



ECO 404

FALL 2023

TOPICS IN MANAGERIAL  
ECONOMICS

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DEPARTMENT OF ECONOMICS  
ECO 404, *TOPICS IN MANAGERIAL ECONOMICS*, FALL 2023  
WEDNESDAYS 1 – 4 PM IN BL 114  
INSTRUCTOR: AJAZ HUSSAIN

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**COURSE DESCRIPTION**

Applies quantitative economic methods to real world business-oriented cases. Sample topics include: new product design, decision making under uncertainty, market segmentation and price discrimination, inventory analysis, game theoretic analysis of price wars, financial portfolio design, and optimal pricing. Involves substantial modeling in Excel, regression analysis, optimization methods, and financial reports.

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**LEARNING OBJECTIVES**

Students who successfully complete ECO404 will be able to:

- Able to analyze and articulate a structured “solution” to real life situations in business-economics cases (“experiential learning”).
  - Gain proficiency in Econometric modelling, Monte-Carlo simulations, and Quantitative analysis.
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**INSTRUCTOR: Sayed “Ajaz” Hussain**

**Office:** GE 178 (Max Gluskin House, 150 St. George Street)

**E-mail (for personal-course related issues):** Use your UofT e-mail account (student id# in subject) and e-mail [sayed.hussain@utoronto.ca](mailto:sayed.hussain@utoronto.ca) (please ask case related questions during case-discussion).

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**REQUIRED COURSE MATERIAL/TOOLS/PLATFORMS**

**ECO 404 Quercus:**

- Course Announcements and/or notifications
  - Submitting, grading, and detecting plagiarism in “memos” and “projects” (see [course policies](#) section)
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**Microsoft Office 365 ProPlus (especially Excel) and TechSmith Snagit**

- (Free) download from [here](#).
  - Please install the following Excel add-ins:
    - “Solver” and “Data Analysis” from “within” Excel
  - You *must* bring a laptop with Excel to every lecture.
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**ECO 404 Fall 2023 “Harvard Business School Case Packet”**

- Details TBA after first lecture based on students’ interests and preferences.
  - **Some possible cases:**
    - [Game Theory: Strategic Pricing] *Bitter Competition: The Holland Sweetener Co. vs. NutraSweet (A)* [with spreadsheet supplement] in conjunction with *Bitter Competition: The Holland Sweetener Co. vs. NutraSweet (B)*
    - [Finance: Asset Management] Construct real-life portfolios consisting of a risk-free asset and a synthetic risky asset consisting of stocks, corporate bonds, commodities, and ETFs/Mutual Funds.
    - [Finance: Decision Making Under Uncertainty with Monte-Carlo Simulations] *Gold Claim at Sturgeon Lake* [with spreadsheet supplement].
    - [Finance: Credit Risk] *Blackstone and the Sale of Citigroup's Loan Portfolio* [with spreadsheet supplement].
    - [Marketing: Pricing, Segmentation] *Tupelo Medical: Managing Price Erosion* [with spreadsheet supplement].
    - [Finance: Mark-to-Market Valuation] *Compass Maritime Services, LLC: Valuing Ships* [with spreadsheet supplement].
    - [Finance: Mark-to-Model Valuation] *Ocean Carriers* [with spreadsheet supplement].
    - [Finance: LBO M&A Valuation] *Valuation of AirThread Connections* [with spreadsheet supplement] in conjunction with *Note on Cash Flow Valuation Methods: Comparison of WACC, FTE, CCF and APV Approaches*
    - [Environmental Economics: Hazardous Waste Synergies] *Cook Composites and Polymers Co.* [with spreadsheet supplement].
    - [Game Theory: Innovation] *Race to Develop Human Insulin* in conjunction with *An R&D Race* (pw announced in class)
    - [Marketing: Effectiveness of Ad Channels] *Fueling Sales at EuroPet Data* (with spreadsheet supplement)
    - [Finance: Mining] *Bidding for Antamina Copper-Zinc Mine* accompanied by
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## REQUIRED COURSE MATERIAL/TOOLS/PLATFORMS

