

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>I</i> |
| Academic year | 2020-2021 |
| Credits | 4 |
| Modular | <i>NO</i> |
| 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. The attendance on both days of the Mock conference is required. |
| 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, K1.02, 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 | The instructor will hand out supporting material 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. |