University of Macau
Faculty of Science and Technology
Department of Computer and Information Science
ECOT001 Introduction to Economics
Syllabus
1st Semester 2011/2012
Part A – Course Outline

Compulsory course for Civil Engineering, Elective course in Computer Science

Catalog description:
(4) 3 credits. The course introduces the subject matter of economics and some of the methods used by economists to study their subject. The emphasis of the course will be on the micro view and it includes basic concepts such as scarcity and choice, supply and demand, consumer choice, factors of production, pricing, marginal analysis, and market virtues and vices. On the macro view, the course introduces the main issues: unemployment, inflation, and economic growth.

Course type:
- Theoretical

Prerequisites:
- None

Textbook(s) and other required material:
- W. J. Baumol & A. S. Blinder, *Economics: Principles and Policies* – 11th ed. (ISE), Cengage - 2009.

References:
- None

Major prerequisites by topic:
- None

Course objectives:
- To enhance students knowledge of economics by introducing economic terms and concepts. [h, i, j]
- To understand the distinction between microeconomics and macroeconomics. [h, i, j]
- To raise students understanding of how the interaction and decisions made by different players in the society influence the way the society functions. [h, i, j]
- To improve students critical and analytical thinking about current economic issues. [h, i, j]
- To improve decision making process and problem solving by the application of the course material. [h, i, j]

Topics covered:
- **What is Economics? (4 hours):** Myth and Reality. Definition of Economics and introduction of economic tools.
- **The Fundamental Economic Problem: Scarcity and Choice. (4 hours):** Identification of the fundamental economic problem, Opportunity cost.
- **Supply and Demand: An Important Tool. (8 hours):** Defining Supply and Demand and its application as a powerful analytical tool.
- **Markets: Virtues and Vices. (8 hours):** Defining perfect competition, monopolistic competition, oligopoly and monopoly. Identify the different markets in daily life and understand their characteristics.
- **The Price System, Taxation and Resource Allocation. (4 hours):** Importance of prices in our lives. The function of taxes in resource allocation.
- **Pricing the Factors of Production. (4 hours):** Generation of income. The importance of Supply and Demand.
- **An Introduction to Macroeconomics: Economic Growth, Unemployment and Inflation. (6 hours)**
  Introduction to Macroeconomics and drawing a line between Macroeconomics and Microeconomics. Definition

of the growth, unemployment and inflation.
- **The Goals of Macroeconomic Policy. (6 hours):** Definition of the goals. Aggregate Supply and Aggregate Demand Equilibrium. Stabilization Policies.

Class/laboratory schedule:

Timetabled work in hours per week			No of teaching weeks	Total hours	Total credits	No/Duration of exam papers
Lecture	Tutorial	Practice				
4	Nil	Nil	14	56	3	1 / 2 hours

Student study effort required:

Class contact:	
Lecture	44 hours
In-class exercises / Mid-term exams	12 hours
Other study effort	
Self-study	24 hours
e-Quizzes (homework)	10 hours
Total student study effort	90 hours

Student assessment:
Final assessment will be determined on the basis of:
In-class exercises and e-Quizzes   20%   Mid-term (I+II)   40%   Final exam   40%

Course assessment:
The assessment of course objectives will be determined on the basis of:
- In-class exercises, e-Quizzes and exams
- Course evaluation

Course outline:

Weeks	Topic	Course work
1	**What is Economics? Myth and Reality.** Definition of Economics and introduction of economic tools.	
1,2	**The Fundamental Economic Problem: Scarcity and Choice** Identification of the fundamental economic problem, Opportunity cost.	#01
2,3,4	**Supply and Demand: An Important Tool** Defining Supply and Demand and its application as a powerful analytical tool.	#02, #03, e#01
5,6	**Markets: Virtues and Vices.** Defining perfect competition, monopolistic competition, oligopoly and monopoly. Identify the different markets in daily life and understand their characteristics.	#04,#05, e#02, e#03
6,7	**The Price System, Taxation and Resource Allocation** Importance of prices in our lives. The function of taxes in resource allocation.	Midterm I, e#04, e#05
7,8	**Pricing The Factors of Production** Generation of income. The importance of Supply and Demand.	#06, e#06
9,10	**An Introduction to Macroeconomics: Economic Growth, Unemployment and Inflation** Introduction to Macroeconomics and drawing a line between Macroeconomics and Microeconomics. Definition of the growth, unemployment and inflation.	Midterm II, #07, e#07,e#08
11,12,13,14	**The Goals of Macroeconomic Policy** Definition of the goals. Aggregate Supply and Aggregate Demand equilibrium. Stabilization Policies.	#08, e#09, e#10

Weeks	Topic	Course work
To be scheduled	**Final Exam**	

Contribution of course to meet the professional component:
This course prepares students to understand the importance of economic issues in their lives.

