# University of Missouri-Columbia, Department of Economics Economics 4355/7355: Industrial Organization

Room: Thomas & Nell Lafferre Hall E3509, Monday/Wednesday/Friday, 1:00-1:50pm.

Professor: Liisa Laine Office: Department of Economics, Locust Street Building (615 Locust Street), Office #E223 Email: <u>lainel@missouri.edu</u> Office hours: Wednesdays, 2:30–3:30pm at Locust Street Building Conference room.

Zoom link in case we have to switch online (please check Canvas): https://umsystem.zoom.us/j/96129753649?pwd=dmhtT3Y3cHh6eVI2VUowb3Q4SDgrQT09 Meeting ID: 961 2975 3649 Passcode: 580732

## **COURSE DESCRIPTION:**

Most economic transactions take place through markets which may exist in physical or virtual space. On these markets, different types of firms such as food producers, restaurants, hospitals, passenger jets, or social media providers, make decisions in response to prevailing market conditions that affect the wellbeing of market participants. Such decisions are relevant to the field of industrial organization.

This course introduces the student the core concepts of industrial organization. Students will learn the insights into markets as they function in real world (i.e., generally under conditions of imperfect competition) and the key concepts related to strategic interaction among firms with market power and competition policy. Topics include imperfect competition, product differentiation, pricing strategies and segmentation, quality and information, market power and its sources, cartels, merger policy, strategic entry. A variety of real-world economics and business examples (and applications) will be discussed.

Prerequisites: ECONOM 3251 or ECONOM 4351.

### **LEARNING OBJECTIVES:**

This course will provide insights into markets as they are in real world (i.e., under conditions of imperfect competition) and as they are regulated (i.e., with a role for government regulatory agencies). After completing the course, you will be able to:

- 1. Define key concepts in industrial organization.
- 2. Understand how the nature of the strategic variable (price or quantity) and the timing of moves affect strategic interaction and the extend of market power.
- 3. Understand and describe how firms with market power design their pricing strategies.
- 4. Understand and define different sources of market power.
- 5. Understand the basics of competition policies and describe the different ways how firms can make strategic decisions to reduce competition.

### **TEXTBOOK:**

*Industrial Organization: Markets and Strategies*, 2<sup>nd</sup> edition by Paul Belleflamme and Martin Peitz. Cambridge University Press.

Some course materials including slides, supplemental readings, homework assignments, and course announcements will be posted on Canvas site.

# **ASSIGNMENTS AND GRADING:**

Grading: This course will use a plus/minus grading system, as per the university's grading policy.

For 4355 students, your grades will be based on Homework (34%, the lowest homework score will be dropped), Exam 1 (22%), Exam 2 (22%), Exam 3 (22%). A curve will be applied for Exams 1 - 3.

For 7355 students, your grades will be based on Homework (30%, the lowest homework score will be dropped), Exam 1 (20%), Exam 2 (20%), Exam 3 (20%), and a Final Paper (10%). %). A stricter curve than for 4355 students will be applied for Exams 1 - 3.

Eight online homework assignments (quizzes or a homework assignment that will be returned on canvas as a file upload) in addition to a math refresher will be given throughout the semester. The objective of homework is to support your learning, so I recommend starting to work on them early. Homework assignments are also your primary guide for the exams. All homework assignments (and the math refresher) are due 6pm CST at the end of class on the due date.

Grades will be determined as follows: A + 98 - 100 A 92 - 97 A - 90 - 91 B + 88 - 89 B 82 - 87 B - 80 - 81 C + 78 - 79 C 72 - 77 C - 70 - 71 D + 68-69 D 62 - 67 D - 60 - 61 F < 60 Note that a 97.9 is not a 98. The minimum grade average for an A+ is 98.0. Grade averages are not rounded.

# ATTTENDANCE/LATE ASSIGMNENTS/MISSED EXAMS:

Attendance is not mandatory, although highly recommended. If you miss class, please arrange to get notes from a classmate. I may use Panopto as a last resort back up option, but technical issues happen and may not be reliably available, particularly for discussion-based lectures. Late homework assignments are not accepted since they will be available online and can be completed at any time. An extension will only be granted for certain circumstances (e.g., severe sickness, death in the family, etc.). If you miss an exam due to a university excused absence, then you must notify me and the TA as soon as feasibly possible and present written documentation to receive a make-up exam.

All general class correspondence, especially questions about course material, should be submitted to the Discussion Board.

