



orpheus

Organisation of PhD Education in Biomedicine
and Health Sciences in the European system

Ways to boost the training horizons of PhD candidates in Health Sciences and Biomedicine at Universidad Autónoma de Madrid

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22nd March 2019

Orpheus Conference 2019
UCD, Dublin

UAM Universidad Autónoma
de Madrid
Doctoral School

 Facultad
de Medicina

Outline



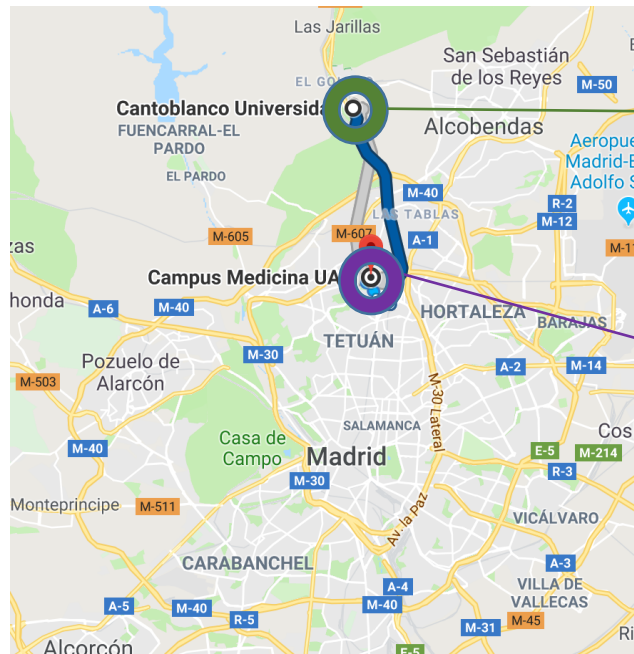
- I. Universidad Autónoma de Madrid and the Doctoral School**
- II. The PhD Programs in Health Sciences & Biomedicine**
- III. Activities to broaden the PhD candidates horizons**

Universidad Autónoma de Madrid

- **Founded in 1968**
- **Research-based University**
- **Ranking: 22nd (Europe)***
- **Total students: 30,394**
- **8 Faculties/Schools + Doctoral School**
- **2 Campuses**



Campus de Cantoblanco

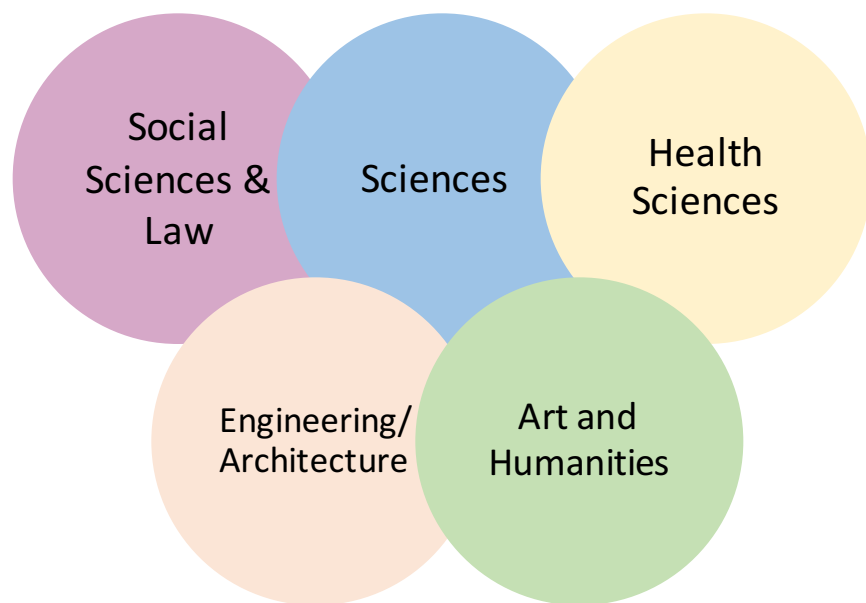


Campus de Medicina



The Doctoral School

- **Established in 2016**
- **35 PhD Programmes**
- **3,751 PhD Candidates**
(high proportion of doctoral candidates)

