

1. Unidade curricular (UC)/Curricular Unit

a) Name: Research Manager as a profession in the EU ecosystem: concepts, tools and practice I

b) Número de vagas/Vacancies: 10-20

2. Pequeno texto introdutório que deve refletir, o enquadramento da UC proposta na oferta curricular da NOVA FCSH, bem como, o carácter inovador ou a complementaridade com outras UC's existentes.

Integrated in the ERASMUS + Project "formation - Innovative and intelligent module for potential managers and administrators of research in higher education", the Research Support Offices of NOVA FCSH and ITQB NOVA participated in the preparation of a new international training offer in management of science implement at NOVA, Corvinus University of Budapest and Sapientia University Cluj. This new curricular offer now constitutes two new Curricular Units for NOVA FCSH: "Research Manager as a profession in the EU ecosystem: concepts,

tools and practice I "and "Research Manager as a profession in the EU ecosystem: concepts, tools and practice II ", the first to start in the second half of the 2020/21 academic year.

Supported by the vast experience in science management of the team of professors and their participation in the Post-Graduate Course in Science and Technology Management and Policy, a pioneering offer from NOVA FCSH and which fills in all open positions since its launch in 2019, this time we offer a course for undergraduate students, transversal to all disciplinary areas / undergraduate courses, for the development of transversal competences in science management. With this new CU students will have a first approach to the European research and innovation ecosystem and an introduction to the main areas of action in science management. Students will develop tools and practical skills in this field, with potential application in future professional pathways in the field of research or management, in particular within research and innovation management. Recognizing transversal competences as a fundamental aspect of education and training, this new CC also intends to contribute to enhance interdisciplinary and interdepartmental training offers at NOVA FCSH. As a requirement for framing this CU in the foRMAtion project, it be taught in English.

- **3. Código da unidade curricular/Curricular unit code:** [Não Preencher]
- 4. Faculdade/Faculty: Faculdade de Ciências Sociais e Humanas
- 5. Unidade de Investigação/Research Unit: Research Support Office



- 6. Curso/Course: Open to all bachelor students
- 7. Nível do curso/Course Level: Bachelor
- 8. Carácter da unidade curricular: Opcional/Optional
- 9. Tipo da unidade curricular/Type of curricular unit: Unidade Curricular Letiva
- 10. Percentagem de aulas práticas/Percentage of practical classes:
- 11. Ano do plano de estudos/Syllabus year:
- 12. Semestre/Semester:
- 13. Número de créditos/Number of credits (1 crédito = 28h):
- 14. Docente ou Investigador responsável/Teacher or principal researcher:
- Scientific coordinator: Professor Dr Susana Trovão
- Responsible: Cristina Oliveira (coordinator of NOVA team in the foRMAtion project)
- Co-responsible: Margarida Trindade (ITQB NOVA, guest lecturer at NOVA FCSH in Post Graduation Degree in Science and Technology Management and Policy)
- 15. Número de horas por sessão/Number of hours per session:
- b) Número de sessões por semestre/Number of hours per semester:
- c) Periodicidade/periodicity: weekly
- d) Período de funcionamento/Class period: 8 February to 28 May 2021
- **16. Objetivos da unidade curricular/***Learning objectives* (máx. 200 palavras; expostos em termos do que se espera que o aluno adquira):

Main learning goals:

- 1. Understand what scientific research is, how it is funded and how it is managed
- 2. Understand the role of research for the development of society and the economy
- 3. Know the professions related to research, with a particular focus on professions that support, facilitate and add value to the research activity (Professions at Interface of Science)
- 4. Develop transferable skills to facilitate articulation between different actors in the research and innovation ecosystem
- 5. Experiment with science management tools, in a brief introduction to the professions at the Interface of Science



6. Understand the European dimension of science management

- 17. Competências gerais do grau/General skills of the degree: a); b); c); d) ;e); f)
- 18. Competências específicas do curso/Specific Course skills: Não aplicável./Not applicable.
- 19. Requisitos de frequência/Attendance requirements: English proficiency
- 20. Conteúdo da unidade curricular/Syllabus (máx. 200 palavras):

The curricular unit will focus on two major modules, with the following general objectives and topics:

Module 1: Research Methodology and Design

Main Goal: To get familiar with research and its specificities according to the different disciplines, the role of research within society, different scientific approaches to develop a research plan and the professions linked to research.