# **EMAIL PROTOCOL:**

Please direct emails to me with "ECONOM 4355/7355: Industrial organization" in the subject line. I will try to respond within 24 hours. If I have not responded within 48 hours, please feel free to resend the email. Emails should be professional and include a greeting (e.g., Hello Professor Laine, Dear Professor Laine, etc.), purpose of email (it is perfectly fine to keep it brief), and sign-off (e.g., Thanks, Sincerely, etc.).

# UNUSUAL CIRCUMSTANCES:

I realize these are unusual circumstances and that each student may have their own unique obstacles this semester. A common issue might be issues with childcare. Should childcare fall through on a class day,

please feel free to bring your child to class. This is not meant to be a regular solution, but these things are bound to come up and I am happy to welcome a visitor to the class. Please just sit near an exit so that you can leave if necessary to tend to your child.

# DECREASING THE RISK OF COVID-19 IN CLASSROOMS:

You may choose to mask at any time. If you have tested positive for COVID-19 or have been identified as someone who needs to quarantine, do not attend class in person until the mandated period for isolation or quarantine has passed. Additionally, if you are experiencing any COVID-related symptoms, or are otherwise feeling unwell, do not attend in-person classes and contact your health care provider and/or student health immediately. Please consult <u>MU COVID-19 Information</u> for further guidelines. For more detailed information, please see DECREASING THE RISK OF COVID-19 IN CLASSROOMS AND LABS in ADMINISTRATIVE MATTERS, below.

# **ACADEMIC INTEGRITY:**

Please see the University of Missouri guidelines on academic integrity. Cases of academic dishonesty will be taken very seriously.

# FOR SUCCESSFUL LEARNING:

- 1. Attend classes. Print the slides for the topic of the week beforehand so you can make notes during class. Keep cellphones silent. It is good to keep cellphones etc. in the bag to improve focus.
- 2. Read the textbook chapters. Textbook provides useful examples and additional material to support your learning.
- 3. Get to know your classmates or form a study group!
- 4. Do not wait until the last day to start working on your homework. The due dates of all homework assignments are listed on the outline of the course and *all of them are due at 6pm CST on the due date*. If you start working on the homework assignment on the day it is due, you may (and will, on many occasions) run out of time as some of the material can be difficult, you may get distracted by other tasks and requirements, etc.
- 5. Don't be late on your homework submissions. All homework assignments must be submitted electronically (for example by completing a quiz or uploading a file). Keep in mind that once the due date and time have passed even by 1 second the link to submit disappears. *Because you can work on homework at any time no extensions or make-up-homework are possible.*
- 6. Stay ahead of the schedule. For example, it is useful to skim the textbook chapter at least partly before the class.
- 7. Completing homework assignments will guide you on what to study for the exam and how to prepare to be successful in the exam. Practice the concepts studied in class and homework assignments (and similar) multiple times prior exam.

# **OUTLINE OF THE COURSE:**

The schedule outlined below is subject to change as the semester progresses. Depending on how we are doing on time I may adjust the schedule and will notify everyone in class and on Canvas. It is your responsibility to keep up with any changes to the pace of the course. Some lectures may include material that is not covered in the text, so attendance is important.

Week, dates		Торіс	Homework	Chapters
1	Jan 18	Getting started:		1-2
	Jan 20	What are <i>Markets and</i>		
		Strategies (what is Industrial		
		Organization)?		
		Firms, consumers and the		
		market		
2	Jan 23	Market power I: static	Math refresher	3
	Jan 25	imperfect competition	due Jan 23	
	Jan 27	1 1	HW 1 due Jan 27	
3	Jan 30	Market power II: dynamic	HW 2 due Feb 3	4
	Feb 1	aspects of imperfect		
	Feb 3	competition		
4	Feb 6	Wrap up		Exam chapters: 1–4 (selected
	Feb 8	Exam 1		parts)
	Feb 10	Sources of market power:		. ,
		product differentiation		
5	Feb 13	Sources of market power:		5
	Feb 15	product differentiation		
	Feb 17	*		
6	Feb 20	Sources of market power:	HW 3 due Feb 20	5-6
	Feb 22	product differentiation		
	Feb 24	1		
7	Feb 27	Advertising.	HW 4 (not	6-7
-	Mar 1	Pricing strategies and market	graded) due Mar	
	Mar 3	segmentation	3	
		NO CLASS ON FRIDAY		
8	Mar 6	Wrap up: ZOOM meeting for		Exam chapters: 5–7
		questions related to exam		(selected parts)
		*		
	Mar 8	Exam 2		
	Mar 10	ZOOM meeting visiting		
		speaker at 9am, different		
		zoom link		
9	Mar 13	Pricing strategies and market		8, 13
	Mar 15	segmentation.		
	Mar 17	Product quality and		
		information: experience		
		goods and the role warranties		
		and branding		
10	Mar 20	Product quality and	HW 5 due April	
	Mar 22	information: experience	24	13, 14
	Mar 24	goods and the role warranties		
		and branding cont.		
		Theory of competition policy:		
		cartels		
	March 25–	Spring break		
	April 2			

