UNIVERSITY OF MONTANA
Economics 301: Intermediate Microeconomics with Calculus

Course Information:
Semester: Fall 2020
Section: Section R01
Meeting time: MWF 10:00-10:50
Classroom: This course is remote delivery due to COVID-19
Credits: 3 credits
CRN: 70041

Instructor Information:
Instructor: Douglas Dalenberg
Office: LA 413
Email: doug.dalenberg@mso.umt.edu
Phone: 406-243-4406 (message only; email will get a faster response.)
Office hours: Via Zoom MWF 1:00-2:00 or by appointment.

Course Description:
This course is designed to give you a solid grounding in microeconomic theory. We will review, refine and expand upon the methods of analysis you learned in Principles of Microeconomics. The focus of this class is economic models and theory. The course is roughly divided into three sections: the derivation of demand, the derivation of supply, and using supply and demand to gain insights into markets.

Prerequisites:
ECNS 201S: Principles of Microeconomics and Calculus (M 162 or M 171).

Required Text:
None.

Optional Text:
There is no required textbook since there are plenty of resources available on the internet. If you do want a text, I have several suggestions: Pindyck, Robert and Rubinfeld, Daniel, *Microeconomics*, Prentice Hall; Varian, Hal R., *Intermediate Microeconomics with Calculus*, W.W. Norton & Company; Goolsbee, Austan, Levitt, Steven, and Syverson, Chad, *Microeconomics*, Worth Publishers; Nechyba, Thomas, *Microeconomics: An Intuitive Approach with Calculus,* Cengage. You can often get an older edition much cheaper. Talk to me if you want to know about the different books.

Course Supplement:
The course Moodle page will contain the handouts, homework, and occasional readings. It is also where you will take the quizzes.

Learning Outcomes:
Students who successfully complete ECNS 301 will be able to:
1. demonstrate a solid foundation in calculus-based microeconomics, including consumer theory, firm behavior, competitive markets, monopoly, imperfect competition, and extensions of the

basic theory to additional topics such as game theory, externalities, public goods, asymmetric information.
2. apply mathematical tools (e.g., partial derivatives) they have learned in calculus courses to a variety of problems.
3. use mathematics and graphs, in conjunction with good writing, to explain economic phenomena.
4. use calculus-based microeconomics to reason their way through abstract problems and real policy issues, and to explain how abstract problems can provide insight into the real world.
5. demonstrate the preparation necessary to do well in field courses that have calculus-based microeconomics as a prerequisite.

Assessment:

Assignment	Weight	Date
Individual Meetings	10%	8/19-8/24, 9/21-9/25
8 Homework – due by 4 PM	40%	8/28, 9/4, 9/18, 9/30, 10/9, 10/19, 11/4, 11/13.
5 Quizzes – Moodle during class	35%	9/9, 9/21, 10/2, 10/21, 11/6.
Take-Home Final Exam	15%	Due Thursday, November 19 by 5 PM.

I will use plus/minus grading with 100-92=A, 91-90=A-, 89-88=B+, 87-82=B, 81-80=B-, 79-78=C+, 77-72=C, 71-70=C- 69-68=D+, 67-62=D, 61-60=D-, 59 and below=F.

Policies:
1. If you miss a quiz and you contact me prior to or <u>immediately</u> after the quiz, we will make arrangements for dealing with the missing score (usually a make-up quiz). If I am not contacted promptly, then no make-up quiz is possible.
2. Late homework is penalized with a deduction of points reflecting the cost it imposes on me to grade it. Homework is considered late if I receive it after we have finished grading those assignments handed in on time. I waive the late penalty for excused absences, but you are still responsible for doing the homework. The take-home final will be penalized if turned in after the assignment deadline.
3. If my office hours conflict with your schedule, contact me for a Zoom appointment.
4. Although I do not take attendance, attending class regularly is important. If you miss class, parts of the class are recorded and will be made available to you. You may also e-mail me for a scan of the camera document notes.
5. The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students. If you think you may have a disability adversely affecting your academic performance, and you have not already registered with Disability Services, please contact Disability Services in Lommasson Center 154. I will work with you and Disability Services to provide an appropriate modification. For more information, visit the Disability Services for Students website (https://www.umt.edu/disability-services/).
6. All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code (http://www.umt.edu/student-affairs/community-standards/). Academic dishonesty will result in a score of zero for the work in question and possible university sanctions.

