Universitatea Naţională de Ştiinţă şi Tehnologie Politehnica Bucureşti
Facultatea de Electronică, Telecomunicaţii şi
Tehnologia Informaţiei

COURSE DESCRIPTION

1. Program identification information

1.1 Higher education institution	**National University of Science and Technology Politehnica Bucharest**
1.2 Faculty	**Electronics, Telecommunications and Information Technology**
1.3 Department	**Electronic Devices, Circuits and Architectures**
1.4 Domain of studies	Electronic Engineering, Telecommunications and Information Technology
1.5 Cycle of studies	Bachelor/Undergraduate
1.6 Programme of studies	Microelectronics, Optoelectronics and Nanotechnologies

2. Date despre disciplină

2.1 Course name (ro) (en)				Macroeconomie Macroeconomics			
2.2 Course Lecturer				Assoc. Prof. Eng. PhD (Economics) Liviu Mihail MATEESCU			
2.3 Instructor for practical activities				Assoc. Prof. Eng. PhD (Economics) Liviu Mihail MATEESCU			
2.4 Year of studies	2	2.5 Semester	1	2.6. Evaluation type	V	2.7 Course regime	Op
2.8 Course type		C	2.9 Course code	04.C.03.A.012		2.10 Tipul de notare	Nota

3. Total estimated time (hours per semester for academic activities)

3.1 Number of hours per week	2	Out of which: 3.2 course	2	3.3 seminary/laboratory	0
3.4 Total hours in the curricula	28	Out of which: 3.5 course	28	3.6 seminary/laboratory	0
Distribution of time:					hours
Study according to the manual, course support, bibliography and hand notes Supplemental documentation (library, electronic access resources, in the field, etc) Preparation for practical activities, homework, essays, portfolios, etc.					15
Tutoring					5
Examinations					2
Other activities (if any):					0

3.7 Total hours of individual study	22.00
3.8 Total hours per semester	50
3.9 Number of ECTS credit points	2

4. Prerequisites (if applicable) (where applicable)

4.1 Curriculum	Not applicable
4.2 Results of learning	Not applicable

5. Necessary conditions for the optimal development of teaching activities (where applicable)

5.1 Course	Not applicable
5.2 Seminary/ Laboratory/Project	Not applicable

6. General objective *(Reffering to the teachers' intentions for students and to what the students will be thought during the course. It offers an idea on the position of course in the scientific domain, as well as the role it has for the study programme. The course topics, the justification of including the course in the currcula of the study programme, etc. will be described in a general manner)*

Developing students' skills in obtaining, transmitting, storing, and processing economic information in order to determine indicators that allow the characterization of economic activities at the micro- and macroeconomic levels.

Identifying and characterizing economic phenomena and processes.

Interpreting economic information.

7. Competences *(Proven capacity to use knowledge, aptitudes and personal, social and/or methodological abilities in work or study situations and for personal and proffesional growth. They refflect the empolyers requirements.)*

Specific Competences	Not applicable
Transversal (General) Competences	CT1. Methodical analysis of problems encountered in activity, identifying elements for which established solutions exist, thus ensuring the fulfillment of professional tasks. CT2. Knowledge of hierarchical levels, efficient exchange of information across levels, defining activities by stages, and assigning them to subordinates with a complete explanation of duties. CT3. Ability to adapt to new technologies and to research in Romanian and at least one international language for professional and personal development through continuing education.

8. Learning outcomes *(Synthetic descriptions for what a student will be capable of doing or showing at the completion of a course. The learning outcomes reflect the student's acomplishments and to a lesser extent the teachers' intentions. The learning outcomes inform the students of what is expected from them with respect to performance and to obtain the desired grades and ECTS points. They are defined in concise terms, using verbs similar to the examples below and indicate what will be required for evaluation. The learning outcomes will be formulated so that the correlation with the competences defined in section 7 is highlighted.)*

Knowledge	*The result of knowledge aquisition through learning. The knowledge represents the totality of facts, priciples, theories and practices for a given work or study field. They can be theoretical and/or factual.* Identifying and characterizing economic phenomena and processes. Interpreting economic information.

