



Co-funded by the
Erasmus+ Programme
of the European Union

Strengthening Teaching Competences in Higher
Education in Natural and Mathematical Sciences
(TeComp)

Workshop. 1-14 December
University of Granada
María Cañadas, Antonio Moreno, Diego Pablo Ruiz

December, 2021

1

1

Who we are



María C. Cañadas
mconsu@ugr.es



Antonio Moreno
amverdejo@ugr.es



Diego Pablo Ruiz
druiz@ugr.es

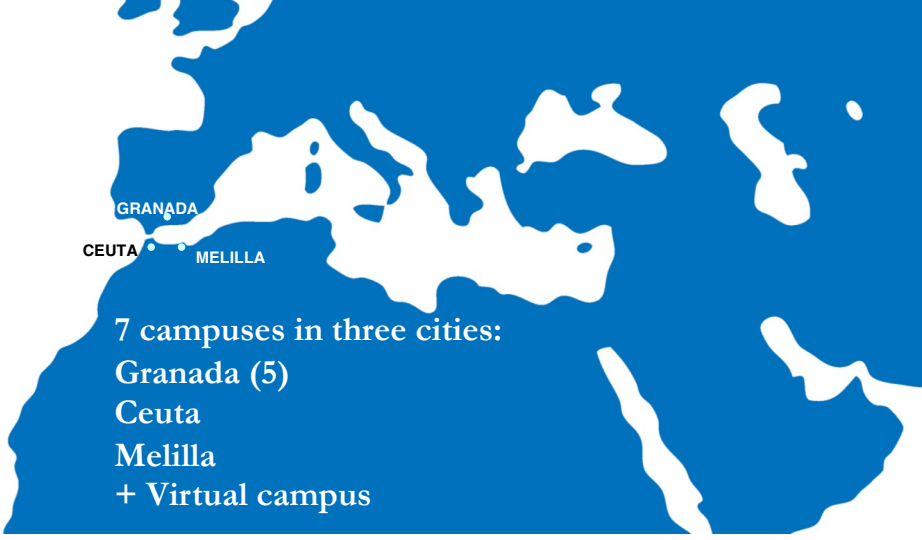


UNIVERSIDAD
DE GRANADA

2

2

University of Granada



7 campuses in three cities:
Granada (5)
Ceuta
Melilla
+ Virtual campus

3

3



- Leader of European Universities in incoming and outgoing student.
- The location of the campuses made the university the perfect bridge between Europe and Latin America, the Mediterranean countries, and Africa.

4

4

- 80.000 undergraduate and postgraduates (60,000 undergraduates).
- Granada has around 240.000 inhabitants... one in four inhabitants belongs to the UGR.
- The university has an important socioeconomic impact on surrounding province and region.
- University of Granada is a public.



5

A high ranking university

- It is the 247th University in the world, according to Shanghai ranking. (This puts the University of Granada second in Spain.)
- It is 265th University in the world (according to Taiwan ranking)



6

Workshop Granada-1-14 December

- ▣ Maths and Sciences teacher at the university.
- ▣ Totally virtual (COVID).
- ▣ Methodological aspects of teacher training at university level.

7

Our workshops

2020

- ▣ Module 1. Training teachers in higher education.
- ▣ Module 2. Teaching planning
- ▣ Module 3. Teaching methods. Teaching and learning in online environments
- ▣ Module 4. Assessment of student learning at university level.



2021

- ▣ Module 1. Teaching planning.
- ▣ Module 2. Teaching methods.
- ▣ Module 3. Evaluation at higher education.

8

8

Objectives

- Comprehend the importance of teaching planning as the base to build students' learning.
- Recognise the elements to consider when designing teaching guides at an teacher level.
- Know the curricular elements to design a course syllabus.
- Design a course syllabus through the connection of the different curricular elements.
- Identify the main features of teaching in higher education.

