Freie Universität Bozen
Libera Università di Bolzano
Università Liedia de Bulsan

Syllabus
Course description

Course title	**Economics for Management**
Course code	**25558 (for students enrolled before 2022: 27234)**
Scientific sector	SECS-P/01 module 1 (Business Economics) SECS-P/06 module 2 (Innovation Economics)
Degree	LM 77 – Master in Entrepreneurship and Innovation
Semester and academic year	module 1 - 1st semester, module 2 - 2nd semester ay 2022-23
Year	1st study year
Credits	12
Modular	Yes

Total lecturing hours	72
Total lab hours	-
Total exercise hours	-
Attendance	Suggested, but not required
Prerequisites	Knowledge of calculus and of the basics of optimization theory helps, but it is not a requirement.
Course page	Course Offering - enrolled before 2022 / Free University of Bozen-Bolzano (unibz.it)

Specific educational objectives	The course refers to the typical educational activities and belongs to the scientific area of Economics. The course gives a general overview of the issues of microeconomic theory pertinent to the analysis of entrepreneurial and innovative activities. The educational objectives are to provide students with a good grasp of microeconomic tools that are needed to analyze firm behavior and optimization.

Module 1	**25558A – M1 Business Economics**
Lecturer	Alessandro Fedele, alessandro.fedele@unibz.it Office: E205 Tel.: +39 0471 013 298 https://www.unibz.it/en/faculties/economics-management/academic-staff/person/32469-alessandro-fedele

Scientific sector of the lecturer	SECS-P/02
Teaching language	English
Office hours	https://www.unibz.it/en/timetable/?department=26&degree=12835
Lecturing assistant	None
Teaching assistant	None
Office hours	18
List of topics covered	Basic principles of Business Economics: Industrial Organization and Competitive Strategy. In particular: The course will cover the following topics: 1) Industrial organization: what, how, and why 2) Market structure and market power 3) Monopolistic price discrimination: lnear pricing; group pricing; nonlinear pricing 4) Monopolistic pricing in digital markets 5) Competition and differentiation: static games and Cournot competition; oligopolistic price competition and Hotelling competition; dynamic games and Stackelberg competition REMARK: the above list could be subject to relatively minor changes to accommodate up-to-date interesting topics and debates
Teaching format	Frontal lectures and exercises.

Module 2	**25558B – M2 Innovation Economics**
Lecturer	Levi Eugenio, eugenio.levi@unibz.it +39 0471 013525 Eugenio Levi / Free University of Bozen-Bolzano (unibz.it) Roberto Gabriele, gabriele.roberto@unibz.it, https://www.unibz.it/en/faculties/economics-management/academic-staff/
Scientific sector of the lecturer	SECS-P/06
Teaching language	English
Office hours	18 https://www.unibz.it/en/timetable/?department=26&degree=12835
Lecturing assistant	none
Teaching assistant	none

List of topics covered	1) Introduction to economics of innovation 2) What is innovation? Definitions 3) Measuring innovation 4) Classifying innovation: the Pavitt contribution 5) Open innovation: an introduction 6) The theory of innovation: Schumpeter 7) The theory of innovation: the Arrow model 8) Technological trajectories and paradigms 9) Predictability of innovation: From Moore law on 10) Sector dynamics (pharma industry, "batteries", motorcycles) 11) Automation and job market 12) Automation and political economy 13) Artificial discussions (topics: automation, UBER, Electric cars, AI)
Teaching format	Frontal lectures, guest lectures, video contributions, in-class discussion
Learning outcomes	<u>Knowledge and understanding:</u> M1: Fundamental knowledge of general microeconomic theory Fundamental knowledge of general microeconomic models applied to economic problems Advanced knowledge of general microeconomic models applied to economic problems M2:Fundamental knowledge of general microeconomic theory Fundamental knowledge of general microeconomic models applied to economic problems Advanced knowledge of general microeconomic models applied to economic problems Explain key economic theories. Demonstrate an understanding of the workings of markets, the economy, and firm behaviour in the economy. Knowledge of the measurement of the level of innovative activity Understanding of the relation between innovation and economic growth Understanding of the relation between market structure and incentives to innovate Knowledge of the tools to protect and foster innovation (intellectual property rights, patents, licensing arrangements, and innovation networks) Understanding of innovation applied to ICTs: effects of network externalities, standard, complementarity on the application of new technologies. Knowledge of the innovation policy tools <u>Applying knowledge and understanding:</u> M1: Apply economic theory in the analysis of problems or

