



Teaching Guide

Teaching Guide				
Identifying Data				2021/22
Subject (*)	Projects Workshop		Code	614473109
Study programme	Mestrado Universitario en Computación de Altas Prestacións / High Performance Computing (Mod. Presencial)			
Descriptors				
Cycle	Period	Year	Type	Credits
Official Master's Degree	2nd four-month period	First	Obligatory	3
Language	Spanish			
Teaching method	Hybrid			
Prerequisites				
Department	Departamento profesorado másterEnxeñaría de Computadores			
Coordinador	Gonzalez Gomez, Patricia	E-mail	patricia.gonzalez@udc.es	
Lecturers	Gonzalez Gomez, Patricia	E-mail	patricia.gonzalez@udc.es	
	López Taboada, Guillermo		guillermo.lopez.taboada@udc.es	
	Sanjurjo Amado, Jose Rodrigo		jose.sanjurjo@udc.es	
Web	aula.cesga.es			
General description	The aim of this course is to provide the student with the fundamental bases to carry out successfully a research or industrial project in the area of high performance computing. Different tools are introduced to facilitate the developing of the project as well as different examples of projects.			
Contingency plan	1. Modifications to the contents			
	None			
	2. Methodologies			
	Teaching methodologies used in the on-line version of this course.			
	3. Mechanisms for personalized attention to students			
	Same, using telematic tools.			
	4. Modifications in the evaluation			
	None			
	5. Modifications to the bibliography or webgraphy			
	None			

Study programme competences / results

Code	Study programme competences / results
A8	CE8 - Be able to apply the acquired knowledge, capabilities and aptitudes to the profesional environment, planning, managing and evaluating project in the high performance computing field
B1	CB6 - Possess and understand the knowledge that give a baseline or opportunity to be original in the development and/or application of ideas, often in a research environment
B3	CB8 - The students have to be able to integrate knowledge and face the complexity to make judgments from information, despite being partial and limited, includes reflexions about the social and ethical responsibilities linked to the application of their judgements and knowledge
B5	CB10 - The students have to possess learning skills that allows them to continue to study in a mainly self-driven or autonomous manner



B6	CG1 - Be able to search and select useful information to solve complex problems, using the bibliographic sources of the field
B7	CG2 - Elaborate adequately and originally written essays or motivated reasonings, write planings, work projects, scientific papers and formulate reasonable hypothesis
B9	CG4 - Be able to plan and do research, development and innovation tasks in high performance computing related environments
B10	CG5 - Be able to work in teams, specially multidisciplinary, and do a proper time and people management and decision taking
C1	CT1 - Use the basic technologies of the information and computing technology field required for the professional development and the long-life learning
C2	CT2 - Estimulate the capacity to work in transdisciplinary and interdisciplinary teams to offer proposals that contribute to the contribute to the economical, social and political sustainable development
C3	CT3 - Be able to manage time and resources: develop plannings, prioritize activities, identify criticism, establish and meet deadlines
C4	CT4 - Value the importance of research, innovation and the technological development in the socioeconomical and cultural advance of the society
C5	CT5 - Understand the importance of the enterpeneurship culture and know the resources available for entrepreneurs

Learning outcomes			
Learning outcomes		Study programme competences / results	
The student will know the fundamental bases to carry out successfully a research or industrial project in the area of high performance computing		AJ8	BJ1 CJ1 BJ3 CJ2 BJ5 CJ3 BJ6 CJ4 BJ7 CJ5 BJ9 BJ10
The student will know different tools that facilitate the development of both research and industrial projects		AJ8	BJ7 CJ1 BJ10 CJ2 CJ3

Contents	
Topic	Sub-topic
HPC Research projects	
Results' dissemination. Bibliographic studies.	
Colaborative tools	
Management of HPC projects	
Industrial Workshops	
HPC business	

Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student?s personal work hours	Total hours
Supervised projects	A8 B3 B5 B6 B7 B9 B10 C1 C3	1	54	55
Seminar	B1 B3 B5 C2 C4 C5	8	0	8
Guest lecture / keynote speech	A8 B1 B3 B5 C2 C4 C5	11	0	11
Personalized attention		1	0	1

(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies



Methodologies	Description
Supervised projects	supervised projects performed individually or in group.
Seminar	Talks and workshops given by relevant professionals in the field of research in HPC or in the industry.
Guest lecture / keynote speech	Lectures by the faculty assigned to the subject.

Personalized attention	
Methodologies	Description
Guest lecture / keynote speech	The faculty will give the lectures and will attend the doubts that may arise on the part of the students.
Supervised projects	Personalized attention will be carried through telematic tools.

Assessment			
Methodologies	Competencies / Results	Description	Qualification
Guest lecture / keynote speech	A8 B1 B3 B5 C2 C4 C5	During the face-to-face classes, the teachers will monitor the active participation of the students.	10
Supervised projects	A8 B3 B5 B6 B7 B9 B10 C1 C3	Submission and defense of academically supervised projects.	90

Assessment comments
First opportunity (ordinary - May): Evaluation of the academically directed works: 90% of the final mark· Follow-up continued active participation: 10% of the final mark Second opportunity (extraordinary - July): Evaluation of the academically directed works: it will be necessary to present the academically directed works that the students have not presented in the ordinary call, and will go back to present, after the timely modifications indicated by the professors, those that had not received a necessary minimum qualification to pass. 90% of the final mark· Follow-up continued active participation: the student will keep the mark obtained in this section in the ordinary call, since for the extraordinary call no new activities will be scheduled. 10% of the final mark it will consider "no sited" all the student that have not delivered any of the works and have not participated in the proposed activities. Part-time: given that the degree has a on-line modality, in the case of students who, in a justified way, have impediments to attendance in person, they will be evaluated with the criteria of the on-line modality . During the evaluation, the lecturers can request the students to identify themselves by asking the passport.

Sources of information	
Basic	<ul style="list-style-type: none">- A. H. Hofmann (). Scientific writing and communication. Oxford University Press- Eric Ries (). The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses. Crown Publishing Group- Alexander Osterwalder and Yves Pigneur (). Business Model Generation. John Wiley and Sons
Complementary	

Recommendations
Subjects that it is recommended to have taken before
Subjects that are recommended to be taken simultaneously
Subjects that continue the syllabus
Other comments
Knowledge of English, both spoken and written, is essential since many of the bibliography and external conferences can be in English.



(*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.