Instructor:	Dr. Rui Liu
Office Location:	DMH 143
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Office Hours:	No appointment needed: Canvas Discussion Board By appointment: Friday 1:30-2:00 pm via ZOOM
Class	

The objective of the course is to survey some basic mathematical techniques that are widely used to connect important elements in economic theory and to solve economic problems. It is a mathematical restatement of the economic theory contained in microeconomics and macroeconomics.

Students will acquire enough mathematical skill to access literature that is most relevant to their study.

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

CLO 1: define and explain indifference curve, isoquant, cost minimization, profit maximization, equilibrium conditions in output and input markets, and the national income model.

CLO 2: identify and apply functions of one or more variables, simple differentiation, partial and total differentiation, and matrix algebra.

CLO 3: solve simple real world optimization problems both mathematically and graphically.

Business Calculus, by Shana Calaway, Dale Hoffman, and David Lippman . The book is freely available at http://www.opentextbookstore.com/buscalc/BusCalc.pdf

Essential Mathematics for Economic Analysis, 4th Edition, by Knut Sydsaeter, Peter Hammond and Arne Strom, ISBN: 9780273760689.

A Mathematical Approach to Economic Analysis, by P. Toumanoff & F. Nourzad

This is a four-unit undergraduate level course. SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of three hours per unit per week, including participating course activities, completing problem sets, mastering software languages, and so on. More details about student workload can be found in University Policy S12-3 (Links to an external site.) at http://www.sjsu.edu/senate/docs/S12-3.pdf.

http://www.sjsu.edu/ecampus/teaching-tools/respondus/faq/index.html (Links to an external site.).

Finally, when taking an online exam, follow these guidelines:
• Ensure you're in a location where you won't be interrupted
• Turn off all mobile devices, phones, etc.
• Clear your desk of all external materials — books, papers, other computers, or devices
• Remain at your desk or workstation for the duration of the test
• If a webcam is required, make sure it is plugged in or enabled before starting LockDown Browser
• LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted
• If a webcam is required, you will be recorded during the test to ensure you're using only permitted resources

Letter grades will be determined as follows:

A+ = 100-97%	A = 96-93%	A-= 92-90%
B+ = 89-87%	B = 86-83%	B- = 82-80%
C+ = 79-77%	C = 76-73%	C- = 72-70%
D+ = 69-67%	D = 66-63%	D- = 62-60%
F = 59-0% Unsatisfactory		

This course is delivered online though Canvas. Success in the course requires active participation by logging in to the web based course site multiple times a week to read assigned text sections, review lecture videos, updates and announcements, to complete assignments, take exams. An average student should set aside a minimum of 20-25 hours per week for this summer intensive course. Although, depending on your level of comfort and experience with calculus and technology, your individual time commitment may vary.
Check out, “What Makes a Successful Online Student?” at:
http://www.ion.uillinois.edu/resources/tutorials/pedagogy/studentprofile.asp

This is a technology heavy class since it is in the online environment. You must have a computer that has the most up to date operating system, Microsoft office, up to date web browser and associated media players, a webcam, microphone and earphone capabilities. There are computers available on campus and at libraries, tech centers, proctoring centers, etc., but you will need to search these resource out for yourself, if needed.

Some have expressed a concern that their computers may be exposed to viewing during sessions or exams. In particular, the exam software requires that you show ID, scan your room and be visible throughout the entire exam and all aspects are recorded. If this is a concern of yours please reevaluate your desire to participate in an online course as these are all requirements of such courses. If you do wish to participate but do not wish to use your computer consider purchasing one strictly for use in this program or consider attending at a local library using their computers. These decisions are yours and the instructor is not responsible for any additional effort or cost you may need to expend to satisfy those desires.
You must also have the necessary system requirements to smoothly run the Canvas site. In an online class it is your responsibility to ensure you have the proper technology to view the online curriculum. I cannot provide tech support for your system or software. Canvas or SJSU ecampus can provide support for your system to get you started.

Canvas: https://docs.google.com/forms/d/e/1FAIpQLScH7-UunrDkUrUUJIig5aPIKJmpjXF84Pua_lFpe0bpgVx5pw/viewform
Or SJSU ecampus: http://www.sjsu.edu/ecampus/ or: (408) 924-2337

List the agenda for the semester including when and where the final exam will be held. Indicate the schedule is subject to change with fair notice and how the notice will be made available.

Week	Topics, Readings, Assignments, Deadlines
	Syllabus
1	Properties of Functions, Chp 4, 5
	Differentiation, Chp 6
	Derivatives in Use, Chp 7
2	Single Variable Optimization, Chp 8
3	Functions of Many Variables, Chp 11
	Multivariable Optimization, Chp 13
	Constrained Optimization, Chp 14
4	