

**MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC  
OF KAZAKHSTAN**

**SULEYMAN DEMIREL UNIVERSITY  
FACULTY OF ECONOMICS**

**“CONFIRM”  
Vice-rector on Academic Affairs**

**\_\_\_\_\_ Mr. Halit Yilmaz  
“ ” \_\_\_\_\_ 2010**

**Educational Program: Baccalaureate  
Specialty: 050506-Economics  
Form of education: daytime**

**SYLLABUS**

**On the course PRODUCTION ECONOMICS  
Specialty 050506 - Economics**

**Year: 3  
Semester: 6  
Number of credits: 3 (lectures - 2 hours, practical – 1 hour)  
Instructor: Dr. Ken Szulczyk  
Tel.: 229-7190  
Office: #B126**

**ALMATY  
2010**

Completed by: Instructor Dr. Szulczyk

The syllabus has been developed on the basis of the Typical and Working Programs of the course for students of Specialty 050506 - Economics

Agreed at the meeting of the Faculty of “Economics”

Minutes № \_\_ of \_\_\_\_\_ 200\_\_\_\_ .

**Head of the Department \_\_\_\_\_ Dr. Mesut Yilmaz.**

Approved by the Educational Methodical Committee of the Undergraduate Department

Minutes № \_\_ of \_\_\_\_\_ 200\_\_\_\_ .

**Dean of the Faculty \_\_\_\_\_ Dr. Mesut Yilmaz.**

**Course: Production Economics**

**Code: ECO 312**

**Number of credits: 3**

Instructor's name	Time and location		Contact
	Lectures	Practical	
Dr. Ken Szulczyk	Tuesday 8: 30-10:20	Saturday 8:30-9:20	Tel: 229-7190 Cell: 8 7027238077

## **I. COURSE DESCRIPTION**

Production Economics expands on the concepts and theories of microeconomics, specifically on the supply side of the market. Students learn the benchmark of all markets, which are the competitive markets. Then students learn the strategies and methods how firms acquire market power in order to enhance their profit. Students learn how firms create entry barriers and increase the size of their firm. Furthermore, students use basic calculus and elementary game theory to explain behavior of the firms and calculate equilibrium market prices, quantities, and production levels. Finally, students will learn several techniques to estimate a firm's market power.

## **II .COURSE OBJECTIVES:**

Upon successful completion of this course students will be able to:

1. Analyze similarities and difference between the market structures: pure competition, monopolistically competitive, monopoly, and oligopoly.
2. Understand and derive a firm's cost functions: fixed costs, variable costs, total costs, average fixed cost, average variable cost, average cost, and marginal cost.
3. Describe the theory of the firm and its decision to expand its business activity.
4. Understand Coase Conjecture and Ricardian rents.
5. Understand the problems of a monopoly dominating a market.
6. Explain how firms use bundling, tying, and price discrimination to enhance revenues and profits.

7. Describe how asymmetric information leads to problems in a product's quality.
8. Understand elemental game theory, using Prisoner's dilemma, Nash, Cournot, and Bertrand games, and recognize dominant strategies.
9. Explain how companies and corporations use product differentiation to capture market share and enhance profits.
10. Calculate market power for Tobin's q, Herfindahl-Hirschman index, and Concentration ratio. Also understand the benefits and limitations of these methods.

### **III. LEARNING OBJECTIVES:**

#### **Students will learn the following topics:**

1. Market structures: competitive, monopolistically competitive, monopolistic, and oligopolistic.
2. Calculate price, quantity, and Lerner index for the purely competitive and monopoly markets.
3. Use algebra to solve various scenarios using a firm's cost functions.
4. The decisions a firm faces as whether it should expand vertically or horizontally in its industry.
5. How the types of goods can impact a monopoly's power.
6. Problems with monopolies like x-inefficiency, rent seeking behavior, and market entry barriers.
7. Price discrimination and product tying and bundling of products and services.
8. How adverse selection, moral hazard, and asymmetric information impacts the quality of products and services.
9. Prisoner's dilemma and dominant strategies in game theory.
10. Basic game theory for Nash, Cournot, and Bertrand equilibriums.
11. Product differentiation and its role in brand proliferation, brand preemption, brand specification, and vertical integration.
12. Measures of market power: Tobin's q, Herfindahl-Hirschman index, and Concentration ratio.

### **IV. PRE-REQUISITS**

Microeconomics

## V. TEXTBOOKS

### Required Texts:

Two E-books are used for this course and distributed to the students.

