**ECON 474**

**Economic Consulting and Applied Managerial Economics**

**Spring 2022**

**MW 10:00-11:50 AM**

**Jeffery Dubin**

[jdubin@usc.edu](mailto:jdubin@usc.edu)

Office Hours: One hour before lecture and by appointment

Prerequisites: Econ 303

**Course Description:**

This is an undergraduate level special topics course that introduces economic consulting and managerial economic methods applied in real world problems. We use economic methods to analyze issues of intellectual property, environmental damage, trademark infringement, brand value, and consumer demand. Economic principals such as elasticity, demand curves and monopolies will be discussed using an applied econometric approach. During the second half of the course marketing models such as logit and the Bass Model will be analyzed and discussed in comparison to economic models. The analysis will focus on econometric thinking and problem-solving using case studies as the basis for the lectures and homework. Lectures will focus both on the quantitative approach used by economic consultants as well as the intuitive thought process and rationale that drives that quantitative analysis. The problems and cases analyzed are typical of those found in the economic consulting environment. Prior background in econometrics is not required although helpful. A goal of the course is to provide insight into problem formulation, data gathering, and the implications of statistical models for real world decision-making. Students are exposed to the methods of marketing based on data analysis.

Professor Jeffrey Dubin teaches this course. Dr. Dubin earned his undergraduate degree in Economics with highest honors and great distinction from the University of California, Berkeley, and received a Ph.D. in Economics from the Massachusetts Institute of Technology. Dr. Dubin was Adjunct Professor of Economics and Statistics in Global Economy and Management at the UCLA Anderson School of Management. He is presently Adjunct Professor of the Practice Area at USC. Dr. Dubin retired from the California Institute of Technology in 2007 where he was a tenured Professor of Economics. Dr. Dubin joined Caltech in 1982.

Dr. Dubin's research focuses on microeconomic modeling with particular emphasis in applied econometrics.  His current research concerns discrete choice econometrics, energy economics, and tax compliance. Dr. Dubin is also co-founding member and Director of Statistical and Economic Analysis at Pacific Economics Group in Pasadena. He is also Senior Advisor with Cornerstone LLP. Dr. Dubin frequently provides expert testimony.

**Main Text**:

Studies in Consumer Demand – Econometric Methods Applied to Market Data. (1998) Jeffrey Dubin ISBN: 0-7923-825-3 (“SCD”)

**Recommended Texts:**

Academic journal articles, legal cases, expert testimony, and excerpts from additional books will be assigned throughout the course for critical analysis and discussion and will be available on Blackboard.

**Assessment:**

*Core Grade*

Homework problems based on the current cases being discussed will be assigned on a roughly weekly basis. There are typically 8-10 homework assignments during the semester. A course project (TBD), to be worked on collaboratively by the class as whole (but in assigned groups of 5-7 students) will be assigned. The course project involves original research and data collection with data analysis and a class presentation. The core course grade is determined by homework (25%), class project (25%), midterm examination (25%), and final examination (25%).

*Extra Credit*

“Extra credit” may be awarded during the semester. For instance, homework extra credit may be available from time to time. Homework extra credit might allow a student to compensate for lost points from another assignment or from a missing homework. Homework extra credit, whether it is offered or how much weight it receives in the overall homework component grade, remains at the discretion of the Professor and is subject to revision or adjustment during the semester as deemed appropriate by the Professor. Homework extra credit will not allow even the most eager student to achieve more than 100% on the homework grade component. The value of homework extra credit is limited and should not be expected to be a perfect substitute for performance on the core homework assignment.

Any extra credit, whether it is offered or how much weight it receives in the final course grade, remains at the discretion of the Professor and is subject to revision and adjustment as deemed appropriate by the Professor. The purpose of extra credit, in this course, is to provide extra work for some students to achieve a mastery or proficiency in the material that goes beyond the course requirements. You should not and cannot rely on extra credit to compensate for poor achievement in the core component grading.

Importantly, it is not necessary to do any extra credit to get an A in this course. Doing A level work on each core component (homework, midterm, project, final) would be sufficient to get an A in the course. Extra credit is purely optional. Consequently, you will do no worse in this course than your core component grades reflect.

*Questions about Grading*

You may track your progress on Blackboard and discuss grading issues with the TA. It is your responsibility to discuss posted grades within one week or their posting. They are otherwise final.

**Academic Integrity Policy:**

The Department of Economics is committed to upholding the University’s Academic Integrity code as detailed in the SCampus Guide.  It is the policy of the department to report all violations of the code.  Any serious violation or pattern of violations of the Academic Integrity Code will result in the student’s expulsion from the major or minor, or from the graduate program.

