

# Applied Linear Algebra

MATH 100 – Spring 2019

👤 Dr. Joshua Wiscons (he/him/his)  
📍 Brighton (BRH) 144  
🗨️ **T,Th** 9:30AM–10:30PM; **W** 1:00PM–2:00PM  
And also by appointment  
✉️ [joshua.wiscons@csus.edu](mailto:joshua.wiscons@csus.edu)  
📄 [webpages.csus.edu/wiscons/teaching/](http://webpages.csus.edu/wiscons/teaching/)

📖 **Catalog Description.** Linear algebra and its elementary applications. Topics: Matrix algebra; simultaneous linear equations; linear dependence and vector spaces; rank and inverses; determinants; numerical solution of simultaneous linear equations; linear transformations; eigenvalues and eigenvectors; unitary and similarity transformations; quadratic forms.

✔️ **Prerequisites.** MATH 26B or MATH 31.

📖 **Book.** *Linear Algebra and Its Applications, 5th Edition* by Lay, Lay, and McDonald. This book will supplement what we do in class, but as I will not assign problems from the book, it is **not required**.

⚙️ **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 Linear Algebra for further work in mathematics and other fields, and (3) improve their written and oral communication of mathematics.

📅 **Typical Day.** A typical class meeting will consist of group work, discussion, and mini-lectures.

🗣️ **Class Etiquette.** Diversity and individual differences are respected, appreciated, and recognized as a source of strength. Students in this class are encouraged and expected to *speak up* and participate during class and to *step back* and include others in the conversation. Every member of this class must show respect for every other member of this class. Attitudes or actions destructive to the sense of community that we strive to create are not welcome and will not be tolerated. Also, please arrive on time; if you can't, please send me an email.

Get Connected	Some Resources
Visit Me [Brighton 144]	Me! Stop by or email me anytime!
Visit the Math Lab [Brighton 118]	Could benefit from accommodations? Talk with me or visit the SSWD office [Lassen 1008]
Explorer Our Community! Don't know where to start? Check out our Multi-Cultural Center	Experiencing challenges with food and/or stable housing? Visit our Basic Needs website: <a href="http://www.csus.edu/basicneeds/">www.csus.edu/basicneeds/</a>

## 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/math100\\_s19.html](http://webpages.csus.edu/wiscons/teaching/math100_s19.html).

*Written Homework.* These assignments are to be turned in on their due date at the beginning of class. You are *allowed and encouraged* to work together on homework, but you are expected to **write up your solutions on your own**. To ensure full credit, solutions must be written clearly, must include all supporting work, and must be professional in appearance.

*Participation.* This component measures your level of engagement in groups 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 2 midterm exams *tentatively* scheduled for Mar. 1 and Apr. 19. The Final Exam schedule is as follows: Wednesday, May 15 from 8:00AM–10:00AM (for my 9AM class); Tuesday, May 14 from 8:00AM–10:00AM (for my 10AM class).

## Grade Composition

Online Homework	10%
Written Homework	15%
In-Class Participation	10%
Midterm Exams	40% (20% × 2)
Final	25%

*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](#) ([www.csus.edu/sswd/](http://www.csus.edu/sswd/)). All discussions will remain confidential.

**Getting Extra Help.** Try hard! ... but don't be surprised if that is not always enough. *Please come talk with me!* Talk with your classmates too. And please, please take advantage of the [Math Tutoring Lab](#) in BRH 118.

**Technology** This course will emphasize both computational proficiency as well as conceptual understanding. Feel free to use calculators and/or computer software programs on the homework assignments, but they will **not** be allowed on exams. (You should be able to check many of your problems on [WolframAlpha](#).)

**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).

## (SOME) CAMPUS RESOURCES

**Basic Needs Support.** If you are experiencing challenges in the area of food and/or stable housing, help is just a click, email or phone call away! Sacramento State offers basic needs support for students who are experiencing challenges in these areas. Learn more about your options and resources here: [www.csus.edu/basicneeds/](http://www.csus.edu/basicneeds/)

**Centers for Diversity and Inclusion.** We have a family of Centers,

- Women's Resource Center,
- Multi-Cultural Center, and
- PRIDE Center,

that provide students with validation and support, while also engaging the larger Hornet community in coordinated efforts to interrogate and explore identity, promote cultural pluralism, and contribute to social justice. Check them out here: [www.csus.edu/cdi/](http://www.csus.edu/cdi/)

**College Assistance Migrant Program (CAMP).** CAMP is designed to help students from migrant and seasonal farm worker backgrounds succeed at Sacramento State. CAMP facilitates transition from high school to college and offers first-year support services to develop the skills necessary to persist and graduate from college. CAMP strives to be "a home away from home" for its students. More here: [www.csus.edu/camp/](http://www.csus.edu/camp/)

**Counseling Services.** Confidential counseling services are available on campus for Sacramento State students. Counselors are located on the second floor of the WELL. Appointments can be made 8:00AM–5:00PM, Monday–Friday. Call 916-278-6461 to make an appointment. **If you are in immediate crisis, please call 9-1-1 or the Suicide Hotline at 1-800-273-TALK (8255).**

**Dreamer Resource Center (DRC).** The DRC's mission is to make the dream of a college degree a reality for undocumented students and students with mixed-status families at Sacramento State by helping students overcome the unique challenges that get in the way of achieving academic, personal and professional excellence. Learn more here: [www.csus.edu/saseep/drc/](http://www.csus.edu/saseep/drc/)

**Full Circle Project (FCP).** The FCP aims to provide a student-centered approach to steadily increase the graduation rates of underrepresented Asian American and Pacific Islander (AAPI) and other high-need students through rigorous coursework, academic support, intentional student organization and leadership opportunities, career planning and meaningful community engagement. Lot's more info here: [www.csus.edu/fcp/](http://www.csus.edu/fcp/)

**MLK Scholars.** The MLK Scholar's program is designed to support and ensure the success of African American students or those with an interest in African American heritage in their quest toward a degree at Sacramento State. Learn more here: [www.csus.edu/saseep/mlk/](http://www.csus.edu/saseep/mlk/)

**Peer & Academic Resource Center (PARC).** PARC provides **free** peer tutoring, advising, and supplemental instruction. For more information or to make an appointment, go here: [www.csus.edu/parc/](http://www.csus.edu/parc/)

**Serna Center.** The Serna Center's mission is to promote, foster, and enhance self-advocacy, empowerment and leadership among Chicanxs/Latinxs students and students from other under-represented backgrounds at Sacramento State. Learn more here: [www.csus.edu/sernacenter/](http://www.csus.edu/sernacenter/)

**Services to Students with Disabilities (SSWD).** SSWD offers a wide range of support services and accommodations for students in order to ensure students with disabilities have equal access and opportunity to pursue their educational goals. More info here: [www.csus.edu/sswd/](http://www.csus.edu/sswd/)

**Sexual Misconduct.** We have a confidential support advocate on campus to assist students who have experienced sexual assault, intimate partner violence, sexual harassment, and stalking. To set up an appointment with the advocate, call 916-278-5850 or schedule an appointment online through your patient portal.

**If you are in immediate danger or need immediate assistance, please call 9-1-1 or if you are on campus, campus police at 916-278-6000.** If it is after hours or the weekend and you need immediate advocacy, please call WEAVE's 24-hour hotline at 916-920-2952.