

Coursework

II semester 2020-2021

PhD Course in Geosciences – Università di Padova

SCHEDULE



Coursework Il semester 2020-2021

PhD Course in Geosciences

Maggio 2021



lunedì	martedì	mercoledì	giovedì	venerdì	sabato	domenica
26	27	28	29	30	1	2
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10	11	12	13	14	15	16
17 David Martín Freire-Lista - 9.30-11.30 Room 1B +online	18 David Martín Freire-Lista - 9.30-11.30 Room 1B +online	19 David Martín Freire-Lista - 9.30-11.30 Room 1B +online	20 David Martín Freire-Lista - 9.30-11.30 Room 1B +online	21	22	23
24	25	Borg - 11.30-13.30- online	Borg - 11.30-13.30- online	28	29	30
31	1	Note				

Giu 2021



lunedì	martedì	mercoledì	giovedì	venerdì	sabato	domenica
31	1 Borg - 11.30-13.30- online	2	3 Borg - 11.30-13.30- online	4 Boschi - 14.30-16.30- online	5	6
7	8 Borg - 11.30-13.30- online Boschi - 14.30-16.30 - online	9 Borg - 11.30-13.30- online	10	11 Boschi - 14.30-16.30- online	12	13
14	15 Borg - 11.30-13.30- online Boschi - 14.30- 16.30 - online	16 Borg - 11.30-13.30- online Boschi - 14.30- 16.30 - online	17 Di Toro 14.30-18.00 - Room 1C-D - Part II	18 Di Toro 14.30-18.00 - Room 1C-D - Part II	19	20
21	22 Borg - 11.30-13.30- online Boschi - 14.30-16.30 - online	23 Nestola -9.00-14.00 Aula Magna "A. Lepschy" - part II	24 Borg - 11.30-13.30- online	25 Boschi - 14.30-16.30- online	26	27
28	29 Boschi - 14.30-16.30- online	30	1 Boschi - 14.30-16.30- online	2 Boschi - 14.30-16.30- online	3	4
5	6	Note				

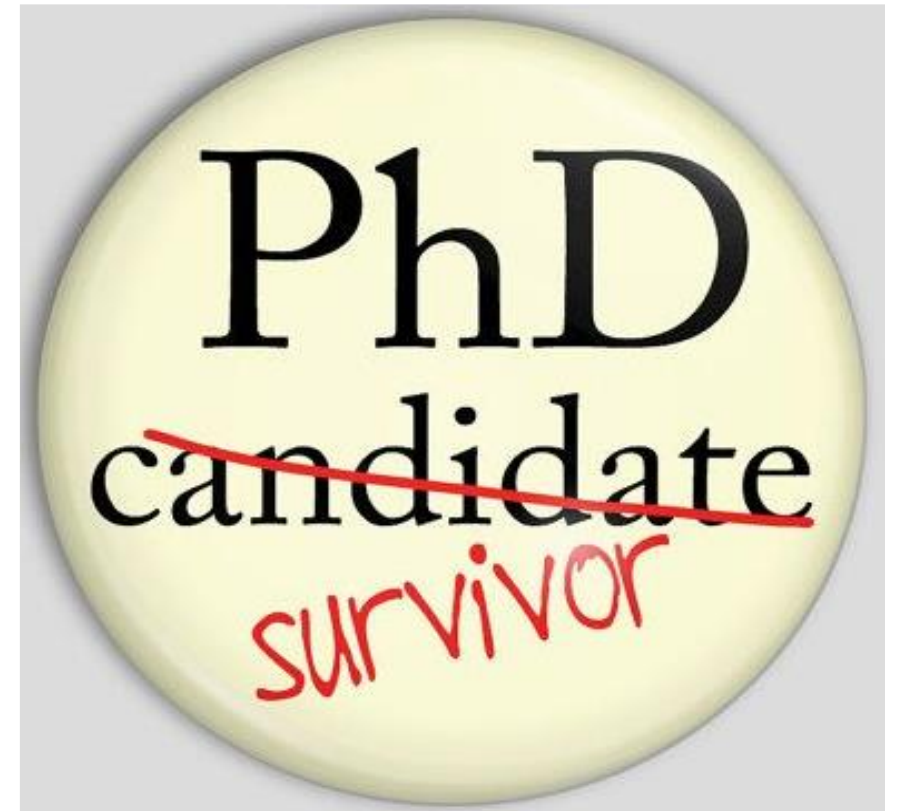
MANDATORY

Prof. Giulio Di Toro (Università di Padova)