**Academic Accommodations**

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me as early as possible in the semester. DSP is located in STU 301, and is open 8.30am-5.00pm, Monday through Friday. The phone number for DSP is (213)-740-0776.

**Academic Conduct:**

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, “Behavior Violating University Standards” [policy.usc.edu/scampus-part-b](https://policy.usc.edu/scampus-part-b/). Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, <https://ooc.usc.edu/research-compliance/scientific-integrity/>. Copying material (exam answers, homework answers) located online and using it verbatim is plagiarism. Such material is frequently incomplete or simply wrong.

**Support Systems:**

*Counseling and Mental Health - (213) 740-9355 – 24/7 on call*

[studenthealth.usc.edu/counseling](https://studenthealth.usc.edu/counseling/)

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

*National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call*

[suicidepreventionlifeline.org](http://www.suicidepreventionlifeline.org/)

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

*Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL), press “0” after hours – 24/7 on call*

[studenthealth.usc.edu/sexual-assault](https://studenthealth.usc.edu/sexual-assault/)

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

*Office of Equity and Diversity (OED) - (213) 740-5086 | Title IX – (213) 821-8298*

[equity.usc.edu](https://equity.usc.edu/), [titleix.usc.edu](http://titleix.usc.edu)

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

*Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298*

[usc-advocate.symplicity.com/care\_report](https://usc-advocate.symplicity.com/care_report/)

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity |Title IX for appropriate investigation, supportive measures, and response.

*The Office of Disability Services and Programs - (213) 740-0776*

[dsp.usc.edu](http://dsp.usc.edu/)

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

*USC Campus Support and Intervention - (213) 821-4710*

[campussupport.usc.edu](https://campussupport.usc.edu/)

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

*Diversity at USC - (213) 740-2101*

[diversity.usc.edu](https://diversity.usc.edu/)

Information on events, programs and training, the Provost’s Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

*USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call*

[dps.usc.edu](http://dps.usc.edu/), [emergency.usc.edu](http://emergency.usc.edu/)

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

*USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call*

[dps.usc.edu](http://dps.usc.edu/)

Non-emergency assistance or information.

*Office of the Ombuds - (213) 821-9556 (UPC) / (323-442-0382 (HSC)*

[ombuds.usc.edu](https://ombuds.usc.edu/)

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

**Optional Readings**

Readings labeled as “optional” are 100% optional. They are included for students that are interested in delving deeper into the topics than time permits in this course. The optional readings are largely geared towards a more advanced audience, such as MA or PhD students. The optional readings will *not* help you to do better on the exams or homework assignments. They are purely there for students seeking more advanced understanding of the material.

**Course Schedule and Topics**

The course is largely organized into various case studies, each of which emphasizes different topics, skills, and methodological tools. The readings listed below match file names on Blackboard. On Blackboard, the files are all organized into their respective case study folders. The blue/white pattern in the tables below is only for improved readability.

**CASE STUDY: Canada Post (Weeks 1-3)**

**Topics: Applied Demand Theory, Elasticity, Theory and Measurement Issues, and Intro to Regression Analysis**

**Readings:**

|  |  |
| --- | --- |
| *Canada Post; Chapter 1.pdf* [see textbook for physical copy] | (required) |
| *McDevitt; Newsweek; To Postal Workers, No Mail is Junk.pdf* | (required) |
| *Dubin; Handwritten Regression Notes.pdf* | (required) |
| *Fisher; Multiple Regression in Legal Proceedings.pdf* | (required) |
| *Dubin Ch3; Demand for Direct Mail.pdf* | (skim) |
| *Project Objectives.pdf* | (skim) |
| *Wallis Seasonal Variation.pdf* | (optional) |
| *Malinvaud Demand Theory.pdf* | (optional) |

**CASE STUDY: Prescott Event Center (mostly for homework; not covered much in class)**

**Topics: Measurement of Economic Demand: Econometrics, Surveys, and Market Experiments**

**Readings:**

|  |  |
| --- | --- |
| *Cohen ERA Report.pdf* | (required) |
| *Dubin Expert Witness Report.doc* | (required) |
| *Rhoda Report.pdf* | (required) |
| *Dubin Affidavit 1;doc* | (required) |
| *Dubin Affidavit 2; Responses to Rhoda.doc* | (required) |
| *ERA Draft Report.pdf* | (optional) |

**CASE STUDY: Bali (Week 4-5)**

**Topics: Measurement of Economic Demand: Econometrics, Surveys, and Market Experiments**

**Readings:**

|  |  |
| --- | --- |
| *Dubin Expert Report.pdf* | (required) |
| *Owsley Expert Report.pdf* | (required) |
| *Bali.ppt* | (look at) |
| *Owsley Scenarios; Bali Case.pdf* | (optional) |
| *Dubin; Supplemental Expert Report for Bali Case.pdf* | (optional) |

