SYLLABUS

1. Information about the program

1.1 Higher education institution	UNIVERSITY POLITEHNICA OF TIMISOARA
1.2 Faculty[1]/ Department [2]	ELECTRONICS, TELECOMUNICATON AND INFORMATION TECHNOLOGIES
1.3 Field of study (name/code[3])	ELECTRONIC ENGINEERING, TELECOMUNICATION AND INFORMATION TECHNOLOGIES
1.4 Study cycle	License
1.5 Study program (name/code/qualification)	TST-ENG/20/20/10/100/10/TST-ENG

2. Information about the discipline

2.1 Name of discipline/ formative category[4]	General Economics						
2.2 Coordinator (holder) of course activities	Prof. Anca DRAGHICI						
2.3 Coordinator (holder) of applied activities[5]	Prof. Anca DRAGHICI						
2.4 Year of study[6]	II	**2.5** Semester	4	**2.6** Type of evaluation	D	**2.7** Regime of discipline[7]	DC

3. Total estimated time – hours / semester: direct teaching activities (fully assisted or partly assisted) and individual training activities (unassisted) [8]

3.1 Number of fully assisted hours / week	3 of which:	**3.2** course	2	**3.3** seminar / laboratory / project	1
3.1* Total number of fully assisted hours / semester	42 of which:	**3.2*** course	28	**3.3*** seminar / laboratory / project	14
3.4 Number of hours partially assisted / week	of which:	**3.5** training		**3.6** hours for diploma project elaboration	
3.4* Total number of hours partially assisted / semester	of which:	**3.5*** training		**3.6*** hours for diploma project elaboration	
3.7 Number of hours of unassisted activities / week	2.36 of which:	additional documentary hours in the library, on the specialized electronic platforms and on the field			1
		hours of individual study after manual, course support, bibliography and notes			1
		training seminars / laboratories, homework and papers, portfolios and essays			0.36
3.7* Number of hours of unassisted activities / semester	33 of which:	additional documentary hours in the library, on the specialized electronic platforms and on the field			14
		hours of individual study after manual, course support, bibliography and notes			14
		training seminars / laboratories, homework and papers, portfolios and essays			5
3.8 Total hours / week [9]	5.36				
3.8* Total hours /semester	75				
3.9 Number of credits	3				

4. Prerequisites (where applicable)

4.1 Curriculum	•
4.2 Competencies	•

5. Conditions (where applicable)

5.1 of the course	• Amphitheatre, laptop and video projector with access to Internet; access to the educational resources available on the Virtual Campus of UPT
5.2 to conduct practical activities	• Seminar room, laptop and video projector, with access to Internet, whiteboard and pen; access to the educational resources available on the Virtual Campus of UPT

6. Specific competencies acquired through this discipline

Specific competencies	• Understanding economic characteristics (indicators) of the engineering approaches (cost, price, incoming, turnover, profit etc.) • Knowing, recognizing the advantages, and risks of entrepreneurship • Understanding the economics dialogue with other enterprise and society actors
Professional competencies ascribed to the specific competencies	• 5. Selection, installation, configuration and operation of fixed and mobile equipment and equipping the site with common telecommunication networks. 6. Solving technological problems in fields of applied electronics.
Transversal competencies ascribed to the specific competencies	• 1. Methodical analysis of field-related problems aimed at identifying acknowledged solutions, thus ensuring the accomplishment of professional tasks. • 2. Definition of activity stages and their distribution to subordinates in terms of responsibilities, providing effective exchange of information and interpersonal communication. • 3. Adaptation to new technologies, professional and personal development through continuous training, using printed documentation sources, specialized software and electronic resources in Romanian and at least one foreign language.

7. Objectives of the discipline (based on the grid of specific competencies acquired - pct.6)

7.1 The general objective of the discipline	• The General Economics classes aim to explain economic knowledge and show the utility and usefulness of the economic perspective (decision making process based on the economic indicators calculation) related to the specific circuits, systems, instrumentation and electronic technology; there is explained how productivity growth can take place in a company and the impact of costs reduction policies. Students will understand how pricing and market mechanisms work.
7.2 Specific objectives	• Students of the technical profile will understand and know the fundamental concepts of microeconomics, that they will face in the future profession (as engineers), such as: production (labor, capital); cost; productivity; labor income (wages); capital income (profits, interest); competition; market structures; supply-demand etc. • The course and applications aim to develop for students those cognitive (specific methods and economy) and professional skills/competencies (economic decision making to optimize results) in order to be potential entrepreneurs and/or investors.