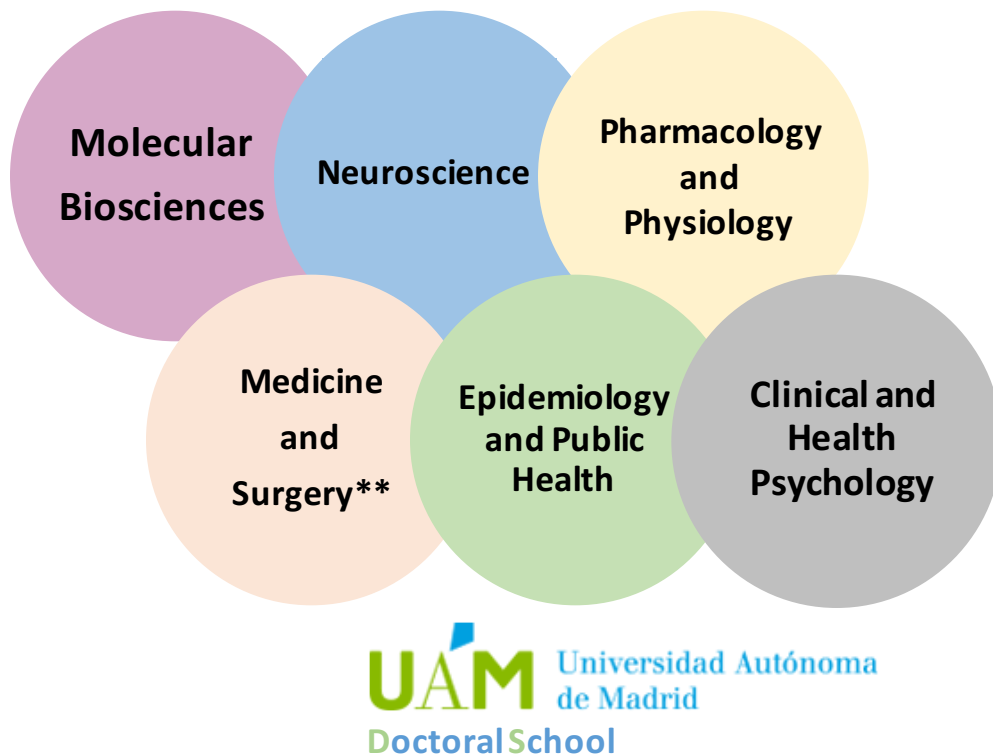


	PhD Candidates enrolled (2018-19)	Theses (2017-18)
Arts & Humanities	632 (16.9%)	39 (11.1%)
Sciences	1078 (28.8%)	141 (40.2%)
Health Sciences	1192 (31.8%)	114 (32.47%)
Social Sciences & Law	768 (20.5%)	49 (14.0%)
Engineering	81 (2.2%)	8 (2.3%)
Total UAM Doctoral School	3751	351

PhD Programmes in Health Sciences and Biomedicine

- 6 PhD Programmes
- PhD Candidates enrolled: 1,636*

• 46.3%   53.7%



External Institutions:

- CSIC (Science Research Council)



- National research centers



- Health research institutes of first-line hospitals (Madrid health system)

