

Instructor: Dr. Sara Avila Email: <u>sara.avila@colorado.edu</u> Voice: (720) 327-1396 Zoom: <u>https://cuboulder.zoom.us/my/saraavila</u>

• Office Hours: Tuesdays and Thursdays 9 am -11:30 pm using Zoom

INSTRUCTOR BIO

I am an economics instructor with more than two decades of experience. My research interests are in the fields of environmental economics and more recently, in how to teach economics. I have worked on topics related to air quality, climate change, urban transportation, and biodiversity conservation. I am passionate about building understanding in a diverse environment. I am also an avid (but aging) runner, so when I am not injured, I run every day.

Term Start: September 3, 2024 Term End: December 15, 2024

COURSE WEBSITE

Canvas is our class website:

- Login using your University of Colorado Boulder identikey and password https://canvas.colorado.edu/
- Under Course List, click "ECON 4705-581: Managerial Economics"
- Note: all email correspondence will be through your CU Boulder email address.
 - Do not use the Canvas email or messages, it is not checked.

COURSE DESCRIPTION

This course is an application of microeconomic principles and tools to business problems faced by decision makers. This course examines decisions related to pricing, products and production, location of firms, vertical and horizontal integration, marketing, uncertainty, market structure, and government regulations and introduces key business communication, and accounting principles.

COURSE OBJECTIVES

By the end of the course you should be able to:

- Illustrate how microeconomic theory applies to business decisions.
- Apply the supply and demand model to managerial decisions.
- Demonstrate basic and advanced pricing techniques to increase economic profit.

- Apply the concepts of present value, net present value and future value to make managerial decision.
- Compare and contrast managerial decisions associated with different market structures.
- Discuss how antitrust policy and other regulations affect decision making.
- Explain how business managers make decisions about final products, production process, and location of the firm and how they make decisions under uncertainty and differing levels of information.
- Explain key business communication, and accounting principles.
- Use algebra, graphs, calculus, and spreadsheets as tools to make managerial economics.
- Evaluate business case studies and communicate those evaluations clearly and professionally.

COURSE PREREQUISITES

Requires prerequisite courses of ECON 3070 (Intermediate Microeconomic Theory) (minimum grade C-)

REQUIRED COURSE MATERIALS

Course Website: <u>https://canvas.colorado.edu/</u> (Canvas) Grades and any further additional readings will be posted on Canvas. Please check Canvas frequently for any relevant notifications/changes that may occur throughout the course.

Textbook (required): The Economics of Managerial Decisions with MyLab, 1st Edition (2019), by Blair and Rush, Pearson Publishing, ISBN 9780134184661.

Day 1 Digital Access: To keep the cost of your course materials <u>as low as possible</u> and access to those materials as <u>convenient as possible</u>, we have collaborated with the CU Book Store and the publisher to deliver those materials through a program called "Day 1 Digital Access", which will appear on your tuition and fee bill as "<u>Day 1 Digital Access</u>". What does this mean for you?

- 1. You will receive access to <u>all</u> your course materials, digitally, on the first day of classes, through the course Canvas page.
- You will see a "Day 1 Digital Access" charge on your tuition and fee bill for about: <u>\$98.82</u>
 - This is a guaranteed lowest price, discounted by the publisher, and not available outside this course
- 3. You have the option to opt out. This means: you won't pay for anything, but you lose all <u>access</u> to the course materials.
 - You can opt out by: using a link in a reminder email you will receive with the subject heading "Day 1 Digital Access".
 - You must opt out no later than **September 11**, otherwise you will be charged for the materials.
- 4. Please keep in mind that "opting out" means that your access to these materials will be turned **OFF**, and you will have <u>no way to complete assignments</u>.

SUPPLEMENTAL MATERIAL

Supplemental readings and other materials will be provided in Canvas system, via the CU Library electronic reserve, or by links to websites.