Prof. Fabrizio Nestola (Università di Padova)

The PhD student in the research world

75% ATTENDANCE MINIMUM



Part I: How to make a talk

(Lecturer: Prof. Giulio Di Toro)

Today people have limited time to make decisions. In an interview, you might have only few minutes to impact on someone, get a job and change (hopefully better!) your life. You have to prepare carefully your CV to be interviewed, but also the talk for the interview and think about the questions the people in the audience can make. Possible applications of **short talks include:**

Job interviews

Viva of B.S., M.S., Ph.D. thesis, etc.

Scientific meetings

Professional reports

Presenting your work (cooking your chicken) with a talk is an art, but there are some basic rules to avoid to ruin your chicken. And if on that day you will have a turkey, well, at least cook well that turkey. In other words, to get good feedback from a talk, you don't have to show something **groundbreaking**, but it **is vital to make clear what you have done and why**. People sitting in the audience wish to learn from you and often do not have knowledge on that specific topic you are going to address.

In this short course, first we will discuss a series of basic rules and suggestions* to improve your scientific and technical communication skills (case for a short talk). Then, you will prepare your short talk (12 minutes + 3' of questions) on a topic related to your research activities. The talk will be constructively commented by the entire class.

The rules and suggestions are based on (1) "lessons" I received at the Brown University (USA) during my Post-Doc from Prof. Terry Tullis and Prof. Jan Tullis, (2) my experience as a speaker, auditor, chair and convener of sessions at international meetings and (3) books and reports I read on this topic in the years.

2CFU = 12 hours

SCHEDULE & LOCATION

The first part of this course was held in the first semester and then suspended for the Covid-19 pandemic emergency.

The second part will be held on June 17-18, 2021 from 14.30 to 18.00 at Room 1 C-D, Department of Geosciences.

Part II: How to construct a strong CV

(Lecturer: Prof. Fabrizio Nestola)

This part of course will be focused on the meaning of some crucial “numbers” like the “H-index”, the “m-index”, the journal “impact factor”, the “citations”, the WoS and Scopus databases. This is the base for an international evaluation of a CV only based on numbers. Although a CV cannot be based only on these parameters, however, they are a very critical issue in all competitions in terms of the most common European grants like the ERC Grants, the MSCA fellowships (both Standard or Global), the Alexander von Humboldt fellowships and others. Also in the Italian system, a young researcher could apply for a SIR (Scientific Independence of Young Researchers), or to the “Rita Levi Montalcini Program” (if you already have a Ph.D. title and work in a foreign country) and both these two programs again use the above parameters for some parts of the CV evaluation. Finally, a very interesting program offered by our University is the so-called STARS, which is a very interesting funding program (at post-doctoral level) with the final aim to train a young researcher to apply for an ERC grant.

In addition, the Italian Ministry of Education, Universities and Research carries out a national evaluation of Italian research every 4-5 years based on what is called “VQR” (Evaluation of the Research Quality), which is determined using the above parameters. At the same time, the “ANVUR” (National Agency for the Evaluation of Universities) every year allows researchers to apply to obtain the so-called “Abilitazione Scientifica Nazionale” (ASN), which officially provides the “habilitation” to Associate Professor or Full Professor and also in this case the habilitation is to some extent related to the above parameters.

The lecture wants to face all these issues which are crucial for building an impacting CV to several research funding programs and to start an academic career in Italy or everywhere in the world.

1CFU = 6 Hours

SCHEDULE & LOCATION

This course was suspended for the Covid-19 pandemic emergency and will be held on June 23, 2021 from 9.00 to 14.00 at Aula Magna "A. Lepschy", Department of Informatic Engineering.