	issues Employ marginal analysis for decision making Analyze operations of markets under varying competitive conditions. Ability to thoroughly understand the drivers and the effects of innovation, both within firms and within organizations M2:Apply economic theory in the analysis of problems or issues Employ marginal analysis for decision making Analyze operations of markets under varying competitive conditions. Ability to thoroughly understand the drivers and the effects of innovation, both within firms and within organizations Ability to assess, within a managerial perspective, costs and benefits of innovative activity within a firm, both in the short and in the medium-long run Ability to identify, from the viewpoint of a manager, the innovation protection tools that best fit the different contexts, assessing their costs and benefits Ability to assess, within a policy-maker perspective, effectiveness and efficiency of the various industrial policy instruments for innovation. Ability to analyze, from the viewpoint of a policy-maker, the impact of regional policy to promote and support innovation on local development <u>Making judgments:</u> M1: the student should, based on key issues presented, be able to reflect on specific problems and formulate judgments that include reflection on the relevant problems under consideration M2: the student should, based on key issues presented, be able to reflect on specific problems and formulate judgments that include reflection on the relevant problems under consideration. Students should also be able to read and understand scientific articles on the topic. <u>Communication skills:</u> M1 and M2: students should be able to communicate the content, the key concepts, ideas, and their solutions to the problems to both a specialist and a non-specialist audience. <u>Learning skills:</u> M1: The student should have a broad understanding of the economic principles that are important for business management. She/he should be able to apply essential elements of core business principles to (case studies of) the business environment. M2: Students are expected to develop learning skills necessary to continue to undertake further study with a

	high degree of autonomy.
Assessment	The assessment takes into consideration the combined acquisition of the learning outcome reached by the students in the two modules. Over the course, students are expected to participate to class discussion based on topic assigned in advance. They are also given written final exam, project works, and oral presentations
Assessment language	M1 English, M2 English
Evaluation criteria and criteria for awarding marks	The final grade will be the arithmetic average of the grade in M1 and in M2. A minimum grade of 15 in both modules is required For M1: For attending students: individual written final exam test (at most 70%); course work (at least 30%). For not attending students: final exam 100% For M2: For attending students: individual written final exam test (at most 80%); course work (at least 20%). For not attending students: final exam 100% The final exam, will assess the following skills: Ability to understand the impact of firms' incentives in designing firms' competitive strategy (pricing, entry) Ability to understand incentives for firms to collaborate and to innovate in environments characterized by complementarities and network externalities Ability to understand both the private incentives and the welfare consequences of firms' strategies Ability to assess, within a managerial perspective, costs and benefits of innovative activity within a firm, both in the short and in the medium-long run Ability to identify, from the viewpoint of a manager, the innovation protection tools that best fit the different contexts, assessing their costs and benefits Ability to assess, within a policy-maker perspective, effectiveness and efficiency of the various industrial policy instruments for innovation. Ability to assess the role of institutions (private sector vs public sector) in promoting and supporting innovation Students are expected both to be able to solve formal economic models, and to discuss their implications.

Required readings	For M1: Lynne Pepall, L., Richards, D., Norman, G., "Industrial Organization: Contemporary Theory and Empirical Applications", Wiley, 2014 For M2: 1. Arrow, K. J. (2015). Economic welfare and the

	allocation of resources for invention (pp. 609-626). Princeton University Press. 2. Bogliacino, F., & Pianta, M. (2016). The Pavitt Taxonomy, revisited: patterns of innovation in manufacturing and services. Economia Politica, 33(2), 153-180. 3. Dosi G.,Nelson (2018) Technological Paradigms and Technological Trajectories in M. Augier, D.J. Teece (eds.), The Palgrave Encyclopedia of Strategic Management. 4. Fagerberg, J. (2004). Innovation: A guide to the literature. Georgia Institute of Technology. 5. Hall, B. H., & Rosenberg, N. (Eds.). (2010). Handbook of the Economics of Innovation (Vol. 1) Introduction. Elsevier. 6. Scherer, F. M. (2010). Pharmaceutical innovation. Handbook of the Economics of Innovation, 1, 539-574. 7. Śledzik K., (2013), Schumpeter' s view on innovation and entrepreneurship (in:) Management Trends in Theory and Practice, (ed.) Stefan Hittmar, Faculty of Management Science and Informatics, University of Zilina & Institute of Management by University of Zilina. 8. Tirole, J., (1988). The theory of industrial organization. Chapter 10. MIT press 9. Acemoglu, D., & Restrepo, P. (2020). Robots and jobs: Evidence from US labor markets. *Journal of Political Economy, 128*(6), 2188-2244. ~~8.~~10. Anelli, M., Colantone, I., & Stanig, P. (2021). Individual vulnerability to industrial robot adoption increases support for the radical right. *Proceedings of the National Academy of Sciences, 118*(47), e2111611118.
Supplementary readings	Additional handouts will be distributed in class or on Reserve Collection. Slides will always be uploaded on Reserve Collection before class.