Topics:

- Introduction to science what distinguishes scientific knowledge from other types of knowledge
- Introduction to research design, research methods and research life cycle
- Research integrity and ethical conduct
- Research managers as Professionals at the Interface of Science

Module 2: Research Funding, Policy and Governance

Main Goal: To get familiar with major drivers of European policy and how they condition research, in particular research funding and the strategy of research institutions, while getting insights into professions linked to research funding and policy.

Topics:

- Policy drivers, research agendas, European research policy
- The Funding research framework: funding programmes and calls
- Funding proposals and evaluation criteria
- Preparation of a research proposal
- Institutional proposals, research strategy and governance
- Conflict of interests between policy, funding and research



- **21.** Bibliografia recomendada/Recommended reading: (máx. 5 títulos. Por ordem decrescente de data de edição.)
 - 1. Marta Agostinho, Catarina Moniz Alves, Sandra Aresta, Filipa Borrego, Júlio Borlido-Santos, João Cortez, Tatiana Lima Costa, José António Lopes, Susana Moreira, José Santos, Margarida Trindade*, Carolina Varela & Didal (2018): The interface of science: the case for a broader definition of research management, Perspectives: Policy and Practice in Higher Education, DOI: 10.1080/13603108.2018.1543215
 - ARMA (2018), A Professional Development Framework for Research Managers and Administrators. Working Paper series. ARMA-Professional Association for Research Managers and Administrators. Retrieved on 10 March 2020 from https://arma.ac.uk/wp-content/uploads/2018/08/PDF-Final.pdf.
 - 3. Andersen J, Toom K, Poli S, Miller PF (2017) Research Management: Europe and Beyond, Elsevier Science Publishing Co Inc, Academic Press Inc, San Diego, United States, ISBN 978-0-12-805059-0, DOI: https://doi.org/10.1016/C2015-0-00323-9
 - 4. 4. Langley, D. (2012). Research management and administration: A reflection of where we are and where we need to go as a profession. Perspectives: Policy and Practices in Higher Education, 13 (2), pp. 33-36
 - 5. Larsen, Asger & Dorch, Søren Bertil & Nyman, Mia & Thomsen, & Kirsten,. (2010). Analysis of Research Support Services at international Best Practice Institutions.

22. Métodos de ensino/Teaching Methods:

The foRMAtion project is innovative in terms of content (new curricular offer for Universities), but also in terms of the pedagogical methods it will employ.

The main principle that guides the structure of the curriculum and the didactic material that we will implement is that of the constructivist interpretation of the teaching-learning process, characterized by: 1) a student-centered approach, 2) focused on the process and the result and 3) having as the main objective the development of skills, with the theoretical disciplinary content being understood as a tool to achieve this objective. To this end, "Problem-Based Learning (PBL)" will be used as the main pedagogical approach, including interactive tools such as "gamification" and "storyline



methods", creating flexible learning opportunities with continuous feedback from the teacher through b-learning.

The pedagogical activities and lesson plans were collaboratively defined with the experts in innovative digital teaching methods from Corvinus University of Budapest, who developed the document "Teaching material for the foRMAtion international module for future Research Managers and Administrators", for the project available in Open Access on the project website.

23. Métodos de avaliação/*Assessment methods*: The theoretical-practical assessment includes two elements: 1) an individual assessment according to the level of student participation in the classroom, corresponding to 30% of the final assessment, and 2) an individual assessment equivalent to the score obtained cumulatively in the individual exercises or in groups proposed in the classroom or homework, worth 70% of the final evaluation.

On this second element of assessment, all classes will include a set of theoretical and practical exercises that will be classified using "points" to be awarded to students according to their performance in it. These exercises can be developed in group or individual exercises; in group work the same score is given to all elements of the group.

The attribution of points is the responsibility of the teachers, although it may include self-assessment mechanisms or peer reviews. The sum of the scores obtained in all exercises relative to the maximum score that could be obtained is converted into an individual score for this 2nd element of the student's evaluation.

The assignment of these scores is done regularly, associated with the exercises developed in class, allowing the student to have a constant view on their performance and their learning.

24. Língua de ensino/Teaching language: Inglês/English