

Intermediate Microeconomics I, Honors  
Econ 2260A-001/002  
Fall, 2017

Prof. Charles Z. Zheng  
Department of Economics  
University of Western Ontario

**Professor**

Charles Z. Zheng  
Office: 4026 SSC  
Phone: 519.661.2111 ext 85461  
[charles.zheng@uwo.ca](mailto:charles.zheng@uwo.ca), <http://economics.uwo.ca/people/faculty/zheng.html>  
Course Website: <https://owl.uwo.ca>  
Office Hours: Monday 11:30 AM - 12:30 PM; Wednesday 12:30 - 1:30 PM

**TAs**

Daozhou (Eric) Yao [dyao25@uwo.ca](mailto:dyao25@uwo.ca)  
Office Hours: Wednesday 9:20-10:20 AM & Thursday 3-4 PM, SSC 4012  
Meghdad Rahimian [mrahim4@uwo.ca](mailto:mrahim4@uwo.ca)  
Office Hours: Tuesday 2-3 PM, SSC Basement Office, Desk 13

**Undergraduate Inquiries**

519-661-3507 SSC Room 4075 or [econugrd@uwo.ca](mailto:econugrd@uwo.ca)

**Prerequisites**

Math background:  
Calculus  
Analytic geometry  
Linear algebra  
Economics 1021A/B and 1022A/B, or Economics 1020 or 2001A/B; and Calculus 1000A/B  
(with a mark no less than 60%), Calculus 1500A/B (with a mark no less than 60%), or the former Calculus  
1100A/B (with a mark no less than 60%).  
Antirequisite: Econ 2150A/B

You are responsible for ensuring that you have successfully completed all course prerequisites, and that you have not taken an antirequisite course. Lack of prerequisites may not be used as a basis for appeal. If you are found to be ineligible for a course, you may be removed from it at any time and you will receive no adjustment to your fees. This decision cannot be appealed.

If you find that you do not have the course prerequisites, it is in your best interest to drop the course well before the end of the add/drop period. Your prompt attention to this matter will not only help protect your academic record, but will ensure that spaces become available for students who require the course in question for graduation.

**Lecture Hours**

Section 001:  
Monday 2:30 - 3:30 PM, UCC 41  
Wednesday 2:30 - 4:30 PM, UCC 41  
Section 002:  
Monday 10:30 - 11:30 AM, UCC 41  
Wednesday 10:30 AM - 12:30 PM, UCC 41

**Textbooks**

**Required:**

Zheng, *Elements of Decision: Lecture Notes of Intermediate Microeconomics I*, 2017 (eight chapters, exercises included at the end of each chapter), posted on the OWL course website.

**Optional References:**

Varian, *Intermediate Microeconomics with Calculus*, 1st edition, Norton

### Course Description

Economics is a science on relations among individuals such as trades, contracts, conflicts, households, markets, networks, and societies. The fundamental building block of the analysis and design of such relations is the mathematical method for an individual to make decisions. To introduce such decision-theoretic method in the simplest possible setting, we start by assuming that the counterpart of the individual is not a strategic player trying to game him but rather a dummy such as a purely competitive market, which the individual does not need to haggle with. Given this assumption of pure competition, learning the basic decision-theoretic techniques is what we will do throughout this course, the gateway to more serious trainings in economics.

### Learning Outcomes

Formal techniques of decisions for individuals (e.g., consumers, producers) in competitive markets  
Basic skills in solving constrained optimization problems  
Introduction to the formal, abstract reasoning in economics

### Grading

Grade = 60% Final grade + 40% Midterm grade if Final grade is above Midterm grade  
Grade = 40% Final grade + 60% Midterm grade if Final grade is not above Midterm grade  
Midterm grade = 75% max {midterm 1 grade, midterm 2 grade} + 25% min {midterm 1 grade, midterm 2 grade}

### Course Outline

1. Firm's Supply
  - Output decision
  - Cost function
  - Profit-maximizing output
  - Supply curves
2. Input-Output Decision
  - Production set
  - Isoprofit lines
  - Profit-maximizing production plans
  - Comparative statics
  - Revealed profitability
3. Deployment of Inputs
  - Cost minimization
  - Marginal products and isoquants
  - Cost-minimizing input bundles
  - Derivation of the cost function
  - Returns to scale
4. The Lagrange Method
  - Constrained optimization with equality constraints
  - The procedure
  - Gradients and the idea behind the method
  - When is the Lagrange method applicable?
  - The complication with inequality constraints
5. Preference and Utility
  - Preference relation (and the axioms)
  - Utility function (and conditions for its existence)
  - Indifference curves and marginal rate of substitution
6. Consumer's Decision
  - Budget constraint
  - A consumer's optimal consumption bundle
  - The MRS condition
  - Corner solution
  - Endowment and trade
7. Comparative Statics
  - Demand function

