



Academic Year 2023-24

Syllabus

Global Strategic Theory

CFU 9

1<sup>st</sup> Module: Prof Paolo Paesani

2<sup>nd</sup> Module: Prof Prof. Bruno Chiarini

### Course Description

The Course is divided into two Modules (Introduction to International Economics and Game Theory). The first module provides students with an overview of the economic and financial links between a country and the world economy, using the balance of payments and the Keynesian income-expenditure model in an open economy as a reference.

The 2<sup>nd</sup> module is an introduction to game theory. The criterion of dominance and the equilibrium of Nash will be analysed with pure strategies and mixed strategies, as well as different refinements of the equilibrium (Backwards Induction, subgame perfect Nash equilibrium). An introduction to Bayesian equilibrium and repeated games will also be provided. The lessons use several examples in the field of economics, politics and economic policy. **This year we will use strategic frameworks to analyze the conflict between Ukraine and Russia.**

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### International Economics, an introduction (1<sup>st</sup> Module)

### Duration, Timetable and Period of the Course

The course consists of 21 hours of lessons (on 3 topics), check the timetable. Students are asked to always be present at lessons in order to avoid delays and repetitions.

### Teaching Method

Lectures will make use of oral presentations. Analysis will also be presented at the board, and used for open discussion. Interaction between teacher and student will be encouraged.

### Schedule of Topics

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<b>Topic 1</b>	The nation and the world economy
<b>Topic 2</b>	Balance of payments and international investment position
<b>Topic 3</b>	The Keynesian open economy model and its balance of payment implications

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### Textbook and Materials

- *The Economy*. CORE Project (selected chapters). <https://core-econ.org/the-economy/?lang=en>
- Lecture material handed over on line.

### Teaching Method

Students are expected to read the material for every class and participate in every lecture.

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## Game Theory (2<sup>nd</sup> Module)

### Duration, Timetable and Period of the Course

The course consists of 21 lessons (on 10 topics) of 2 hours each, check the timetable. Students are asked to always be present at lessons in order to avoid delays and repetitions.

### Teaching Method

Lectures will make use of oral presentations. Analysis will also be presented at the board, and used for open discussion. Interaction between teacher and student will be encouraged.

### Schedule of Topics

<b>Topic 1</b>	Normal form and Extensive form
<b>Topic 2</b>	Strategy dominance and Nash Equilibrium
<b>Topic 3</b>	Complete Information (perfect and imperfect)
<b>Topic 4</b>	Mixed strategies and equilibrium interpretation
<b>Topic 5</b>	Coordination problem (prisoner dilemma; stag hunt; chicken game....)
<b>Topic 6</b>	Public goods and free-riding phenomenon
<b>Topic 7</b>	Backward induction and subgame perfection
<b>Topic 8</b>	Games of incomplete information Bayesian equilibrium
<b>Topic 9</b>	<b>War and conflict using some strategic schemes</b>
<b>Topic 10</b>	Repeated Games

### Textbook and Materials

The teacher will refer the student, by the end of each week, to the relevant material on the basis of the above topics:

Pdf lessons of the teacher, downloadable.

One of the following volumes:

- Gibbons A. Primer in Game Theory, Prentice Hall
- Osborne M. Introduction to Game Theory: International Edition, OUP Oxford

### Assessment

**Module 1:** During the week of the mid-term a written exam for attending students (more than 80% of in class presence) will be administered. Non attending students and students who do not take or fail the mid-term will take a written exam at the end of the course.

**Module 2:** If the students are always present at the lessons (more than 80% of in class presence), it will be possible to take during the week of the mid-term a summary test based on the first 3 weeks of class on the work done (20% of the grade). The remaining 80% will be a written test. Non attending students will have to perform a longer final written exam on the whole program.

### Office hours

By appointment: [paolo.paesani@uniroma2.it](mailto:paolo.paesani@uniroma2.it) . You can usually talk to the teacher after class.

By appointment: [bchiarini56@gmail.com](mailto:bchiarini56@gmail.com) . You can usually talk to the teacher after class.

**NOTE:** If you are an Erasmus or a non Global Governance student who would like to attend one or more courses in the Global Governance programme, please be aware that, **before enrolling in the course**, you should have read the code of conduct and the procedural rules characterizing our programme. We assume that, if you enroll in the course, **you have read and accepted all Global Governance values and rules**. Notice that attendance is required from the very first lesson and you need to attend at least 80% of the course to be considered an attending student.

### **Description of the methods and criteria for testing learning**

The examination assesses the student's overall preparation, ability to integrate the knowledge of the different parts of the program, consequentiality of reasoning, analytical ability and clarity of presentation, in accordance with the Dublin descriptors (1. knowledge and understanding; 2. applying knowledge and understanding; 3. making judgements; 4. learning skills; 5. communication skills).

The examination will be graded according to the following criteria:

Unsuitable: important deficiencies and/or inaccuracies in the knowledge and understanding of the topics; the topics are exposed in an incoherent manner and with inappropriate language.

18-20: barely sufficient knowledge and understanding of most of the topics, with some missing items; sufficient capacity for analysis; the topics are sometimes exposed in an inconsistent manner and with inappropriate/technical language;

21-23: basic knowledge and understanding of most of the topics; ability to analyze and synthesize correctly with sufficiently coherent logical argumentation, with possibly some inaccuracy in the technical language.

24-26: good knowledge and understanding of most of the topics; good analytical and synthetic skills with rigorously expressed arguments, though with possibly a few inaccuracies in the technical language.

27-29: complete knowledge and understanding of the topics; good capacity for analysis and synthesis. Arguments presented in a rigorous manner and with appropriate/technical language, with only minor inaccuracies.

30-30L: very good level of knowledge and thorough understanding of topics. Excellent analytical and synthetic skills and independent judgement. Arguments expressed in an original manner and in appropriate technical language.

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