- [Pricing: Hedonic Regressions] *Sarah Gets a Diamond*
  - [Marketing: Measuring Price vs. In-Store Promotions] *Two Varieties of Two Major Soda Brands Competing in Seven Locations of a Supermarket Chain.*
  - [Finance: How to Hedge Risk on a Commodity Lacking Derivatives/Options Products] *Milk and Money.*
- Cases will be randomly assigned one week in advance. For example, the case for the Week 3 class will be assigned in Week 2. Students are expected to read cases/notes and familiarize themselves with the salient facts/issues of the case *prior* to class, and discuss the assigned case/note/data in class.
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## MARKING SCHEME (SEE “COURSE POLICIES” SECTION)

### (30% of overall grade) Project 1:

At the end of Week 5 lecture, each student will be randomly assigned one of the cases that was assigned/discussed in Week 2 through Week 5 classes and deliver the following items on the assigned case for Project 1 (a *solo* project, i.e. you cannot collaborate with anyone else):

- **[75% of the Project 1 Mark]** (Max) 10-page “business report” with a title page (does not count towards the 10-page limit), one-page executive summary (counts towards the 10-page limit). Report must be supplemented with a technical appendix (no page limit on appendix) and an Excel file with the “analysis/model”. See “Paper Grading Rubric” below.
  - **[25% of the Project 1 Mark]** (Max) 15-20 minute “online presentation”. Students must use “slides” and are required to be “on video”. Optional: Students may solicit feedback from their peers to “improve” their presentation (however, you cannot solicit feedback on the paper or Excel model). See “Presentation Grading Rubric” below.
  - *“Normally, students will be required to submit their course essays to the University’s plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool’s reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University’s use of this tool are described on the Centre for Teaching Support & Innovation web site <https://uoft.me/pdt-faq>”*
  - Due: 1:10 pm Week 7 class.
  - Penalty for late submission: 25% of the Project 1 grade for each day that the submission is late. Project to be submitted through Quercus – details TBA.
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### (50% of overall grade) Project 2:

At the end of Week 12 lecture, each student will be randomly assigned one of the cases that was assigned/discussed in Week 6 through Week 12 classes and deliver the following items on the assigned case for Project 2 (a *solo* project, i.e. you cannot collaborate with anyone else):

- **[75% of the Project 2 Mark]** (Max) 10-page “business report” with a title page (does not count towards the 10-page limit), one-page executive summary (counts towards the 10-page limit). Report must be supplemented with a technical appendix (no page limit on appendix) and an Excel file with the “analysis/model”. See “Paper Grading Rubric” below.
  - **[25% of the Project 2 Mark]** (Max) 15-20 minute “online presentation”. Students must use “slides” and are required to be “on video”. Optional: Students may solicit feedback from their peers to “improve” their presentation (however, you cannot solicit feedback on the paper or Excel model). See “Presentation Grading Rubric” below.
  - *“Normally, students will be required to submit their course essays/projects to the University’s plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays/projects to be included as source documents in the tool’s reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University’s use of this tool are described on the Centre for Teaching Support & Innovation web site <https://uoft.me/pdt-faq>”*
  - Due: 11 pm, two weeks after Week 12 class.
  - Penalty for late submission: 25% of the Project 2 grade for each day that the submission is late. Project to be submitted through Quercus – details TBA.
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### (11% of overall grade) One-page summary memos:

- For each of the eleven classes from Week 2 through Week 12, students are expected to read the assigned case prior to class and submit a one-page memo summarizing the main issues of the assigned case (through Quercus) *prior* to class (no later than 1:10 pm). For example: you must submit a memo summarizing the Week 2 case prior to the Week 2 class. Each weekly memo is 1% of the course grade.
  - *“Normally, students will be required to submit their memos to the University’s plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their memos to be included as source documents in the tool’s reference*
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database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation web site <https://uoft.me/pdt-faq>"

- Penalty for late submission: 100% of the memo grade if the memo is not submitted at the beginning of class.