- Smooth preference
- Perfect substitutes; perfect complements
- Quasilinear preference
  - Demand curve; consumer's surplus
- Slutsky equation
  - Derivation
  - Substitution effect
  - Income effect
- Market demand (and price elasticity)
- 8. Revealed Preference
  - The main idea
  - Welfare comparison
    - Interpersonal comparison
    - Inferences from macroeconomic indices
    - Sales tax rebate
  - Indirectly revealed preference
  - When can one's behavior be rationalized?
    - The weak axiom
    - The strong axiom
    - The necessary and sufficient condition for rationalizability

### Tentative Calendar

Weeks 1-4:	Firm's supply; input-output decision; deployment of inputs; Lagrange method
Week 5:	Thanksgiving
Week 6:	Review and <b>Midterm Exam 1 (Oct. 18 W, regular lecture time)</b>
Week 7:	Lagrange method; preference and utility
Weeks 8-9:	Preference and utility; consumer's decision
Week 10:	Review and <b>Midterm Exam 2 (Nov. 15 W, regular lecture time)</b>
Week 11-12:	Comparative statics; revealed preference
Week 13:	Revealed preference; review

### Important Notes

1. Students are responsible to attend lectures and take notes. Students are welcome to ask questions during lectures regarding the materials. A student who has missed a lecture should not expect a make-up lecture, not even partially, from the professor or the TAs.
2. Usage of cameras, phones, or the internet is prohibited during lectures.
3. Students should wait until the Registrar has announced the final exam dates before making winter break travel commitments. Having to fly home before the final exam date does NOT qualify for a make-up final exam.
4. Midterm exams are conducted during the regular lecture hours on pre-announced dates. There is no make-up exam for the midterms. If a student due to a legitimate reason cannot take a midterm and if the reason has been reported and verified before the midterm, then the student's final exam grade is counted as his/her grade for that midterm. Missing a midterm without a pre-approval from the professor results in a zero grade.
5. It is likely that a few materials in exams and homework assignments are *not* covered in lectures.
6. A homework assignment is due at the beginning of the lecture on its due day. If you cannot attend the class then be sure to have it turned in before it is due. Late homework is not accepted.
7. The lecture notes are updated frequently. The latest version of each chapter is posted on the OWL course website, indicated by the date in the "Last update" header of the chapter. Be sure to refresh your web browser (or clean its cache) for it to show the updated version.

## Please Note

Department Policies for 2017 – 2018

Remember that the University expects all students to take responsibility for their own academic Programs. Also remember to check your registration to make sure you are enrolled in the correct courses.

1. Guidelines and policies for the Faculty of Social Science and the Department of Economics are posted online in the current Western Academic Calendar at <http://westerncalendar.uwo.ca>.
2. Students must familiarize themselves with the “Rules of Conduct for Examinations” <http://westerncalendar.uwo.ca/2017/pg136.html>.
3. Cheating as an academic offence: Students are responsible for understanding what it means to “cheat”. The Department of Economics treats cheating incidents very seriously and will investigate any suspect behavior. Students found guilty will incur penalties that could include a failing grade or being barred from future registration in other economics courses or programs. The University may impose further penalties such as a notation on your official academic transcript, suspension or expulsion.
4. Plagiarism: Students must write their essays and assignments in their own words. Whenever students take an idea or a passage from another author, they must acknowledge it by using quotation marks where appropriate and referencing with footnotes or citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the current UWO Academic Calendar at <http://westerncalendar.uwo.ca/2017/pg113.html>).

The University of Western Ontario uses software to check for plagiarism and students may be required to submit their written work in electronic form. Those found guilty will have penalties imposed as noted in point 3.

5. It is Department of Economics policy that NO assignments be dated, stamped or accepted by staff. Students are responsible for submitting assignments in class or to the instructor during office hours.
6. When appealing a mark, students should refer to the University’s Procedures in the current UWO Academic Calendar (<http://westerncalendar.uwo.ca/2017/pg112.html>). Please note the relevant deadlines.