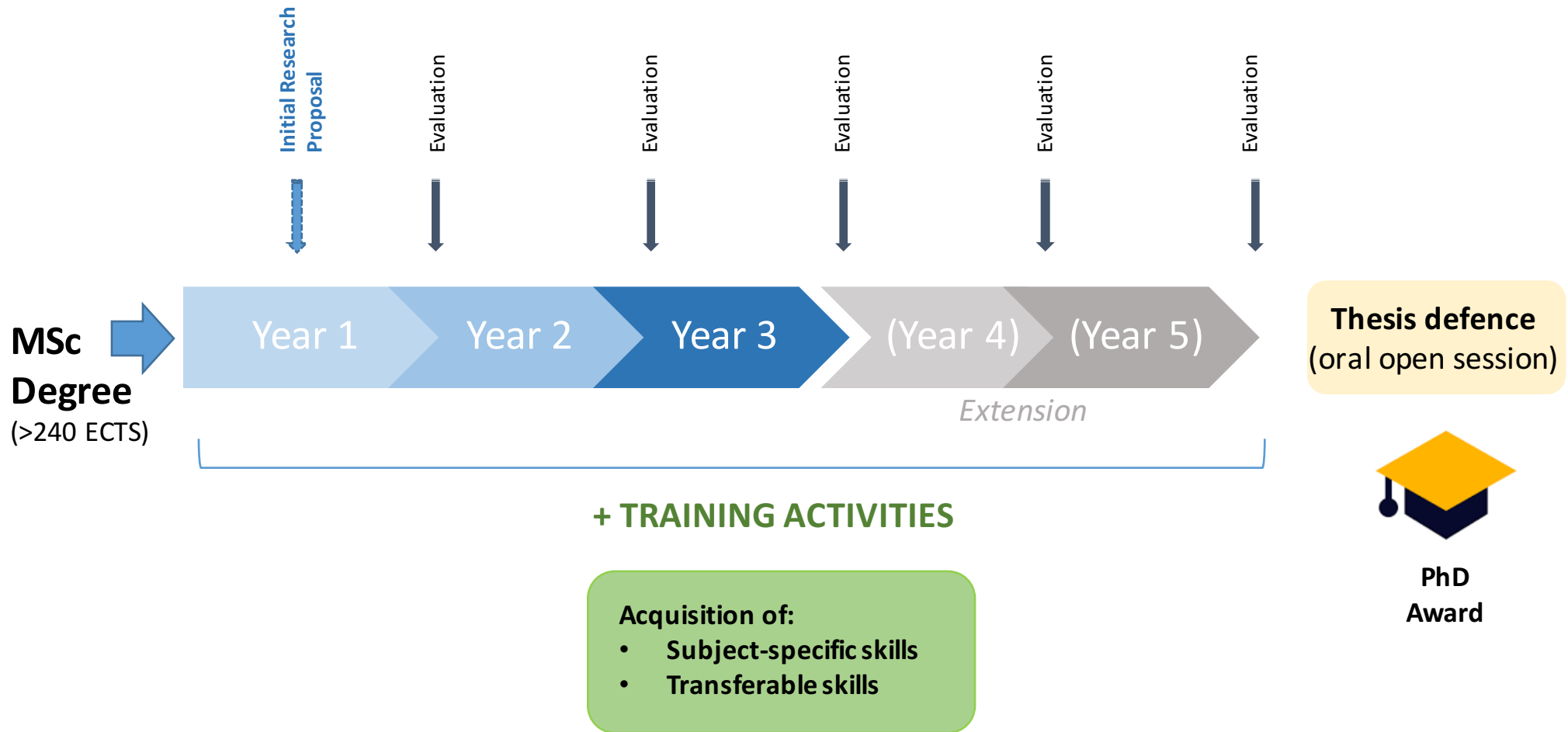


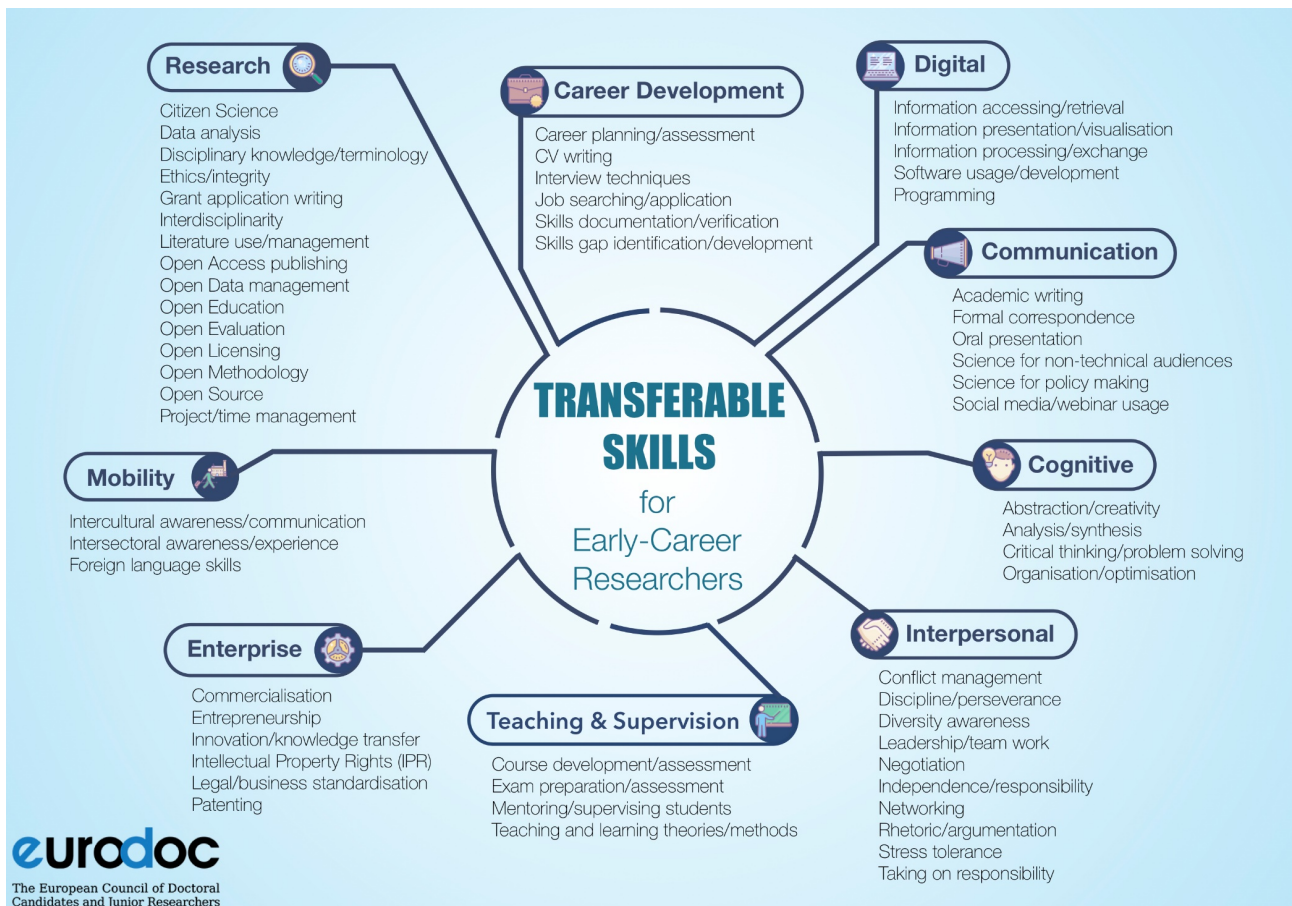
- Other  REAL ACADEMIA NACIONAL DE MEDICINA DE ESPAÑA  FUNDACIÓN RAMÓN ARECES

* 2017-2018

**includes a research line in Nursing

Organization of PhD studies





<http://eurodoc.net/skills-report-2018.pdf>



- **Highly and broadly skilled professionals**
- **Enhance competitiveness**
- **Better employability**

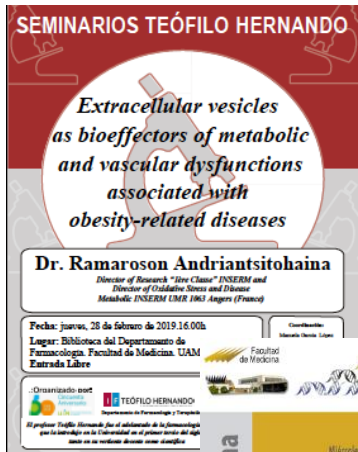
Research training activities: knowledge beyond your own research subject

"read more, listen more, see more and write more"

- Research Seminars

- Methodological courses

Spanish/
English



SEMINARIOS TEÓFILO HERNANDO

Extracellular vesicles as bioeffectors of metabolic and vascular dysfunctions associated with obesity-related diseases

Dr. Ramarason Andriantsitohaina
Director of Research "IReC" INSERM and Director of Cellular Stress and Disease Metabolic INSERM UMR 1063 Angers (France)

Fecha: jueves, 28 de febrero de 2019 16:00h
Lugar: Biblioteca del Departamento de Farmacología, Facultad de Medicina, UAM
Entrada Libre

