1. **Title of the module**

ECON8830 (EC883) Advanced Microeconomics and Game Theory

1. **School or partner institution which will be responsible for management of the module**

School of Economics

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 7

1. **The number of credits and the ECTS value which the module represents**

15 Credits (7.5 ECTS)

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

Autumn

1. **Prerequisite and co-requisite modules**

None

1. **The programmes of study to which the module contributes**

It will be an optional module on PhD Economics and PhD Agri-environmental Economics

1. **The intended subject specific learning outcomes.
On successfully completing the module students will be able to:**
	1. Explain in detail fundamental microeconomic and game theoretic concepts.
	2. Critically assess commonly used game theoretic models.
	3. Apply economic theory and game theory in studying novel decision making contexts.
	4. Interpret and critically understand cutting edge microeconomic theoretical research.
2. **The intended generic learning outcomes.
On successfully completing the module students will be able to:**
	1. Have developed numeracy and problem solving skills.
	2. Comprehensively present economic arguments orally and in written form.
	3. Model and analyse interactive situations using game theory.
	4. Have developed independent learning skills.
3. **A synopsis of the curriculum**

The objective of this module is to bring students' ability in microeconomic theory up to the standard required for independent research. It builds on the microeconomics that would be covered in a standard MSc program. Concepts that a student should be familiar with, like Nash equilibrium, will be covered in more depth. Students will also be exposed to concepts that are at the forefront of modern research but not typically covered at the MSc level, such as psychological game theory, learning in games, and cooperative game theory. Specific topics will include:

* Revealed preference.
* Choice with risk and uncertainty including prospect theory and preference reversals.
* Nash equilibrium, refinement and selection
* General Equilibrium
* Principal-agent problem including signalling and screening
* Repeated and dynamic games and learning and communication in games
* Collective action problems
* Networks
* Mechanism design
1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

A detailed reading list will be given in the module outline. The reading list will primarily refer to journal articles with a focus on very recent publications. The following bibliography provides some useful background reading:

* Fudenberg, D., & Tirole, J. (1991). *Game theory*. Cambridge University Press.
* Fudenberg, D. and D. Levine (1998). *The theory of learning in games*. MIT press
* Goyal, S. (2007). *Connections: an introduction to the economics of networks*. Princeton University Press
* Jackson, M. (2008). *Social and economic networks*. Princeton University Press
* Myerson, R. B. (2013). *Game theory*. Harvard University Press.
* Mas-Collel, W. JR (1995). *Microeconomic Theory*. Oxford University Press
* Myles, G. (1995). *Public Economics*. Cambridge University Press
1. **Learning and teaching methods**

*Total contact hours:20*

*Private study hours:130*

*Total study hours: 150*

1. **Assessment methods**
	1. Main assessment methods

Presentation (25 minutes) (50%)

Five Individual Problem Sets (10% each)

13.2 Reassessment methods

Reassessment Instrument: 100% coursework

1. ***Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)***

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | *8.1* | *8.2* | *8.3* | *8.4* | *8.5* | *9.1* | *9.2* | *9.3* | *9.4* |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |
| **Private Study** |  |  |  |  |  |  |  |  |  |
| *Lectures* | **✓** | **✓** | **✓** | **✓** | **✓** | **✓** | **✓** | **✓** | **✓** |
| *Seminars* | **✓** | **✓** | **✓** | **✓** | **✓** | **✓** | **✓** | **✓** | **✓** |
| *Independent Study* | **✓** | **✓** | **✓** | **✓** | **✓** | **✓** | **✓** | **✓** | **✓** |
| **Assessment method** |  |  |  |  |  |  |  |  |  |
| *Presentation* | **✓** | **✓** |  | **✓** | **✓** | **✓** | **✓** | **✓** | **✓** |
| *Problem Sets* | **✓** |  | **✓** | **✓** |  |  | **✓** | **✓** | **✓** |

1. **Inclusive module design**

The School recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

1. **Campus(es) or centre(s) where module will be delivered**

Canterbury

1. **Internationalisation**

The subject content of the module provides critical insight into microeconomic theory and its application to diverse real-world situations. Microeconomic theory topics and policy issues are considered in both a national and international context (see module synopsis).

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**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

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| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of the delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
| 27/01/2019 | Major | September 2019 | 8, 9, 10, 11, 12, 13 |  |
|  |  |  |  |  |

Revised FSO Jan 2018