

Syllabus

Course description

Course title	Theory of Scientific Method
Course code	46000
Scientific sector	---
Degree	PhD Mountain Environment and Agriculture PhD Sustainable Energies and Technologies
Semester	1°
Year	/
Academic year	2016-2017
Credits	3
Modular	NO

Total lecturing hours	16
Total lab hours	
Total exercise hours	8 (distributed along the course)
Attendance	
Prerequisites	
Course page	

Specific educational objectives	Main objective of the course is to provide the students with an overview of the scientific method. During the class, the instructor will show examples on how to apply it in order to achieve professional soundness.
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Module 1	
Lecturer	Dr. Francesca Scandellari, K303, email: francesca.scandellari@unibz.it, Phone: +39 0471 017809
Scientific sector of the lecturer	AGR03
Teaching language	English
Office hours	For the official office hours see the course schedule. However, I suggest the students to contact me in case of need and to fix an appointment.
Teaching assistant (if any)	
Office hours	
List of topics covered	<ol style="list-style-type: none"> 1. Short history of scientific method 2. Planning and performing the scientific research 3. Mention to experimental design 4. Scientific theories: definition, use, how to reject 5. Cooperation and competition in the scientific society 6. Written and oral dissemination of technical and scientific results 7. Bibliographic tools
Teaching format	The course is based on lectures and practical activities, with topics presented by the professor and discussed within the class. Power Point presentations will generally be available in

	the course reserve collection database of the Faculty. Additional material will be provided by the professor.
Learning outcomes	<p>By the end of the course, students will be able to:</p> <ol style="list-style-type: none"> 1) understand the nature of science and the values involved in the practice of science, with special emphasis on environmental research; 2) plan and perform scientific research; 3) critically read and evaluate scientific works and publications; 4) communicate and publish the result of their own scientific work; 5) use the main tools available for scientific research.
Assessment	<p>Written test and performance evaluation.</p> <p>Students will be evaluated based on the activities performed during the course and on the result of a written exam performed at the end of the course to test knowledge application skills.</p>
Assessment language	English
Evaluation criteria and criteria for awarding marks	<p>50% final written exam</p> <p>50% activities in class</p>
Required readings	The material that will be given during class by the instructor
Supplementary readings	Valiela I. Doing science. Design, Analysis, and Communication of Scientific Research. 2009. Oxford University Press