The Department will not consider any appeal unless an attempt has been made to settle the matter first with your instructor. If after this discussion you remain dissatisfied with a grade or other decision, you may proceed with a written appeal (e-mails are not acceptable) to the Undergraduate Director in Economics, stating the reasons for your appeal. A useful form and checklist is provided at ([http://economics.uwo.ca/undergraduate/program\\_counselling/responsibilities\\_policies.html#appeals](http://economics.uwo.ca/undergraduate/program_counselling/responsibilities_policies.html#appeals)).

7. Systematic adjustments of a class grade distribution (either up or down) can occur in Economics courses. The fact that grades have been adjusted is not grounds for an appeal.
8. Note the following add and drop deadlines:

Last day to **add** a first term half course:  
Friday, September 15<sup>th</sup>, 2017

Last day to **drop** first term half course without academic penalty:  
Monday, November 13<sup>th</sup>, 2017

9. Faculty of Social Science policy states that oversleeping or misreading an exam schedule is not an excuse for a make-up. This rule applies to all mid-term tests and final exams in the Department of Economics.

### Policy Regarding Makeup Tests and Final Examinations

Academic accommodation will not be granted automatically on request. You must demonstrate by documentation that there are compelling medical or compassionate grounds before academic accommodation will be considered.

If you decide to write a test or an examination, you must be prepared to accept the mark you earn. Rewriting tests or examinations, or having the value of the test or examination reweighted on a retroactive basis, is not permitted. Book airline flights after you know the dates of your final examinations. Airline flights must not conflict with test or final exams.

If you are requesting a makeup test for a midterm or a final examination, unless medically incapable, notify your instructor by email or phone, preferably prior to the scheduled date of the test, but definitely within **24 hours** of the date of the test or exam. Failure to follow this procedure may result in denial of a request for academic accommodation or result in a grade of zero. Set up an appointment as soon as possible to meet personally with your instructor. If the instructor is not available, you may send an email message, copying the

Undergraduate Coordinator at [econugrd@uwo.ca](mailto:econugrd@uwo.ca) (Social Science Room 4075). Notifying your instructor of a missed test or exam does not automatically entitle you to a makeup test.

Students who seek a makeup test or examination must provide medical or other relevant verification that their absence from a regularly scheduled test or examination is beyond their control. Documentation must support your reasons. Medical documentation should be given to the Academic Counselling Office of your home Faculty as soon as possible (preferably within 24 hours of the test) if you know you may not be able to write your final examination on the scheduled day and time. Failure to follow this procedure, or to provide supporting documentation, may result in denial of a request for academic accommodation or result in a grade of zero. If your documentation is not acceptable, you will be given a zero for the missed test.

For personal illness, if you consult Student Health Services regarding your illness or personal problem, you should request a Student Medical Certificate from the physician. If you were seen by an off-campus doctor, obtain a certificate from his/her office at the time of your visit. The off-campus medical certificate form must be used and can be found at: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/medicalform.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf). Notes stating "For Medical Reasons" are not considered sufficient.

For any other circumstances, if you are not sure what documentation to provide, ask your Academic Counsellor. If your documentation is judged sufficient, the Academic Counsellor will issue a Recommendation for a Special Examination (a single form for midterms or a triple color form for final examinations). Once you have this form, contact your instructor as soon as possible to make arrangements. Even if approved from your home faculty Academic Counsellor, there is no guarantee that you will be allowed to write the makeup test and exam.

For final examinations, you need permission from your home Faculty Counsellor, your instructor, and the Department Undergraduate Director. Failure to follow this procedure may result in an examination grade of zero. You must ensure that the Special Examination form has been signed by the instructor and Department Undergraduate Director and that the form is returned to the Academic Counselling Office for approval without delay. Make-up final examinations, if permitted, will be written within one month of the end of the exam period.

#### Policies Regarding Academic Accommodation

Information about the Faculty of Social Science's policies regarding academic accommodation is found on its website at <http://counselling.ssc.uwo.ca/procedures/havingproblems.asp> or in Social Science Room 2105. Your "Academic Rights and Responsibilities" are also outlined in the current UWO Calendar at <http://westerncalendar.uwo.ca/2017/pg111.html>. Claiming that "you didn't know what to do" is not an acceptable excuse for not following the stated procedures.

#### Policy Regarding Class Attendance

If your instructor views your class attendance as unsatisfactory, you can be prohibited from writing the final examination. If there is intent to make use of this University policy, you will be notified in writing.

#### Statement on Mental Health and Support Services

If you or someone you know is experiencing emotional/mental distress, there are several resources here at Western to assist you. Please visit <http://www.uwo.ca/uwocom/mentalhealth/> for more information and a complete list of resources, as well as how to obtain help.