

Course Syllabus

Math 176 — PreCalculus

Professor Tim Busken

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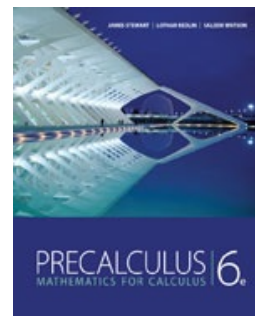
Section 3491

Mon.–Thurs., 5:30–6:50 p.m.

Blg. 55, Room 526

Course Home Page: timbusken.com/html_pages/precalculus/precalc_home.html

Textbook: (Required) PreCalculus 6e Mathematics for Calculus ISBN: 978-0-8400-6807-1, Publisher: Brooks Cole, Copyright: 2012. The textbook comes with homework software called “web assign” that we will not use. It is cheaper to buy used/rent online than purchase the new books for \$212 + tax at the bookstore. (You may want to borrow one of the tutoring center’s copies of the textbook to do homework until your book arrives.)



Final Exam Date: TBD

Grading:

Homework	15%
Quizzes	10%
Exams	50% (10% each)
Mandatory Final Exam	25%

Blackboard: Blackboard your online access to my gradebook. You can also send email to me or your classmates through the blackboard site; but you need to make sure that your correct email address is registered with blackboard if you want to receive an email response from me. Here is the url: gcccd.blackboard.com/webapps/login/ Your login and password information (first-time users):

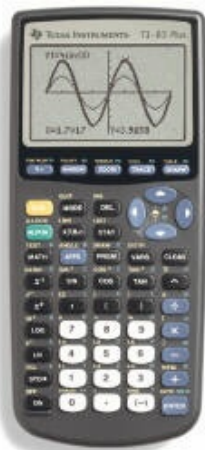
- **LOGIN:** `firstname.lastname`
- **PASSWORD:** `your 6-digit birthdate`

For example, if you were born June 1, 1985, you would enter 060185. To view a tutorial on how to login to blackboard navigate to (or click) the following url: gcccd.edu/online/student/blackboard/

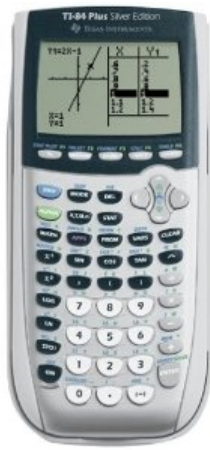
Course Description: 6 units, 6 hours lecture Prerequisite: A “C” grade or higher in MATH 110 or equivalent and MATH 097 or equivalent. Note: MATH 103 is not equivalent to MATH 110. Unification of college algebra and analytical trigonometry based on the function concept. Topics include properties of real number system, inequalities, theory or equations, complex numbers, the study of functions including inverse functions, logarithmic and exponential functions, trigonometric functions with emphasis on circular functions, trigonometric identities, trigonometric equations, graphical methods and solving triangles with applications, matrices, binomial theorem, mathematical induction, sequences and series. Completion of the Matriculation Process is highly recommended. Completion of college algebra or trigonometry will enhance the student’s preparation for this course. A student can earn a maximum of 6 units when taking MATH 170, 175, and 176. Satisfies General Education for: Grossmont College, CSU Transfers to: CSU, UC

Student Learning Outcomes:

- A student will be able to categorize precalculus problems and use appropriate theorems, formulas, and algorithms to solve them.
- A student will be able to use the appropriate technology to solve problems requiring precalculus.
- A student will be able to categorize probability problems and use appropriate theorems and formulas to solve them.
- A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the precalculus level and have the ability to transition between these representations.
- A student will be able to communicate the mathematical process and assess the validity of the solution.



TI-83



TI-84

Seven Tips for Success in Your Math Class

1. Come to class every day, on time
2. Take notes in class
3. Ask questions! This will slow me down!
4. Attempt ALL the homework ASAP after class.
5. Check all your answers in back of the book
6. Get help in office hours, from a tutor, or from a friend.
7. Be POSITIVE!

Graphing Calculator: The TI- 84 calculator is **REQUIRED** for this course. The TI-83 or TI- 83 plus may also be used as they operate using the same instructions as the TI-84 (with a few exceptions). You will learn how to use this calculator by using the tutorials or following the instruction set located in each “Using Technology” section of the text. **It is your responsibility to bring your calculator to all on-campus exams and classes.** Students may not share calculators during exams.

