MATH 110B - Precalculus II   Spring 2020

3.5 Units   Class # 3155/6

Course Syllabus   Dr. Jorge Basilio

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GLENDALE COMMUNITY COLLEGE

Basic Info

Meetings	Mon/Wed from 11:50–10:35 am
Meeting Location	San Fernando 105
Office Hours	Mon 11:35–12:05, Tues/Thurs 11:50-12:50 in AS 102 or SG 140
Course websites	http://jorgemathbasilio.github.io/math110b-s20
	Canvas

What is this class?

Course Description

MATH 110B is the second of two courses that prepares students for calculus. Topics include the study of trigonometric functions, their inverses and their graphs, identities and their proofs, trigonometric equations, and graphs of polar equations. Additional topics include complex numbers, graphs of parametric equations and conic sections, linear and nonlinear systems of equations, the binomial theorem, partial fraction decomposition, introduction to vectors, and mathematical induction.
Prerequisites: MATH 110A.

Student Learning Outcomes

Upon successful completion of the course, students will be able to:

1. have a working knowledge of the basic trigonometric identities and formulas;

2. solve algebraic and trigonometric equations and algebraic inequalities;

3. graph various functions and relations, including trigonometric and inverse trigonometric functions;

4. solve systems of equations using matrices.

Important Notes

1. No credit will be given for MATH 110B if a student has successfully completed MATH 110 or MATH 100 and MATH 102.

Evaluation

Grading Criteria

Quizzes (Qs)	6%
In-class Assignments (ICAs)	10%
Exams (5 @ 10% each)	50%
Final Exam	30%

Grade Cutoffs

A	90-100%
B	80-89%
C	69-79%
D	60-68%
F	<59%

Important Dates

Course Materials

Textbook: *Precalculus,* by Stewart, Redlin & Watson

- We'll use the *4th custom edition for Glendale Community College.*

Calculator/Technology

- Scientific Calculator will be allowed during class and exams. If you have a graphing calculator you can use it during class but it will not be allowed during exams.
- There are many powerful "calculators" online. These are an excellent resource but they must be used responsibly.
  I highly recommend (all are FREE): Geogebra, Desmos, SymboLab, WolframAlpha, & SAGEMath (via CoCalc)

Supplies

- A 3-Ring Notebook or a Binder with Paper, a stapler, pens/pencils (having 2 or 3 different colors really helps with note taking!)

Requirements

Assignments

In-class Assignments (ICAs)
- I will arrange the class into groups of 3 or 4 at the beginning of each class and several problems will be assigned.
- You are expected to discuss ideas together to work towards a solution; *write up your own solutions* and compare your work with each other for correctness.
- ICAs will be turned in (again, individually) on test days.
- If I do not receive your ICA on-time, **your score for that exam will be recorded as zero.**

Homework
- There is no numeric value given to the homework.
- A homework list is provided on our course website, organized into section covered for each exam, and **is due on the day of each exam.** If you miss an exam, you must still have your homework in on the test day (arrange to have it put in my mailbox or have a student bring it to class).
- You are expected to attempt (and hopefully complete) at least 80% of the problems in each section that is assigned for that exam.
- If I do not receive your homework on-time (or if less than 80% complete), **your score for that exam will be recorded as zero.**

Participation

Attendance
- You are required to attend all classes–please be on time! Excessive absences will affect your overall grade in class. **Students may be dropped from class after absences totaling 10 class hours (6 classes)**. Please note that **3 tardies = 1 absence**, and that if you are more than 20 minutes late or leave before the end of class, you will be marked absent.

Class Participation
- You are expected to participate ACTIVELY in class. This means: taking accurate notes, asking questions, and working on class-work. You will be asked to work in groups or present your solutions to the class.

Time Commitment
- A typical student taking a college math course spends an average of 2 hours outside of class for every hour in class. Our class meets for approximately 4 hours per week. You will need approximately 8-10 hours per week outside of class to study and/or complete assignments. Be sure that you have the time available to do homework and study; if not, you need to adjust your schedule. Otherwise you will be at a disadvantage and your chance for success in this course will be lower.

Rules

Class Rules

Environment of Respect
To be respectful of everyone in class and understand that everyone has the right to learn.

Cleanliness
Keep the classroom clean, do not bring food into the classroom and leave no trash.