**REVIEW and MIDTERM (Week 6)**

|  |  |
| --- | --- |
| *Sample midterm.pdf* | (recommended) |

**CASE STUDIES: Mabuchi Micro Motors and High Fructose Corn Syrup (Week 7)**

**Topics: Patents and Identification and Demand-Supply Systems**

**Readings:**

|  |  |
| --- | --- |
| Dubin SCD Chapter 2: The World Demand for Fractional Horse Power Direct-Current Motors (textbook) | (required) |
| *DeFranco; Patent Infringement Damages.doc* | (required) |
| *Marston; Pricing to Market in Japanese Manufacturing.pdf* | (required) |
| *Panduit; Court Opinion.pdf* | (required) |
| *High Fructose Corn Syrup v Sugar.ppt* | (look at) |
| *Campa and Goldberg; Exchange Rate and Pass-through into Import Prices.pdf* | (skim) |
| Dubin SCD Chapter 3: Estimation and Identification of the Worldwide Demand for Acetic Acid (textbook) | (skim) |

**CASE STUDY: Nestle and Carnation (Weeks 7-9)**

**Topics: Brand Valuation, Patent Valuation, and Intellectual Property**

**Readings:**

|  |  |
| --- | --- |
| Dubin SCD Chapter 4: The Demand for Branded and Unbranded Products: An Econometric Method for Valuing Intangible Assets (textbook) | (required) |
| *Demand for Branded and Unbranded Products.pdf* | (required) |
| *Dubin; Cal Tech Admission Table 3-10.odf* | (required) |
| *Granger and Gabor; On the Price Consciousness of Consumers.pdf* | (required) |
| *Granger and Gabor; Price as an Indicator of Quality.pdf* | (required) |
| *Harlan; Rental America, Washington Post Article.doc* | (required) |
| *Lewis; Price Sensitivity Measurement.pdf* | (required) |
| *Dubin et al.; LA Electric Vehicle Strategic Market Study.pdf* | (skim) |
| *Dubin; Report on Freshmen Admissions at Cal Tech.pdf* | (skim) |

**CASE STUDY: Kodak and Polaroid (Weeks 10-11)**

**Topics: Forecasting New Product Demand: Logit and Bass Models**

**Readings:**

|  |  |
| --- | --- |
| Dubin SCD Chapter 7: The Demand for Cameras by Consumers - A Model of Purchase Type Choice and Brand Choice (textbook) | (required) |
| *Bass; New Product Growth for Model Consumer Durables.pdf* | (required) |
| *Baumol; Five Camera-Demand Models.pdf* | (required) |
| *Hauser; Note on Life Cycle Diffusion Models.pdf* | (required) |
| *Logic of Fisher Demand Analysis; start on page 13.pdf* | (required) |
| *Analysis of Sales of Integral Cameras, Kodak and Polaroid.pdf* | (skim) |
| *Exhibits.pdf* | (skim) |
| *Kodak Market Expansion.pdf* | (skim) |
| *Polaroid Conditional Demand for Film.pdf* | (skim) |
| *Sources of Integral Instant Cameras' Rise and Fall.pdf* | (skim) |
| *Summary of Kodak Market Expansion Effect and Other Exhibits.pdf* | (skim) |

**CASE STUDY: Environment and Fishing (Week 11)**

**Topics: Environmental Demand, Resource Valuation and Damage Estimation,**

**Readings:**

|  |  |
| --- | --- |
| Dubin SCD Chapter 5: The Demand for Recreational Fishing in Montana (textbook) | (required) |

**CASE STUDY: Garcia Personal Injury (Week 12-13)**

**Topics: Damages in Personal Injury**

**Readings:**

|  |  |
| --- | --- |
| *Dubin Expert Witness Report on Garcia Case.pdf* | (required) |
| *Garcia Settles Lawsuit.pdf* | (required) |
| *Kings Settle Garcia Lawsuit.pdf* | (required) |
| *Garcia Exhibits.pdf* | (optional) |