Attendance Policy: You may be dropped for any absence without notifying me by email during the first week. Attendance is expected at each class meeting. Bring your text and calculator to every class. You can be dropped from the class for having 12 hours of absences (roughly two weeks of class). Late arrival and early departure from class can be counted as an absence. If you know that you will be absent or very late, please notify me by email me. In the event of an absence, you are responsible for all material covered in class, turning all assignments in on time and any schedule changes or class announcements.

Behavior: Class time is valuable. You are expected to be courteous to each other and to the instructor. You will be asked to leave the class for display of behavior the instructor deems as

disruptive to the class environment. As a common courtesy, please turn off and put away your cell phone, iPod, and other distracting electronic devices while in class. **Absolutely NO CELL PHONE USE, WEB SURFING or TEXTING is allowed in class!** If you are disruptive in class (after being warned), you could be suspended from the course for up to 2 days. **Comments about another's race, ethnicity, accent, appearance, intelligence, or sexual orientation will not be tolerated on any level.** Students should be familiar with the college's "[Student Discipline Procedures](#)."

Homework: I assign a lot of homework. Homework will be assigned from out of your math textbook and will make up 15% of your total grade. Students who do little homework most often get D's and F's. The homework must be turned in on the first class meeting after each exam. Your homework will be graded for the following four attributes: *Presentation, Completeness, Accuracy and Structure* of the communicated solutions to each question. (It is not required to write out each homework question statement.) Maxing out the number of *presentation* points you get from your homework depends on how you organized your work. Can I clearly tell what sections of homework you did and which sections are which? Did you remember to use a pencil? Are the steps to each homework question solution clearly written on your paper for each question? Does it look like you just copied the solution and didn't show the work?

The list of homework problems can be found on the last page of this document and on the online version of this syllabus at [your course website](#). You should not expect satisfactory results without attempting problems on a daily basis. You should spend at least 3-6 hours outside of class for every hour of lecture. I strongly encourage you to work together on homework and to seek extra help from the tutors in the [Math Study Center \(70-112\)](#).

Quizzes: There will be 10–13 quizzes given during the semester composing 10% of your overall course grade. The quizzes will be given mostly in class but sometimes as a take-home. Your 3 lowest quiz scores will be dropped from the calculation of your quiz average. The quizzes are made up of homework type questions. To receive full credit for a quiz question, you must clearly articulate the solution (using full sentences when appropriate) and show all your work in an organized fashion. **If you are missing class on the day that a take-home quiz is due, then it is your responsibility to scan your solutions to a single pdf document type and email it to me.** Late take-home quizzes receive a zero and cannot be made up.

Exams: There will be 5 exams (worth 10% each) and a comprehensive final worth 25%. **Make up exams will not be given** unless there are extraordinary circumstances, which you must contact me about prior to the exam. Cell phones and any other electronic devices must not be on your person during the exam and must be turned off. Cell phones and any other electronic devices must be in your book bag, backpack, purse, etc. and your bag must be zipped up. (Do remember this if you plan to be late to the exam!) Most exams have two parts: on one part you are allowed/encouraged to use a calculator and on the other part calculators are forbidden. Under no circumstances are students allowed to share calculators during the exam.

Academic Accomodation: Any student who may need an academic accommodation should discuss the situation with me in private during the first week of class. Students with disabilities who may need accommodations in this class are encouraged to contact [Disability Student Programs & Services \(DSPS\)](#) early in the semester so that reasonable accommodations may be implemented as soon as possible. Students may contact DSP&S in person in room 60–120 or by phone at (619) 644-7112 (voice) or Video Phone: (619) 567-1112 or (877) 561-8975.

Math Study Center: The Math Study Center (MSC, rooms 70-112 & 70-113) is centrally located on the first floor of the Tech Mall (connected to the LTRC/Library). They provide peer math tutoring on a walk-in basis. The MSC a great place to work on homework, study for a math exam and/or work on schoolwork from another class. Computers are available for educational use. The MSC is open Monday through Friday. Hours: Monday through Thursday: 8:00am 9:00pm Friday: 8:00am 3:00pm Call (619) 644-7706 for further information.

Tutor Center: One-on-one tutoring is available in the Tutoring Center located on the 2nd floor of the Tech Mall in room 70-202. All Grossmont College students may receive free tutoring for many subjects they are enrolled in at Grossmont College. Tutoring is by appointment only. Students are allowed up to 2 hours of tutoring a week per subject, with a maximum of 5 hours per week. Appointments are scheduled in advance and the Tutoring Center is open Monday through Friday. Call (619) 644-7387 for their current hours.

