Freie Universität Bozen
Libera Università di Bolzano
Università Liedia de Bulsan

Syllabus
Course description

Course title	**The Economics of Climate Change**
Course code	27360
Scientific sector	SECS/P-02
Degree	Bachelor in Economics and Management
Semester and academic year	2nd semester - ay 2024/25
Year	Free choice
Credits	6

Total lecturing hours	36
Total lab hours	-
Total exercise hours	-
Attendance	suggested, but not required
Prerequisites	not foreseen
Course page	https://www.unibz.it/en/faculties/economics-management/bachelor-economics-management/course-offering/

Specific educational objectives	The course refers to the complementary educational activities chosen by the student and belongs to the scientific area of Economics. This course provides an introduction to the economics of climate change. It covers core concepts such as the economic theory and instruments for climate policy. Specifically, it utilizes the theory of externalities to analyze policy tools from an economic perspective. Topics covered include (but are not limited to): international climate negotiations, integrated assessment models, social cost of carbon, economic instruments and other policy solutions to promote behavioral change among economic agents. Throughout the course, analytical frameworks are complemented by empirical evidence, case studies, and implications for climate policy. Specifically, students will: - Develop critical thinking skills to analyze climate issues from an economic perspective. - Learn to apply economic theory and models to analyze and evaluate climate policies. - Gain expertise in assessing accuracy and uncertainty of climate data and models. - Understand behavioral biases and perceptions that influence climate decisions.

Lecturer	Dr. Elisabeth Gsottbauer
Scientific sector of the lecturer	-
Teaching language	English
Office hours	See timetable
Lecturing assistant	None
Teaching assistant	None
List of topics covered	- International climate negotiations - Integrated assessment models - Social cost of carbon - Economic instruments for climate mitigation - Other policy solutions for behavioral change, nature-based solutions, energy efficiency programs - Public perceptions and understanding of climate change
Teaching format	Frontal lectures

Learning outcomes	**Knowledge and understanding** Students will obtain a comprehensive, integrated understanding of climate economics theory, models, and policy. They will obtain a good knowledge and understanding of key concepts such as the social cost of carbon, climate policy instruments, cost-benefit analyses of mitigation and adaptation approaches, and the role of innovation and behavioural change. This applied approach ensures students develop a thorough literacy in the field of climate economics. **Applying knowledge and understanding** Students will develop the skills to formulate independent climate policy recommendations by applying acquired knowledge and expertise. They will be able to consider trade-offs between efficiency and fairness in policy design and be able to conclude on concrete policy recommendations. **Making judgments** Students will develop critical judgment skills in assessing climate economics models, analyses, and policies. By weighing quantitative and qualitative factors like efficiency, ethical dimensions, uncertainty, and political/technical feasibility, students learn to evaluate economic arguments and climate solutions from multiple integrated perspectives. **Communication skills** Students will improve their ability to communicate complex climate economics concepts clearly and accurately through in-class discussions. Additionally, they

	will develop the skill to advocate for or against the adoption of economic policy instruments based on reasoned arguments. **Learning skills** Students will learn to apply economic theory and economic analytical frameworks coupled with economic policy criteria including efficiency and fairness to real-world climate policy applications. They will also develop skills to adeptly formulate, assess, and compellingly articulate insights from economic policy analyses.

Assessment	
Assessment language	ENGLISH
Evaluation criteria and criteria for awarding marks	Attending students: Grading is based on a final exam containing open questions which makes up 100%. Non-attending students: Non attending students will be assessed through a final exam test (100%) that covers all course material.

Required readings	IPCC Special Report on Global Warming of 1.5C (2018) Perman, R. (2003). Natural resource and environmental economics. Pearson Education. Stern, N. (2006). Stern Review: The economics of climate change.
Supplementary readings	Wagner, G., & Weitzman, M. L. (2016). Climate shock: the economic consequences of a hotter planet. Princeton University Press.