

Module Outline

<u>Section 1 – General Information</u>	
Module Title Introductory Economics	
Module code ECO-4002Y	Credit value 40 credits
Academic Year 2013/14	Semester Year-long module
Related modules ECO-4001Y Introductory Maths & Stats for Economists, ECO4004Y Maths & Stats for Economists	

<u>Section 2 – Details of Module</u>
Description What is this module about? What will students learn?
<p><u>Module content</u></p> <p>The aim of this module is to introduce students to the economic way of reasoning, including its main concepts and tools, and to apply these to a variety of real world macroeconomic and microeconomic issues.</p> <p>There is some mathematical content – you will be required to learn how to sketch and interpret equations (linear and non-linear); rearranging equations; solving simultaneous linear equations and quadratic equations; rules of log and exponential functions; differentiation and optimisation; partial differentiation.</p> <p><u>Module objectives</u></p> <ol style="list-style-type: none"> 1. To provide a foundation for further study of Macroeconomics and Microeconomics in Years Two and Three. 2. To use economic concepts and models to understand real world economic issues. 3. To develop written, oral and presentation skills. <p><u>Learning outcomes</u></p> <p>On completing the module, you should have developed an appreciation for the economic analysis of these themes and acquired some core competencies. In particular, teachers of later economics modules will assume that you are familiar with the following topics.</p> <p><i>Macroeconomics:</i></p> <ol style="list-style-type: none"> 1. Income and expenditure – the circular flow of income. Measuring national income. 2. Economic growth and the business cycle. Economic growth in the long-run. 3. The balance of payments and exchange rates. 4. Keynesian analysis of the goods market; the multiplier. 5. The money market. 6. Simultaneous equilibrium in the money and goods markets; the IS-LM model.

7. Unemployment and inflation. The expectations augmented Phillips curve.
8. Aggregate demand, aggregate supply and inflation. The AD-AS model.
9. Fiscal and monetary policy.

Microeconomics

1. Basic consumer theory: indifference curves, income and substitution effects, derivation of individual demand and market demand, definition of elasticities.
2. Basic production theory: relationships between total, average and marginal costs and the determinants of supply.
3. Market interaction: market equilibrium and the determination of prices, consumer and producer surplus and market efficiency, long-run vs. short-run under perfect competition, monopoly and imperfect competition, in the latter case allowing for strategic interaction.
4. Factor markets as well as markets for final goods and services.
5. Market failure: externalities, public goods, and the role of government.

It is important to have a sound grasp of the concepts involved, but also to be able to handle basic models and use relevant mathematical tools, and to be able to construct and communicate rigorous verbal and mathematical economic analysis. The importance of solid foundations in all these respects cannot be overstated: next year's Principles of Macroeconomics and Principles of Microeconomics, as well as, and other second and third year courses will be a struggle for any students who have failed to grasp the fundamentals in this module. Also, students should have acquired the ability to produce written work within a word limit.

Links with other modules

Introductory Economics is a compulsory module for all First-year undergraduate students on Economics degrees. It is also a prerequisite for the second year Principles of Macroeconomics and Principle of Microeconomics modules. The principles taught in (Introductory) Maths & Stats for Economists (either ECO41001Y, or ECO4004Y) will find practical application in this module.

Section 3 – Teaching Team

<u>Section 3 – Teaching Team</u>			
Module Convenor and Others	Name:	Dr Fabio R. Aricò	(Module Convenor/Lecturer)
	Contact Details:	Arts 3.47 ext.1795	Email: F.Arico@uea.ac.uk
	Office hours:	Tuesday 2pm-4pm.	
	<u>Macroeconomics Team</u>		
	Name:	Dr Odile Poulsen	(Workshop Leader)
	Contact Details:	Arts 3.59 ext. 2714	Email: O.Poulsen@uea.ac.uk
	Office hours:	Thursday 3pm-5pm.	
		Name:	Dr Aikaterini Karadimitropoulou (Seminar Leader)
Contact details:		Arts 3.56 ext. 1059	Email: A.Karadimitropoulou@uea.ac.uk
Office hours:		Wednesday 3pm-5pm.	

