

Syllabus Course description

| Course title | Regional Development and Digitalization | |
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| Course code | 31004 | |
| Scientific sector | SECS-P/02 and SECS-P/06 | |
| Degree | Master in Tourism Management | |
| Semester and academic year | ar 1st and 2nd Semester 2022/2023 | |
| Year | 1st study year | |
| Credits | 12 | |
| Modular | YES | |

| Total lecturing hours | 72 Module 1: 36 Lecturing hours Dr. Carlo Gallier 12h Dr. Wolfgang Gick: 24h Module 2: 36 Lecturing hours Prof. Dr. Federico Boffa 12h Prof. Eberhard Feess: 24h Course responsible: Prof. Federico Boffa | |
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| Total lab hours | - | |
| Total exercise hours | - | |
| Attendance | suggested, but not required | |
| Prerequisites | not foreseen | |
| Course page | https://www.unibz.it/en/faculties/economics- management/master-tourism-management/course- offering | |

| Specific educational objectives | The course refers to the typical educational activities and belongs to the scientific area of Economics. | |
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| | Module 1: This course provides an applied introduction to modern regional economics. It focuses on the determinants of attractiveness of a territory, and will be divided into two blocks. An initial block will deal with classical regional economics, while a second block will deal with environmental economics. The first block will introduce students to the determinants of firms' and people's location decisions as well as on the principles of urban economics. It will then look at the role of infrastructures and at place-based policies. The second block will provide a short list of core concepts of environmental economics with a special emphasis on the theory. To this purpose, it will start with the economic theory of environmental policy. Based on the theory of externalities, it will analyze instruments for | |



| | environmental policy from an economic point-of-view. It will then introduce topics in behavioral environmental economics. | | |
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| | The course will be aimed at understanding how forma models can be used to analyze real-world situations. To do so, theoretical analyses are complemented by empirica evidence, case studies, and discussions of implications for environmental policies. | | |
| | Students acquire a broad knowledge in the field of regional and environmental economics and develop an economic intuition by means of examples and applications. More precisely, they will be provided with: | | |
| | the toolkit to independently deepen their knowledge in regional and environmental economics and understand advanced research; the ability to apply regional and environmental economic theory in research and practice. | | |
| | Students understand, among others, how to formulate and solve problems in regional and environmental economics using advanced economic theory and the strategic incentives in international environmental agreements. To address these questions adequately, students learn to apply mathematical tools and game theory, such as optimization methods. Most importantly, students will not only be able to solve these models analytically, but also understand the intuition at work. | | |
| | Module 2: The course will look at the microeconomics of digital markets. It will analyze the impact of ICT and on the internet on pricing, advertising and the emergence of platforms. It will be discussed how the emergence, stability and co-existence of platforms depends on the heterogeneity of products, the degree of competition, and the network effects within and between groups. It will look, in particular, at the effects of the sharing economy on tourism, and, in general, local development. A particular emphasis will be placed on the analysis of the behavior of platforms, including AirBnB, online travel agencies (e.g., Booking.com), and the rating systems (e.g., Tripadvisor). | | |
| Module 1 | Regional Economics and Development (Loaned from M1 | | |

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| | of 31003 Regional Development and Sustainability) | |
| Lecturer 12h | Dr. Carlo Gallier, Carlo.Gallier@unibz.it, Campus | |
| | Bozen/Bolzano, Faculty of Economics and Management | |



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| | https://www.unibz.it/en/faculties/economics- | | | |
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| | management/academic-staff/person/46381-carlo-gallier | | | |
| Scientific sector of the lecturer | SECS-P/06 | | | |
| Teaching language | English | | | |
| Office hours | https://www.unibz.it/en/timetable/?department=26°r ee=13009%2C13134 | | | |
| List of topics covered | We will cover these topics: Economics and the environment Theory of externalities Environmental policy Behavioral insights in climate protection, resource management, and ecosystem services | | | |
| Teaching format | Frontal lectures and exercises | | | |
| Lecturer 24h | Dr. Wolfgang Gick, <u>Wolfgang.Gick@unibz.it</u> , Campus Bruneck/Brunico, 1 st Floor, Office 1.09, Faculty of Economics and Management <u>https://www.unibz.it/en/faculties/economics-</u> management/academic-staff/person/33840-wolfgang-gick | | | |
| Scientific sector of the lecturer | SECS-P/02 | | | |
| Teaching language | English | | | |
| Office hours | https://www.unibz.it/en/timetable/?department=26°r ee=13009%2C13134 | | | |
| List of topics covered | Introduction to regional economics: basic concepts Location decisions and market imperfections: determinants of consumers' and firms' and location decisions, spatial competition Infrastructure as regional competitive advantage and regional disparities: toward policy aspects Place-based policies and spatial disparities | | | |
| Teaching format | Lectures and exercises | | | |
| Module 2 | Digital Economics | | | |

| Module 2 | Digital Economics | | | |
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| Lecturer 12h | Prof. Federico Boffa, Federico.Boffa@unibz.it, | | | |
| | Campus Bruneck- Brunico, 1 st Floor, Office 1.06 | | | |
| | https://www.unibz.it/en/faculties/economics- | | | |
| | management/academic-staff/person/5799-federico-boffa | | | |
| Scientific sector of the lecturer | SECS-P/06 | | | |
| Teaching language | English | | | |
| Office hours | https://www.unibz.it/en/timetable/?department=26°r | | | |
| | <u>ee=13009%2C13134</u> | | | |
| List of topics covered | Economics of complement goods; | | | |
| | Network Externalities; | | | |
| | - Two sided markets; | | | |
| | - Platforms; | | | |
| | - Sharing economy; | | | |



