

Florida Gulf Coast University

MAC 1147 - Precalculus

Spring 2018

Course Information

Department: Mathematics, College of Arts and Sciences

Credits: 4

Required Materials: *MyMathLab* student access kit, Calculator (Basic for CH 8 & 4, Scientific Otherwise), stable internet connection, and access to a computer that can run MyMathLab.

Recommended Materials: Precalculus, Blitzer, 5th edition

Prerequisites: Prereq should be: MAC 1105 for level Undergraduate with minimum grade of C or Accuplacer Coll. Math Subscore 066 or ACT Math 26 or SAT Math Score 600 or MATH SECTION score 620

Instructor Information

Sandy Maldonado MS, Instructor II

Office: Whitaker Hall 113B

Hours: M 9:00 – 12:00, 1:00-3:15, T 3:30 – 4:15

Email: smaldona@fgcu.edu (preferred method of contact)

Phone: 239-590-7234

Precalculus Tutoring

Tutoring is available in Holmes Hall 202 and LIB 103.

For schedules see: <http://www.fgcu.edu/CAS/Departments/Math/tutoring.html> and
<http://www.fgcu.edu/CAA/schedules.asp>

Class Schedule

CRN #	Meeting Days/Times
10323	Class : T R -- 09:30am - 11:15am -- Merwin Hall 111, Exam : T -- 10:00am - 12:15pm -- Merwin Hall 111
10324	Class : T R -- 11:30am - 01:15pm -- Merwin Hall 111, Exam : R -- 10:00am - 12:15pm -- Merwin Hall 111
10318	Class : T R -- 01:30pm - 03:15pm -- Merwin Hall 111, Exam : R -- 12:30pm - 02:45pm -- Merwin Hall 111

Course Description

Survey of the basic properties of classes of functions commonly used in applications. Topics may include polynomial, trigonometric, exponential, logarithmic, conic sections, matrices, mathematical induction, and polar coordinates. This is a general education course in mathematics that meets the College-Level Mathematics Skills requirement.

Attendance Verification

*As of fall 2015, all faculty members are required to use Canvas to confirm a student's attendance for each course by the end of the first week of classes. Failure to do so will result in a delay in the disbursement of your financial aid. **The confirmation of attendance is required for all students, not only those receiving financial aid.***

We will only use Canvas for the “attendance verification” at the beginning of the semester and SPoI at the end. For all other purposes MyMathLab will serve as the course website.

Course Policies

Grading

Scores on MyMathLab are displayed to the nearest tenth. Final course scores will be rounded to the nearest whole number and grades will be assigned accordingly. For example an 89.5% rounds to 90% which is an A while 89.4% rounds to 89% which is a B+.

Score	0 – 59%	60 – 69%	70 – 77%	78 – 79%	80 – 87%	88 – 89%	90 – 100
Grade	F	D	C	C+	B	B+	A

Category	Percent	Drops	Completed	Other Info
Homework	10	4	On MyMathLab	<ul style="list-style-type: none">Unlimited tries.10% penalty per day for problems completed after deadline.Closes permanently day of exam.Need 100% on Syllabus Assignment to access.
Exams	40	1	In Class	<ul style="list-style-type: none">Bring IDBasic calculator only for first two exams.Scientific calculator after first two exams.
Quizzes	15	3	Some In Class, Some on MML	<ul style="list-style-type: none">For MML Quiz go to “Homework” and select “Quizzes and Test” from dropdown menu.Online quizzes are NOT available after the due date.Basic calculator only for some quizzes.
Groupwork	15	4	Mostly in class, some out of class work on projects.	<ul style="list-style-type: none">Unprepared or unproductive members can be removed from group.
Final Exam	20	May NOT be dropped	In Class on Day/Time Posted on GulfLine	<ul style="list-style-type: none">Bring IDNo makeups.No early finals.

Attendance

Only students registered for the course *and section* may attend without advance permission (i.e. an 9:00 am student cannot just show up for a 10:30 pm class, if you want to bring a friend who is not registered for the course you have to ask your instructor in advance).

When you sign up for a course you are making a commitment to attend all class meetings for the entire scheduled time. If you are absent (excused or otherwise), come late, or leave early, you are responsible for anything you miss. You should contact your group members to see what you missed in class and check the *MyMathLab* website to keep up with your homework assignments.