INSTRUCTIONAL METHODOLOGY AND DELIVERY

This course is delivered via distance education format using the CU Canvas system. The asynchronous format will use a combination of readings, online discussion, and other web-based resources. Asynchronous learning does not require real-time (or synchronous) interaction; instead, content is available online for you to access when it best suits your schedule, and assignments are completed prior to the deadlines listed in the schedule. You will interact with the instructor and other students using the communication functions provided by Canvas. You will submit assignments using Canvas, email, or through another online system.

There will be 14 modules corresponding to the 14 weeks of the course (1 module per week). You should proceed through one module per week, which will be comprised of readings from the course texts, supplemental class notes, graded discussion questions, homeworks and quizzes, exams, and various outside sources of information such as additional readings and video content, among other content.

COURSE OUTLINE

Review the separate weekly class schedule found on Canvas under "Syllabus" link.

CLASS PARTICIPATION

This course is designed to engage you mostly through exercises, however, there will also be class discussions on the topics covered in the course materials. It is important that you participate in class discussions to facilitate learning by other students and gain exposure to different viewpoints of other students in the class.

EVALUATION AND GRADING

Course grades will be determined by the completion of assignments, exams, and discussions, as shown below:

Assignment	Points per Assignment	Frequency	Number of assignments dropped	GRADE POINTS	GRADE PERCENTAGE
Discussion	20	1	0	20	2.0%
Quizzes*	20	9	2	180	18.0%
Homework*	30	11	1	300	30.0%
Case Study	150	1	0	150	15.0%
Proctored Midterm Exam	150	1	0	150	15.0%
Proctored Cumulative Final Exam	200	1	0	200	20.0%
Total				1000	100%

Keep a copy of all work created for the course, including work submitted through Canvas.

*The lowest grade of these assignments will be dropped. See below.

Grade	Percentage Grade	Equivalent Points	Indicates
Α	93-100	930 – 1000	Excellent
A-	90-92.99	900 – 929	
B+	87-89.99	870 – 899	
В	83-86.99	830 - 869	Above Average
В-	80-82.99	800 – 829	
С+	77-79.99	770 – 799	
С	73-77.99	730 – 769	Average
C-	70-72.99	700 – 729	
D+	67-69.99	670 – 699	
D	63-67.99	630 – 669	Below Average
D-	60-62.99	600 – 629	
F	0-59	600 or lower	Failure

COURSE GRADING CRITERIA

There is +/– grading in this class.

ASSIGNMENTS

Quiz (200 POINTS) – There will be eleven (11) 20-point quizzes. The quizzes will be a combination of multiple choice and calculation questions. The lowest one (1) quiz is dropped from the final grade calculation.

Homework (300 POINTS) – There will be eleven (11) 30-point problem sets, discussion postings, minisims, writing assignments, analyses, or Excel spreadsheet exercises (or a combination). The lowest (1) homework is dropped from the final grade calculation.

- Problem sets will be a combination of calculations, graphical analysis, and short answer questions.
- Discussion postings will occur asynchronously; the instructor will post a discussion question and the student will (1) complete and initial post in response to the discussion question and (2) engage in discussion with classmates.
- Excel spreadsheet exercises will require students to manipulate and interpret data related to the microeconomics of managerial decisions.

Final Case Study (150 POINTS) – There will be one Final Case Study. This assignment will have an individual and a team component. You will be an expert in one part of your case study and that will

count for 100 individual points. The other 50 points will come from bringing the 3 parts together and communicating it. This Case Study will encompass most of what we have learned in the class.

Proctored Exams (350 POINTS) – There will be two (2) proctored exams. The midterm exam is worth 150 points and the cumulative final exam is worth 200 points. The exams will a combination multiple choice, calculation, graphical analysis, short answer, and Excel spreadsheet questions.

This course requires proctored examinations. Exams are proctored which will require planning on your part. Proctors are individuals who administer the exam process following the guidelines provided by University of Colorado Boulder to ensure academic integrity.

Who can be my proctor?

