



UCAM

UNIVERSIDAD CATÓLICA
DE MURCIA

UCAM PhD

EIDUCAM International Doctoral School

www.ucam.edu





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Estrella Núñez Delicado, PhD
Director

Doctoral studies are the third cycle of official university studies and lead to the acquisition of high quality scientific research competencies and skills. They act both as a cornerstone and a link between the European Higher Education Area (EHEA) and the European Research Area (ERA), both pillars of the knowledge-based society.

These studies are organized in doctoral programs, with each one composed of a series of training and research activities leading to achieving a Doctorate title. Each program is carried out in a specialized way, establishing the procedures and lines of research for the development of the doctoral thesis. The objective of these studies is to advance the training of the student in research techniques which will be concluded with the preparation and presentation of the doctoral thesis.

UCAM Universidad Católica San Antonio de Murcia offers a number of doctoral programs which aim to: train researchers, prepare research teams that successfully address the challenges of today's society, and strengthen the relationship between the university and businesses, enabling the formation of graduates capable of successfully entering the productive sector.

Our university, in its commitment to develop quality research training within the Program of Human Resources Expansion, puts into action:

- An annual call for pre-doctoral contracts for students who do one of our PhDs, using our university facilities;
- An Industrial PhD program to strengthen the relationship between the university and businesses, for those who develop their doctoral dissertation within a business, carrying out strategic research projects.

To achieve this research work, the university offers doctoral candidates the most modern infrastructures and scientific-technical equipment in order to develop cutting edge research that results in quality training for UCAM's doctoral students.



MANAGEMENT TEAM



Luís Tejada Portero, PhD
Deputy Director



Javier Belda Iniesta, PhD
Academic Secretary



Andrés Hernández Rodríguez
Head of Administration and Services



TARGETS, VISION AND VALUES

MISSION

The EIDUCAM organizes its own lessons and activities for PhD programs and its goals of high quality training and internationalization marked by the university itself. Furthermore, this school is organized to enhance the training curriculum of doctoral students in order to enable them to have the skills demanded by the productive sector. This ensures that students can integrate and develop their talent in an environment which generates knowledge and innovation, allowing the excellent level of teaching and research activities within the university to flourish.

VISION

EIDUCAM's vision is to set a national and international standard in terms of the quality of the scientific PhD programs offered, with a high rate of employability for its graduates. To do this, the school acts as a multidisciplinary space that allows for the comprehensive development of students and researchers, featuring the latest technologies that provide knowledge management.

VALUES

Our values represent our identity. We are different because the staff here at UCAM makes this university a unique and distinctive project.

Our values are:

- **People:** Personal relationships based upon trust and mutual respect. We ensure development opportunities based on achievements and on personal and professional qualities.
- **Team:** We promote team work in order to reach common objectives, to share information and knowledge.
- **Ethical Behavior:** We act with professionalism, moral integrity, loyalty and mutual respect for others.
- **Services:** We focus our efforts on the needs and expectations of our students, by providing competitive and high quality solutions.
- **Innovation:** We promote continuous improvement and innovation to achieve the highest quality in the training of students.
- **Rigor:** We work from the perspective of quality and we follow established procedures. We act with responsibility, discipline and efficiency. We are continually improving to reach an excellent way of working.
- **Focus on Results:** We direct our efforts towards achieving the objectives of each educational project.
- **Clarity:** We facilitate access to the information which is needed to carry out assigned tasks, maintaining an accessible attitude to everybody.



LINES OF RESEARCH

PHYSICAL EDUCATION AND PERFORMANCE

1. Analysis of choreography and performance in performing arts.
2. Performance analysis and processes of teaching and learning in Physical Education and Sport.
3. Evaluation and quality of learning in Physical Education and Sport.
4. Cultural theory of Sport and Physical Education.
5. Neuroscience and control of human movement.
6. Physiological training adaptations.
7. Tactical behaviour analysis.
8. Functional biomechanical assessment and anthropometry.
9. Optimization, control and assessment of training.

MANAGEMENT AND HEALTH

1. Health and motor skills.
2. Adapted physical activity.
3. Learning and development of the motor system.
4. Physical education in adults and the elderly.
5. Physical education, fitness and motivation.
6. Psychology and behavioural analysis.
7. Quality and sustainability of sport management.
8. Social responsibility in sport.
9. Management and direction of facilities and sporting events.

