

# Calculus 1

MATH 30 – Spring 2020

👤 Dr. Joshua Wiscons (he/him/his)  
📍 Brighton (BRH) 144  
🗨️ **M,T,W** 12:00PM–1:00PM  
And also by appointment  
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📄 [webpages.csus.edu/wiscons/teaching/](http://webpages.csus.edu/wiscons/teaching/)

**Welcome!** Ever wonder it means to say a car is moving at 70 miles per hour **right now**? Really, what does it mean to talk about a car's velocity at a specific moment in time? For example, if you capture the moment by taking a picture, the car isn't moving at all. But if in any given instant we aren't moving at all, how do we get anywhere? In this course, we will explore several concepts we may have taken for granted (like velocity) and develop important tools for investigating (and defining!) them. I hope you enjoy it!

*"But without some common baseline of facts; without a willingness to admit new information, and concede that your opponent is making a fair point, and that science and reason matter, we'll keep talking past each other, making common ground and compromise impossible." - President Barack Obama*

- 📄 **Catalog Description.** Functions and their graphs; limits; the derivative and some of its applications; trigonometric and hyperbolic functions and their inverses; the integral; fundamental theorem; some applications of the integral.
- ☑️ **Prerequisites.** MATH 29 **or** MATH 29B **or** proof of readiness as determined by a *proctored* ALEKS PPL Assessment. More ALEKS info here: [www.csus.edu/college/natural-sciences-mathematics/math-placement-exam/](http://www.csus.edu/college/natural-sciences-mathematics/math-placement-exam/)
- 📖 **Book.** *Calculus: Early Transcendentals, Eighth Edition* by James Stewart. This book will supplement what we do in class. However, I will not assign problems from the book, so it is **not required**. WebAssign is also **not required**. If you choose to purchase the book and/or WebAssign, I recommend buying the looseleaf version of the book together with WebAssign access for \$110 through this site: [services.cengagebrain.com/course/site.html?id=3041734](http://services.cengagebrain.com/course/site.html?id=3041734).
- ⚙️ **Learning Outcomes.** In this course, students will (1) increase their capacity for critical thinking and fact-based reasoning, (2) develop the necessary competency with the concepts and mechanics of Calculus 1 for further work in mathematics and other fields, (3) improve their written and oral communication of mathematics, and (4) develop the skills and mindset for solving problems in a team.
- 📅 **Typical Day.** A typical class meeting will consist of group work, discussion, and lecture.
- 👥 **Community Agreement.** Members of this class represent a rich variety of backgrounds and perspectives. Our class commits to providing an atmosphere for learning that respects diversity and recognizes it as a source of strength. While working together to build this intellectual community, we ask all members to:
  - share their unique experiences, values, and beliefs;
  - be open to the views of others;
  - honor the uniqueness of their colleagues;
  - appreciate the opportunity that we have to learn from each other in this community; and
  - value each other's opinions and communicate in a respectful manner.

## Get Connected

Visit Me [Brighton 144]

Visit the Math Lab [Brighton 118]

Explorer Our Community!

Don't know where to start?  
Check out our Multi-Cultural Center

## Some Resources

Me! Stop by or email me anytime!

*Could benefit from accommodations?*  
Talk with me or visit the SSWD office [Lassen 1008]

*Experiencing challenges with food and/or stable housing?*  
Visit our CARES website: [www.csus.edu/basicneeds/](http://www.csus.edu/basicneeds/)

## Course Components

*Online Homework.* We will have regularly scheduled online homework—the main goal of these is to build comfort and confidence with the core techniques of the course. You are *allowed and encouraged* to work together, but you are expected to **enter your solutions on your own**. We will use the **free** system WeBWork. More info will be posted on the course webpage: [webpages.csus.edu/wiscons/teaching/math30\\_s20.html](http://webpages.csus.edu/wiscons/teaching/math30_s20.html).

*In-Class Worksheets.* Most days you will work in a group to complete a series problems. Groups will be responsible for writing up a single, final draft of their solutions, collected at the beginning of the next class. Your team's work must be written clearly, must include all supporting work, and must be professional in appearance. In general, all members of the team will receive the same grade.

*Participation.* This component measures your level of engagement with your group and in class-wide discussions. As such, regular, on-time attendance is very important, so please let me know if you need to miss class. Repeated absences will impact this portion of your grade.

*Exams.* There are 3 midterm exams *tentatively* scheduled for Feb. 14, Mar. 13, and Apr. 17. There is also a Final Exam scheduled for Monday, May 11 from 10:15AM–12:15PM.

## Grade Composition

Online Homework	15%	(the lowest 2 scores will be dropped)
In-Class Worksheets	10%	
In-Class Participation	10%	
Midterm Exams	45%	(lowest score: 12%, middle score: 15%, highest score: 18%)
Final Exam	20%	

*In general, letter-grade cutoffs will be standard: A 100-90%, B 89-80%, C 79-70%, D 69-60%, F 59-0%.*

**Accommodations.** Any student needing academic adjustments or accommodations should speak with me privately as soon as possible. If you have one, please bring a copy of your accommodation letter from the [Services to Students with Disabilities \(SSWD\) office](http://www.csus.edu/student-affairs/centers-programs/services-students-disabilities). All discussions will remain confidential. More information here: [www.csus.edu/student-affairs/centers-programs/services-students-disabilities](http://www.csus.edu/student-affairs/centers-programs/services-students-disabilities).

**Tutoring and Advising.** The Math Lab (Brighton 118) provides **free** assistance to students enrolled in lower division mathematics and statistics courses. Additionally, The Peer and Academic Resource Center (PARC), in Lassen 2200, provides **free** peer tutoring and advising. For more info and to make an appointment, go here: [www.csus.edu/student-affairs/centers-programs/peer-academic-resource](http://www.csus.edu/student-affairs/centers-programs/peer-academic-resource)

**General Education** GE Area: B4 (Mathematical Concepts and Quantitative Reasoning)

*Learning Outcomes* Solve problems by thinking logically, making conjectures, and construction valid mathematical arguments. Make valid inferences from numerical, graphical, and symbolic information. Apply mathematical reasoning to abstract and applied problems, and to scientific and non-scientific problems.

*Writing Component* The course will have a writing component, evaluated for clarity and style and aimed at improving the students' ability to write logically precise, well-structured, and well-justified mathematics.

**Peer Assisted Learning (PAL) Sessions** There are optional, adjunct sections (NSM 12E, Peer-Assisted Learning MATH 30) that students can take concurrently with Math 30. These are offered several times per week ([see class schedule](#).) NSM 12E is a one-unit course, graded Credit/No Credit, which is facilitated by undergraduate students (PAL leaders) who have successfully mastered the material in Math 30. In these PAL sections, Math 30 students will work in small groups on worksheets dealing with the course topics.

*Even if you do not enroll in NSM 12E, you may still go to the PAL leader office hours for help, which are held in Sequoia (SQU) 248. Times of office hours will be posted outside the door of SQU 248.*

**Technology** The emphasis of this course is on conceptual understanding. Feel free to use calculators and/or computer software programs on the homework assignments, but only a **basic calculator** will be allowed on exams. (I'm a big fan of [Desmos](#) for graphing and [WolframAlpha](#) for other computations.)

**Cheating** Cheating will result in disciplinary action and will be reported to the [Office of Student Conduct](#). If you are unsure what constitutes cheating, please speak with me and review Sacramento State's *Academic Honesty Policy and Procedures* document here: [www.csus.edu/umannual/student/stu-0100.htm](http://www.csus.edu/umannual/student/stu-0100.htm).