If you are in Boulder or nearby, you can take your exam:

- 1. At the Department of Economics. There is no cost for using this proctor. This option is only on selected days during the exam period.
- 2. At the **University Testing Center** on-campus in Boulder, CO. There may be a cost for using the testing center. This option is only available M-F during regular business hours.
- 3. With **Proctorio.** Online proctoring is a service that uses a webcam and microphone to ensure academic integrity. To use this service, you must have access to a computer with a webcam and a microphone. There will be a cost for using the online proctoring services. Please review <u>Proctorio Minimum System Requirements</u> to ensure you have the correct hardware and software to use this tool.

If you are outside of Boulder, you can take your exam:

- 1. At **an accredited college or university testing center** in your town or nearby. There may be a cost for using this testing center.
- 2. With **ProctorU or a comparable online proctoring service as determined by your instructor.** Online proctoring is a service that uses a webcam and microphone to ensure academic integrity. To use this service, you must have access to a computer with a webcam and a microphone. There will be a cost for using the online proctoring services.

Please see Canvas for detailed information about proctoring, including the contact information for the UTC, Proctorio, and a nationwide list of accredited college or university testing centers. If you are in a rural area or on a military base, you may need to be approved to use a person as a proctor and information is provided on Canvas for this approval process.

EXTRA CREDIT

There **may** be 30 points of extra credit available (= 3% of the course grade).

• Extra credit may be available during the semester for completing certain activities, such as listening and commenting on a podcast or solving practice exams. These extra credit opportunities will be determined by the instructor and announced on Canvas.

POLICY ON DUE DATES

Each module you will complete a series of critical thinking questions that reflect material from the various delivery formats and required readings. It is your responsibility to turn in each assignment on the required date. Late assignments are not accepted for exams. Quizzes can be turned in up to three days late. The grade penalty for his late work is they will be reduced by one full letter grade for each 24-hours late. The exceptions that may be considered is due to sickness, university excused function, or circumstances beyond the students' control. The instructor reserves the sole right to determine what grounds constitutes a reasonable excuse for missing or submitting a late work assignment and the right to require the student to submit proper verification of such excuse.

COMMUNICATION

I want you to succeed. Do not hesitate to contact me about anything.

E-mail: sara.avila@colorado.edu

- Please always remind me of what course you are taking. I will remember your story, name and face, but I forget the course you are taking. Please help me with this.
- I will respond to email within 12-18 hours, but usually within 2-4 hours. I always respond to emails. If you have not had a response within 18 hours, I did not receive the email. Be sure to use your CU email address because sometimes Gmail and yahoo email accounts are filtered into my spam folder.

Additional ways to contact Dr. Avila:

- Online Office Hours: Wednesdays and Thursdays 10 am -12:15 pm using Zoom (https://cuboulder.zoom.us/my/saraavila)
- Announcements: Please check the "announcements" section on Canvas.
- You may also post comments or questions on the Place to Talk discussion board on Canvas

TUTORING

The Economics Department provides a free drop-in tutorial office which offers assistance on all core courses in the major, and occasionally on other undergraduate courses in the Department. Its website is https://www.colorado.edu/economics/node/513/attachment.

The Economics Department maintains a list of tutors who are available for private hire. Its website is <u>https://www.colorado.edu/economics/node/515/attachment</u>.

TECHNOLOGY SUPPORT

CU Boulder uses Canvas.

Here is the list of recommended system requirements: Canvas Computer Specifications Page

Here is the detailed list of internet browsers in Windows, MacOS, iOS and Android: <u>Supported Browsers</u> Page

Technical Support

- Canvas technical support. If you are experiencing issues with Canvas please contact:
 - CU Boulder's Help desk at 303-735-4357 (5-HELP) or <u>help@colorado.edu</u>. 5-Help will answer your call: Monday through Friday from 7:30 a.m. to 7:00 p.m., Saturday and Sunday from noon to 6:00 p.m., Closed during <u>University Holidays</u>
 - On your computer, click the "help" (?) icon on the left side of Canvas, once logged in
 - Within the Canvas App, you can search the Canvas support guides, Report a Problem or chat with Canvas Support 24 hours a day, 7 days a week.
- Connect tech support:
 - o http://bit.ly/StudentRegistration

COURSE POLICIES

NETIQUETTE

All students should be aware that their behavior impacts other people, even online. I hope that we will all strive to develop a positive and supportive environment and will be courteous to fellow students and your instructor. Due to the nature of the online environment, there are some things to remember.