TRAINING ACTIVITIES

- Research seminars
- Document presentation
- Presentation of research results
- Attendance at national conferences/days
- Presentation at a national conference
- Presentation (oral or poster) at an international conference
- Scientific article
- Doctoral Thesis report workshop (I)
- Doctoral Thesis report workshop (II)
- National stay
- International stay
- Oral presentation at a national conference

LINES OF RESEARCH

NUTRITION AND HEALTH

1. Bioavailability tests.
2. Determination of phenolic composition, antioxidant activity and bioactive compounds in foods.
3. QSAR Toxicology models.
4. Biotechnology.

FOOD TECHNOLOGY

1. Encapsulation of bioactive compounds.
2. Extraction and characterization of enzymes from plants and microbial.
3. Rapid detection techniques (immunoassay and PCR).
4. Sensory analysis of foods.
5. Conservation and food technology improvement.
6. Food quality and safety.

MEDICAL SCIENCES

1. Disruptions of food behaviour.
2. Adapted physical therapy.
3. Neurorehabilitation and neuroscience.
4. Health care.
5. Traumatology.
6. Cardiovascular threats. Diagnosis and medical and surgical treatment of cardiovascular disease.
7. Methods of intervention in mental health.
8. Social and health psychology clinic.
9. Health and longevity.
10. Biomedicine.
11. Sciences of vision.
12. Health services management.
13. Multidisciplinary cancer treatment.
14. Urological diseases.
15. Venous and arterial pathology.
16. Regenerative medicine and organ transplants.
17. Molecular oncology.
18. Advanced statistical analysis in basic and applied research.
19. Bioethics.
20. Pathophysiology of pregnancy and gynecological diseases.
21. Infection, microbiological diagnosis and antibiotic use.
22. Research in medical and surgical pathology of the head and neck.
23. Genomic medicine and rare diseases.
24. Dermatology.

TRAINING ACTIVITIES

- Research seminars
- Presentation of research results
- Document presentation
- Attendance at national conferences/days
- Presentation at a national conference
- Presentation (oral or poster) at an international conference
- Scientific article
- Doctoral Thesis report workshop (I)
- Doctoral Thesis report workshop (II)
- Presentation of results to the Academic Program Committee
- National stay
- International stay
- Training courses: English (OSL UCAM)
- Oral presentation at a national conference



PhD IN SOCIAL SCIENCES

LINES OF RESEARCH

SOCIAL SCIENCES

1. Anthropology, humanities, science and religious morals.
2. Communication, technologies and audiences.
3. Law.
4. Business and Economy.
5. Literary and linguistic studies.
6. Educational innovation and psychology of education.

TRAINING ACTIVITIES

- Research seminars
- Presentation of research results in a group
- Document presentation
- Presentation of a speech at a national conference
- Presentation of a speech at an international conference
- Scientific article
- Workshop for development of doctoral thesis
- Presentation of research results and research plan for the following year in front of the Academic Program Committee
- Research stay



PhD IN COMPUTER TECHNOLOGY AND ENVIRONMENTAL ENGINEERING

LINES OF RESEARCH

COMPUTER TECHNOLOGY AND ENVIRONMENTAL ENGINEERING

1. Multimedia technologies.
2. Bioinformation.
3. Parallel and high performance computing.
4. Mechanical computing.
5. Simulation and material behaviour.
6. Engineering of knowledge and intelligence systems.
7. Hydrologic engineering.
8. Engineering of planning and sustainability.

TRAINING ACTIVITIES

- Methodology and research management
- Research stay
- Participation in national and international congresses and publication of scientific articles
- Bibliographic search and analysis
- Production and publication of scientific work
- Statistics and analysis of results
- Research seminars
- Presentation of research results
- Presentation of scientific article
- Workshop for development of doctoral thesis
- Seminar for entrepreneurs



ELECTRONIC RESOURCES

UCAM Universidad Católica San Antonio de Murcia has a dynamic Virtual Campus, whose management is backed by over ten year's experience. Thanks to this e-learning system we can provide a comprehensive learning environment relying on the use of computer resources and the Internet. This system contains key ideas from the perspective of an open and flexible educational approach, based on the enhancement of self-learning and self-regulation for each student.

