Freie Universität Bozen
Libera Università di Bolzano
Università Liedia de Bulsan

Syllabus
Course description

Course title	Theory of Scientific Method
Course code	46047
Scientific sector	---
Degree	PhD Mountain Environment and Agriculture PhD Sustainable Energies and Technologies PhD Food Engineering and Biotechnology PhD Advanced-Systems Engineering
Semester	1°
Year	*I*
Academic year	2024-2025
Credits	4
Modular	*NO*

Total lecturing hours	32
Total exercise hours	8
Office Hours	12
Attendance	Punctual and regular attendance is not only important and Expected, it also correlates positively with your performance in this course. Participation in at least 80% of the lectures and the participation on the "abstract day" and both days of the "Mock conference" is compulsory.
Prerequisites	
Course page	

Specific educational objectives	This introductory course has two goals: First, the course will introduce you into various aspects of scientific methods. Second, in theoretical lectures and practical exercises you will learn how to perform a scientific study and how to present your scientific data. Regardless of what discipline you are in, the knowledge of scientific methods proves to be instrumental for your academic research both as a PhD student and beyond.

Lecturer	Dr. Hannes Schuler, K0.09 email: hannes.schuler@unibz.it, Phone:+39 0471 017648
Scientific sector of the lecturer	AGR11
Teaching language	English
Office hours	Before and after the lecture and after appointment by mail
Teaching assistant *(if any)*	
Office hours	
List of topics covered	Introduction on being a scientist, responsible conducting of research and experimental design. You will get insights on how to read, write and review a paper, how to apply for conferences and awards and how to handle your literature.

Teaching format	The course covers theoretical lectures as well as practical activities. A two-days mock conference will conclude the lecture where you present your posters or make an oral presentation.

Learning outcomes	This course will be an introduction on how to survive academia as an early career scientist. In this course, you will develop scientific ideas, as well as learn strategies for to organize, plan and perform your research. You will also gain methods how to critically read and evaluate scientific papers and communicate and present scientific data.

Assessment	Because the main part of the progress towards the learning outcomes takes place in classroom, your regular participation is essential. You will be evaluated based on the active participation during the course, the written essay of an abstract and your final presentation at the Mock conference.
Assessment language	English
Evaluation criteria and criteria for awarding marks	Active participation, contribution of written essays and the final presentation at the "mock conference" are required to pass the class.

Required readings	Supporting material will be hand out in class.
Supplementary readings	Greenfield T and Greener S 2016 Research Methods for Postgraduates. John Wiley & Sons. Valiela I 2009 Doing science – Design, Analysis, and Communication of Scientific Research. Oxford University Press. Krosso P 2011 Springer Briefs in Philosophy: A Summary of Scientific Method. Springer. Spyns P, Vidal M.-E. 2015 Scientific Peer Reviewing, Practical Hints and Best Practices. Springer.