**(9% of overall grade) In-class participation:**

- For each of the eleven classes from Week 2 through Week 12, students are expected to read the assigned case prior to class and actively participate in-class analysis/discussions/modeling. Participation grades will be released with the “overall course grade” (i.e. *after* the last class).
- Each of the 11 “In-class-participation” sessions is worth 1% of the course grade and the two lowest marks will be dropped.

PAPER GRADING RUBRIC				
Score:	Excellent 3	Good 2	Fair 1	Problematic 0
Economic Argument, Concepts & Evidence	Clearly stated argument & concepts. Economic reasoning is sound and indicates thorough understanding of concepts discussed in class.	Fairly clear and convincing argument. Adequate use of economic concepts. Demonstrates understanding of topics discussed in class.	Argument is confusing or contradictory. Weak definition/application of economic concepts. Demonstrates some understanding of topics discussed in class.	No clear argument. Confused or no use of economic concepts. Poor quality and little if any displayed evidence of understanding of topics discussed in class.
Organization & Flow	Each main point is written in a separate paragraph, in a logical order. Article closes with a clear and convincing call to action.	Each reason is written in paragraphs, but not necessarily separate. Closing gives a fairly clear and convincing call to action.	Reasons are not written in distinct paragraphs. Closing gives a call to action, although not well supported.	Reasons are not written in good paragraphs and have questionable order. No clear or convincing call to action at close.
Writing, Clarity, Conciseness, Sentence Structure, Grammar, Active Voice, interest to Reader	Easy to read, even for a non-specialist. Writing enhances understanding and interest. Short, clear, correctly structured sentences with active voice throughout. Minimal (if any) errors.	Mostly easy to read. Mostly short, clear, correctly structured sentences with active voice. A few minor errors.	Sentence/word level problems get in the way of understanding, distracting reader in places. Some passive voice and/or jargon.	Significant sentence/word level problems make it difficult for reader to understand argument. Considerable passive voice and/or jargon.

PRESENTATION GRADING RUBRIC				
Score:	Excellent 3	Good 2	Fair 1	Problematic 0
Case Analysis: Arguments, Evidence, Understanding	Clearly identifies salient issue[s] in case. Effective and forceful arguments based on solid economic and (if applicable) econometric analysis. Demonstrates sound understanding of issues and economic/econometric concepts. Clear recommendations and/or findings.	Adequate identification of salient issue[s] in case. Somewhat effective arguments based on adequate use of economic and (if applicable) econometric analysis. Demonstrates adequate understanding of issues and economic/econometric concepts. Adequate recommendations and/or findings.	Inadequate identification of salient issue[s] in case. Poor and/or invalid arguments based on sparse use of economic and (if applicable) econometric analysis. Demonstrates inadequate and/or confused understanding of issues and economic/econometric concepts. Inadequate recommendations and/or findings	Misidentifies salient issue[s] in case. Incorrect arguments which are not based on economic and (if applicable) econometric analysis. Demonstrates little to no understanding of issues and economic/econometric concepts. Lacks recommendations and/or findings
Organization & Flow: Clarity, Conciseness, Structure, Flow, Grammar, Interest to Audience	Presentation has excellent structure and flow. Slides are properly formatted and titled, and effectively and succinctly convey information and/or arguments. Data and econometric analysis (if applicable) presented clearly and effectively. Clear, effective tables, graphs, charts, etc. Excellent backup slides for the Q&A session effectively demonstrating “behind the scenes” analysis. Minimal (if any) errors.	Presentation has less than stellar structure and flow. Some issues with formatting and titles. Slides inadequately convey information and/or arguments. Inadequate presentation of data and econometric analysis (if applicable). Ineffective use of tables, graphs, charts, etc. Backup slides inadequate for Q&A session and ineffectively demonstrating “behind the scenes” analysis. A few minor errors.	Presentation has poor structure and flow. Major issues with formatting and titles. Slides fail to adequately convey information and/or arguments. Data and econometric analysis (if applicable) shoddily presented. Poorly organized tables, graphs, charts, etc. Backup slides completely inadequate for Q&A session and for demonstrating “behind the scenes” analysis. Many minor errors.	Presentation lacks structure and flow. Lots of major issues with formatting and titles. Slides do not convey information and/or argument. Data and econometric analysis (if any) poorly or not presented. Poor, ineffective, use of tables, graphs, charts, etc. No backup slides for demonstrating “behind the scenes” analysis. Many major errors.