Honor Code
Any work you submit to me must be your own. Even if collaboration is allowed (such as on homework), you must submit your own work. Exams must be your own work. Any use of unauthorized aids on an exam is considered cheating, as in any attempt to help another student. I will require student IDs for all exams. If you are caught cheating, you will receive a zero on that assignment, and your name will be submitted to the school for disciplinary action. For more information, visit: http://gcc.glendale.edu/policies&regulations/BPweb/BP6133.htm

Class Rules

Cell Phones
You may NOT have your cell phone out during class for any reason. This means: no texting, no phone calls, no apps, etc. **Never photograph or take video** inside the classroom unless I specifically allow the class to do so. **PENALTY:** if I see your phone out, on your lap (do you seriously think I don't notice that?) or if it rings, I will give you a warning but each subsequent violation will cost you 5% on your next exam.

Computers & Tablets
Computers & Tablets are encouraged. However, non-mathematical uses such as using social media, watching videos, is not allowed. **PENALTY:** First violation will receive a warning but each subsequent violation will cost you 5% on your next exam.

Food & Drinks
Only liquids with a non-spill lid are allowed in the classroom (water bottles, coffee with a lid). Cans of soda/energy drinks/Starbucks coffee cups are NOT allowed. Fast food is not allowed in the classroom.

Exams

Exams are a way for you to show me what you have learned (and please show all your steps so I can see this!) and to give you a sense of accomplishment! They are meant to be challenging and not just homework problems with the numbers changed. I really want to prepare you for university level math classes–so some exams may be longer or more challenging than others. Remember that I do grade fairly and my goal is to push you to succeed and excel in this class. I often give hints in class as to exam problems (another great reason to come to class!), and I will post study guides along with the best way to review for each exam.

- Five exams are given during the semester–see our website for the exact dates. See the homework list for the sections covered.
- Attendance required for all exams–however, I will replace the lowest exam score, regardless of the reason, with your final exam score provided the final exam score is higher than your lowest exam score.
- **"No Make-up Exams"** for any reason.
- Your **student ID** or a valid **government ID** is REQUIRED for all exams.
- During the exams–you will be required to leave your backpack and all non test items at the front of the room, including cell phones and smart watches. Only your pencil/eraser and calculator will be allowed during the exam, and there will be a calculator check. Should you need to leave during the exam please ask for permission first before leaving and leave your cell phone with me. Not doing these things could result in a 0 on your exam.
- Once the exam is returned, any problem you would like me to revisit must be brought to my attention by the next class session.
- Always keep your exams!!

Tentative Test Dates

- Exam 1 — Friday, Week 3
- Exam 2 — Friday, Week 5
- Exam 3 — Thursday, Week 8
- Exam 4 — Friday, Week 11
- Exam 5 — Tuesday, Week 13
- **Final Exam** — **Wednesday, June 3 from 9:10 am to 11:30 am**

- A note on the final exam: make necessary arrangement now (with your employer, for childcare, etc) because attendance on this date and time is **mandatory**. Only cases of dire emergency (with proper verification) will be accommodated by the division chair.

Tentative Schedule

This is a tentative schedule for the course and may change as the course progresses.

Week	Topics Covered
• **Week 1**	Review, 6.1, 6.2
• **Week 2**	6.3, 6.4, 6.5
• **Week 3**	7.1, Review, **Exam 1**
• **Week 4**	7.2, 7.3, 7.4
• **Week 5**	7.5, Review, **Exam 2**
• **Week 6**	8.1, 8.2, 8.3
• **Week 7**	8.4, 9.1, 9.2
• **Week 8**	10.1, 10.2, Review, **Exam 3**

Week	Topics Covered
• **Week 9**	10.3, 10.4, 10.5
• **Week 10**	11.1
• **Week 11**	12.1, 12.2, Review, **Exam 4**
• **Week 12**	12.3, 12.4, 13.5
• **Week 13**	13.6, Review, **Exam 5**
• **Week 14**	Review for Final
• **Week 15**	Review for Final, **Final Exam**

Getting Help

Support

DSP&S (SF-121)

All students with disabilities requiring accommodations are responsible for making arrangements in a timely manner through the Center for Students with Disabilities. Please contact Disabled Students Programs and Services in SF-121 or at (818) 240-1000, extension 5905, as soon as possible and feel free to discuss your needs with me in private.

ME!

Don't forget your instructor! Please check out my office hours, ask lots of questions. It is better to ask questions early in the semester rather than later, and please do not be afraid to come by office hours. I hold office hours in the Math Success Center at any free table, and like to use the white boards in the center and work out problems together. If you are struggling, I can only work with you to attempt to find a solution but only if I know that a problems exists–please communicate!

Tutoring

The Math Discovery Center (AS-103)

Free tutoring and math counselors are available! Advice: hang out here! Do your homework here!

The Learning Center (AD-232)

Another great place to get help. You can get one-on-one tutoring.