Organizado por: Teófilo Hernando, Departamento de Farmacología y Toxicología



Vanguardia de la Neurociencia

DEPARTAMENTO DE ANATOMÍA, HISTOLOGÍA Y NEUROCIENCIA
Facultad de Medicina
Universidad Autónoma de Madrid
Avda. Arzobispo Morcillo, 2
28029, Madrid

Master en Neurociencia UAM

Large scale cortical networks for controlling motor and cognitive functions

Elena Borra
Department of Medicine and Surgery,
University of Parma,
Italy

Viernes, 11 de enero de 2019
13 h, Seminario

Persona de contacto: +34 91 497 5355



Programa de Doctorado en Farmacología y Fisiología UAM

Curso 2018-19

Ocho de "Seminarios de los Doctorandos"

"Design, synthesis and pharmacological evaluation of new chiral multitarget directed ligands to treat Alzheimer Disease: Nrf2 inducers, nAChR modulators and antioxidants"

Sheila Abril Comesaña
Instituto Teófilo Hernando de I+D del Medicamento
Departamento de Farmacología UAM

15 de noviembre de 2018, 16:00

Biblioteca del Departamento de Farmacología
Facultad de Medicina UAM

Contacto: info.doctorado.farmacologia@uam.es



Seminarios en Biomedicina

Miércoles, 14 de enero de 2019
La Piedad, Fac. Medicina UAM, 15:30 h

Eva Hernando
NYU School of Medicine, New York (USA)

Novel players in melanoma metastasis

Curso de Seminario Incentivado con 1 ECTS

Persona de contacto: Ana González (agonzalez@uam.es)



ADVANCES IN MOLECULAR BIOLOGY

20th Severo Ochoa SEMINAR SERIES

2018-2019

JORGE LUIS RUIZ
Karolinska Institute
Stockholm, Sweden
November 23, 2018

ADOLFO FERRANDO
Columbia University
New York, NY, USA
November 28, 2018

SHARON TOOTZ
The Francis Crick Institute
London, UK
February 1, 2019

ISABEL FARIÑAS
Universidad de Valencia
Valencia, España
February 22, 2019

RAMÓN ARCELES
ALCANTARA
CRMSO

ANA POMBO
MD, in Molecular Medicine
Baylor, Germany
April 26, 2019

JAMES BERGER
Johns Hopkins School of Medicine
Baltimore, MD, USA
May 29, 2019

ANA FERNÁNDEZ-SEIXA
Yale School of Medicine
Mount Sinai
New York, NY, USA
May 24, 2019

EILEEN FURLONG
OBE, Heidelberg
Heidelberg, Germany
May 31, 2019



Facultad de Medicina

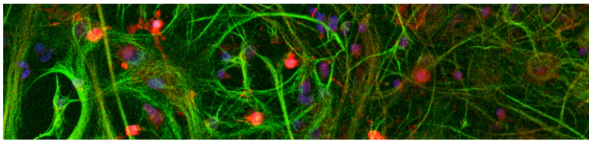
2º Image analysis in Biomedical Research Course

Feedback from:

- Other students
- Other supervisors

Research training activities: knowledge beyond your own research subject

1st PhD Research Symposium in Health Sciences and Biomedicine (One-day event)



Facultad de Medicina
UNIVERSIDAD AUTÓNOMA DE MADRID

**1st PhD Research Symposium
in Health Sciences and Biomedicine**

18 May 2018
School of Medicine
C/Arzobispo Morcillo, 4 28029 Madrid

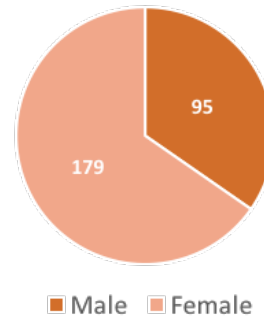
Doctoral Programs in Health Sciences and Biomedicine:

- Epidemiology and Public Health
- Medicine and Surgery
- Microbiology
- Molecular Biosciences
- Neuroscience
- Pharmacology and Physiology
- Clinical Psychology

