Syllabus

Course Description

Course Title	Economics for engineers
Course Code	42171
Course Title Additional	
Scientific-Disciplinary Sector	IEGE-01/A
Language	English
Degree Course	Bachelor in Industrial and Mechanical Engineering
Other Degree Courses (Loaned)	
Lecturers	Prof. Guido Orzes, Guido.Orzes@unibz.it https://www.unibz.it/en/faculties/engineering/academic-staff/person/36819
Teaching Assistant	
Semester	First semester
Course Year/s	2
CP	6
Teaching Hours	36
Lab Hours	24
Individual Study Hours	90
Planned Office Hours	18
Contents Summary	The goal of the course is to introduce engineering students in the fundamentals of Business Management, i.e. the organization and functioning of companies. Specifically, the course will deal with the following topics: - The company: objectives and context - Essentials of financial accounting; - Investment analysis; - Other economic evaluation analyses.
Course Topics	1. The company: objectives and context 1.1 Terms and definitions

	- Basic economical concepts - Company, firm, enterprise - Classifications of companies - Fayol's five elements of administration - Value Chain 1.2 Corporate objectives and corporate strategy - Vision, mission and objectives - Porter's generic strategies - Strategy tools 2. Essentials of financial accounting - Terms and definitions - Basic accounting principles - Balance sheet and income statement - Financial statement preparation - Ratio analysis 3. Investment analysis - Terms and definitions - Repayment plans - Actualization and capitalization - Investment analysis and evaluation (Discounted Pay-back period, Net present value, Internal rate of return, External rate of return, Benefit-cost ratio) - Inflation 4. Other economic evaluation analyses - Classification of costs - Break-even point - Make or buy choices
Keywords	Accounting; Investment analysis; make or buy; break-even point.
Recommended Prerequisites	-
Propaedeutic Courses	
Teaching Format	The teaching format is based on frontal lectures, exercises and a game-based business simulation. In addition to a solid theoretical background, special attention will be dedicated to examples, exercises and case studies discussion.
Mandatory Attendance	Not compulsory.
Specific Educational Objectives and Learning Outcomes	Intended Learning Outcomes (ILO) Knowledge and understanding 1. General knowledge of the various tasks, methods and

	techniques of financial accounting and investment analysis 2. Knowledge of the main the economic and operational factors linked to the strategic choices of the companies and of the main strategy tools Applying knowledge and understanding 3. Ability to evaluate investment initiatives, the economic and financial solidity of economic and financial plans about the launch of new products or the adoption of new business models Knowledge and understanding 4. Basic understanding of management and business administration Applying knowledge and understanding 5. Ability to "virtually" manage a company (game-based business simulation) Making judgements 6. Systems Thinking - overview of the business organization 7. Ability to transfer the knowledge and methods learned to real practical applications Communication skills 8. Ability to structure and prepare a presentation describing company strategy and management with business language 9. Oral communication skills (business language) Ability to learn 10. Ability to autonomously extend the knowledge acquired during the study course by reading and understanding.
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	Formative assessment: In class exercises: 4x30 minutes; ILOs assessed: 1, 4. In class group works: 2x30 minutes; ILOs assessed: 2, 3. Summative assessment: 65% written exam - exercises: 3 exercises (1 hour); ILOs assessed: 1, 4. 25% written exam - questions: 3 open-ended questions of 200 words each (30 minutes); ILOs assessed: 2, 3. 10% Business Game*: 6 hours (in class); ILOs assessed: 1-10.

	* The Business Game might be replaced with an assignment for non-attending students. The score obtained in the Business Game is valid for 1 academic year and cannot be carried over beyond that timeframe.
Evaluation Criteria	The final mark is the sum of the marks of the different parts of the exam. The assessment of the written part is based on ability to solve simple exercises about the topics of the course, clarity of answers, mastery of language (also with respect to teaching language), ability to summarize and establish relationships between topics. The assessment of the business game is based on ability to work in a team and skills of creativity and critical thinking.
Required Readings	Lecture slides and notes, which are available in the OLE page of the course (self-enrollment key will be provided to students in the first lecture). Subject Librarian: David Gebhardi, David.Gebhardi@unibz.it and Ilaria Miceli, Ilaria.Miceli@unibz.it
Supplementary Readings	Antony R.N., Hawkins D.F., Merchant K.A., “Accounting: Text and Cases”, Thirteenth Edition, McGraw-Hill International Edition.
Further Information	
Sustainable Development Goals (SDGs)	Responsible consumption and production, Industry, innovation and infrastructure