Name: Miss Xin Xu (Seminar leader)
Contact Details: Arts 0.28/29 Email: X.Xu2@uea.ac.uk
Office hours: Friday 10am-11am.

Name: Miss Khemla Armoogum (Seminar leader)
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Name: Miss Bahar Ghezelayagh (Support tutor)
Contact Details: Arts 3.64 ext.3812
Email: B.Ghezelayagh@uea.ac.uk
Office hours: Tuesday 10am-12pm.

Microeconomics Team

Name: Dr Bibhas Saha (Lecturer/Support tutor)
Contact Details: Arts 3.40 ext. 3404 Email: B.Saha@uea.ac.uk
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Name: Dr Farasat Bokhari (Lecturer)
Contact Details: Arts 3.34 ext. 7534 Email: F.Bokhari@uea.ac.uk
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Name: Prof Franz Deitrich (Workshop leader)
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Name: Dr Matthew Aldrich (Seminar leader)
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Name: Dr Franco Mariuzzo (Seminar leader)
Contact Details: Arts 3.29 ext. 7530 Email: F.Mariuzzo@uea.ac.uk
Office hours: Wednesday 1pm-3pm.

Name: Dr Stefania Sitzia (Seminar leader)
Contact Details: Arts 3.69 ext. 7189 Email: S.Sitzia@uea.ac.uk
Office hours: to be announced.

Section 4 – Module content			
Activity	Details	Total hours/days	% of credit where applicable
Introductory Meeting	There will be an Introductory Meeting on Thursday 26 th September at 2:10pm in TPSC LT.	1 hr.	0.25%
Lectures	<p>There will be 2 lectures per week, between Week 2 and Week 11 (included) in both the Autumn and the Spring semester.</p> <p><u>Microeconomics</u> Tue 5:10-6:00pm in LT2</p> <p><u>Macroeconomics:</u> Tue 6:10-7:00pm in SCI 0.13</p> <p>Note that up until 12.00hr lecture will start on the hour and finish at 10 minutes to the hour. In the afternoon, sessions will start at 10 past the hour and finish on the hour. Note that up until 12.00hr lectures will start on the hour and finish at 10 minutes to the hour. In the afternoon, lectures will start at 10 past the hour and finish on the hour.</p>	40 hrs.	10%
Revision Lectures	There will be 2 Revision Lectures: 1 Macroeconomics 1 Microeconomics in Week 11 of the Spring semester.	2 hrs.	0.5%
Contemporary Economic Issues (CEI) Lectures	<p>The School of Economics organises a series of up to 9 lectures per semester which are compulsory for all undergraduates.</p> <p>CEI lectures will be held on Mondays at 6pm and may last until 8pm (including question and answer sessions).</p>	36 hrs.	9%

Pre-lecture preparatory reading and post-lecture follow up reading	Do readings as assigned.	44 hrs.	11%
Seminars/Workshops	<p>8 Seminars (4 per Semester)</p> <p>8 Workshops (4 per Semester)</p> <p>Note that up until 12.00hr teaching sessions will start on the hour and finish at 10 minutes to the hour. In the afternoon, sessions will start at 10 past the hour and finish on the hour.</p> <p>Includes formative assessment.</p>	32 hrs.	8%
Pre-seminar/workshop preparation and follow up study	<p>Seminar preparation: solve the problems assigned in advance for each seminar and bring solutions in class ready for discussion.</p> <p>Workshop preparation: study the lecture material in preparation to problem-solving activities to take place during each workshop.</p>	32 hrs.	8%
Support Sessions	Please refer to the Support Session information reported in Section 5.	40 hrs.	10%
Assessed course paper	Preparation of two coursework papers, 1 for Macroeconomics and 1 for Microeconomics.	64 hrs.	16%
Further reading and exam preparation	<p>Revision of lecture / seminar materials and practice with sample exam questions.</p> <p>Revision for exams is your own responsibility. A revision lecture will be offered in April / May 2014 in order to provide limited guidance for exams.</p>	106 hrs.	26.5%
Exam	Examination attendance in April/May/June.	3 hrs.	0.75%
Total		400 hrs.	100%

