# ARE 401, CRN 82230—Fall 2016

### APPLIED DEMAND ANALYSIS

Tuesday/Thursday 11:00 AM-12:15 PM, PAS-E 104 (Physical Activities and Sport Building)

Instructor 1: Peter Schaeffer E-Mail: Peter.Schaeffer@mail.wvu.edu Office: 4415 (New) Ag. Sciences Bldg. Phone: 304-293-5572 TTh 9:45 – 10:45 & 12:30 – 1:00

Instructor 2: Caleb Stair E-Mail: Caleb.Stair@mail.wvu.edu Office Hours: TTH 12:30 – 2:00 &

W 12:00 -1:00

Instructor 3: Elham Erfanian E-Mail: elhamerfanian@mix.wvu.edu Office Hours: TTh 12:30 –2:00

# **Required Text**

• W. Nicholson and C. Snyder: Intermediate Microeconomics and its Applications, 12<sup>th</sup> edition, Thomson/South-Western, 2015 or

- W. Nicholson and C. Snyder: Intermediate Microeconomics and its Applications, 11<sup>th</sup> edition, Thomson/South-Western, 2010 or
- W. Nicholson and C. Snyder: Intermediate Microeconomics and its Applications, 10<sup>th</sup> edition, Thomson/South-Western, 2007

You can use any of the three most recent editions. Information in the syllabus about readings and assignments refers to each edition separately.

## **Course Objectives**

The objective of the course is to understand the rationale of economic decision making by individuals and firms and learn how markets operate. Complex economic relationships are synthesized into manageable models. Problems and examples are used to illustrate and apply the theoretical models and concepts. Course participants will learn to use analytical tools to assess and discuss economic issues that underlie the demand for and supply of goods and services.

### **Prerequisites**

- 1 Working knowledge of college algebra
- 2 Principles of microeconomics

### **Course Expectations**

- 1. Please complete assignments on time. Late assignments will not be accepted! The two lowest grades of the completed homework assignments will be deleted and not count towards the final grade. If you miss an assignment, that grade will automatically be dropped.
- **2.** All homework assignments are drawn from the textbook.
- **3.** Come to class prepared, having read the assigned chapter; please be on time. Be ready to ask and answer questions. Participate.
- **4.** Use the resources provided on the publisher's webpage (if have access to it) and by the instructors on eCampus. Make use of office hours.
- 5. Instructors will help students form small study groups.
- **6.** Ask for help if and **as soon as you realize** that you need it; do not wait if you are experiencing difficulties.
- **7.** If you miss a class session consult the syllabus to check topics covered during your absence and to keep up with assigned readings and assignments. Ask a class mate to share notes and information.

- **8.** Turn off your phone during class or mute the sound. Please also do not use your phone for texting or searching the Internet.
- **9.** Do not use your laptop during class to read, compose, or send emails, work on assignments, or search the Internet.
- **10.** The instructors will keep a record of attendance. Bonus points will be given for attendance on the last day before a holiday or long weekend and for attendance better than 90%.
- **11.** When communicating with instructors by email, please use the email addresses given on top of this syllabus.

## Grading

# 1. The Weights:

Exams and Assignments	Maximum Points Possible
Two midterm exams (150) and final exam (200)	500 points
Take-home assignments	500 points
Bonus points up to	75 points
Maximum points possible	1,000 points

#### 2. Letter Grade:

Letter grade will be assigned according to the following scale:

900 and above	А
800-899	В
700-799	C
600-699	D
Below 600	F

**Exams and Assignments:** Exams and take-home assignments consist of essay questions. Studying the text and the questions at the end of each chapter is an excellent way to prepare for exams. For each chapter there are solved problems on eCampus that illustrate how principles, theories, and models learned in class are being applied.

- Have a calculator available for exams; you will need it. Use of cell phone for calculations is permitted; no other use of a phone is allowed.
- The exams are "open book." However, notes are not to be consulted during exams.
- **No late assignments will be accepted**. However, the two assignments with the lowest grade will be dropped.
- Exceptions from the no-late-assignments policy will be made if you miss class to attend a University-sponsored event or in case of a prolonged illness. Please inform the instructors at the earliest time possible, preferably in writing. An email statement is acceptable. No allowance will be made for excuses made after the deadline.
- Please consult the style sheet for Homework assignments.

**Changes to Syllabus:** The dates in the syllabus are estimates. However, based on the experience from teaching this course in previous years, we do not expect large changes. Adjustments to the syllabus will be announced in class and by email.

**Academic Honesty:** The rules and guidelines of the University Academic Standards apply to all cases of academic dishonesty.

**Social Justice:** "West Virginia University is committed to social justice. I concur with that commitment and expect to foster a nurturing learning environment based upon open communication, mutual respect, and non-discrimination. West Virginia University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with Disability Services (293-6700)."

Course participants with learning disabilities may qualify for special accommodations, such as extra time on tests. However, a professional with Disability Services must determine if special accommodations are warranted and what they should be.

