ECON 502 – Advanced Microeconomic Theory.

FALL 2009

Professor: Karim Seghir
Office: 1020
Office hours: M&R from 6.15PM to 7.15PM, or by appointment.
Email: kseghir@aucegypt.edu
Phone: 3187
Class Location: C111, BEC building.
Meeting Times: R, 7.30-9.55PM.

1. Course description:

The purpose of this course is to study the current state of microeconomic theory at several of its frontiers. The course covers theories of consumer and producer under certainty and uncertainty, market equilibrium, market structures, general equilibrium theory, game theory and tools of comparative statics and their application to price theory. Some topics of recent interest may also be covered. The material will entail some formal mathematical analysis. The required mathematical tools, such as quasiconcavity, unconstrained and constrained optimization and concave programming, will be introduced (reviewed) in class.

2. Readings:

The main text of this course is:


You may find other textbooks useful as well. Below is a list of books you may find helpful. You may borrow copies from the library or from me.

General microeconomic theory books:


Mathematics books:

3. **Grading and Exams.**

There will be 2 quizzes, a term paper and a comprehensive Final Exam. Each quiz is worth 20% of your overall grade and the Final exam is worth 30% of your grade. The paper (see Section 4 below for more details) is worth 20% of your grade. Attendance-Assignment-Participation is worth 10% of your grade. The grading policy and exam dates are given by the following table:

<table>
<thead>
<tr>
<th>ASSESSMENT</th>
<th>WEIGHT</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUIZ 1</td>
<td>20%</td>
<td>Thursday, October 15th</td>
</tr>
<tr>
<td>QUIZ 2</td>
<td>20%</td>
<td>Thursday, November 19th</td>
</tr>
<tr>
<td>FINAL EXAM</td>
<td>30%</td>
<td>TBA</td>
</tr>
<tr>
<td>Attendance-Assignment-Participation in Discussions</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Term Paper</td>
<td>20%</td>
<td>Thursday, December 3rd</td>
</tr>
</tbody>
</table>

4. **Term Paper**

Each student is required to write a term paper that addresses a problem relevant to one of the topic areas in the course outline (e.g.: general equilibrium theory, game theory, information economics) or a theme related to the material covered in class (e.g.: financial economics, industrial economics, health economics, public finance, political economy, to name some).

The paper should provide a critical survey of the relevant literature but must attempt to develop an original contribution. You must handle a hard copy of your work no later than **Thursday, December 3rd**. You are also required to submit a soft copy on [www.turnitin.com](http://www.turnitin.com). **NO LATE SUBMISSION WILL BE ACCEPTED.** You must meet with me to discuss your topic and have the topic **approved** no later than **Thursday, November 5th**. You are encouraged to discuss the paper topic with your classmates. You must, however, compose your paper independently.

**Term paper presentations**

You will present your work on **Thursday, December 10th**. The length of each presentation should be 20 to 25 minutes. The presentation should introduce the topic and the related literature, convey the paper’s original contribution, present analytical results and discuss possible extensions etc.

The criteria for evaluating a presentation include:

- Quality of analysis and research,
- Ability to express ideas and opinions concisely and clearly,
- Quality of presentations, debate input and responses to questions.

5. **Class Material on Blackboard.**

- This course is Blackboard supported. I will communicate all essential information through Blackboard.
- It is your responsibility to maintain a valid Blackboard account and to keep yourself up-to-date regarding the information I communicate through Blackboard.
- On Blackboard you will find essential lecture material, problem sets, list of readings, assignments and useful communication tools such as email and a discussion board.
To access Blackboard, open your browser and type: http://Blackboard.aucegypt.edu. Your username is your AUC student ID and your password is also your AUC student ID, but you’ll be asked to change it.

6. **Some Important Course Policies**

- Students are expected to be punctual in coming to class.
- You are urged to express your views, ask questions freely, and discuss the points you don’t understand or don’t agree.
- The material presented in class will complement, not substitute, for the material covered in the assigned readings.
- Office hours are an excellent venue for asking questions and assessing your progress. If you fail an exam, pass by and see me as soon as possible so that I can advice you appropriately.
- I expect every student to maintain a high standard of academic integrity and to be familiar with the policies and principles of student conduct. Please, visit the following AUC webpage for more information on types of violations and recommended punishments: http://www.aucegypt.edu/resources/acadintegrity/Disciplinaryprocedures/Typesofviolations.html

7. **List of topics:**

1. **Consumer Theory.**
   - Axioms of preferences and choices.
   - Preferences and utility functions.
   - Utility maximization problem and optimal consumer choice.
   - The indirect utility function and the expenditure function.
   - Marshallian and Hicksian demand functions.
   - Properties of consumer demand

2. **Producer Theory.**
   - Properties of the production function.
   - Properties of the cost function.
   - Profit maximization and the profit function.
   - Perfect competition, Imperfect competition, Cournot oligopoly, Bertrand Oligopoly.
   - Pareto efficiency

3. **General Equilibrium Theory.**
   - The Edgeworth box.
   - Properties of aggregate excess demand functions.
   - Walrasian equilibrium.
   - First and second welfare theorem.

4. **Information Economics.**
   - Decision under uncertainty
   - Adverse selection.
   - Moral hazard and the Principal Agent.
   - Information and market performance
5. Game Theory
   - Strategic form games.
   - Dominant strategies and iterated elimination of dominated strategies.
   - Pure-strategy Nash equilibrium.
   - Mixed-strategy Nash equilibrium.

8. **Grading System:**

<table>
<thead>
<tr>
<th>MIN</th>
<th>MAX</th>
<th>GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>93</td>
<td>100</td>
<td>A</td>
</tr>
<tr>
<td>90</td>
<td>92</td>
<td>A-</td>
</tr>
<tr>
<td>85</td>
<td>89</td>
<td>B+</td>
</tr>
<tr>
<td>80</td>
<td>84</td>
<td>B</td>
</tr>
<tr>
<td>75</td>
<td>79</td>
<td>B-</td>
</tr>
<tr>
<td>70</td>
<td>74</td>
<td>C+</td>
</tr>
<tr>
<td>65</td>
<td>69</td>
<td>C</td>
</tr>
<tr>
<td>60</td>
<td>64</td>
<td>C-</td>
</tr>
<tr>
<td>55</td>
<td>59</td>
<td>D+</td>
</tr>
<tr>
<td>50</td>
<td>54</td>
<td>D</td>
</tr>
<tr>
<td>0</td>
<td>49</td>
<td>F</td>
</tr>
</tbody>
</table>

**HAVE A PRODCUTIVE SEMESTER!**