Attendance will be taken at the beginning of class. If you miss attendance, you will be recorded as absent and must see your instructor at the end of class to have the absence changed to tardy. No changes will be made for previous days; you must talk to your instructor during the same class meeting. In any case where attendance must be reported, the attendance we take in class will serve as the official record.

Excused absences are class days missed due to a doctor’s appointment, hospital stay, illness, or school sponsored activity that you can provide valid documentation for. Valid documentation includes your name and the dates missed and is from a doctor, hospital, or the university employee in charge of the event. Valid documentation does not include notes from your parents, roommate, etc. If you are seen at Student Health Services, be sure to obtain a walkout statement to be used as valid documentation. In MOST CASES you will NOT need to present documentation to your instructor since we use dropped scores before makeups. However, you should obtain and save documentation from every excused absence in case it is needed at some point.

If you know in advance of a day you will have an excused absence you are responsible for giving your instructor *advance* notice of your absence and for completing any homework or classwork you will miss *before* you leave. You can notify your instructor

of any such absences by sending an email at least one full week before your absence. If you are completing work early, you will need to bring documentation of your excused absence to office hours.

Dropped Scores

Dropped scores are not vacation days! They are meant to take care of the small amount of excused absences that students typically accrue over the semester. Attend every day and complete every assignment that you can since you may need the dropped scores for legitimate reasons (unavoidable absence or technical difficulties) at some point. You should also not think of dropped scores as “bad score erasers”. Again you may need these drops for legitimate reasons at some point. You are not guaranteed that any poor scores you earn will be dropped so start your homework as soon as it is available and prepare well for every quiz and exam.

Make-Ups

There are no make-ups for unexcused absences, or for excused absences that result in zeros that will be dropped. If you accumulate more excused zeros than we drop, you will need to bring documentation to office hours to discuss possible makeups or grade adjustments. Only validly documented excused zeros that *exceed* the number dropped will be considered.

Here are a few examples:

You have...	This is what will happen...
One documented excused exam zero.	That zero will be dropped.
One documented excused exam zero and one exam zero that is unexcused or undocumented.	One zero will be dropped and the other will be averaged into your grade.
Two documented excused exam zeros.	You will get to make up one of the zeros and the other will be dropped.
Four documented excused groupwork zeros.	All four zeros will be dropped.
Five documented excused groupwork zeros and one unexcused or undocumented groupwork zero.	Four zeros will be dropped and one zero will be averaged into your grade.
Five documented excused groupwork zeros.	You will get to make up one of the zeros and the other four will be dropped.

These are just a few examples; the same logic applies for any grade category that has dropped scores.

In the event a make-up is permitted, it should be completed within a week from the end of the excused time period or by the last day of class, whichever is earlier; otherwise your score for the missed work will remain a zero. Excused zeros accrued after the last day of classes will remain zeros unless an incomplete grade is granted.

If you miss a lot of class or assignments, whether as a result of excused or unexcused absences, you may need to withdraw from the course.

Exams

You are required to bring your student ID to all in-class exams including the final. The cumulative final exam will be administered at the day and time published on GulfLine. Check your entire final exam schedule at the *beginning* of the semester to make sure that none of the times for your final exams overlap. If they do, contact the instructors for those courses *immediately*. Check the course calendar for exam dates *prior* to making any travel plans including end of the semester travel plans. You will not be given an early final exam because you choose to leave before the official exam date and there are no make-ups. If you have to miss the final exam due to an emergency, you must submit documentation to apply for an incomplete.

Email

In order to improve students’ written communication skills and to assist the instructor in replying to emails in a timely manner, we will adopt the following email policy:

1. The subject line of your email must contain the course and section (ex. MAC 1147-81102 or Precalculus MWF 9:00)
2. Your email must be signed with your first and last name.
3. Your email must be written in Standard English with proper punctuation and capitalization.

I usually reply to emails within two business days. If you do not receive a reply within that time frame, check that your email was sent in the proper format. If it was not, you can resubmit it. I thank you in advance for sending your emails as requested.

Any email sent to the class will be sent via **FGCU email**. You need to check your FGCU email frequently as you are responsible for any information sent to your FGCU email account.

Grade Discrepancies

If you believe a recorded score is an error, you must present the graded original to the instructor during office hours in order to obtain a change-of-score. It will be your responsibility to keep any returned items. **Scores will NOT be changed without the graded original.**

If you believe a score in the MyMathLab gradebook is an error, you will need to submit documentation. For each of your online assignments, create a PDF file at the time you complete the assignment that contains your name, the assignment name, the date and time, and your score. Keep a folder on your computer with all of these PDFs. If a score discrepancy arises, send your instructor the PDF file via email to request a score adjustment. **Scores adjustment request will NOT be considered without proper documentation.** Points lost due to student rather than computer error will NOT be considered (i.e. the instructions say give your answer as a reduced fraction and you enter a decimal or unreduced fraction).