9

- Identify teaching shortcomings in Mathematics and Science.
- Know and deepen the key strategies for teaching.
- Develop own proposals for including effective teaching strategies in class.
- Define and characterize competences assessment mainly for science and technology degrees.
- Know and deepen the concept and meaning of learning outcomes evaluation in university.
- Design assessment tools for learning outcomes.

10

- Develop of tasks and results for assessments of learning outcomes.
- Provide instruments for the evaluation of learning outcomes.
- Share experiences and "good practices" in assessment.
- Develop own evaluation proposals for teaching.

11

Module 1. Teaching planning

Contents

- Teaching planning
- Planning at different levels
- Teaching guides

12

Module 2. Teaching methods

Contents

- Characteristics of teaching.
- Technology in the classroom.
- Effective teaching strategies.

13

13

Module 3. Evaluation in higher education

Contents

- Competences and learning outcomes: definition and focus of higher education.
- Program learning outcomes and course learning outcomes (CLO).
- Definition of tasks and learning results for CLOs.
- Evaluation modalities, procedures and instruments.
- Assessment tools. Rubric as a tool to evaluate competences.
- Rubric design: protocol to design rubrics.
- Experiences and examples evaluation in the Science area.

14

14

Methodological aspects

Type of work

- ▣ Presentations by María, Antonio and Diego Pablo.
- ▣ Work of teachers (of Albanian and Serbian universities) guided by María, Antonio and Diego Pablo.
- ▣ Presentations by the the teachers of Albanian and Serbian universities with debate.

Resources

- ▣ Google meet for videoconferences.
- ▣ Google drive for sharing information.
- ▣ Emails.

15

15

The schedule

1 December, 10-18h. Synchronic virtual work

10:00-11:00h.

Synchronic Virtual work

Welcome and general introduction

Training teachers in higher education. Design of a training plan

María Cañadas, Antonio Moreno, Diego Pablo Ruiz

<https://meet.google.com/tbw-ihjj-caq>

11:00-12:00h

Teaching methods in higher education

Antonio Moreno, María Cañadas, Diego Pablo Ruiz

<https://meet.google.com/tbw-ihjj-caq>

12-15:00h. Break

16

16

1 December, 10-18h. Synchronic virtual work	
12-15:00h. Break	
15:00-16:00h	Organization of teachers in groups (maximum 4 teachers per group) María C. Cañadas, Antonio Moreno, Diego Pablo Ruiz https://meet.google.com/tbw-ihjj-caq
16:00-18:00h	Evaluation in higher education Diego Pablo Ruiz, Antonio Moreno, María Cañadas https://meet.google.com/xmw-ppor-grz

17

2-3 December. Synchronic or a-synchronic virtual work organized in groups	
<ul style="list-style-type: none"> ■ Training teachers in higher education. Design of a training plan ■ The groups of teachers will have tutorial sessions with María Cañadas ■ https://meet.google.com/tbw-ihjj-caq (15-18h each day) 	
9-10 December. Synchronic or a-synchronic virtual work organized in groups	
<ul style="list-style-type: none"> ■ Teaching methods in higher education ■ The groups of teachers will have tutorial sessions with Antonio Moreno 	

18

10-13 December. Synchronic or a-synchronic virtual work organized in groups

- Evaluation in higher education
- The groups of teachers will have tutorial sessions with Diego Pablo Ruiz
- <https://meet.google.com/xmw-ppor-grz>

19

14 December, 9:30-14h. Teachers' presentations in groups or individually

9:30-11:30h Synchronic Virtual work Presentations of the final task by the attending teachers María Cañadas, Antonio Moreno, Diego Pablo Ruiz https://meet.google.com/tbw-ihjj-caq
11:30-12h. Break
12-14h Synchronic Virtual work Presentations of the final task by the attending teachers María Cañadas, Antonio Moreno, Diego Pablo Ruiz https://meet.google.com/tbw-ihjj-caq

20

Evaluation

- Attendance.
- Work in groups of teachers or individually in the tasks proposed in the three modules.
- Final presentation.

21




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22