- 1. Always think before you write. In other words, without the use of nonverbals with your message, your message can be misinterpreted. So please think twice before you hit submit.
- 2. Keep it relevant. There are places to chat and post for fun everyday stuff. Do not stray from the discussion in the assigned questions.
- 3. Never use all caps. This is the equivalent of yelling in the online world. It is not fun to read. Only use capital letters when appropriate.
- 4. Make sure that you are using appropriate grammar and structure. In other words, I don't want to see anyone writing "R U" instead of "are you". There are people in the class that may not understand this type of abbreviation, not to mention it does nothing to help expand your writing and vocabulary skills. Emoticons are fine as long as they are appropriate. A smile 😳 is welcome, anything offensive is not.
- 5. Treat people the same as you would face-to-face. In other words, it is easy to hide behind the computer. In some cases, it empowers people to treat others in ways they would not in person. Remember there is a person behind the name on your screen. Treat all with dignity and respect and you can expect that in return.
- 6. Respect the time of others. This class is going to require you to work in groups. Learn to respect the time of others in your group and your experience will be much better. Always remember that you are not the only person with a busy schedule, be flexible. Do not procrastinate! You may be one that works best with the pressures of the deadline looming on you, but others may not be that way. The same is true for the reverse. The key to a successful group is organization, communication and a willingness to do what it takes to get it done.

Website: http://www.albion.com/netiquette/corerules.html

Compiled by Melissa Landin, Instructor, Dept. of Communication, Inver Hills Community College, mlandin@inverhills.edu

TECHNOLOGY REQUIREMENTS AND SUPPORT

What are the basic computer specifications for Canvas?

• Visit the official <u>Canvas Computer Specifications Page</u> for the latest list of recommended system requirements.

Which browsers does Canvas support?

• Visit the <u>Supported Browsers Page</u> for the detailed list of internet browsers in Windows, MacOS, iOS and Android.

Skill Requirements

- Students also need to possess basic computer skills, such as:
 - How to use a web browser and word processor
 - How to send and receive email
 - How to locate a file and attach it to an email or upload a file into a course
 - How to copy and paste
 - Must know basic typing skills and keyboard commands
 - Must know basic computer terminology

TECHNICAL SUPPORT

- Canvas technical support. If you are experiencing issues with Canvas please contact:
 - CU Boulder's Help desk at 303-735-4357 (5-HELP) or <u>help@colorado.edu</u>. 5-Help will answer your call: Monday through Friday from 7:30 a.m. to 7:00 p.m., Saturday and Sunday from noon to 6:00 p.m., Closed during <u>University Holidays</u>
 - On your computer, click the "help" (?) icon on the left side of Canvas, once logged in
 - Within the Canvas App, you can search the Canvas support guides, Report a Problem or chat with Canvas Support 24 hours a day, 7 days a week.
- MyLab tech support:
 - <u>https://help.pearsoncmg.com/ccng/ccng_instr/ccng_xmel_instr_help_support_bridge.h</u> <u>tml</u> or <u>https://support.pearson.com/getsupport/s/</u>

ACCOMODATION FOR DISABILITIES

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the <u>Disability Services</u> website. Contact Disability Services at 303-492-8671 or <u>dsinfo@colorado.edu</u> for further assistance. If you have a temporary medical condition, see <u>Temporary Medical Conditions</u> on the Disability Services website.

CLASSROOM BEHAVIOR

Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, marital status, political affiliation, or political philosophy.

For more information, see the <u>classroom behavior policy</u>, the <u>Student Code of Conduct</u>, and the <u>Office of</u> <u>Institutional Equity and Compliance</u>

HONOR CODE

"On my honor, as a University of Colorado Boulder student I have neither given nor received unauthorized assistance."