Section 5 - Teaching Sessions

Lecture Programme – details for each lecture

Introductory Meeting

What Economics is essentially about, and how the Introductory Economics module will operate. Thursday 26th September in TPSC LT.

Macroeconomics – Autumn Semester

Week	Topic	Macro Textbook
2	Macroeconomic issues. The circular flow of income	Ch. 14
3	Measuring national income and macroeconomic aggregates.	Ch. 14
4	Economic growth and the business cycle.	Ch. 14
5	Unemployment.	Ch. 15
6	Aggregate demand, aggregate supply and inflation.	Ch. 15
7	The balance of payments; exchange rates.	Ch. 15
8	Determining national income 1.	Ch. 17
9	Determining national income 2.	Ch. 17
10	Keynesian analysis of unemployment and inflation; Keynesian analysis of the business cycle.	Ch. 17
11	Money – supply, demand and equilibrium.	Ch. 18
12	No lecture, but there is some reading.	Ch. 16+18

Microeconomics – Autumn Semester

Week	Topic	MicroTextbook
2	Scarcity, opportunity cost and sunk cost, rational decision.	Ch. 1
3	Market equilibrium: Demand-Supply analysis 1.	Ch. 2
4	Market equilibrium: Demand-Supply analysis 2.	Ch. 2
5	The theory of consumer behaviour: Indifference curves.	Ch. 3
6	The theory of consumer behaviour: Income effect and Substitution effect, Market demand.	Ch. 4
7	The theory of consumer behaviour (contd.): Applications of demand theory, Income and Price elasticity of demand.	Ch. 5

8	Choice under uncertainty: Expected utility theory, insurance and other applications.	Ch. 6
9	Non-egoistic behaviour: Public spirit, Altruism, Preference for fairness, Bounded rationality.	Ch. 7-8
10	The theory of the firm: Production, short-run and long-run technologies, profit maximisation.	Ch. 9
11	The theory of the firm (contd.): Cost minimisation, Short- and long-run cost.	Ch. 10
12	No lectures/seminars.	
<u>Macroeconomics – Spring Semester</u>		
Week	Topic	Macro Textbook
1	Money and goods markets; including the ISLM model.	Ch. 19
2	Money and goods markets; including the ISLM model.	Ch. 19
3	Fiscal policy.	Ch. 20
4	Monetary policy.	Ch. 20
5	Fiscal and monetary policy in the UK. Rules vs discretion.	Ch. 20
6	Aggregate supply; aggregate demand, supply and inflation.	Ch. 21
7	The expectations augmented Phillips curve.	Ch. 21
8	Inflation and unemployment (New Classics and Keynesians).	Ch. 21
9	Long-term economic growth.	Ch. 22
10	Supply-side policies.	Ch. 23
11	Revision Session.	
12	No lectures/seminars.	
<u>Microeconomics – Spring Semester</u>		
Week	Topic	Micro Textbook
1	Perfect competition 1	Ch. 11
2	Perfect competition 2	Ch. 11
3	Monopoly	Ch. 12
4	Imperfect competition	Ch. 13

5	Imperfect competition and Games	Ch. 13
6	Factor markets: Labour	Ch. 14
7	General equilibrium and Market efficiency	Ch. 16
8	Externalities	Ch. 16+17
9	Public goods	Ch. 16+18
10	Asymmetric Information and Moral Hazard	Ch. 6
11	Revision Session.	
12	No lecturers/seminars.	

Please note that this programme may undergo revisions. Students will be promptly informed about these changes. The material covered in the Final Exam will be confirmed and announced to the students in due course.