Course Outline and Schedule
(Dates and topics are subject to possible minor changes)

Dates	Toute	Chapters by book edition		
(approximate)	Topic	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Aug. 18	Introduction to the Class	1	1	1
Aug. 23 Last day to registers	Individual Demand: Utility and Choice	1 & 2	1 & 2	1 & 2
Aug. 25	Individual Demand: Demand Curves	2 & 3	2 & 3	2 & 3
Aug. 25	Homework 1 Due	3 problems; posted on eCampus		
Aug. 30	Aggregate Demand: Demand Curves and Elasticity	4	3	3
Sept. 1	Dealing with Uncertainty	5	4	4
Sept. 6	Homework 2 Due	3 problems; posted on eCampus		
Sept. 6	Uncertainty and Strategy: Game Theory	6	5	5
Sept. 8	Uncertainty and Strategy: Game Theory	6	5	5
Sept. 13	Production, Costs, and Supply: Production	7	6	6
Sept. 13	Homework 3 Due	3 problems; posted on eCampus		
Sept. 15	EXAM 1	1-6	1-5	1-5
Sept. 20	Production, Costs, and Supply: Costs	8	7	7
Sept. 22	Production, Costs, and Supply: Profit Maximization and Supply	9	8	8
Sept. 27	Homework 4 Due	4 problems; posted on eCampus		
Sept. 29	More on Production	7-9	6-8	6-8
Oct. 4	Perfectly Competitive Markets: Single Market	10	9	9
Oct. 4	Homework 5 Due	3 problems; posted on eCampus		
Oct. 6	Perfectly Competitive Markets: General Equilibrium and Welfare	11&12	10	10

Oct. 11	Perfectly Competitive Markets: General Equilibrium and Welfare	11&12	10	10
Oct. 11	Homework 6 Due	4 problems; posted on eCampus		
Oct. 13	Market Power: Monopoly	13	11	11
Oct. 18	EXAM 2	7-11	6-10	
Oct. 20	Market Power: Monopoly	13	11	11
Oct. 20	Homework 7 Due	4 problems; posted on eCampus		
Oct. 25 Oct. 26: Last day to drop classes	Market Power: Imperfect Competition	14	12	12
Oct. 27	Input Markets: Pricing in Input Markets	15	13	13
Oct. 27	Homework 8 Due	3 problems; posted on eCampus		
Nov. 1	Input Markets: Capital and Time	16	14	14
Nov. 3	Input Markets: Capital and Time	16	14	14
Nov. 8	Election Day – University is Closed	Vote		
Nov. 10	Input Markets: Capital and Time	16	14	14
Nov. 15	Market Imperfections: Asymmetric Information	17	15	15
Nov. 15	Homework 9 Due	4 problems; posted on eCampus		
Nov. 17	Market Imperfections: Asymmetric Information / Environmental and Natural Resources	17/18	15/16	15/16
Nov. 19 - 27	Thanksgiving Break	Eat Turkey		
Nov. 29	Market Imperfections: Environmental and Natural Resources	17/18	15/16	15/16
Dec. 1	Market Imperfections: Public Goods	18	16	16
Dec. 6 Last day of classes	Market Imperfections? Behavioral Economics	Not applicable	17	17
Dec. 6	Homework 10 Due	4 problems; posted on eCampus		
13 Dec	FINAL EXAM: 8:00 AM - 10:00 AM	12-18	11-16	11-16

# **Homework Instructions**

## **Boiler Plate**

Name and date should be on the right on top of the first page. Please print!

## Title

Assignment #, Edition (10, 11, or 12) [Example: Assignment 3, 10<sup>th</sup> edition]

### General Format

- Write legibly and neatly. Check spelling and grammar. If you type your assignments, please use 11 or 12 pt. fonts and 1.5 spaces between lines. Take advantage of the spell checker.
- Maintain reasonable margins (top, bottom, and on both sides).
- Write only on one side.
- Staple loose papers together. Papers that are not stapled together will not be accepted. Paper clips are no substitute for staples.

### Illustrations and Calculations

- Graphs should be drawn carefully and accurately (use ruler or learn how to use free online software, e.g., <a href="https://www.lucidchart.com/">https://www.lucidchart.com/</a>). An alternative is Dia (<a href="http://dia-installer.de/index.html.en">https://dia-installer.de/index.html.en</a>), which can be downloaded free of charge. Axes of graphs and curves of the graph must be labelled.
- You can use Excel for calculations and graphs of functions. Note that familiarity with spreadsheets is a good professional skill. When applicable, solved problems on eCampus contain information on how to program Excel to help solve the problem.
- Microsoft offers free math software. Math Solver (<a href="https://www.microsoft.com/en-us/store/p/math-solver/9wzdncrfj47x">https://www.microsoft.com/en-us/store/p/math-solver/9wzdncrfj47x</a>) requires Windows 10. It is very easy to use and free and can solve, for example, quadratic equations. If you use other sources of free software, please be careful to avoid contracting a computer virus.

#### **Solutions**

- Show the work that led you to your solution and, if it is not readily apparent, explain what the answer means or tells us. Answers without any explanation will receive no credit.
- Highlight the final answer or conclusion, for example, by underlining it.

## **Electronic Submission of Assignments**

- Only typed submissions will be accepted. PDF files of scanned handwritten assignments will not be accepted because the often poor quality makes them difficult to read.
- File names should have the format ARE401 LastnameInitial.HW# [Example: ARE401 SchaefferP.HW2].

## **Academic Integrity**

Do not copy from someone else and do not allow others to copy from you. If two or more students hand in
assignments that are virtually identical, the instructor may charge all students with cheating and not count
the assignment, except if the students are members of a study group that has been approved by the
instructors.