E-LEARNING SYSTEM

The e-learning space deploys multiple possibilities:

- Virtual campus
- Interactive chat system
- Forum
- Calendar tool
- Announcement tool
- Video conferences
- Polimedia for the creation of educational content in an audiovisual format
- Tutorial system
- Live lecture recording





LIBRARY FUND

UCAM Library guarantees its users the availability of all information and documentation necessary, in both printed and electronic formats, for both academic and research purposes.

Services include:

- Library: monographs.
- Newspaper archives: press, scientific journals, data catalogues, official publications.
- Multimedia library: including CD-ROM, VHS, DVD, microfiche, etc. IT and multimedia equipment. Internet connection (WiFi).
- Archive: documents which are not freely accessible can be requested from the librarians on duty. Inter-library borrowing is available at an international level.

BUSCAM

BUSCAM is a new generation academic search engine through which one can access all the documentation available to the Library quickly and easily.

DIGITAL LIBRARY

UCAM Library puts the electronic resources it has available, at the service of the University Community, including its databases, electronic monographs, online journals, legal portals, etc. In addition, the Library facilitates access to electronic resources through 'Open Access' which can be reached by its webpage, by installing an api virtual desktop.



<http://www.ucam.edu/biblioteca>

TESEO (DATABASE OF DOCTORAL THESES)

TESEO is a database of the Ministry of Education, Culture and Sport where the doctorate student can consult Doctoral Theses and introduce data from their own thesis into the system.

UCAM DIGITAL DATABASE

The Institutional Database is a digital repository from which you have open access to view UCAM's research and academic papers: seminars, lectures, research, books, and newspaper articles.

<http://repositorio.ucam.edu>



INTERNATIONAL

MOBILITY FOR UCAM DOCTORATE STUDENTS

Doctorate students will be able to carry out academic activities and research in universities, higher education institutions and international businesses, with the aim of increasing their knowledge, learning new techniques and establishing scientific exchanges which boost the fields of research that are being developed in the University.

INTERNATIONAL MENTION IN THE PhD TITLE

The PhD title will be able to include the mention of "International Doctor", as long as the title is in accordance with the criteria specified in Article 15 of the Royal Decree 99/2011.

The defense of the thesis must be carried out in UCAM, or in the case of joint doctorate programs, in one of the participating universities, or according to the terms specified in the relevant collaboration agreements.

HOMOLOGATION OF PHD TITLE FROM FOREIGN UNIVERSITIES

Students with PhD degrees obtained from foreign universities will be able to request the homologation of their Doctorate from UCAM by providing UCAM with the required documentation either in person or by post.

In the case of successful homologation, the candidate will be required to pay the academic fee incurred to that effect.





ACCESS REQUIREMENTS

The access requirements for PhD programs are established in the Royal Decree 99/2011, of the 28th of January, by which the official doctorate teachings **state that to gain admission, it is necessary to have a certified degree, or equivalent, and a Master's degree.**

Candidates may gain admission to PhD programs if they hold any of the following:

- **A certified degree from a Spanish university**, or any other country from the EHEA, which qualifies for admission to a Master's degree and has exceeded a minimum of 300 credits in all university degree studies, of which at least 60 must be of **Master's level**.
- **An official Spanish degree**, with a total of at least 300 credits in accordance with community law. These graduates must attend **mandatory training programs**, unless the relevant undergraduate degree credits include research training which is equivalent in value to educational research credits from master studies.
- A university graduate who has previously undergone **specialized training** or who has achieved a positive evaluation after **at least two years** of training as part of a degree in one of the **Social Sciences**.
- **A degree obtained from a foreign education system** which accredits a level of education **equivalent to that of a Spanish university Master's degree**, and which makes the student eligible for entry for PhD studies in its own country.
- **A previous Spanish PhD degree** obtained at another university.
- **Advanced Studies Diploma** obtained in accordance with the provision of the Royal Decree 778/98, of 30th April, or having passed the **Research Sufficiency Degree** by Royal Decree 185/85, of 23rd January, through doctoral programs linked to the field of Social Sciences.
- Students who meet any of the above requirements may enter the doctoral program. The Academic Program Committee is responsible for verifying compliance with the above requirements for admission of doctoral students.





DOCUMENTS TO BE SUBMITTED

Admission application upon obtaining an official Master's degree which meets the requirements specified in the regulations for doctorate studies of the Universidad Católica San Antonio de Murcia article 3.1.

Admission application upon exceeding 60 credits from one or more university Master's degrees, in agreement with the offer from the university.