Relationship to CS program objectives and outcomes:
This course primarily contributes to the Computer Science program outcomes that develop student abilities to:
(h) The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
(j) A knowledge of contemporary issues

The course secondarily contributes to the Computer Science program outcomes that develop student abilities to:
(i) A recognition of the need for, and an ability to engage in lifelong learning.

Relationship to CS program criteria:

Criterion	DS	PF	AL	AR	OS	NC	PL	HC	GV	IS	IM	SP	SE	CN
Scale: 1 (highest) to 4 (lowest)												1		

Discrete Structures (DS), Programming Fundamentals (PF), Algorithms and Complexity (AL), Architecture and Organization (AR), Operating Systems (OS), Net-Centric Computing (NC), Programming Languages (PL), Human-Computer Interaction (HC), Graphics and Visual Computing (GV), Intelligent Systems (IS), Information Management (IM), Social and Professional Issues (SP), Software Engineering (SE), Computational Science (CN).

Course content distribution:

Percentage content for			
Mathematics	Science and engineering subjects	Complementary electives	**Total**
0%	0%	100%	100%

Coordinator:
Prof. Zhiguo Gong

Persons who prepared this description:
Mr. Miguel Gomes da Costa Junior
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1st Semester 2011/2012

Instructor:	Mr. Miguel Gomes da Costa Junior	Office:	N327B
Office hour:	by appointment	Phone:	8397 4378
Email:	mcosta@umac.mo		

Time/Venue: *To be announced*

Grading distribution:

Percentage Grade	Final Grade	Percentage Grade	Final Grade
100 - 93	A	92 - 88	A−
87 - 83	B+	82 - 78	B
77 - 73	B−	72 - 68	C+
67 - 63	C	62 - 58	C−
57 - 53	D+	52 - 50	D
below 50	F		

Comment:
The objectives of the lectures are to explain and to supplement the text material. Students are responsible for the assigned material whether or not it is covered in the lecture. Students who wish to succeed in this course should read the textbook (chapter related) prior to the lecture, should work all in-class exercises and e-quizzes (homework) and should made use of the material provided at UMMoodle such as examples and extra material. You are encouraged to look at other sources (such as other textbooks, websites, etc.) to complement the lectures and text.

Homework policy:
The completion and correction of the in-class exercises and e-quizzes are a powerful learning experience.
- In-class exercises will be used to review lectures.
- E-quizzes are electronic homework exercises. They have periods for completion that must be respected. No late submission is accepted.

Exams:
Two mid-term exams with 90 minutes duration and one final exam with 120 minutes duration will be held during the semester. All are closed book examinations.

Note:
- The lecture session is an important part of this course and attendance is compulsory. At most 20% absence without leave is allowed.
- Check UMMoodle (ummoodle.umac.mo) regularly for announcements, e-quizzes and lectures. Report any mistake on your grades within one week after posting.
- No make-up exam will be given except for CLEAR justification such as medical proof.
- Cheating and plagiarism are absolutely prohibited by the university.

Appendix:

Rubric for Program Outcomes

Rubric for (h)	5 (Excellent)	3 (Average)	1 (Poor)
Scope of content	Students will demonstrate material, items, or topics characterized by a sophisticated array of information, insight, and understanding.	Students demonstrate significance reflecting an acceptable degree of perception and thoughts.	Students have limited abilities to relate, incorporate, or demonstrate knowledge of subject with a dynamic breadth.

Rubric for (i)	5 (Excellent)	3 (Average)	1 (Poor)
Analysis/ evaluation	Detailed analysis accounting for all the information and conclusions are well supported.	Some analysis done but somewhat shallow; some supporting evidence.	Analysis simply involves restating gathered information; claims not supported by evidence.

Rubric for (j)	5 (Excellent)	3 (Average)	1 (Poor)
Relevance to the present time	Student displays an understanding of the theoretical or practical impact and an ability to correlate a subject, perception, communication, association and reasoning from a global and societal perspective.	Student is able to display an understanding of current topics and issues with some knowledge regarding their impact in a bigger global and societal sense.	Student has difficulty demonstrating an awareness or familiarity with current topics and issues relevant to most current global and societal affairs.