| | - Focus on Airbnb; | | | |
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| | - Focus on online travel agencies; | | | |
| | - Feedback systems | | | |
| | - Real-time pricing and yield management | | | |
| Teaching format | Lectures, cases, and in-class presentations | | | |
| Lecturer 24h | Prof. Eberhard Feess, <u>eberhard.feess@unibz.it</u> , Campus Bruneck/Brunico, 1 st Floor, Office 1.09, Faculty of Economics and Management <u>https://www.unibz.it/en/faculties/economics-</u> <u>management/academic-staff/person/27470-eberhard-</u> <u>feess</u> | | | |
| Scientific sector of the lecturer | SECS-P/06 | | | |
| Teaching language | English | | | |
| Office hours | https://www.unibz.it/en/timetable/?department=26°r | | | |
| | ee=13009%2C13134 | | | |
| List of topics covered | Network Externalities; | | | |
| | Two sided markets; | | | |
| | - Platforms; | | | |
| | - How to finance platforms (e.g. fixed or variable | | | |
| | fees, advertisment, sale of data) | | | |
| | Pricing mechanisms (auctions vs. fixed prices) | | | |
| | - Regional possibilities for challenging monopolistic | | | |
| | platforms | | | |
| | - Applications to the tourism sector (e.g. | | | |
| | Booking.com, Airbnb) | | | |
| | | | | |
| Teaching format | Lectures, discussions, and presentations by students | | | |
| Learning outcomes | The learning outcomes need to refer to the Dublin | | | |
| Learning outcomes | Descriptors: | | | |
| | Descriptors. | | | |
| | Knowledge and understanding <u>M1: Regional Economics and Development:</u> Students learn the analytical and quantitative tools to acquire a broad knowledge in regional and environmental economics. They will not only be able to solve the presented models mathematically, but also to understand the intuition at work by means of examples and applications. <u>M2: Digital Economics:</u> Students will be required to master the basic economic concepts involved in the digital markets, and in particular complement goods, network externalities and platforms. | | | |
| | Applying knowledge and understanding <u>M1: Regional Economics and Development:</u> Students acquire the toolkit to independently deepen their knowledge in the field of regional and environmental | | | |



| economics. They will develop the ability to understand more advanced research and apply the acquired knowledge to real-word situations. <u>M2: Digital Economics:</u> Students will apply the intuitions from the notions and from the formal model to analyze how platforms, the sharing economy and the feedback systems are changing the tourism industry and how artificial intelligence algorithms are changing the hotels pricing models. | |
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| Making judgments <u>M1: Regional Economics and Development:</u> The field of regional and environmental economics has many real-world applications. This course promotes strategic, analytic and, critical thinking to understand concrete situations and develop policy recommendations. <u>M2: Digital Economics:</u> Students will use the economic categories to critically look at the impact of digitalization and of the development of artificial intelligence on the tourism industry | |
| Communication skills <u>M1: Regional Economics and Development:</u> Regional and environmental theories are formulated using formal models. However, students should not only be able to solve these models mathematically, but also state the intuition in words. Graduates will be able to exchange information, ideas, and solutions in both models and words. <u>M2: Digital Economics:</u> Students will learn to communicate complex economic notions and models in a clear way also to non experts in the fields – something that might prove very useful in particular to those pursuing a managerial career. | |
| Learning skills <u>M1: Regional Economics and Development:</u> The focus on model-building enables students to independently deepen their knowledge in the field of regional and environmental economics. Graduates will be able to understand more advanced research and teach themselves concepts which are not dealt with in this course. Furthermore, they will be able to apply theory and the underlying intuition at work to many real-word applications. <u>M2: Digital Economics:</u> Students will deepen their knowledge in the field of microeconomics, in particular those related to the recent advances in digitalization and artificial intelligence. Graduates will be able to understand more advanced research and teach themselves concepts which are not dealt with in this course. Furthermore, they will be able to | |



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| | apply theory and the underlying intuition at work to many real-word applications. | | | |
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| Assessment | Indicate the types of assessment and check the coherence with the Dublin descriptors | | | |
| | M1: Regional Economics and Development: Grading is based on a final exam. Students are required to solve both models and open questions. Assessment is the same for both attending and non-attending students | | | |
| | M2: Digital Economics: Attending students: in-class presentation (up to 30%), class participation (up to 20%), final exam (at least 50%) | | | |
| | Non attending students: final exam (100%) | | | |
| Assessment language | English | | | |
| Evaluation criteria and criteria for awarding marks | <u>M2: Digital Economics:</u> Relevant for final exam: clarity of answers, ability to understand both the formal models and the intuitions behind them; ability to apply knowledge to real-life | | | |
| [| situations. | | | |
| Required readings | M1: Regional Economics and Development: Capello, R: Regional Economics, Routledge, 2015 Phaneuf, D. & T. Requate. A course in environmental economics. Cambridge University Press, 2017. | | | |
| | M2: "Digital Economics", by A. Goldfarb and C. Tucker, Journal of Economic Literature, vol. 57, n.1, 2019 Relevant material will be made available at the beginning | | | |
| Supplementary readings | of the class. M1: Regional Economics and Development: Mathematics - Simon, C. & L. Blume. Mathematics for Economists. WW Norton & Co., 2014. | | | |

 Microeconomic theory

 Varian, H. Intermediate Microeconomics. A Modern Approach. Ninth edition, WW Norton & Co., 2014.

 M2: Digital Economics



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| - | Comino, S e Manenti F., "L'economia delle ICT", |
|---|---|
| | Giappichelli, 2011 |