Seminar Programme

There will be 8 Seminar sessions in the Autumn Semester, and 8 Seminar sessions in the Spring Semester (4 in Macroeconomics, and 4 in Microeconomics, in each semester). For the Autumn semester these will take place according to the following schedule:

Autumn Semester

Week	Topic
3	Microeconomics: PPF, Demand and Price elasticity of demand.
4	Macroeconomics: The circular flow of income. Measuring GDP.
5	Microeconomics: Properties of the market demand curve; elasticities.
6	Macroeconomics: Data Exercise (presentation worth 5% of final mark).
7	Microeconomics: Basic budget line / indifference curve exercises.
8	Macroeconomics: AD-AS in the short-run; inflation; balance of payments.
9	Microeconomics: Production in the short/long-run, cost functions.
10	Macroeconomics: Finding the equilibrium level of output.

Problem sets

Details of the work for each seminar in the Autumn semester will be given to you in separate handouts for both Macroeconomics and Microeconomics. In January you will be given handouts comprising the Spring semester seminar work.

Instructions

It is expected that all students will have read the relevant sections in the course text; thought about the issues raised and completed the exercises. By this we mean that you should have prepared detailed answers to the questions, should have read material beyond your lecture notes and should be prepared to discuss the questions with the rest of the group. A successful and enjoyable seminar is one in which everyone participates and learns. It is important to cover the background reading and to have notes on the seminar questions because the assessments will reflect the material covered in seminars and so will the exam questions in the summer.

Times and venues

Please see your personalised timetable for details.

Other Taught Sessions Programme – workshops, practicals, fieldwork, placements, drop-in sessions

Workshop Programme

Workshops, like seminars, are compulsory. The difference between workshops and seminars will be explained in the introductory meeting on Thursday 26th September.

Macroeconomics Workshops will take place in weeks 3, 5, 7 and 9.

Microeconomics Workshops will take place in weeks 4, 6, 8 and 10.

Workshop times and venues

See your personalised timetable for details.

Additional Support Sessions

These optional sessions are for students who are experiencing any difficulties with the material. It is very important not to let problems 'build up'. Therefore, if you need extra help please take advantage of these sessions – you do not have to attend every week.

Your Support tutors will be:

Macroeconomics - Miss Bahar Ghezelayagh B.Ghezelayagh@uea.ac.uk

Microeconomics - Dr Bibhas Saha B.Saha@uea.ac.uk

These sessions will start in Week 2.

Your personalised timetable will provide information about the time and venue.

A final revision session will be delivered in Week 11 of the Spring Semester.

Details about venue and time will be announced to the students in due course.

Section 6 – Study materials

Required Reading:

Macroeconomics Textbook:

Sloman, J. Wride, A. & Garrett, D., "Introductory Economics – Macroeconomics", edited by F. Aricò, UEA Custom Edition, Pearson Education, 2013.

Microeconomics Textbook:

Frank, R., and Cartwright, E., "Microeconomics and Behaviour", McGraw Hill, 2013.

Recommended further reading:

- The Economist (online and student subscriptions are available).
- Blogs and News articles focussing on economic issues.
- Additional readings will be indicated on lecture handouts.

Other Study Materials:

In teaching this module we will be using Blackboard, UEA's virtual learning environment. It is a web-based system and you can log on from any computer with access to the internet by visiting <https://portal.uea.ac.uk/>

The Blackboard site will include lecture handouts, seminar solutions and announcements, as appropriate.