Disruptions: Your demeanor should support and respect the environment of learning inside the classroom. Movement and chitchat in the classroom disrupts your classmates and the instructor. This includes leaving class, coming in late, passing notes, texting and chatting with the person next to you about non-math related topics. It is very important that all students be respectful of those trying to learn. This is as important in the back row, as it is in the front row. Again, I encourage you to ask questions in class. If you dont feel comfortable asking the instructor, you can quietly ask your neighbor. Just know that if you have a question related to the class, someone else is certain to be wondering the same thing. So please ask! Talk/text on your phone and attend to your personal needs before or after - but not during class. When you enter the classroom, turn off cell phones, pagers, and all other communication devices. In times of family crisis, you may set your cell phone on vibrate. If you must arrive late or leave early, take the first seat near the door.

Important Dates:

Regular Day & Evening Classes Begin
End of the Add/Drop period
Last Day to apply for P/NP
Last day to drop a semester length class
Final Examination

Monday, Aug. 19th
Monday, Aug. 30th
Friday, Sept. 20th
Nov. 8th (Friday)
TBD

Homework List (HW is worth 15% of your overall grade. HW is always due on the first class meeting which occurs *after* each exam.) EOO means every other odd.

1.10 20,24,27,30,38,53,66,68,73,74	2.5 1–4, 19,20,40,43,44,45,47,49, 57,58,63,77,79,83,85
2.1 1,2,21,29,31,33,35,38,47,50,51, 52,53, 57,73,79	2.6 1,5,7,9,11–14,21,25,27,29,37,41,43,51,63
2.2 6,14,20,24,35,38,47,49,51,82	2.7 4,15,23,35,41,45,51,55
2.3 5,7,15,17,19,21,31,33,34,43,45,46	3.1 15,17,33,41,43,45,47,53,63,70,75
2.4 5,9,11,15,24,30	Test 1 — Chs 1 & 2, 3.1
3.3 21,23,25,29,33,39,41,43,45,53,55,61,63	4.2 9,11,13,21,23,25,27,31,33
3.4 15–63 EOO, 65,69	4.3 7–67 odd 86, 88
3.2 1,7,9,14,17,25,27,31,33,47,50,81	4.4 7,13,17,19,25,27,29,29,35,43,49,51, 53,55,57
3.5 5–71 EOO	4.5 3–87 EOO
3.6 5–61 EOO	4.6 1–43 EOO
3.7 13,19,21,23,25,31,43,51,61,63,67,69,85	Test 2 — Chs 3 & 4
4.1 5,15,19,21,25,27,31,35,47,51	
6.1 3 — 77 EOO	5.5 3 – 43 odd
6.2 1 — 63 EOO	6.4 3 – 41 EOO
5.1 3,5,13,33, 39—52 all	↑↑ Use Law of Cosines for any SAA
5.2 5–23 odd, 29–79 EOO	6.5 3–41 EOO
6.3 3–71 EOO	6.6 3–51 EOO
5.3 3–41 EOO	Test 3 — Chs 5, 6 & 7.1
5.4 9 — 53 EOO	
7.1 3 — 79 EOO 91, 93, 95	8.3 1,2,3,4, 5–13,19, 29–33, 53–57, odd
7.2 1,2,3,5,9,13,15,17,25, 27,31,33,47,49,63	8.3 69–77,81–87,91–95 odd
7.3 1,2, 3–13, 17–31, 35–53, 105	8.4 1,2, 3–9, 13–17, 23–27, 37,39,43,45
7.4 2,3,4, 5–15, 25–49, 59	9.1 1,2,3,5, 9–21, 27–31,41,43,47, 51–61, 65
7.5 1–19, 23–29, 43,45,65	9.2 1,2,5,7,9,13,15,17,47,49,51
8.1 1,2, 3—67 odd	Test 4 — Chs 7, 8, 9
8.2 3–8(all), 17–41, 53–57 odd	
12.1 3–67 EOO	10.4 21–33, 45,47
12.2 5–59 EOO	10.5 3–21, 25,27,29,47
12.3 5–57 EOO, 63, 65, 67	10.6 5–11, 19, 21, 33–39 odd
12.6 5–15 odd	10.7 13–27 odd
10.1 5—47 odd, 57,59,61	10.8 3–29 odd, 41,43
10.2 7–11 odd, 17–35 odd,41,43	10.9 17—45 EOO
10.3 19–35 odd	Test 5 — Chs 10 & 12
11.1 Worksheet	11.2 Worksheet
11.3 Worksheet	11.4 Worksheet Cumulative Final Exam