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the <u>Honor Code</u>. Violations of the Honor Code may include but are not limited to: plagiarism (including use of paper writing services or technology [such as essay bots]), cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. Understanding the course's syllabus is a vital part in adhering to the Honor Code.

All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution: <u>StudentConduct@colorado.edu</u>. Students found responsible for violating the <u>Honor Code</u> will be assigned resolution outcomes from the Student Conduct & Conflict Resolution as well as be subject to academic sanctions from the faculty member. Visit <u>Honor Code</u> for more information on the academic integrity policy.

SEXUAL MISCONDUCT, DISCRIMINATION, HARRASSMENT AND/OR RELATED RETALIATION

CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. University policy prohibits <u>protected-class</u> discrimination and harassment, sexual misconduct (harassment, exploitation, and assault), intimate partner abuse (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. The Office of Institutional Equity and Compliance (OIEC) addresses these concerns, and individuals who have been subjected to misconduct can contact OIEC at 303-492-2127 or email <u>cureport@colorado.edu</u>. Information about university policies, <u>reporting options</u>, and <u>support resources</u> including confidential services can be found on the OIEC website.

Please know that faculty and graduate instructors must inform OIEC when they are made aware of incidents related to these policies regardless of when or where something occurred. This is to ensure that

individuals impacted receive outreach from OIEC about resolution options and support resources. To learn more about reporting and support for a variety of concerns, visit the <u>Don't Ignore It page</u>.

RELIGIOUS HOLIDAYS

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. See the <u>campus policy regarding religious</u> <u>observances</u> for full details. Because of the flexibility of timing of completion of assignments in this class, you must contact the instructor in at least two weeks in advance if you anticipate a religious holiday may impact your completion of coursework.

For more information on the religious holidays most commonly observed by CU Boulder students consult the <u>online interfaith calendar</u>.

STUDENT PRONOUNS

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

REQUIREMENTS FOR INFECTIOUS DISEASES

Members of the CU Boulder community and visitors to campus must follow university, department, and building health and safety requirements and all public health orders to reduce the risk of spreading infectious diseases.

The CU Boulder campus is currently mask optional. However, if masks are again required in classrooms, students who fail to adhere to masking requirements will be asked to leave the classroom. Since our course is online we do not face this risk, except in the case of in-person proctoring. Students who refuse to comply with these requirements will be referred to Student Conduct & Conflict Resolution. Students who require accommodation because a disability prevents them from fulfilling safety measures related to infectious disease will be asked to follow the steps in the "Accommodation for Disabilities" statement on this syllabus.

For those who feel ill and think you might have COVID-19 or if you have tested positive for COVID-19, please stay home and follow the <u>further guidance of the Public Health Office</u>. For those who have been in close contact with someone who has COVID-19 but do not have any symptoms and have not tested positive for COVID-19, you do not need to stay home.

COURSE WITHDRAWAL POLICY

Any student who wishes to withdraw from the course must do so by September 7. For complete information, please visit <u>https://ce.colorado.edu/resources/topics/dates-and-deadlines-general-info/</u>

ACCOMMODATION FOR DISABILITIES, TEMPORARY MEDICAL CONDITIONS, AND MEDICAL ISOLATION

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the <u>Disability Services</u> website. Contact Disability Services at 303-492-8671 or <u>dsinfo@colorado.edu</u> for further assistance. If you have a temporary medical condition, see <u>Temporary Medical Conditions</u> on the Disability Services website.

MENTAL HEALTH AND WELLNESS

The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health or substance use concerns that are impacting academic or daily life, please contact <u>Counseling and Psychiatric Services (CAPS)</u> located in C4C or call (303) 492-2277, 24/7.

Free and unlimited telehealth is also available through <u>Academic Live Care</u>. The Academic Live Care site also provides information about additional wellness services on campus that are available to students.

ADDITIONAL SUPPORT SERVICES

A variety of instructional support services, such as writing center, guidance on personal or educational issues, tutoring questions and library resources are available to the students. For more information about their services, visit their websites linked under modules on Canvas.