1. Church, Jeffrey and Roger Ware. 2000. *Industrial Organization – A Strategic Approach*. McGraw Hill Companies.
2. Illing, Gerhard and Martin Peitz.. 2006. *Industrial Organization and the Digital Economy*. MIT Books.

**Required Reading:** Students are encouraged to surf the Internet for relevant information for classroom topics. Three websites have a wealth of information, including free electronic textbooks:

1. <http://econpapers.repec.org/>
2. <http://www.oswego.edu/~economic/newbooks.htm>
3. <http://economics.about.com/>
4. [www.wikipedia.org](http://www.wikipedia.org)

## VI. PROCEDURES AND REQUIREMENTS:

1. **Class Participation** -- Students should come to class well prepared, having read the material assigned. They are encouraged to ask their questions, make comments, and participate in class discussions. Students who are late or absent are not properly participating in our class, regardless of how involved they may be when present.

2. **Attendance and Dishonesty** -- Students are required to attend classes on a regular basis. University policy will be followed when students miss their class appointments, or engage in any form of academic dishonesty. In both cases, students may be awarded a failing grade for their actions.

3. **Homework** -- Students are required to complete their homework on time. The homework complements the techniques the students learn from class and applies these techniques to calculate market prices, quantities, and production levels.

4. **Examinations** – There will be two mid-term exams and one final exam during the semester. The test questions will be short answer essay. Sample questions are posted on my website at: [www.ken-szulczyk.com](http://www.ken-szulczyk.com).

5. **Late assignments** -- Late assignments will not be accepted. A zero will be recorded when cases, assignments, presentations, projects, or examinations are not completed at the regularly scheduled time.

## VII EVALUATION

The course grade will be based upon the following criteria:

<b>Assignment type</b>	<b>Week</b>	<b>Marks</b>
<b>Participation:</b> [Participation = Attendance + Questions + Comments + Suggestions + Etc] <b>Home work/ Quizzes etc...</b>	<b>1-7</b>	<b>15 %</b>
<b>Midterm 1</b>	<b>7<sup>th</sup> week</b>	<b>15%</b>
<b>Participation:</b> [Participation = Attendance + Questions + Comments + Suggestions + Etc] <b>Home work/ Quizzes etc...</b>	<b>8-14</b>	<b>15%</b>
<b>Midterm 2</b>	<b>14<sup>th</sup> week</b>	<b>15%</b>
<b>Final Exam</b>	<b>16<sup>th</sup> week</b>	<b>40%</b>
<b>TOTAL</b>		<b>100%</b>

## VIII COURSE SCHEDULE AND READING ASSIGNMENTS:

The course schedule and assignments are listed below. This is your road map to the course, so please read it carefully.

<b>Weeks</b>	<b>Topics of Lectures (2 hours per week)</b>	<b>Self study/ (3 hours per week)</b>	<b>Form of Control</b>	<b>Texts</b>
1	Electronic (E) Commerce	Read chapter		Read Chapter 9 in Iling
2	Introduction to Industrial Organization	Read chapter		Read Chapter 1 in Church
3	The Welfare Economics of Monopoly Power	Exercise 4, p. 44		Read Chapter 2 in Church
4	The Theory of the Firm	Exercises 2 and 3, p. 103	Homework 1	Read Chapter 3 in Church
5	Market Power and Dominant Firms	Exercise 2, p. 151		Read Chapter 4 in Church
6	Nonlinear Pricing and Price Discrimination	Exercise 1, p. 180	Homework 2	Read Chapter 5 in Church
7	Midterm Examination I		15 points	
8	Market Power and Product Quality	Exercise 1, p. 203		Read Chapter 6 in Church
9	Oligopoly Pricing and Game Theory	Exercise 1, p. 227		Read Chapter 7 in Church
10	Classic Models of Game Theory, Part I	Exercise 1, p. 276	Homework 3	Read Chapter 8 in Church
11	Classic Models of Game Theory, Part II	Exercise 2, pp. 276 – 277	Homework 4	

12	Production Differentiation	Exercise 2, p. 416		Read Chapter 11 in Church
13	Identifying and Measuring Market Power	Exercise 3, p. 454	Homework 5	Read Chapter 12 in Church
14	Review			
15	Midterm Examination II		15 Points	
	Final Examination		40 Points	
<b>Total</b>			<b>100 points</b>	



## **IX. References:**

1. Shy, Oz. 1996. *Industrial Organization – Theory and Applications*. The MIT Press
2. Scotchmer, Suzanne. 2006. *Innovation and Incentives*. The MIT Press