11 12	Apr 3 Apr 5 Apr 7 Apr 10 Apr 12	Theory of competition policy: cartels Theory of competition policy: horizontal mergers Theory of competition policy: strategic incumbents and		14, 15 16
13	Apr 14 Apr 17 Apr 19 Apr 21	entry Theory of competition policy: strategic incumbents and entry	HW 6 due Apr 21	16
14	Apr 24 Apr 26 Apr 28	Student presentations   Student presentations   Student presentations   Visiting speaker during   Economics department   Regular research seminar   Prof. Sacarny Columbia U,   Middlebush 212 3:30-5pm	For 7355 students, final paper due April 24 <sup>th</sup>	
15	May 1 <b>May 3</b>	Wrap up Exam 3		Exam chapters: 8, 13-16.

# **ADMINISTRATIVE MATTERS**

### ACADEMIC INTEGRITY

Academic integrity is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards breaches of the academic integrity rules as extremely serious matters.

# Standard of Conduct for Academic Integrity

In addition, students are expected to adhere to this honor pledge on all graded work whether or not they are explicitly asked in advance to do so: "I strive to uphold the University values of respect, responsibility, discovery, and excellence. On my honor, I pledge that I have neither given nor received unauthorized assistance on this work."

## **STUDENTS WITH DISABILITIES**

If you anticipate barriers related to the format or requirements of this course, if you have emergency medical information to share with me, or if you need to make arrangements in case the building must be evacuated, please let me know as soon as possible.

If disability related accommodations are necessary (for example, a note taker, extended time on exams, captioning), please establish an accommodation plan with the <u>MU Disability Center</u>, S5 Memorial Union, 573-882-4696, and then notify me of your eligibility for reasonable accommodations. For other MU resources for persons with disabilities, click on "Disability Resources" on the MU homepage.

# ACCEPTABLE USE

The University of Missouri's Acceptable Use Policy (AUP) for information technology applies to Mizzou websites. The AUP addresses federal and state laws, university regulations, intellectual-property rights, software-licensing requirements and prohibitions against plagiarism and obscenity. This policy applies to all users including faculty, staff, students, and guest users of University of Missouri computer networks, equipment, or connecting resources.

## UM System Acceptable Use Policy

## **COPYRIGHT**

This section helps you understand copyright in course materials, student work and pages published on Mizzou websites.

## UM System Copyright Information

### **EXECUTIVE ORDER NO. 38**

When you record something that happens in a course (a lecture, class discussions, meetings, etc.) it has an impact on the rights of the people captured in that recording. For example, your instructor and the University may have rights to the intellectual property contained in that recording. At the same time, another student who may have been recorded has the right to privacy. In order to protect these rights, MU employs a policy (called "Executive Order No. 38") to govern both situations you may encounter while taking a course--when your instructor allows recordings and when he or she does not allow them.

### Executive Order No. 38

# FERPA

The University of Missouri maintains educational records of students in accordance with the Family Educational Rights and Privacy Act of 1974 (FERPA). Related topics include privacy policies at MU, display of student directory information, and details about how MU manages FERPA-protected information.

Family Educational Rights and Privacy Act (FERPA)

### **INTELLECTUAL PLURALISM**

The University community welcomes intellectual diversity and respects student rights. Students who have questions or concerns regarding the atmosphere in this class (including respect for diverse opinions) may contact the departmental chair or divisional director, the director of the Office of Students Rights and Responsibilities, or the MU Equity Office.

## Statement on Intellectual Pluralism

### STATEMENT OF NONDISCRIMINATION

The University of Missouri does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, age, genetics information, disability, or status as a protected veteran.

## MU Statement of Nondiscrimination

If you experience discrimination or sexual violence, you are encouraged (but not required) to report the incident to the Office of Institutional Equity. Learn more about your rights and options at the <u>Office of Institutional Equity</u> or by calling 573-882-3880. You also may make an anonymous report online.