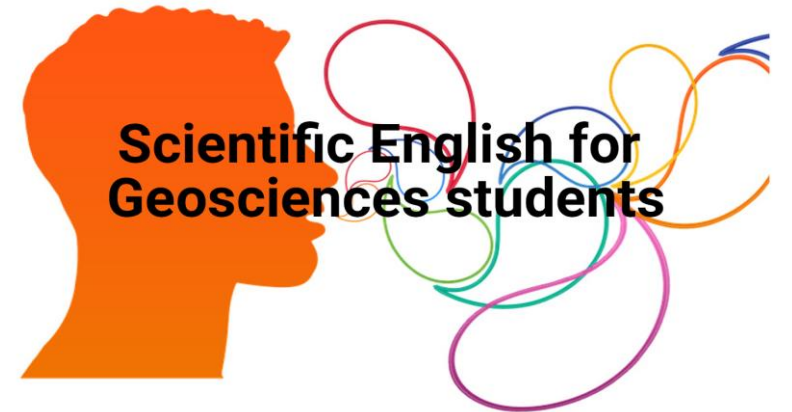
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MANDATORY

Prof. Monica Borg (University of Birmingham)

Scientific English for Geosciences students

75% ATTENDANCE MINIMUM



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Scientific English for Geosciences students

(Lecturer: Prof. Monica Borg)

Course Description

This course in Scientific English is specifically designed for PhD students who need to develop and consolidate their communicative skills in order to be able to present both in the oral and written forms their projects and research findings to academic audiences.

Although linguistic and grammatical proficiency will be targeted as we progress, the course will predominantly consist of practice-based activities such as: writing and delivering presentations; writing abstracts and presenting posters. The articles discussed and presented in class will deal with recent discoveries in the field in areas such as: air pollution, earthquake technology; environmental pollution; environmental bacteria; plant genes; mineral deposits; Climactic changes. Time will also be dedicated to identifying good practice such as the presentation skills of expert scientists. In line with the recent academic emphasis on knowledge transfer and research impact, students will be encouraged to reflect on ways in which presentations can be pitched to suit specialist as well as non-specialist audiences.

Course Objectives

By the end of this course students will be able to:

- Understand the principles of abstracts and presentations;
- Read abstracts from scientific journals and present them in class
- Write abstracts of scientific articles and present them in class;
- Plan and write research papers;
- Prepare an abstract and a power-point for their annual presentation.

Assessment Students will be assessed through a short (15-20 minute) power-point presentation at the end of the course. Any administrative queries about this are to be addressed to Prof. C. Agnini.

Attendance

This course is compulsory for all PhD students reading for a Doctoral Degree in the Department of Geosciences, The University of Padova.

Therefore:

- an attendance record will be kept;
- when unable to attend for a good reason, (fieldwork; work abroad etc.) students will be expected to present a letter written by their supervisor to justify their absence. This can either be handed to me or emailed to borgmg@bham.ac.uk;
- Individual absences due to illness can also be communicated to me by email. More prolonged absences will need to be accompanied by a doctor's certificate.

SCHEDULE: May 26/June 24- see SCHEDULE for details

LOCATION: telematic due to COVID-19 emergency. Details of on the link will be provided directly by the lecture

OPTIONAL

BUT HIGHLY RECOMMENDED

Prof. Lapo Boschi
(Università di Padova)

MATLAB for Students in Geosciences

75% ATTENDANCE MINIMUM

MATLAB
for Students in Geosciences



MATLAB for Students in Geosciences

(Lecturer: Prof. Lapo Boschi)

After learning the basics of MATLAB , we shall use it to solve a selection of problems in programming that are often encountered in the applied sciences: statistics, signal processing, numerical solution of differential equations, etc.

During the course, PhD students will have MATLAB laboratory sessions. The PhD Students are thus required to use their own PC where to install the software. More info will be delivered by the lecture.