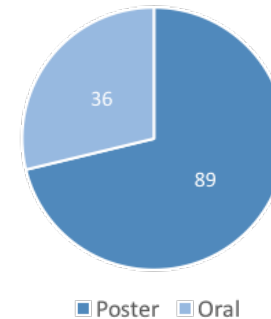
More information at: <https://eventos.uam.es/16395/>

Certified by 1 ECTS

Registered participants (n=274)



Presentations (n=125)



- **12 from bench to bedside thematic sessions**
- **Interactive lecture:**
5 Ways to keep Attention When Presenting
Dr. G- Sánchez Prieto
- **Best communications awards**



Research training activities: communications skills

1st PhD Research Symposium in Health Sciences and Biomedicine



Abstract book



Written & Oral Communication

- Prepare concise and logically-written materials
- Synthesis
- Organize and communicate ideas effectively
- Defend results/argumentation

Interaction

- With candidates from the same or other disciplines
- Basic-clinical researchers
(more options for translational research)
- With postdocs/senior researchers
(exploring future paths)

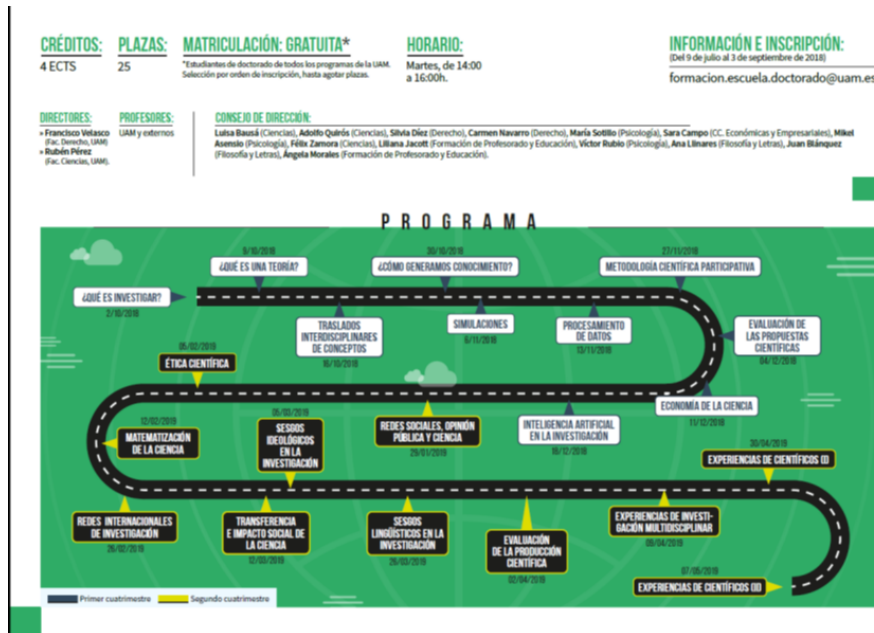
Organization/management skills



Dealing with research methodologies and current challenges in science

Course on “Methodologies and Contemporary Problems in Scientific Research”

Over 1 academic year, 4 ECTS



- What is research? What is a theory?
- How is knowledge generated?
- Writing and evaluation of scientific proposal
- Assessment of scientific production
- Economy in Science
- Artificial intelligence/ Big data
- Social networks
- Innovation and transfer of knowledge

Career Development

- 56 % increase in the number of new doctorates from 2000 to 2012*
- **Non academic** > academic paths after obtaining a PhD

Career Workshop
“Holding a PhD beyond academia”
(April 3rd 2019)



Topics

- Providing selected examples of non-academic careers
- Strategies for exploring alternate careers
- Strategies for transitioning from inside to outside academia
- Networking/ use of social networks

*EUA-CDE 2019 Survey

Internationalization & Mobility

Benefits

- Personal and professional development
- Language skills improvement
- Opportunities for career prospect/exploring future options
- Establishing/reinforcing international collaborations
- Networking

Co-tutelle agreements
(min 6 mo. mobility)



Actions

Foreign language
programmes (English)



Mobility: short stays abroad

- International label (11.4%)
- Funding schemes:



Other

International Mentoring
Programs



Next steps and challenges

- To fill the gaps for improving our specific and cross-sectional training offer
- To further promote internationalization



To prepare high-skilled knowledge professionals with better employability options

