

**San José State University**  
**Social Sciences/Economics**  
**ECON 108, Cost-Benefit Analysis, Section 80, Fall, 2021**

**Course and Contact Information**

Instructor:	Dr. Sanchita Mukherjee
Office Location:	DMH 214
Email:	<a href="mailto:sanchita.mukherjee@sjsu.edu">sanchita.mukherjee@sjsu.edu</a>
Office Hours:	Tuesdays 10:30am-11:30am (PST) via Zoom and/or by appointment
Class Days/Time:	MoWe 12:30PM - 1:45PM
Classroom:	Online. I will prerecord my lectures and share on Canvas. I will hold group discussion sessions on Mondays 12:30pm-1:45pm. No meetings on Wednesdays.
Zoom Lecture Link:	<a href="https://sjsu.zoom.us/j/85379299452">https://sjsu.zoom.us/j/85379299452</a> Meeting ID: 853 7929 9452
Prerequisites:	ECON 1B and ECON 3 or STAT 95, or instructor consent

**Course Description (Required)**

The purpose of this course is to provide you with a systematic and rigorous way of thinking about the measurement of benefits and costs when evaluating public projects, programs or regulations. Cost-benefit analysis (CBA) has wide application, including: highway construction projects, safety regulations, environmental resource use, taxation of cigarettes, and investment in higher education. Given the prevalence of cost-benefit analyses in government budgetary processes, this course will develop the critical appraisal skills needed to evaluate public reports. By the end of the course you should be able to conduct your own benefit-cost analysis on any issue of sufficient interest, as well as be able to determine whether someone else's cost-benefit analysis is well done or poorly done.

**Course Learning Outcomes (CLO) (Required)**

By the end of this course, students will be able 1.) to explain the reason for using CBA, its history of use in the United States and around the world, and to discuss current controversies surrounding it, 2.) to differentiate between CBA and related techniques such as Cost-Effectiveness Analysis (CEA) and Economic Impact Analysis (EIA); 3.) to describe and use the tools of applied welfare economics, relevant numerical methods (e.g., inflation adjustments, present value calculations) and statistical and data analysis methods (survey design, regression) to answer technical questions related to CBA, and 3.) to produce an appropriate recommendation concerning a policy or project, as well as to evaluate recommendations made by others. CLOs 1-3 will be assessed through in-class exams and a term paper.

**Required Texts/Readings (Required)**

**Textbook**

Cost-Benefit Analysis: Concepts and Practice by Boardman, Greenberg, Vining, and Weimer, (5th Edition), Cambridge University Press  
ISBN-13: 978-1108401296

ISBN-10: 1108401295

It is available at any of the online outlets (Amazon, for example). Used copies are fine.

### **Other technology requirements / equipment / material**

The class will use Microsoft Excel for data collection, storage and regression analysis. Use of statistical software R is recommended for regression analysis, but not required.

### **Course Requirements and Assignments (Required)**

#### **1) Problem Sets (20% of your grade, 5% each):**

There will be 4 problem sets due, each of which will be posted on Canvas. Please submit assignments on the day they are due. Assignments handed in after answers are distributed will receive no credit.

#### **2) In-Class Group Discussions (20%)**

In each group there will be 4 members and based on the number of students in our class, we will divide our class in a certain number of groups. Each week on Monday, I will ask a question and the group will have to use the breakout rooms on Zoom to discuss their answer. Then come back to the main class and discuss their answers with the rest of the class. By the end of the day, each group would have to write down the answer and submit their answer (one group one answer) on Canvas. One group one submission.

There will be a total of 10 group discussions, 8 (highest score) out of the 10 will count to your grade.

#### **3) Exams (30% of your grade)**

There are two online Midterm exams (20% total, 10% each) and one online comprehensive final exam (10% of your grade). All of these exams will be multiple choice problems. The exams will be held on canvas with lockdown browser. You won't need a webcam.

#### **4) Term Paper Proposal (10% of your grade) – min. 500 Words**

To avoid last minute chaos, a proposal is required by **October 14, 2020**. The proposal should include:

- I. A brief description of the project
- II. Why you find this project interesting and important?
- III. How you will obtain data? Mention specific data sources from where you are going to collect data for your analysis.
- IV. Methodology you will be using to compare costs and benefits.

#### **5) Term paper (20% of your grade) – min. 1500 words**

One major goal of this course is to provide you with skills and knowledge of both the theory and the practical tools necessary to start your own research. The best way to achieve this goal is to write an original research paper.

### **Paper Structure:**

- I. Title page: Name of the Project, Name of the Author
- II. Abstract. This should be less than 50 words and summarize the topic, methodology, and main findings. It should appear on your title page.
- III. Overview of the Project
- IV. Plan Purpose
- V. Monetization of Benefits

- Detailed Methodology
- Tables
- Graphs, where applicable

#### VI. Monetization of Costs

- Detailed Methodology
- Tables
- Graphs, where applicable

#### VII. CBA Findings

VI. Conclusion. Review the major findings as well as possible extensions for future work. Make sure to mention any limitations of your approach as well as alternative explanations of your results. Policy implications, if any, could also be included in this section.

VII. Tables and graphs. Your paper must include at least one table and one graph. The tables and graphs should be well-labeled and accessible to the reader.