The Dean of Students' Office has a very useful website on academic skills. It can be accessed at http://www.uea.ac.uk/services/students/let_service

Statistical Information

Statistical information and reports on world economies are available in the UEA library and on the internet. These include:

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|--------------------------------------|-----------------------|
| - Annual Abstract of Statistics | Financial Statistics |
| - United Kingdom National Accounts | OECD Economic Studies |
| - OECD Economic Outlook | Economic Trends |
| - National Institute Economic Review | The Economist |

Useful web addresses

Office of National Statistics <http://www.statistics.gov.uk/>

HM Treasury <http://www.treasury.gov.uk>

Bank of England <http://www.bankofengland.co.uk>

National Institute of Economic and Social Research <http://www.niesr.ac.uk>

The Institute of Fiscal Studies (IFS) <http://www.ifs.org.uk>

Section 7 - Formative Assessment

Assessment Type and Sequence No.	Assignment Deadline	Method of Submission	Return date of marked work (where appropriate)	Nature of feedback
Micro Formative Autumn 001	14 Nov	during Workshop	NA	Solutions and comments on Blackboard
Macro Formative Autumn 002	21 Nov	during Workshop	NA	Solutions and comments on Blackboard

Micro Formative Spring 003	20 Feb	during Workshop	NA	Solutions and comments on Blackboard
Macro Formative Spring 004	27 Feb	during Workshop	NA	Solutions and comments on Blackboard
Assignment detail (e.g. title, type, word limit, presentation length)				
Formative assessment will be conducted during workshops, where students will have opportunity to test their abilities and progression with the module. Solution and further comments and guidance will be shared in class and posted on Blackboard for further reference.				

Section 8a - Summative Assessment							
Assessment Type and Sequence No.	(%) counting towards overall module mark	Assignment Deadline	Method of Submission	If electronic submission, can colour be used?	Return Date of Marked Work	Method of Return	Nature of feedback
Coursework 001 Macro Seminar Presentation	2.5%	1 Nov	NA	NA	8 Nov	Email	Presentation feedback sheet
Presentation details							
<p>The assessment of this coursework will be (evidently) performed in a not anonymous way.</p> <p>This is a group-work assessment. In Week 4, you will be assigned a presentation topic and will be allocated to a group. You will have to work with your group mates and prepare a 5-10 minutes presentation. Presentations will take place during seminars in Week 6. Further instructions will be provided in due course.</p> <p><i>Failure to attend a seminar where you are one of the presenters will result in a mark of zero for the seminar presentation.</i></p>							

Assessment Type and Sequence No.	(%) counting towards overall module mark	Date	Start Time	Duration	Type i.e. Written, IT, Lab-based?	Invigilation Required?	
Coursework 002							
Macro Course Test	7.5%	10 Dec	5pm	45 min	written	yes	
Micro Course Test	7.5%	11 Dec	1pm	45 min	written	yes	
Course Test details							
<p>This coursework will be submitted and assessed anonymously.</p> <p>Please see Section 10 for a sample Course Test for both Macroeconomics and Microeconomics.</p> <p>The mark of this coursework will be formed by an average of the Macroeconomics Test mark and the Microeconomics Test mark. Marked work will be returned via the LTS Hub within 20 working days.</p> <p>Please note that, according to UEA policy, the Course Tests are subject to the same regulations as those for exams. Students MUST sit the Course Tests at the time set. Students can only miss tests or exams IF they have a medical note from a doctor stating that they are unfit to take the test/exam.</p>							
Assessment Type and Sequence No.	(%) counting towards overall module mark	Assign-ment Deadline	Method of Sub-mission	If electronic sub-mission, can colour be used?	Return Date of Marked Work	Method of Return	Nature of feedback
Coursework 003							
Micro Written Assignment	12.5%	6 Mar	Online	Yes	1 Apr	Written feedback sheet to be collected from LTS Hub for both assignments	Online Marks and written sheet for both
Macro Written Assignment	10%	13 Mar	Online	Yes	1 Apr		
Written Assignment details							
<p>This coursework will be submitted and assessed anonymously.</p> <p>Students will be expected to submit two separate Written Assignments, one for Macroeconomics and one for Microeconomics. The mark of this coursework will be formed by an average of the Macroeconomics Written Assignment mark and the Microeconomics Written Assignment mark.</p>							

Students will be provided with further guidelines in due course.