Admission application upon obtaining a degree which in agreement with the regulations of community law is worth, at least, 300 credits, such as degrees in Architecture, Medicine and Civil Engineering.

Admission application upon obtaining an Advanced Studies Diploma (ADS) in agreement with the Royal Decree 778/1998.

Admission application upon obtaining a place to sit the corresponding entry exam for a specialized health care training course and a positive evaluation in a program of at least 2 years directed towards an official certificate in one of the specialties of Health Sciences.

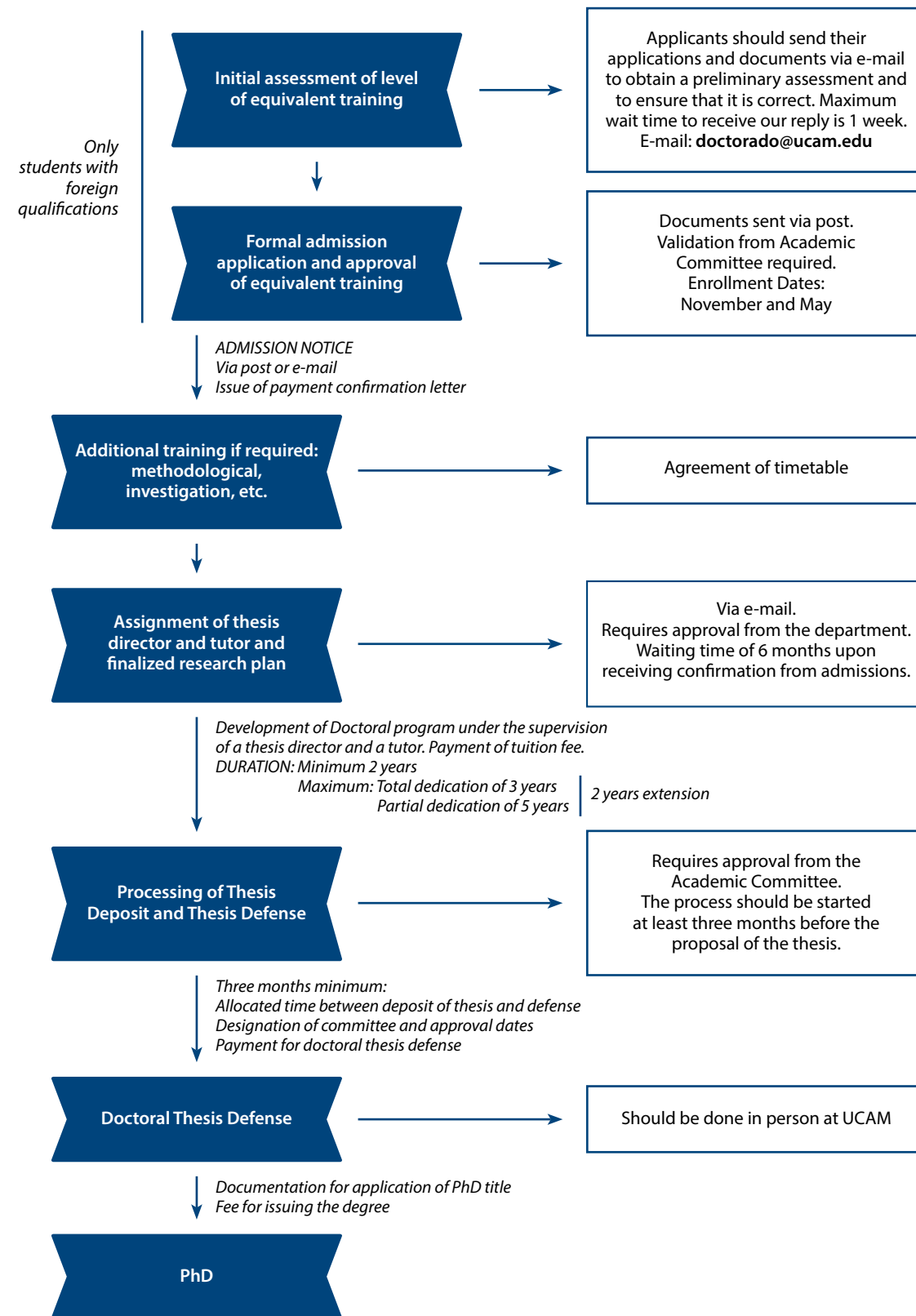
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Printed admission application	✓	✓	✓	✓	✓
Digital photograph	✓	✓	✓	✓	✓
CV specifying your research experience	✓	✓	✓	✓	✓
A cover letter expressing the reasons for your interest in this program	✓	✓	✓	✓	✓
Proof of a B1 level of English (only applicable if this qualification has been completed)	✓	✓	✓	✓	✓
ID or passport	✓	✓	✓	✓	✓
Bachelor's degree certificate, Medical license, Architect/Engineer license, or Diploma (degree or proof of application)	✓	✓	✓	✓	✓
Transcript of results of Degree/ Medical, Architect/Engineering license or Diploma	✓	✓	✓	✓	✓
Certified/legalized copy of Master's degree	✓	✓	✗	✗	✗
Official certificate or photocopy of Master's degree	✓	✓	✗	✗	✗
Official certificate or photocopy of personal academic achievements	✗	✗	✓	✗	✗
Certified document or a certified photocopy of a document that proves possession of an Advanced Studies Diploma or equivalent	✗	✗	✗	✓	✗
Transcript of results of the doctoral courses completed in your specific case	✗	✗	✗	✓	✓
Document detailing the specialized field of doctorate	✗	✗	✗	✗	✓
Proof of passing of the entry exam for specialized health care training	✗	✗	✗	✗	✓
Proof of positive evaluation of at least two years of specialized health care training (hospital residency)	✗	✗	✗	✗	✓