Class Conduct

You are expected to arrive on time and participate fully in all in class activities. Laptops must be closed and put away during class activities. Cell phones should be turned off or on silent before class begins. If your phone is ringing or if you have it out texting, it is a distraction for both you and the students around you. If you become a source of disturbance during any class, you will be asked to leave.

Come prepared for class. Bring with you all of your notes (even those for prior chapters), extra notebook paper, pencils, erasers, and your calculator. A backup calculator and/or backup batteries are recommended for exam days.

Groupwork

Your group members should be able to depend on your regular attendance and full participation. If you want the benefits of working in a group, you must come to class prepared to contribute to the group.

If you come to class without the notes from the assigned lessons you will have two options for that day:

- 1) You can leave class to go watch the lessons and take notes. If you finish before class is over you may return.
- 2) If you have a laptop and headphones, you can stay in class to watch the lessons and take notes.

In either case, if you have a set of completed notes before class is over, you may present them to your instructor to obtain the activities for the day. You can then attempt to complete the day's activities on your own in the class time that remains. You will not be able to work with your group or share in any points they earn for the day. Any points you earn for the day will be based on the individual work you turn in.

Your group members will:

- Discuss problem solving strategies with you.
- Help you past a point in a problem where you are stuck.
- Compare work with you to help track down errors.

Your group members will NOT:

- Teach you lessons you did not watch.
- Reteach you things from the lesson you forgot because you have no notes to review.
- Give up their notes for you to use because you did not bring your own.

Any group member that is habitually absent and/or unprepared may be removed from their group permanently.

Extra Credit

Any extra credit opportunities will be offered to the entire class during the semester; there will be no extra credit offered to individual students or last minute extra credit at the end of the semester. Do not request additional extra credit.

Online Assignments

Avoid completing assignments the day they are due. Completing your assignments early during the period they are available will give you time to resolve any technical difficulties you may encounter.

If you encounter technical difficulties with *MyMathLab* contact tech support right away:

Phone: 1-800-677-6337 or for Email/Live Chat: www.mymathlab.com/contactus_stu.html

If the main MyMathLab logon page is down, try this alternate logon site instead: https://www.mathxl.com/login_mml.htm

If you have technical difficulties with your personal computer or internet connection you can try one of the on campus computer labs (Reed Hall, Griffin Hall, or 1st floor library) until you resolve those issues. If you cannot make it to campus, you could try a computer at your local library, however, that computer may not have all the plugins needed to run MyMathLab.

Start your assignments early and exhaust all the recommendations above in the event of technical difficulties. Save your dropped scores for when missing a deadline is absolutely unavoidable. Beyond the lowest scores that are dropped (see grading policy), there will be no further adjustments made due to technical issues.

Course Outline

College Algebra Review

Chapter 8 – Matrices and Determinants

- 8.1 Matrix Solutions to Linear Systems
- 8.2 Inconsistent and Dependent Systems and Their Applications
- 8.3 Matrix Operations and Their Applications
- 8.4 Multiplicative Inverses of Matrices and Matrix Equations
- 8.5 Determinants and Cramer's Rule

All of the above topics, including College Algebra Review, will be included on the first exam.

Chapter 4 – Trigonometric Functions

- 4.1 Angles and Radian Measure
- 4.2 Unit Circle
- 4.3 Right Triangle Trigonometry
- 4.4 Trigonometric Functions of Any Angle
- 4.5 Graphs of Sine and Cosine Functions
- 4.6 Graphs of Other Trigonometric Functions
- 4.7 Inverse Trigonometric Functions
- 4.8 Applications of Trigonometric Functions

Chapter 5 – Analytic Trigonometry

- 5.1 Verifying Trigonometric Identities
- 5.2 Sum and Difference Formulas
- 5.3 Double-Angle, Half-Angle, and Power Reducing Formulas
- 5.4 Product-to-Sum and Sum-to-Product Formulas
- 5.5 Trigonometric Equations

Chapter 6 – Additional Topics in Trigonometry

- 6.1 Law of Sines
- 6.2 Law of Cosines
- 6.3 Polar Coordinates
- 6.4 Graphs of Polar Equations
- 6.5 Complex Numbers in Polar Form
- 6.6 Vectors
- 6.7 Dot Product