If you are a survivor, or someone concerned about a survivor, and need immediate information on what to do, see <u>RSVP resources page</u>. Both the Office of Institutional Equity and the RSVP Center can provide assistance to students who need help with academics, housing, or other issues.

In the event that you choose to write or speak about having experienced any of these forms of prohibited discrimination or harassment, Mizzou policies require that, as your instructor, I share this information with the MU Office of Institutional Equity. They will contact you to offer information about resources, as well as your rights and options as a member of our campus community.

# MENTAL HEALTH

The University of Missouri is committed to supporting student well-being through an integrated network of care, with a wide range of services to help students succeed. The MU Counseling Center offers professional mental health care and can help you find the best approach to treatment based on your needs. Call to make an appointment at 573-882-6601. Any student in crisis may call or go to the MU Counseling Center between 8:00-5:00 M-F. After hours phone support is available at 573-882-6601.

Visit our website at <u>https://wellbeing.missouri.edu/</u> to take an online mental health screening, find out about workshops and resources that can help you thrive, or learn how to support a friend. Download Sanvello, a phone app that teaches skills and strategies to help you maintain good mental health. Log in with your Mizzou e-mail to unlock all the tools available through Sanvello at no additional cost to you.

### LAST DATE OF ATTENDANCE AND IMPACT ON FINANCIAL AID

Federal regulations for financial aid require the student financial aid office to document the attendance of students who have received federal financial aid if they do not successfully complete any courses during the term. As a result, the last day of attendance (or activity) for any student receiving an F, U, or FN in this course will be recorded in the grade roster and reported to the financial aid office. **Based on the last day of attendance, students may be required to repay a portion of their financial aid award for the semester.** 

A student's last day of attendance (or activity) is the last day on which a student participates in an academically related activity at the University. These include:

- Attendance in class, lab, or an instructor's office hours
- The completion of an assignment or examination
- An appointment with a professor or e-mail correspondence regarding course material
- (Online courses only) For online courses, the last day a student submits an assignment or exam. Only logging into an online class without participating is <u>not</u> acceptable for last day of attendance

Please note that discussing a course withdrawal or notifying the instructor of an absence in class does not constitute participation for financial aid purposes. Moreover, any office hour visits or email correspondence must be related to the course material.

## **NETIQUETTE**

Your instructor and fellow students wish to foster a safe online learning environment. All opinions and experiences, no matter how different or controversial they may be perceived, must be respected in the tolerant spirit of academic discourse. You are encouraged to comment, question, or critique an idea but you are not to attack an individual. Our differences, some of which are outlined in the University's nondiscrimination statement, will add richness to this learning experience. Please consider that sarcasm and humor can be misconstrued in online interactions and generate unintended disruptions. Working as a community of learners, we can build a polite and respectful course ambiance.

### **RELIGIOUS HOLIDAYS & ACCOMMODATIONS**

Many religious faiths are represented in the student body. The University of Missouri does not restrict student free exercise of religion, unless 1) the restriction is in the form of a rule of general applicability, and does not discriminate against religion or among religions; and 2) it can be demonstrated that the application of the restriction is essential to furthering a compelling university interest, and is not unduly restrictive considering the relevant circumstance. The policy of the University attempts to strike a reasonable balance between accommodating the religious practice of students and meeting academic needs and standard.

Consult IDE's <u>Guide to Religions</u> for the form that can be used to notify an instructor of an absence associated with religious practice. Students are expected to notify their instructor(s) by completing and submitting this form in a manner that is consistent with the procedure outlined in the university's policy on student religious accommodation. Providing false information regarding sincerely held religious practice is a violation of the university's Standard of Conduct and will not be tolerated.

### DECREASING THE RISK OF COVID-19 IN CLASSROOMS AND LABS

If you have tested positive for COVID-19 or have been identified as someone who needs to quarantine, do not attend class in person until the mandated period for isolation or quarantine has passed. Your instructor will work with you on arrangements to access class material while you are in isolation or quarantine.

Additionally, if you are experiencing any COVID-related symptoms, or are otherwise feeling unwell, do not attend in-person classes and contact your health care provider and/or student health immediately. COVID symptoms include: fever greater than 100.4 or chills; cough, shortness of breath or difficulty breathing; fatigue; unexplained muscle or body aches; headache; new loss of taste or smell; sore throat; congestion or runny nose; nausea or vomiting; diarrhea.

Please consult <u>MU COVID-19 Information</u> for further guidelines. This statement will be updated as information changes. Last updated August 9, 2022.