Skills	*The capacity to apply the knowledge and use the know-how for completing tasks and solving problems. The skills are described as being cognitive (requiring the use of logical, intuitive and creative thinking) or practical (implying manual dexterity and the use of methods, materials, tools and intrumentation).* Developing students' skills in obtaining, transmitting, storing, and processing economic information in order to determine indicators that allow the characterization of economic activities at the micro- and macroeconomic levels.
Responsability and autonomy	*The student's capacity to autonomously and responsably apply their knowledge and skills.* Knowledge of hierarchical levels, efficient exchange of information across levels, defining activities by stages, and assigning them to subordinates with a complete explanation of duties. Ability to adapt to new technologies and to research in Romanian and, at least, in an international language, for professional and personal development through continuing education.

9. Teaching techniques *(Student centric techniques will be considered. The means for students to participate in defining their own study path, the identification of eventual fallbacks and the remedial measures that will be adopted in those cases will be described.)*

Lecture.

10. Contents

COURSE		
Chapter	**Content**	**No. hours**
1	Course 1. The overall Economic Circuit	2
2	Course 2. Income, consumption, savings and macroeconomic investments	2
3	Course 3. Economic growth and sustainable development	2
4	Course 4. Production and economic competition (competitiveness)	2
5	Course 5. Economic fluctuations	2
6	Course 6. The labor market	2
7	Course 7. Unemployment	2
8	Course 8. The money market	2
9	Course 9. The financial market	2
10	Course 10. Economic inflation	2
11	Course 11. Monetary, fiscal, and financial policy	2
12	Course 12. International economic interdependencies	2
13	Course 13. The whole of economic integration and globalization	2
14	Course 14. The enterprise in the contemporary economy	2
	Total:	28

Bibliography:
1. Liviu Mihail Mateescu – Teoria Sistemelor Economice, Editura BREN, Bucureşti, 2003.
2. Stelian Iordache, Costinel Lazăr – Curs de Economie Politică, Editura ECONOMICĂ, Bucureşti, 1999.
3. Liviu Andrei – Economie Politică şi Politici Economice, Editura Economică, Bucureşti, 1999.
4. Coralie Angelescu (coordonator) – Economie, Academia de Studii Economice, Editura Economică,Bucureşti, 2005.
5. Gheorghe Oprescu, (coordonator) – Microeconomie / Macroeconomie, Editura Economică, Bucureşti,2000.
6. Tyler Cowen, Alex Tabarrok – Modern principles macroeconomics, Worth Publishers; Third Edition(2014).
7. Gregory R Mankiw – Study guide for Macroeconomics (1011).
8. Principles of Economics, 7th Edition (Mankiw's Principles of Economics) 7th Edition Gregory RMankiw (2014).

Bibliography:

11. Evaluation

Activity type	11.1 Evaluation criteria	11.2 Evaluation methods	11.3 Percentage of final grade
11.4 Course	knowledge	evaluation – examination	20
	course participation	attendance, active participation	10
	communication skills	term paper	30
	practical knowledge	continuous assessment	40
11.5 Seminary/laboratory/project			
11.6 Passing conditions			
1. Submission of the homework (specialty term paper); 2. obtaining 50% of the final verification score; 3. obtaining 50% of the overall total score. 4. Total: 45 – 54 points = grade 5; 55 – 64 points = grade 6; 65 – 74 points = grade 7; 75 – 84 points = grade 8; 85 – 94 points = grade 9; 95 –100 points = grade 10.			

12. Corroborate the content of the course with the expectations of representatives of employers and representative professional associations in the field of the program, as well as with the current state of knowledge in the scientific field approached and practices in higher education institutions in the European Higher Education Area (EHEA)

The course has been aligned with the requirements of information providers and users: productive and research economic units, specialized economic agents, education systems, banking units.

The course syllabus concretely addresses these current development and evolution needs, subscribed to the European service economy in the field of Electronic Engineering. In the context of current technological progress in electronic devices, the targeted fields of activity are practically unlimited—from telecommunications, the military field, security (surveillance systems), industrial automation (product inspection systems), robotics (human–machine interface systems), and others.

Date	Course lecturer	Instructor(s) for practical activities
21.09.2026	Assoc. Prof. Eng. PhD (Economics) Liviu Mihail MATEESCU	Assoc. Prof. Eng. PhD (Economics) Liviu Mihail MATEESCU

Date of department approval	Head of department
22.09.2026	Prof. Dr. Claudius Dan

Date of approval in the Faculty Council	Dean
22.09.2026	Prof. Dr. Mihnea Udrea