All assessed work should be typed, contain full bibliographic references and a word count.

Word count penalty:

Up to 10% over the word limit - no penalty

10% or more over the word limit – a penalty will be applied.

See <https://www.uea.ac.uk/learningandteaching/getting-started/handbooks> for detailed information.

must keep original coursework with comments attached and the electronic versions of all work submitted for the duration of their period of study. This is because if plagiarism is suspected, students may be asked to re-submit the electronic version of their coursework (including previous years) for screening. Failure to provide the electronic version could result in a mark of zero.

Assessment Type	Percentage (%) counting towards overall module mark	Dates of exam period	Dates when marks will be available on e-vision
Exam	60%	28 April to 6 June 2014	15 July 2014

Exam detail			
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The Introductory Economics examination will be 3 hours' long and will comprise a Macroeconomics section and a Microeconomics section. Each section will be composed of 3 questions. Students will have to answer two questions from each section. Please refer to Section 10 for a sample exam paper.

<u>Section 8b - Assessment of module outcomes</u>	
Learning Outcomes (Refer to list of outcomes from Section 2)	
Formative assessment	Macroeconomics - <i>Autumn</i> from No. 1 to No. 3 <i>Spring</i> from No.4 to No. 9 Microeconomics - <i>Autumn</i> No. 1 <i>Spring</i> from No. 2 to No. 4
Summative assessment	Macroeconomics Presentation: No. 1 and No. 2
	Written Assignment: Macroeconomics - from No. 1 to No. 9 Microeconomics - from No. 1 to No. 4
	Final Exam: Macroeconomics - from No. 1 to No 9 Microeconomics - from No. 1 to No. 5

<u>Section 9 – Employability</u>			
Problem solving	Teamwork	Communication	Presentation
Numeracy and problem solving skills, along with the ability to reason and work independently are relevant to a wide range of careers.	<p>The Autumn semester presentation (Week 6) will require students to work in teams.</p> <p>The ability to work as a member of a team is important in many graduate jobs.</p>	Promotes the development of oral and written skills which are extremely valuable in the labour market.	The ability to explain a topic to others clearly and concisely is a useful workplace skill

Section 10 – Sample Tests and Sample Exam

Sample Macroeconomics Course Test (45 minutes)

ANSWER BOTH QUESTIONS

1. Consider the following model of an open economy:

$$C = \alpha + cY_d$$

$$Y_d = Y - T$$

$$T = tY$$

$$M = mY$$

$$\alpha = 300, I = 400, G = 600, X = 300$$

$$c = 0.4, t = 0.25, m = 0.1$$

where C is consumption, Y_d is disposable income, Y is national income, I is investment, G is government expenditure on goods and services, T is total taxes, M is imports and X is exports.

- Derive the formula to compute the equilibrium value of income (Y) of this economy, showing the algebraic passages for this derivation. Within this formula, identify: (i) the multiplier and (ii) the autonomous expenditure components.
- Calculate (i) the equilibrium level of output, (ii) the budgetary position, and (iii) the balance of trade of this economy.
- Write down the relationship between public budget, balance of trade, and private surplus ($S - I$), and calculate the private surplus for this economy.

Suppose that the government knows that, in order to reach full employment, equilibrium output must increase by 1000. Answer the following two questions.

- Calculate the increase in government expenditure required to reach the equilibrium output of full employment.
- Suppose that the government wants to reach the equilibrium output of full employment on a balanced budget. Calculate the level of public expenditure (G) and the tax-rate (t) required to achieve this objective.

The following question does not require any numerical calculation.