Chapter 9 – Conic Sections

- 9.1 Ellipse
- 9.2 Hyperbola
- 9.3 Parabola
- 9.4 Rotation of Axes
- 9.5 Parametric Equations
- 9.6 Conic Sections in Polar Coordinates

Chapter 10 – Sequences & Induction

- 10.1 Sequences and Summation Notation
- 10.2 Arithmetic Sequences
- 10.3 Geometric Sequences
- 10.4 Mathematical Inductions
- 10.5 Binomial Theorem

All of the above topics will be included on the cumulative final exam

Student Learning Outcomes

- Perform matrix operations.
- Use matrices to solve systems of linear equations.
- Understand and use radian measure.
- Convert between degree and radian measure.
- Use geometry and algebra to derive unit circle coordinates for $\pi/4$ and $\pi/6$ angles.
- Use the unit circle to evaluate trigonometric functions.
- Use right triangles to solve applications problems.
- Know basic properties of trigonometric graphs: domain, range, and period.
- Graph variations of basic trigonometric functions using transformations.
- Understand the relationship between reciprocal trigonometric functions.
- Differentiate between reciprocal and inverse trigonometric functions.
- Find exact values of inverse trigonometric functions for special values.
- Evaluate composite functions involving inverse trigonometric functions.
- Model simple harmonic motion.
- Use basic trigonometric identities to verify more complex identities.
- Understand and apply trigonometric formulas: sum and difference, double-angle, power-reducing, half-angle, product-to-sum and sum-to product.
- Solve trigonometric equations.
- Use the Law of Sines and Cosines to solve oblique triangles.
- Understand the polar coordinate system.
- Graph polar equations.
- Convert between polar and rectangular forms.
- Perform operations on vectors.
- Solve applications using vectors.
- Graph conic sections.
- Solve applications involving conic sections.
- Write formulas for calculating a general term in a sequence.
- Find a particular term in a sequence.
- Recognize arithmetic and geometric sequences.
- Use formulas for arithmetic and geometric sequences.
- Solve applications involving sequences.

Academic Behavior Standards and Academic Dishonesty

All students are expected to demonstrate honesty in their academic pursuits. The university policies regarding issues of honesty can be found in the FGCU Student Guidebook under **the Student Code of Conduct and Policies and Procedures** sections. All students are expected to study this document which outlines their responsibilities and consequences for violations of the policy. The FGCU Student Guidebook is available online at <http://studentservices.fgcu.edu/judicialaffairs/new.html>

University Nondiscrimination Statement

Florida Gulf Coast University is committed to ensuring equity and fairness for all University employees, students, visitors, vendors, contractors and other third parties. As such, the University prohibits discrimination on the bases of race, color, national origin, ethnicity, religion, age, disability, sex (including sexual harassment/assault), gender identity/expression, marital status, sexual orientation, veteran status or genetic predisposition with regard to admissions, employment, programs or other activities operated by the University. This prohibition extends to enforcement of **Title IX** of the Education Amendments of 1972. Questions or complaints should be directed to the Office of Institutional Equity and Compliance (OIEC). The OIEC's phone number is (239)745-4366; the OIEC email address is OIEC@fgcu.edu.

Disability Accommodations Services

Florida Gulf Coast University, in accordance with the Americans with Disabilities Act and the university's guiding principles, will provide classroom and academic accommodations to students with documented disabilities. If you need to request an accommodation in this class due to a disability, or you suspect that your academic performance is affected by a disability, please see me or contact the Office of Adaptive Services. The Office of Adaptive Services is located in the Wellness Building. The phone number is 239-590-7956 or Video Phone (VP) 239-243-9453. In addition to classroom and campus accommodations, individuals with disabilities are encouraged to create their personal emergency evacuation plan and FGCU is committed to providing information on emergency notification procedures. You can find information on the emergency exits and Areas of Rescue Assistance for each building, as well as other emergency preparedness materials on the Environmental Health and Safety and University Police Department websites. If you will need assistance in the event of an emergency due to a disability, please contact Adaptive Services for available services and information.

Student Observance of Religious Holidays

All students at Florida Gulf Coast University have a right to expect that the University will reasonably accommodate their religious observances, practices, and beliefs. Students, upon prior notification to their instructors, shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith. Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence. Students shall not be penalized due to absence from class or other scheduled academic activity because of religious observances. Where practicable, major examinations, major assignments, and University ceremonies will not be scheduled on a major religious holy day. A student who is to be excused from class for a religious observance is not required to provide a second party certification of the reason for the absence.