**TOPIC: Sampling (Week 13)**

**Readings:**

|  |  |
| --- | --- |
| *Cochran; Ch2 Simple Random Sampling* | (skim) |

**STUDENT PRESENTATIONS (Week 14-15)**

**FINAL EXAM**

|  |  |
| --- | --- |
| *Practice Final Exam* | (recommended) |

|  |  |  |  |
| --- | --- | --- | --- |
| **Spring 2022 Tentative Schedule** | | | |
| **Week # and Day** | **Date** | **Homework Due Dates** | **Tentative Description of Material Covered** |
| Week 1 |  |  |  |
| Monday | Jan 10 |  | Syllabus, course reviews, past and current cases, introduce Prescott Event Center case and discuss Problem Set 1 (a.k.a. PS1) (Homework 1) |
| Wednesday | Jan 12 |  | Canada Post: Introduction to Canada Post Case; Demand Theory, Elasticity, Theory and Measurement Issues; Elasticity Problem to do at home |
| Week 2 |  |  |  |
| Monday | Jan 17 |  | **Martin Luther King Day – No Class** |
| Wednesday | Jan 19 | PS1a Due | Canada Post: Elasticity analysis continues. |
| Week 3 |  |  |  |
| Monday | Jan 24 |  | Canada Post:  Linear regression model and constant elasticity regression model; demand for ad mail; Canada post methodology; basics of econometric demand analysis; Trends, creating seasonal variables, and admail math |
| Wednesday | Jan 26 | PS1b Due | Canada Post: Multiplier concept, ex-ante and ex-post forecasting, Lerner's Rule, marginal cost and revenue, and Ramsey Pricing Hedonic Pricing; Multivariable regression; R-squared, Excel/Stata seasonal variables with -1, 0 and 1 |
| Week 4 |  |  |  |
| Monday | Jan 31 |  | Canada Post: Regression methods |
| Wednesday | Feb 2 | PS2 Due | Bali: Introduction to Bali Case; Owsley estimates, market share, dilution rate |
| Week 5 |  |  |  |
| Monday | Feb 7 |  | Bali: Market share models and dilution; CAPM |
| Wednesday | Feb 9 | PS3 Canada Post Due | Bali: Dubin Report and Dubin's mistakes, key variables affecting RC Villa Revenues; Owsley's errors |
| Week 6 |  |  |  |
| Monday | Feb 14 |  | Bali Conclusion and Jury Powerpoint |
| Wednesday | Feb 16 |  | Bali Conclusion and Jury Powerpoint |
| Week 7 |  |  |  |
| Monday | Feb 21 |  | **President’s Day – No Class** |
| Wednesday | Feb 23 | PS4 Bali Due | **MIDTERM Review: TA only** |
| Week 8 |  |  |  |
| Monday | Feb 28 |  | **MIDTERM** |
| Wednesday | March 2 |  | Consulting Firm Visit Day |
| Week 9 |  |  |  |
| Monday | March 7 |  | Mabuchi: Intro to Mabuchi; Patents, and Demand Supply Systems Mabuchi continued, four elements of Panduit; price to market theory; Marston; foreign prices and exchange rates; trademarks; HFCS |
| Wednesday | March 9 |  | Nestle/Carnation: Intro to Nestle/Carnation; Methods of determining values of brands/trademarks; multinomial logit; endogeneity; cumulative distribution function; introduce Dubin's Equity |
| Week 10 |  |  |  |
| Monday | March 14 |  | **Spring Break** |
| Wednesday | March 16 |  | **Spring Break** |
| Week 11 |  |  |  |
| Monday | March 21 | PS5 Price Sensitivity Due | Nestle/Carnation: Dubin's Equity fully explained |
| Wednesday | March 23 | Group Project Description Due | In Class Project Help / Collaboration |
| Week 12 |  |  |  |
| Monday | March 28 |  | Linear probability model; CDF, Normal CDF; Random Utility Maximization |
| Wednesday | March 30 | PS6 Trademarks Due | Review Random Utility maximization; Introduce Cal Tech |
| Week 13 |  |  |  |
| Monday | April 4 |  | Cal Tech Admissions |
| Wednesday | April 6 |  | Bass Model |
| Week 14 |  |  |  |
| Monday | April 11 | PS7 Cal Tech Due | Kodak and Polaroid Introduction |
| Wednesday | April 13 |  | Kodak and Polaroid Continued |
| Week 15 |  |  |  |
| Monday | April 18 |  | Finish Kodak; Baumol Model; value of features translated into prices; non-use values; travel cost as valuation method for nature |
| Wednesday | April 20 | PS8 Kodak-Polaroid Due | Garcia Personal Injury Case Introduction |
| Week 16 |  |  |  |
| Monday | April 25 | Project Report  Due | Presentations |
| Wednesday | April 27 | Trisara Assignment Due | **TA Only: Final Exam Review** |
| Week 17 |  |  |  |
| Monday | May 2 |  | **Final Exam Period (April 30 – May 3)** |
| **Final** | **May 9, 2022**  **8 AM – 10 AM** | |  |