8. Content [10]

8.1 Course	Number of hours	Teaching methods [11]
Introduction to Economics (Microeconomics; Macroeconomics (References for the course and seminars; evaluation/assessment explanations)	2	PPT lecture presentations, discussions,

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[10] It details all the didactic activities foreseen in the curriculum (lectures and seminar themes, the list of laboratory works, the content of the stages of project preparation, the theme of each practice stage). The titles of the laboratory work carried out on the stands shall be accompanied by the notation "(*)".

[11] Presentation of the teaching methods will include the use of new technologies (e-mail, personalized web page, electronic resources etc.).

Utility of study; Normative & positive; Scarce resources; Market economy	2	explanations, examples, case studies; access to the Virtual Campus of UPT
Firms' definition and way of operation; Internal and external environment of companies; Entrepreneurship characteristics	4	
Production factors; Production costs; Relation between costs and profit; Breakeven point; Production factors productivity	2	
Supply and demand; Functions; Supply law; Supply and demand elasticity	2	
Market and the competition; Market typology; Competition law and functions; Competition typology	2	
Price and market mechanism; Profit	2	
Wage and work productivity; Interest (definitions, indicators and factors of influence); Money (definition, typology and characteristics)	2	
Elements of macroeconomics: labor force and unemployment; Gross domestic product and investments; Fiscal policy, Monetary policy, inflation	10	

Bibliography [12] A. Draghici, Educational resources: General Economics for engineers (up-date each academic year) and available on the Virtual campus of UPT

Barglazan D., Microeconomie, Editura Eurostampa, Timişoara, 2007/2008;

Other open courses, OER available each year (on Internet)

8.2 Applied activities [13]	Number of hours	Teaching methods
Economic indicators. Marginal analysis	2	Problem solving, case studies, debates Homework presentation (ppt), debates and analysis, peer-to-peer review
Capital indicators. Work productivity. Capital efficiency	2	
Production costs. Profit. Price perspective (company vs. market perspective). Supply and demand elasticity. Price elasticity	2	
Homework essay presentations with debates on selected topics of microeconomics and macroeconomics	8	

Bibliography [14]   A. Draghici, Educational resources: General Economics for engineers (up-date each academic year) and available on the Virtual campus of UPT

Barglazan D., Microeconomie, Editura Eurostampa, Timişoara, 2007/2008;

Other open courses, OER available each year (on Internet)

9. **Corroboration of the content of the discipline with the expectations of the main representatives of the epistemic community, professional associations and employers in the field afferent to the program**

- The course (with different name) is included in the engineering curricula of other universities as: MIT USA; Houston University; L'Ecole Polytechnique Paris; University of Glasgow; American University of Athens; L'Ecole Polytechnique du Lausanne, Singapore University of Technology and Design etc.
- The course content and its problematic is perfectly aligned with the employees' expectation because graduates will know the economic problems that are correlated with products/services manufacturing/delivery and technical systems exploitation.

10. **Evaluation**

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[12] At least one title must belong to the discipline team and at least one title should refer to a reference work for discipline, national and international circulation, existing in the UPT library.

[13] Types of application activities are those specified in footnote 5. If the discipline contains several types of applicative activities then they are sequentially in the lines of the table below. The type of activity will be in a distinct line as: "Seminar:", "Laboratory:", "Project:" and / or "Practice/training".

[14] At least one title must belong to the discipline team.

Type of activity	10.1 Evaluation criteria [15]	10.2 Evaluation methods	10.3 Share of the final grade
10.4 Course	Recognition of economic concepts in different case studies or problem-solving contexts	Online test via Virtual Campus of UPT	0.5
10.5 Applied activities	**S:** Problems homework and essay (including its ppt)	Homework's' assessment and essay evaluation and peer evaluation by students	0.5
	L:		
	P[16]**:**		
	Pr:		
10.6 Minimum performance standard (minimum amount of knowledge necessary to pass the discipline and the way in which this knowledge is verified [17])			
• Examination of theoretical issues granted with 5, minimum 50% of questions solved correct - COURSE • Homework problems and essay done (granted with 5) - SEMINAR			

Date of completion	**Course coordinator (signature)**	**Coordinator of applied activities (signature)**
10.09.2023	Prof. Anca DRAGHICI	Prof. Anca DRAGHICI

Head of Department (signature)	**Date of approval in the Faculty Council [18]**	**Dean (signature)**
Prof. Matei TAMASILA	14.90.2023	