### Grading Information (Required)

Your grade will be based upon:

Assignments	% of your grade	Due Dates
4 Problem Sets	20% total, 5% each	See due dates in Course Schedule below. You will also be notified on Canvas
In-Class Group Discussions	20%	See the course schedule below
Midterm 1	10%	Wed, 9/29 (On Canvas with Lockdown Browser)
Midterm 2	10%	Wed, 11/10 (On Canvas with Lockdown Browser)
Term Paper Proposal	10%	Fri, 10/22 (Submit on Canvas)
Term Paper	20%	Wed, 12/8 (Submit on Canvas)
Final Exam	10%	Tuesday, December 14 from 12:15-2:30 PM (On Canvas with Lockdown Browser)

You will find the Final Exam schedule for Fall 2021 at:

<https://www.sjsu.edu/classes/final-exam-schedule/fall-2021.php>

- **There will be no makeup exams. Please make your travel plans accordingly.**
- **I do not offer extra credit work to an individual student.**

### Online Classroom Protocol

In consideration to your classmates and me, be on time, stay for the duration of the class and avoid any disruptive activities within the classroom (cell phones, side conversation, etc.)

### University Policies (Required)

#### Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester's Catalog Policies section at <http://info.sjsu.edu/static/catalog/policies.html>. Add/drop deadlines can be found on the current academic year calendars document on the Academic Calendars webpage at [http://www.sjsu.edu/provost/services/academic\\_calendars/](http://www.sjsu.edu/provost/services/academic_calendars/). The Late Drop Policy is available at <http://www.sjsu.edu/aars/policies/latedrops/policy/>. Students should be aware of the current deadlines and penalties for dropping classes.

Information about the latest changes and news is available at the Advising Hub at <http://www.sjsu.edu/advising/>.

## **Consent for Recording of Class and Public Sharing of Instructor Material**

[University Policy S12-7](http://www.sjsu.edu/senate/docs/S12-7.pdf), <http://www.sjsu.edu/senate/docs/S12-7.pdf>, requires students to obtain instructor's permission to record the course.

- “Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor's permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material.”
  - It is suggested that the green sheet include the instructor's process for granting permission, whether in writing or orally and whether for the whole semester or on a class by class basis.
  - In classes where active participation of students or guests may be on the recording, permission of those students or guests should be obtained as well.
- “Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent.”

## **Academic integrity**

Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The University Academic Integrity Policy S07-2 at <http://www.sjsu.edu/senate/docs/S07-2.pdf> requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. [The Student Conduct and Ethical Development website](http://www.sjsu.edu/studentconduct/) is available at <http://www.sjsu.edu/studentconduct/>.

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include your assignment or any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Integrity Policy S07-2 requires approval of instructors.

## **Campus Policy in Compliance with the American Disabilities Act**

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. [Presidential Directive 97-03](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf) at [http://www.sjsu.edu/president/docs/directives/PD\\_1997-03.pdf](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf) requires that students with disabilities requesting accommodations must register with the [Accessible Education Center \(AEC\)](http://www.sjsu.edu/aec) at <http://www.sjsu.edu/aec> to establish a record of their disability.

In 2013, the Disability Resource Center changed its name to be known as the Accessible Education Center, to incorporate a philosophy of accessible education for students with disabilities. The new name change reflects the broad scope of attention and support to SJSU students with disabilities and the University's continued advocacy and commitment to increasing accessibility and inclusivity on campus.

# ECON 108-80/Cost Benefit Analysis, Fall 2021, Course Schedule

## Tentative Course Schedule

Week	Topics
1 (8/23, 8/25)	Introduction, Syllabus, Microsoft Excel, Google Sheets What is Cost Benefit Analysis (CBA)?
2 (8/30, 9/1)	Chapter 1 Introduction to CBA <b>Meet on 8/30 to finalize groups</b>
3 (9/6 holiday, 9/8)	Chapter 2: Conceptual Foundations of Cost Benefit Analysis
Problem Set 1 due 9/10	
4 (9/13, 9/15)	Chapter 3: Microeconomic Foundations of Cost Benefit Analysis 9/13: <b>Group-Discussion Question 1 based on Chapter 1</b>
5 (9/20, 9/22)	Chapter 9: Discounting Future Impacts and Handling Inflation 9/20 <b>Group-Discussion Question 2 based on Chapters 2 and 3</b>
6 (9/27, 9/29)	Midterm Review 9/27 <b>9/29 Midterm 1</b>
7 (10/4, 10/6)	Chapter 5: Valuing Impacts in Output Markets 10/4 <b>Group-Discussion Question 3 based on Chapter 9</b>
8 (10/11, 10/13)	Chapter 6: Valuing Impacts in Input Markets 10/11 <b>Group-Discussion Question 4 based on Chapter 5</b>
Problem Set 2 due 10/15	
9 (10/18, 10/20)	Chapter 7: Valuing Impacts in Secondary Markets 10/11 <b>Group-Discussion Question 5 based on Chapter 6</b>
<b>Term Paper Proposal due 10/22</b>	
10 (10/25, 10/27)	Chapter 4: Valuing Impacts from observed behavior: Direct Estimation of Demand Schedule 10/18 <b>Group-Discussion Question 6 based on Chapter 7</b>
11 (11/1, 11/3)	11/8 Midterm 2 Review <b>11/10 Midterm 2</b>
12 (11/8, 11/10)	Chapter 8: Predicting and Monetizing Impacts 10/25 <b>Group-Discussion Question 7 based on Chapter 4</b>
Problem Set 3 due 10/29	
13 (11/15, 11/17)	Chapter 14: Valuing Impacts from observed behavior: Experiments and Quasi Experiments 11/1 <b>Group-Discussion Question 8 based on Chapter 8</b>
14 (11/22, 11/24)	Chapter 10: The Social Discounting Rate 11/22 <b>Group-Discussion Question 9 based on Chapter 14</b>
Problem Set 4 due (11/26)	
15 (11/29, 12/1)	11/29 <b>Group-Discussion Question 10 based on Chapter 10</b> Work on Term Paper
16 (12/6)	Final Exam Review
<b>Term Paper due Wed, 12/8</b>	
<b>Final Exam</b>	<b>Tuesday, December 14 from 12:15-2:30 PM</b>