- f) Consider the economies of two different countries. The government of Country A wants to reduce the budget deficit by intervening on the income tax-rate. The government of Country B wants to reduce budget deficit by intervening on government expenditure. For each country, separately:
 - (i) describe the intervention conducted by the government of Country A and by the Government of Country B, and the effects on: equilibrium output, the multiplier, and autonomous expenditure;
 - (ii) represent the effects of the two contractionary fiscal policies on the 45° line Keynesian model's diagram.
2. Assume there are only two countries, the UK and the US. Suppose that the UK experiences an increase in the demand of domestically produced goods from the US.
 - a) Write down the equation of aggregate demand for the UK, and describe which component will be affected by an increase in the demand for exports. Represent the effects of this change UK on the AD-AS diagram, providing opportune considerations about equilibrium output and the price level.
 - b) Assume that the exchange rate between GBP (pound sterling) and USD (US dollars) is free to float. Represent the effects of an increase in the demand for exports in the UK on the demand and on the supply of GBP. Using an appropriate diagram, discuss the effects of an increase in UK exports on the exchange rate between GBP and USD.
 - c) Suppose that the Central Bank wants to bring the exchange rate back to its original level. How can the Central Bank do so? Represent the effects of the intervention of the Central Bank on a diagram and provide a clear explanation of your analysis.

Sample Microeconomics Course Test (45 minutes)

SECTION A: Short answer questions [40 Points]

ANSWER BOTH QUESTIONS

1. Explain and show (using a diagram) the effect of an increase in the price of an inferior good on an individual's demand for that good. Break this down into income and substitution effects. [20 points]
2. Explain the concept of cross-price elasticity of demand. Give examples of a) substitute goods and b) complement goods and discuss the effect of an increase in the price of one good on the demand for the other in each case. [20 points]

SECTION B: Problems [60 Points]

ANSWER 2 OUT OF 3 QUESTIONS

Show your working for all numerical questions.

3. Consider the (inverse) demand and supply curves for a market: $p = 20 - 2Q_D$ and $p = -4 + Q_S$.
 - a) Derive the equilibrium price and quantity for this market.
 - b) Show your answer to (a) on a diagram. Denote the equilibrium point as E.
 - c) Calculate the point price elasticity of demand at the equilibrium price.
 - d) Calculate the consumer surplus and show it on the graph.
 - e) Next, rewrite the demand curve as $p = 22 - r - 2Q_D$ where r is the price of another good.
Are these two goods substitute or complements? Explain your answer and show on the same graph above how the demand curve would shift if r increases from an initial level of £2.
4. Suppose a consumer has £40 to spend on apples (denoted by a) and bacon (denoted by b), the prices of which are £5 each. The consumer's preferences over apples and bacon are given by two indifference curves described by the following combinations of apple and bacon (a, b):

Indifference curve 1: $\{(1,16), (2,8), (4,4), (8,2), (16,1)\}$

Indifference curve 2: $\{(2,16), (4,8), (8,4), (16,2)\}$

- a) Write the budget equation of the consumer and draw the budget line on the graph paper provided.
 - b) Draw the indifference curves.
 - c) Determine the optimal choice of the consumer. Show it on the graph and explain the choice in terms of marginal rate of substitution.
 - d) Now suppose the price of apples (a) falls to £2.5. Rewrite the budget equation and draw it on the graph using the new information. Then determine the consumer's optimal choice of a and b . Show the new choice on the graph.
5. Consider the demand and supply curves for a market: $Q_D = 200 - p$ and $p = 3Q_S$.
- a) Derive the equilibrium outcome for this market (price and quantity) and the consumer and producer surplus in equilibrium. Show your answers on the diagram. [12 points]
 - b) Suppose there is a flat tax of £20 on every unit of Q sold. Derive the new equilibrium and the changes in welfare for consumers and producers. [10 points]
 - c) How much tax revenue will be collected by the government? Show the tax and the deadweight loss on the graph. [8 points]

Sample Introductory Economics Exam (3 hrs)

Choose TWO questions from Section A and TWO questions from Section B

SECTION A: Macroeconomics [50 points]

ANSWER TWO QUESTIONS ONLY

1. Address the following points:

- a) Explain the relation between national income and interest rate as expressed by the LM curve and describe which factors affect the elasticity of the LM curve.
- b) Consider the following information about the goods market and the money market, and calculate the equilibrium income (Y) and interest rate (r). Illustrate this on a diagram.
 C is consumption; I is investment; M_S is money supply; L_1 is the transactions plus precautionary demand for money and L_2 the speculative demand for money.