Managerial Economics, ECON 4705, Fall 2024, Avila, University of Colorado Boulder

Module (start date)	Chapter Number and Topic	Graded Assignments	Due Date by 11:59pm MST/MDT	
1	Ch 1 Managarial Francisca and Decision	Pre-Class Assignment	Thursday 9/5	
1 Ch 1 Managerial Econom (9/3) Making	Ch 1 Managerial Economics and Decision	Module 1 Quiz	Thursday 9/5	
	Making	Module 1 Homework	Sunday 9/8	
2 (9/9) Ch 2 Supply and Demand	Ch 2 Supply and Domand	Module 2 Quiz	Thursday 9/12	
	Ch z supply and Demand	Module 2 Homework	Sunday 9/15	
3 Ch 2 Massuri	Ch 2 Macauring and Using Demond	Module 3 Quiz	Thursday 9/19	
(9/16)	Ch 3 Measuring and Using Demand	Module 3 Homework	Sunday 9/22	
4	Dusiness Communication	Module 4 Quiz	Thursday 9/26	
(9/23) Business Commun	Business Communication	Module 4 Homework	Sunday 9/29	
	Ch 4, 5-8 Production and Costs and Brief	Module 5 Quiz	Thursday 10/3	
	Review of Market Structure	Module 5 Mini Sim	Sunday 10/6	
(5/50)	Neview of Market Structure	Module 5 Homework Analysis	501108y 10/0	
6		Module 6 Quiz	Thursday 10/10	
6 (10/7)	Ch 9 A manager's Guide to Antitrust Policy	Module 6 Mini Sim	Sunday 10/13	
(10/7)		Module 6 Final Case Study Kick Off	Sunday 10/13	
You may tak	You may take the proctored midterm	Post a question -Discussion	Wednesday 10/16	
7	exam the day of your choosing Thursday	Post an answer- Discussion	Thursday 10/17	
(10/14)	through Sunday.	Proctored Midterm Exam	Thursday 10/17-	
	through sunday.		Sunday 10/20	
8 Ch 10 Advanced Pricing De (10/21)		Module 8 Quiz	Thursday 10/24	
	Ch 10 Advanced Pricing Decisions	Module 8 Mini Sim	Sunday 10/27	
	Ch 10 Advanced Fricing Decisions	Module 8 Problem Set	Sunday 10/27	
		Price Experts Meeting	Sunday 10/27	
9 Ch 11 Decisions about (10/28) and distribution		Module 9 Quiz	Thursday 10/31	
	Ch 11 Decisions about vertical integration	Module 9 Mini Sim	Sunday 11/3	
	and distribution	Module 9 Problem Set	Sunday 11/3	
		Vertical Integration Experts Meeting	Sunday 11/3	
		Module 10 Quiz	Thursday 11/7	
	Ch 12 Decisions about production,	Module 10 Beef Case	Sunday 11/10	
	products and location	Module 10 Problem Set	Sunday 11/10	
		Production Experts Meeting	Sunday 11/10	
11 Ch 13 Market (11/11) promotion	Ch 13 Marketing decisions: advertising and	Module 11 Quiz	Thursday 11/14	
		Module 11 Mini Sim	Sunday 11/17	
	p	Module 11 Problem Set	Sunday 11/17	
		Module 12 Quiz	Tuesday 11/19	
12	Ch 16 Using present value to make multi	Module 12 Analysis	Friday 11/22	
(11/18) pe	period managerial decisions	Module 12 Problem Set	Friday 11/22	
		Present Value Experts Meeting	Friday 11/22	
13	Semester Case Study	Upload your part	Tuesday 12/3	
(12/2)		Introduction & Conclusion	Thursday 12/5	
(,-)		Case Study Due	Sunday 12/8	
14 (12/9)	You may take the proctored cumulative final exam the day of your choosing	Proctored Final Exam	- Thursday 12/12 Sunday 12/15	