Resources for Faculty General Education

Information on General Education program requirements is available online at http://www.fgcu.edu/General_Education/index.html

Lecture Capture Technology/FGCU Capture – Classroom Recording

This course may employ technology that will allow for audio and/or video recording of live classroom sessions. This lecture capture technology is utilized for the sole purpose of enhancing student learning. It may provide for supplemental student instruction via secure links to recorded session(s), the live stream of courses, presentations of off-site guest speakers and/or the delivery of course instruction utilizing "flipped classroom" methodologies. Student questions and/or comments may be included as a part of any session being recorded. See FGCU-CAPTURE for additional details and training <http://aets.fgcu.edu/fgcucapture.asp>

Video and audio recording

Video and audio recording of class lectures is expressly prohibited unless the FGCU Office of Adaptive Services has documented your disability and determined the best reasonable accommodation for you is to allow recording and you have executed a written agreement regarding the limitations on use of such recordings and their disposition at the end of the semester.

This is a tentative schedule; any changes will be announced via FGCU email.

January 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1	2	3	4	5	6
7	8 Classes Begin	9 Intro to Course College Algebra Review	10	11 Syllabus Activity College Algebra Review	12 Add/Drop Ends	13
14	15 MLK Day 8.1-8.3 HW Due	16 CH 8	17 8.4 HW Due 1 st College Algebra Quiz Attempt Due, NO LATE ATTEMPTS!*	18 CH 8	19	20
21	22 8.5 Homework Due College Algebra Homework Due	23 CH 8 College Algebra Project Draft Due	24 CH 8 Review Due	25 Exam 1: CH 8 & College Algebra College Algebra Project Due	26	27
28	29 4.1-4.3 HW Due 2 nd College Algebra Quiz Attempt Due, if earned**	30 CH 4	31 4.4 HW Due	* You <i>must</i> make the 1 st College Algebra Quiz attempt by the 4/17 due date to access the College Algebra Homework and 2 nd Quiz attempt; otherwise you have zeros for BOTH. ** 2 nd attempt is earned with 80% or higher on the College Algebra Homework.		

This is a tentative schedule; any changes will be announced via FGCU email.

February 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 CH 4	2	3
4	5 4.5-4.6 HW Due	6 CH 4	7 4.7-4.8	8 CH 4 CH 4 Project Draft Due	9	10
11	12 CH 4 Review Due	13 CH 4 Exam CH 4 Project Due	14 5.1 HW Due	15 CH 5	16	17
18	19 5.2-5.3 HW Due	20 CH 5	21 5.4	22 CH 5	23	24
25	26 5.5 HW Due	27 CH 5 CH 5 Project Draft Due	28 CH 5 Review Due			

This is a tentative schedule; any changes will be announced via FGCU email.

March 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 Exam 3: CH 5 CH 5 Project Due	2 Withdraw Deadline	3
4	5	6	7	8	9	10
<div>  SPRING BREAK WEEK  </div>						
11	12 6.1-6.3 HW Due	13 CH 6	14 6.4-6.5 HW Due	15 CH 6	16	17
18	19 6.6 HW Due	20 CH 6 CH 6 Project Draft Due	21 6.7 HW Due	22 CH 6 CH 6 Project Due	23	24
25	26 CH 6 Review Due	27 Exam 4: CH 6 Prerequisites for Conics	28 9.1-9.3 HW Due	29 CH 9	30	31

This is a tentative schedule; any changes will be announced via FGCU email.

April 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2 9.4-9.5 HW Due	3 CH 9	4 9.6 Homework Due	5 CH 9 CH 9 Project Draft Due	6	7
8	9 CH 9 Review Due	10 CH 9 Exam CH 9 Project Due	11 10.1-10.3 HW Due	12 CH 10	13	14
15	16 10.4 HW Due	17 CH 10	18 10.5 HW Due	19 CH 10 CH 10 Project Draft Due	20	21
22	23	24 CH 10 CH 10 Project Due	25 CH 10 Review Due	26 CH 10 Exam Final Review	27	28
29	30	1	2	3	4	5

FINAL EXAM WEEK

Final Review Due 4/30 – No late submissions!

Check your final exam schedule on GulfLine at the beginning of the semester PRIOR to making any travel plans!