December 15, 2023. Make-up exams must be completed in the SCC Testing Center. Failure to adhere to this policy will result in a grade of zero on the exam, and you may be withdrawn from the class.
- Students who miss an exam and do not make it up within the required time period will receive a grade of zero on the exam and may be withdrawn from the class. All three exams must be completed in order to earn a grade (A, B, C, D, or F) for this course.

Generative Artificial Intelligence (AI) Policy

The World Economic Forum defines generative AI as "a category of artificial intelligence (AI) algorithms that generate new outputs based on the data they have been trained on. Unlike traditional AI systems that are designed to recognize patterns and make predictions, generative AI creates new content in the form of images, text, audio, and more." Some examples of generative AI tools include but are not limited to: ChatGPT, Google Bard, Microsoft Copilot, Stable Diffusion, GrammarlyGo, and Adobe Firefly.

<u>In this class, all work submitted must be your own</u>. The use of generative AI tools will be considered academic misconduct (see Administrative Regulation 2.3.11 1.B(b)) and will be treated as such. If you are unsure if the tool or website you are using is a generative AI tool, please contact the instructor for further clarification before using the tool or website.

Grading Summary

Assignment	Percentage of Course Grade
Online Assignments: Orientation Assignments Media Lessons Online Homework Online Unit Tests Online Exam Reviews Written Assignments: In-Class Assignments Test Corrections Extra Credit	40%
Exam 1	20%
Exam 2	20%
Exam 3 / Final Exam	20%

Grading Criteria					
90% - 100%	A				
80% - 89.99%	В				
70% - 79.99%	С				
60% - 69.99%	D (Not passing)				
0% - 59.99%	F (Not passing)				

Final grades are calculated using the scale listed above. FINAL GRADES ARE NON-NEGOTIABLE. It is unethical to reach out at the end of the semester and request "a few extra points" or discuss the consequences of not earning the grade you want in the class. Messages of this nature will not receive a response.

Note: Whether a student receives an F or a W depends on the communication with the instructor as to the student's individual situation.

The grade of Incomplete (I) is exceptional and given only to students whose completed coursework has been qualitatively satisfactory but who have been unable to complete all course requirements because of illness or other circumstances beyond their control. The grade of Incomplete may be considered only for students who have completed at least 85 percent of the total coursework requirements with a grade of C or better. The student must request an Incomplete before the end of the semester. The faculty member retains the right to make the final decision on granting a student's request for an Incomplete, even though the student may meet the eligibility requirements for this grade. If the request is approved, the faculty member will determine a deadline for which work must be completed, and the grade the student will receive if the work is not completed on time.

Class Policies

The following policies are specific to this course. Students are also responsible for the college policies included on the Student Regulations page of the Maricopa Community College District website.

Computer Access and Email

- You will need regular access to a computer (with Internet access) in order to complete the online assignments that are part of this course.
- You are responsible for completing all assignments on time regardless of any computer or internet issues that may occur.
- You will need a working email address that you CHECK REGULARLY. I do send regular class announcements and information via the email you use to create your MOER account. It is your responsibility to provide a valid email address that you keep up with so that you can receive notifications of class announcements.
- **Response Time:** Students can expect a response time of 24 hours for the instructor to respond to messages sent through MOER.

General Conduct

- Students are expected to conduct themselves in a responsible, mature, and academically honest manner. Be honest in everything you do. Do not present someone else's work as your own.
- Any student caught cheating on an assignment/exam will receive a grade of zero for that
 assignment/exam and is subject to disciplinary action in accordance with SCC policies. This may
 include withdrawal from the class.

Attendance

- Because this is a hybrid course, "attendance" includes
 - o In-person attendance at class meetings, and
 - Online attendance in MOER each week.
- You are expected to be on time and prepared for class. Being prepared means having the proper materials with you when you arrive in class (calculator, notebook paper, pencil) as well as all assignments completed. Otherwise, you will be marked absent.
- You are expected to be an active participant in group work and class discussions, and stay the full length of the class period. Otherwise, you will be marked absent.
- I will not spend class time going over material you have missed due to tardiness or absence.
- You are expected to spend time outside of class working on the online assignments. If a week goes by and you have not worked on the Online Homework assignment in MOER, this will count as one absence (unless all assignments for the week have been completed early).
- If you acquire more than two absences (in person or online), you may be withdrawn from the course.
- You are expected to complete all assignments prior to the date of any absence. No late work will be accepted if you are absent or late to class.

Expectations for Time Spent Outside of Class

This is a five credit-hour course that meets for 16 weeks. Based on the federal credit hour definition, students should plan to spend a minimum of 14 hours on course content weekly.

Class Drop

If you realize right away that this class is not for you, you will need to drop the class as soon as possible (within the first few days of class) in order to receive a full refund. Check the College Catalog for these important dates. You are responsible for dropping within the window to obtain a refund if you decide that is what you want to do.

Withdrawal Policies

Students can withdraw from this class at any time prior to the Final Exam. If you find that you need to withdraw from the course, please speak to me about it first. I may be able to recommend other options or discuss alternative courses of action concerning future classes.

This is not a self-paced class. You have assignments and due dates and must make regular and consistent progress on course work and assignments. Students that stop participating and fail to respond to instructor MOER communication will be withdrawn from the class.

Please note that I will not give you an F if you merely stop participating. If you meet or exceed the limits listed below, then you may be withdrawn from the class and not receive a letter grade (A–F).

- Students who do not create their MOER account by 11:59PM on the class start date may be dropped from the class as a no-show. (This policy protects your refund for the course)
- Students who do not log in to MOER and make progress on the assignments for a 14-day period may be withdrawn from the class
- Students who acquire more than two absences (in person or online) may be withdrawn from the class.
- Students who miss an exam may be withdrawn from the class.
- Cheating on any assignment or exam may result in withdrawal from the course.
- Students who do not take the Final Exam may be withdrawn from the class. NOTE: **All** enrolled students who take the Final Exam will receive a letter grade (A, B, C, D, or F) for the class.

If circumstances are such that you cannot complete the semester, it is your responsibility to withdraw from the class. If you are withdrawn by your instructor for exceeding the allowable absences indicated above, the instructor is required by law to report when you last attended class.

Information contained in this syllabus is subject to change during the semester at the discretion of the instructor. Any changes will be posted on the MOER site, and an email will be sent out to all students through the email you use to set up your MOER account.

Students are responsible for the information contained in this syllabus. Students are responsible for college policies included in the College Catalog and the Student Handbook.