Syllabus

Kursbeschreibung

Titel der Lehrveranstaltung	Sustainability Economics
Code der Lehrveranstaltung	27516
Zusätzlicher Titel der Lehrveranstaltung	
Wissenschaftlich-disziplinärer Bereich	ECON-05/A
Sprache	Englisch
Studiengang	Master in Data Analytics for Economics and Management
Andere Studiengänge (gem. Lehrveranstaltung)	
Dozenten/Dozentinnen	Dott. Giovanni Maria Mazzanti, GiovanniMaria.Mazzanti@unibz.it https://www.unibz.it/en/faculties/economics-management/academic-staff/person/51225
Wissensch. Mitarbeiter/Mitarbeiterin	
Semester	Zweites Semester
Studienjahr/e	2
KP	6
Vorlesungsstunden	36
Laboratoriumsstunden	-
Stunden für individuelles Studium	-
Vorgesehene Sprechzeiten	18
Inhaltsangabe	COURSE NOT OFFERED IN 2025/2026 This course provides an applied and analytical overview of modern sustainability economics, emphasizing the use of econometric methods to evaluate environmental policies and quantify the value of environmental goods. Students will explore the economics of market failures and externalities, and learn how to assess the

	effectiveness of policy instruments such as pollution taxes, cap-and-trade systems, and regulatory standards. A core component of the course is the application of microeconometric techniques—such as revealed and stated preference models, discrete choice models, and property value regressions—to estimate willingness to pay, conduct cost-benefit analysis, and measure the impacts of environmental interventions. Through real-world data applications and case studies, students will gain the skills to critically analyze environmental outcomes and inform policy using empirical evidence.
Themen der Lehrveranstaltung	Main Topics: 1. Environmental Economics, the Theory of Market Failures and Formal Models of Externalities. 2. Environmental Problems and Policy Issues. 3. Theory of Environmental Policy and the Design of Environmental Policy. 4. Quantitatively Valuing the Environment: Applied Welfare Analysis, Revealed Preference Models, Discrete Choice Models, Property Value Models, Health Valuation, Cost-Benefit Analysis. 5. Quantitatively Evaluating the Effects of Major Environmental Policies such as pollution taxes, cap-and-trade systems, energy efficiency regulations.
Stichwörter	Environment economics, Environment policy, Sustainability economics, Evaluation and effects of environmental policies
Empfohlene Voraussetzungen	
Propädeutische Lehrveranstaltungen	
Unterrichtsform	Frontal lectures, exercises, case studies, face-to-face discussions and flipped-classroom activities.
Anwesenheitspflicht	Recommended, but not required.
Spezifische Bildungsziele und erwartete Lernergebnisse	Intended Learning Outcomes (ILO) ILO 1 Knowledge and understanding: ILO 1.1 Students will develop specialised knowledge within the economic and business domains, tailored to their areas of interest and essential for addressing decision-making and managerial challenges in both public and private organisations. This learning outcome emphasises an interdisciplinary approach to problem-solving and organisational analysis.

	ILO 1.2 Within the Data Analytics for Economics track, students will acquire advanced knowledge in economic theory, economic analysis, and econometrics through the study of microeconomics and macroeconomics, decision theory under uncertainty, time-series analysis and forecasting techniques, and methods for causal inference using both administrative and experimental data. Additionally, students will develop competencies in data analysis, applying quantitative and computational approaches to address complex economic problems. ILO 2 Applying knowledge and understanding: ILO 2.1 Students will demonstrate the ability to analyse business-related issues that underpin data-driven decision support by applying statistical models and computational modelling techniques. This outcome focuses on integrating quantitative methods to evaluate and optimise organisational decision-making processes. ILO 2.2 Students will demonstrate the ability to utilise and apply models designed for market analysis and for the formulation of economic policies. This outcome emphasises the integration of theoretical and empirical approaches to support evidence-based policy development and strategic decision-making. ILO 3 Making judgements: ILO 3.1 The student acquires the ability to apply acquired knowledge to interpret data in order to make directional and operational decisions in a business context. ILO 3.2 The student acquires the ability to apply acquired knowledge to support processes related to production, management and risk promotion activities and investment choices through the organisation, analysis and interpretation of complex databases. ILO4 Communication skills: ILO 4.1 The student acquires the ability to communicate effectively in oral and written form the specialised content of the individual disciplines, using different registers, depending on the recipients and the communicative and didactic purposes, and to evaluate the

	formative effects of his/her communication. ILO 5 Learning skills: ILO 5.1 The student acquires knowledge of scientific research tools. He/she will also be able to make autonomous use of information technology to carry out bibliographic research and investigations both for his/her own training and for further education. Furthermore, through the curricular teaching and the activities related to the preparation of the final thesis, she will be able to acquire the ability - to identify thematic connections and to establish relationships between methods of analysis and application contexts; - to frame a new problem in a systematic manner and to implement appropriate analysis solutions; - to formulate general statistical-econometric models from the phenomena studied.
Spezifisches Bildungsziel und erwartete Lernergebnisse (zusätzliche Informationen)	
Art der Prüfung	Written and project work: written exam with review questions and project report done in groups. For Attending Students: • Team Project Report and Presentation (50%): Students will collaborate on a comprehensive project report that is relevant to the course's subject matter. This report will be accompanied by a presentation, where each team will articulate their findings and recommendations - (ILOs 1, 2.1, 3, 4, 5). • Written Exam (50%): The exam will consist of review questions designed to test students' understanding of the course material. Questions will range from theoretical knowledge to application-based scenarios that require critical thinking and synthesis of learned concepts - (ILOs 1, 2.1, 3.1, 4, 5). For Non-Attending Students: • Written Exam (100%): Non-attending students will take a more extensive written exam. (ILOs 1-5)
Bewertungskriterien	The final exam is 50% of the final grade, while the project assignment is 50% of the final grade. For non-attending students the final exam is 100% of the final grade.

	Evaluation criteria relevant for both: clarity of answers, mastery of specific terminology, ability to summarize, evaluate, and establish relationships between topics, ability to apply concepts to real-world examples. • Team Presentation: Effectiveness of communication and ability to engage the audience. Visual and analytical clarity of presentation materials. Responsiveness to questions and ability to discuss the project in depth • Written Exam: Comprehension of course material and key concepts. Ability to apply theoretical knowledge to practical scenarios. Critical thinking and analytical skills in responding to review questions. Quality of written communication, including structure and articulation of arguments
Pflichtliteratur	Phaneuf D.J., Requate T., A Course in Environmental Economics: Theory, Policy, and Practice, (any edition) Cambridge University Press.
Weiterführende Literatur	Additional readings will be provided at the beginning of the course.
Weitere Informationen	
Ziele für nachhaltige Entwicklung (SDGs)	Nachhaltige Städte und Gemeinden, Nachhaltiger Konsum und Produktion, Leben an Land, Leben unter Wasser, Maßnahmen zum Klimaschutz