Goods market:

$$C = 0.6Y + 850$$

$$I = -40r + 550$$

Money market:

$$M_S = 1500$$

$$L_1 = 0.2Y$$

$$L_2 = -40r + 1100$$

- c) Suppose that the LM curve is very steep. What is the economic interpretation for a very steep LM curve? Would fiscal policy be the most effective way to increase equilibrium output? Explain your answer.
2. Is there a trade-off between inflation and unemployment?
Provide an answer to this question making sure that you:
- explain the differences between the short-run and the long-run;
 - develop your analysis with the aid of an appropriate diagram where inflation and unemployment are explicitly represented.
3. Consider the labour market of an economy:
- Discuss the effects of an increase in the bargaining power of trade unions in this economy on the equilibrium levels of employment, unemployment, and the equilibrium real wage.

- On the basis of the principles of the 'supply-side policy' approach, discuss the effects of a cut in benefits to unemployed people.
You are strongly encouraged to use diagrammatic analysis to support your analysis.

SECTION B: Microeconomics [50 points]

ANSWER TWO QUESTIONS ONLY

3. Show how the incidence of taxation is affected by the price elasticity of demand. Why is this important for governments to consider when imposing a tax on a good?
4. Suppose there are two firms, indexed 1 and 2, which are engaged in Cournot competition. The inverse market demand curve is given by $p = 600 - (Q_1 + Q_2)$. Firm 1's and 2's cost curves are given as $C_1 = 60Q_1$ and $C_2 = 60Q_2$, respectively.
 - a) Find an expression in terms of Q_1 and Q_2 for the profit of each firm.
 - b) Derive the reaction functions of each firm, and find the equilibrium quantity and price in the market.
5. A rational monopolist faces a demand curve $Q = 70 - P$ and a total cost function $TC = 50 + 0.75Q^2$.
 - a) State the total revenue function, average revenue (AR) and cost (AC) functions and the marginal revenue (MR) and cost (MC) functions. Sketch the AR, AC, MR and MC functions on a graph.
 - b) Find the optimal output Q and price P to maximize profits. Show these on the graph you sketched above, and also highlight the producer surplus on the graph.

Section 11 – Additional Documents

School of Economics Presentation Feedback Sheet

Module:

Topic:

Student Names:

Content – 2/3 of the grade

Organisation of presentation	<i>very poor</i>	<i>poor</i>	<i>satisfactory</i>	<i>good</i>	<i>excellent</i>
Research on issue	<i>very poor</i>	<i>poor</i>	<i>satisfactory</i>	<i>good</i>	<i>excellent</i>
Clarity of argument/position	<i>very poor</i>	<i>poor</i>	<i>satisfactory</i>	<i>good</i>	<i>excellent</i>
Responses to questions	<i>very poor</i>	<i>poor</i>	<i>satisfactory</i>	<i>good</i>	<i>excellent</i>

Quality of presentation – 1/3 of the grade

Audibility	<i>very poor</i>	<i>poor</i>	<i>satisfactory</i>	<i>good</i>	<i>excellent</i>
Delivery (eye contact, pacing)	<i>very poor</i>	<i>poor</i>	<i>satisfactory</i>	<i>good</i>	<i>excellent</i>
Visual aids	<i>very poor</i>	<i>poor</i>	<i>satisfactory</i>	<i>good</i>	<i>excellent</i>

General

Teamwork	<i>very poor</i>	<i>poor</i>	<i>satisfactory</i>	<i>good</i>	<i>excellent</i>
Time-keeping	<i>very poor</i>	<i>poor</i>	<i>satisfactory</i>	<i>good</i>	<i>excellent</i>

Overall grade: ____ %