SCHEDULE: June 4 /July 2 - see **SCHEDULE** for details

LOCATION: telematic due to COVID-19 emergency

Zoom Link: <https://unipd.zoom.us/j/88198278338>

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OPTIONAL

BUT HIGHLY RECOMMENDED

Prof. David Martín Freire-Lista

Geosciences Center (CGeo) – University of Coimbra (UC), and Geology Department - University of Trás-os-Montes e Alto Douro (UTAD).

**Practical examples on
heritage stones research**

75% ATTENDANCE MINIMUM



**PRACTICAL EXAMPLES ON
HERITAGE STONES RESEARCH**



Ph.D. Course in Geosciences – University of Padova

Eight seminars on

Practical examples on heritage stones research

David Martín Freire-Lista

Geosciences Center (CGeo) – University of Coimbra (UC), Geology Department - University of Trás-os-Montes e Alto Douro (UTAD)

May 17-20, 2021

🕒	Day	Title of Seminar
h. 9.30-10.30	May 17	Granite as Traditional Building Stone and the Influence of Capillary Absorption on Durability.
h. 10.30-11.30	May 17	Granite Scaling Evaluated by Measuring the Ultrasonic Pulse Velocity (Vp): an Example from the Plaza Mayor de Madrid, Spain.
h. 9.30-10.30	May 18	Aging Tests on Granites.
h. 10.30-11.30	May 18	Leucogranite from the Penaboa Quarry (A Coruña, Spain) and the Mason Marks in Romanesque Churches of Portugal: Determination of Accessible Pores, Bulk Density and Hydric Properties.
h. 9.30-10.30	May 19	Contribution of Petrographic Microscopy to the Sepulchral Complex of Fernán Pérez de Andrade in the Church of San Francisco, Betanzos, A Coruña (Spain). Sao Tiago de Folhadela Church: Deterioration by Oxidation of Pyrite in Granite Churches of North Portugal.
h. 10.30-11.30	May 19	Micro-roughness to Determine the Different Types of Decay in the Stones of Paseo del Prado Fountains, Madrid, Spain.
h. 9.30-10.30	May 20	Influence of Porosity (Determined by MIP) in the Durability of the Gypsum of Risco de las Cuevas de Perales de Tajuña, Madrid, Spain.
h. 10.30-11.30	May 20	Stone Preservation in Archaeological Sites: Examples from Guarrazar (Toledo, Spain), Touças (Sabrosa, Portugal), and Dolmen Alto do Cotorino (Portugal).

Events will take place both in room 1B (Dept. Geosciences, Univ. Padova) and online using the following credentials:

<https://unipd.zoom.us/j/84265413688?pwd=enNMRmFiT3V0alNpckQ1SHBxQ24xQT09>

Meeting ID: 842 6541 3688
Passcode: 694001

Supported by the ERASMUS+ Program, Staff Mobility for Teaching

Department of Geosciences, University of Padova
via Giovanni Gradenigo, 6 – 35131 Padova, Italy



David Martín Freire-Lista

Geosciences Center (CGeo) – University of Coimbra (UC)

Geology Department - University of Trás-os-Montes e Alto Douro (UTAD)

David M. Freire-Lista is affiliated with the Geosciences Center (CGeo) of Coimbra University and works at the Geology Department of Trás-os-Montes de Alto Douro University (UTAD) in Portugal. He has a long experience in the study of dimension and ornamental stones used in historical monuments, the identification of the original quarries, the analysis of stone deterioration processes, and applications to architectural and artistic heritage conservation.

His research activity has focused on the analysis of the properties of building materials, their comparison with materials from historical quarries, and on different aspects connected to architectural/archaeological heritage conservation and restoration. He is specialised in the characterisation of building stones and in understanding the decay of stone-built cultural heritage.

The philosophy of Dr. Freire-Lista is that heritage stones have the fragile advantage of being unique and unrepeatably. They are not only a legacy from the past, but they are also a promise for the future. They constitute a resource of great social and economic potential that attracts cultural tourism, and they are key to understanding the history of a region. Any intervention should consider the historical and heritage nature of the original building stones to ensure its proper conservation for future generations.

Department of Geosciences, University of Padova
via Giovanni Gradenigo, 6 – 35131 Padova, Italy

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