7. The University sets deadlines for adding classes, dropping classes, changing grade options, and changing to or from audit status. These policies can be found at the [Registrar's web page](https://www.umt.edu/registrar/Registration/default.php) (https://www.umt.edu/registrar/Registration/default.php) while the actual dates for this term can be found on the [Registrar's calendar (https://www.umt.edu/registrar/calendar/autumn-2020.php)](https://www.umt.edu/registrar/calendar/autumn-2020.php).

8. UM has a Cultural and Ceremonial Leave Policy which states: "Cultural or ceremonial leave allows excused absences for cultural, religious, and ceremonial purposes to meet the student's customs and traditions or to participate in related activities. To receive an authorized absence for a cultural, religious or ceremonial event the student or their advisor (proxy) must submit a formal written request to the instructor. This must include a brief description (with inclusive dates) of the cultural event or ceremony and the importance of the student's attendance or participation. Authorization for the absence is subject to approval by the instructor. Appeals may be made to the Chair, Dean or Provost. The excused absence or leave may not exceed five academic calendar days (not including weekends or holidays). Students remain responsible for completion or make-up of assignments as defined in the syllabus, at the discretion of the instructor."

9. University policy states "For undergraduates, a CR grade (credit) will be equivalent to a D- or better and an NCR grade (no credit) will be equivalent to an F." University rules require you to earn a grade of C- or better in order for the course to satisfy the requirements of a major.

10. As a courtesy to your classmates, please mute your microphones for the remote classes unless you are asking a question or contributing to discussion.

11. A classroom is a community, so I trust you will act as a mature and responsible citizen and treat each other with respect and courtesy. Please do not interfere with the learning of your classmates. I will remove you from the remote class if your behavior is disruptive or rude or is interfering with the learning of others in the class.

12. I will be recording the parts of classes and will make those recordings available to you via UM Box.

13. I will use a document camera to write out notes. Please e-mail me if you need a copy of the notes and I will scan them for you and e-mail them to you.

Calendar:

This schedule of topics is subject to modification. All changes will be announced in class.

Wk	Date	Topic	Assignments	Quizzes
1	8/17	*Term not started*		
	8/19	Introduction	Individual Zoom	
	8/21	Math: Derivatives	Individual Zoom	
2	8/24	Math: Optimization	Individual Zoom	
	8/26	Math: Duality		
	8/28	Review of Supply and Demand	Hmk 1 due	
3	8/31	Elasticity: Definition		
	9/2	Elasticity: Equation		
	9/4	Elasticity: Arc and application	Hmk 2 due	
4	9/7	*Holiday*		
	9/9	Quiz 1		Quiz 1
	9/11	Consumer Theory; Preferences		
5	9/14	Consumer Theory: MRS		
	9/16	Consumer Theory: Ordinary Demand		
	9/18	Consumer Theory: Extensions	Hmk 3 due	
6	9/21	Quiz 2	Individual Zoom	Quiz 2
	9/23	Consumer Theory: Income effect	Individual Zoom	
	9/25	Consumer Theory: Compensated	Individual Zoom	
7	9/28	Consumer Theory: Extensions		
	9/30	Consumer Theory: Wrap up	Hmk 4 due	
	10/2	Quiz 3		Quiz 3
8	10/5	Welfare #1: Definitions		
	10/7	Welfare #1: CS applications		
	10/9	Theory of the Firm: Production fcn	Hmk 5 due	
9	10/12	Theory of the Firm: Supply thru cost		
	10/14	Theory of the Firm: Supply thru profit		
	10/16	Theory of the Firm: Wrap up		
10	10/19	Perfect Competition: Cost curves	Hmk 6 due	
	10/21	Quiz 4		Quiz 4
	10/23	Perfect Competition: Graphs		
11	10/26	Perfect Competition: Math		
	10/28	Perfect Competition: Extensions		
	10/30	Welfare #2: Markets		
12	11/2	Welfare #2: Application		
	11/4	Monopoly: Standard	Hmk 7 due	
	11/6	Quiz 5		Quiz 5
13	11/9	Monopoly: Antitrust		
	11/11	*Holiday*		
	11/13	Imperfect Competition	Hmk 8 due	
14	11/16	Public Goods		
	11/18	Externality		
	11/19 (Thurs)	Take-home Final Exam due		Take-home Final Exam due by 5 PM