Course Contract

⋆⋆⋆ **IMPORTANT ASSIGNMENT – COURSE CONTRACT** ⋆⋆⋆

Instructions: Please **hand-write** on a separate piece of paper and print your name, the course title, the course section, AND the following statement. Also: SIGN THIS DOCUMENT and turn it in as soon as you certify that you are able to log into Canvas/website:

"I certify that I have read the entire contents of the Course Syllabus. I also pledge to regularly check the course Canvas and website for updates and hold myself accountable for the information."

I hear and I forget. I see and I remember. I do and I understand.

Confucius
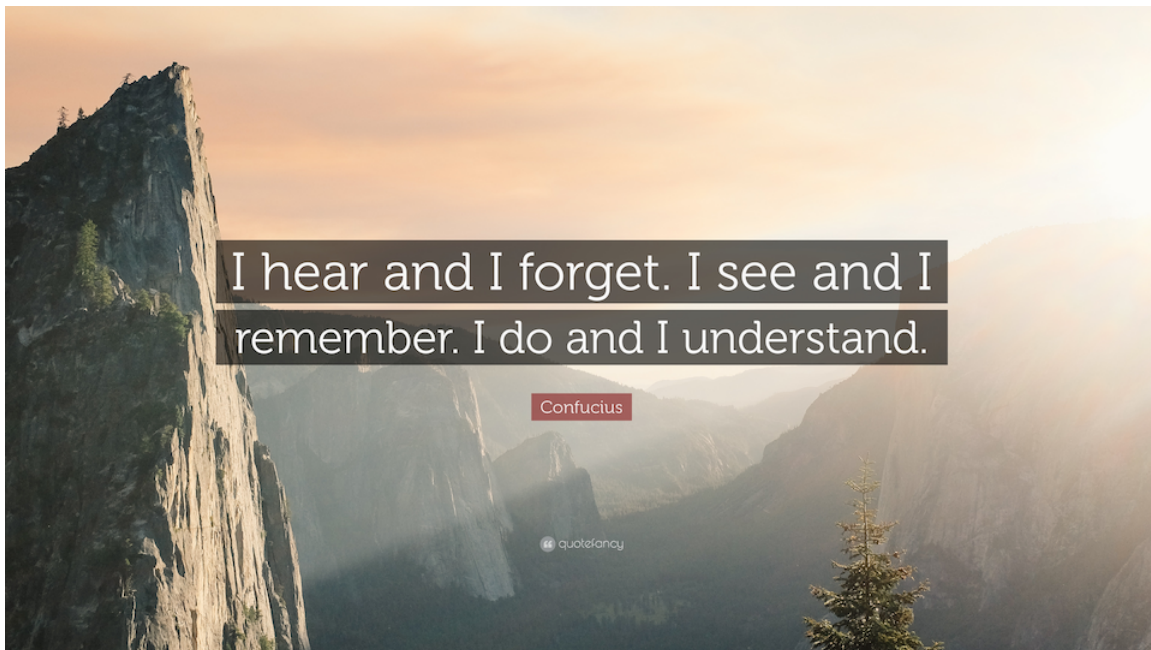
Suggestions for Effectively Reading Mathematics

"Read Actively"

1. When confronted with the task of reading a piece of mathematical text, skim the entire reading first to discern its general outline and to identify its main points and objectives.

2. If necessary, review earlier portions of the textbook (or prior mathematical topics studied) to recall forgotten or unfamiliar vocabulary, techniques or theorems before attempting a thorough reading of the current text.

3. Don't rush! Read slowly! Mathematical writing is typically dense with ideas. Spend as much time as necessary to understand the fully intended meaning of each of the author's arguments and examples.

4. Pay particular attention to the precise statement of new definitions and theorems.

5. Do not immediately skip over a portion of the reading that doesn't make sense in the hope that its meaning will become more apparent later. Because of the linear nature of mathematical writing in which one topic builds from those that precede it, it is very important to fully understand one topic before proceeding to the next.

6. Try to identify the cause of any misunderstanding of the topics being studied. Consider all reasonable methods to resolve the misunderstanding. Whenever possible discuss difficult portions of the text with a friend, study partner, or study group.

7. If all else fails, make sure to mark any portions of the text that remain perplexing so that you may raise these issues subsequently in class.

8. Occasionally authors will intentionally leave some details of arguments or examples to the reader to complete as an exercise. Authors do this for pedagogical reasons and not laziness! As a useful check on your understanding of the material, always fill-in in the details omitted by the author.

9. Always keep pencil and paper handy whenever reading mathematical text. It can be very helpful to highlight important passages, insert marginal notes to yourself (a la Fermat!), and make simple calculations while involved in the reading of the text.

10. Examples in textbooks often come with a moral. Discern the author's main point in providing the example. Make sure you struggle to understand every aspect of the computation, manipulation, or procedure presented in the example.