**“Communications”:**

- Please check **ECO404 Quercus** announcements and your UofT E-mail daily.
- Double check that:
  - Quercus settings are set to “receive notifications”
  - You have registered your UofT e-mail account on Quercus
  - You are not forwarding your UofT e-mails to an external e-mail account
- Quercus “mail” is wonky. As such, please don’t send messages through Quercus “mail”.
- Emails must be sent from your University email address and must include your student ID# in the subject field. For emails asking for a reply, if we can answer briefly without explaining course content or revealing something of general interest, then we will reply within three business days.
- It is imperative that you inform us by e-mail asap of *any* changes to your name and/or e-mail address on file on ACORN and Quercus. **Penalty for administrative tasks stemming from violating this policy: 5% of your overall course grade.**

**ECO404 Quercus: submitting assessments for grading and/or detecting plagiarism:**

- *“Normally, students will be required to submit their course essays to the University’s plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool’s reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University’s use of this tool are described on the Centre for Teaching Support & Innovation web site <https://uoft.me/pdt-faq>”*

**“Accessibility Accommodations”:**

- The University provides academic accommodations for students with disabilities in accordance with the terms of the Ontario Human Rights Code. This occurs through a collaborative process that acknowledges a collective obligation to develop an accessible learning environment that both meets the needs of students and preserves the essential academic requirements of the University’s courses and programs. Students with diverse learning styles and needs are welcome in this course. If you have a disability that may require accommodations, the first step is to contact Accessibility Services.

**“Religious Accommodations”:**

- The University provides reasonable accommodation of the needs of students who observe religious holy days other than those already accommodated by ordinary scheduling and statutory holidays. You have a responsibility to alert us in a timely fashion to upcoming religious observances and anticipated absences that affect your ability to fully participate in this course. We will make every reasonable effort to avoid scheduling compulsory activities at these times.

**“Academic Integrity”: For *anything* that counts towards your course grade:**

- You may not receive assistance from another individual. This includes, but is in no way limited to, any online forum or other digital communication as well as any tutoring or assistance service.
- You may not give assistance to any individual enrolled in ECO404.
- We *will* report all suspected cases of academic misconduct to the Department of Economics and Dean’s Office. The consequences can be severe. Being unaware of the policies or what is considered unauthorized collaboration (e.g., plagiarism) is not a defense. If you have questions or concerns about what constitutes appropriate academic behavior, please reach out to me. Please know that the University expects you to seek out additional information on academic integrity from me or from other institutional resources. The University’s Academic Integrity website is an excellent source of information. Further, it is a course requirement that you have read University’s Code of Behavior on Academic Matters, especially section B which outlines what are considered academic offences.

**“Requests for Remarking Projects”:**

- Remarking requests must be submitted after one week, but no later than two weeks, of the assessment returned to the student.
- Requests will be accepted neither before nor after this window.
- It is important that you clearly articulate why your response merits additional marks. We will re-read your entire assessment. Your mark could go up, down, or remain unchanged.
- A calculation error does not constitute a “remarking request”: contact the instructor in this case.

**“Copyright Policy”:**

- ECO404 course materials are copyright protected and belong to the instructor, the University, and/or other sources depending on the specific facts of each situation. Students may download course materials for their own academic use, and cannot copy, share, or use them for any other purpose without the explicit permission of the instructor.