ACCESS PROCEDURE FOR FOREIGN DEGREES



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FINANCE AND TUITION FEES

DOCTORAL PROGRAM REGISTRATION

- Opening of Records **€200**
- Recognition of Equivalent Degree (International Students) **€1500**

ADDITIONAL TRAINING

- Price per ECTS Credit **€80**
- Total Module Methodology of Research **€800**

PHD THESIS

- Annual Academic Tutelage **€600 / year**

ISSUING OF CERTIFICATES AND TITLES

- Personal Academic Certificate **€22**
- Doctoral Thesis Defense Charge **€600**
- Issuing of Certificate of Advanced Studies **€120**
- Issuing and Safeguarding of Degree of Doctor **€250**

You can view more information about scholarships and financing through bank partnerships on our web: <http://www.ucam.edu/estudios/doctorado>

The application for admissions is open throughout the year. The dates of resolution are in November and May.

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TESTIMONIALS

JOSÉ ANTONIO PELLICER BALSALOBRE

Graduate in Biology, Master's in Nutrition and Food Safety

“ Completing UCAM's Master's Degree in Nutrition and Food Security has opened many doors for developing my doctoral thesis in the Department of Food Technology and Nutrition with a 4 years predoctoral contract.

My research is based on developing a technology of micro-encapsulation of aromatic compounds, through the use of cyclodextrins, to later be used in the food industry. Currently I have one published article and two more under review in JCR journals (Journal Citation Report). I belong to the REM research group (Recognition and Molecular Encapsulation) directed by Dr. Estrella Nunez, who, together with Dr. Maria Isabel Fortea Gorbe, supervises my thesis.



My passage through the UCAM doctoral school has been very positive as I can count on great professionals who are always ready to help with any problems that may arise. ”

JOSÉ ENRIQUE SEGURA VALERA

Technical Architect, Degree in Construction Engineering and Master's in Renewable Energy

“ I chose to do a PhD at UCAM because of its renown team of teachers and researchers recognized on a national and international level, and accredited by ANECA. Another reason was the University's facilities, equipment, and technical and human resources which facilitate the work of those who train here, as well as the fact that UCAM is at the forefront of quality research through their official doctorate programs.

The flexibility, freedom and opportunity to choose my title as well as the possibility to access and participate in research groups within the Polytechnic School at UCAM (ARQCONT-TECNOS), has allowed me to access team work (Military Architecture classroom), which collects and studies information closely linked to my PhD thesis: "Photogrammetry Surveys: Discussion of methods and applications for the conservation and enhancement of architectural heritage",



which aims to determine and compare the major systems of data acquisition and representation when studying or preserving patrimonial elements.

The fact I have been able to specialize in a branch of my profession, within a field where I aim to gain maximum knowledge and expertise is enriching me technically and personally and is opening countless doors for me in academic and professional spheres. ”



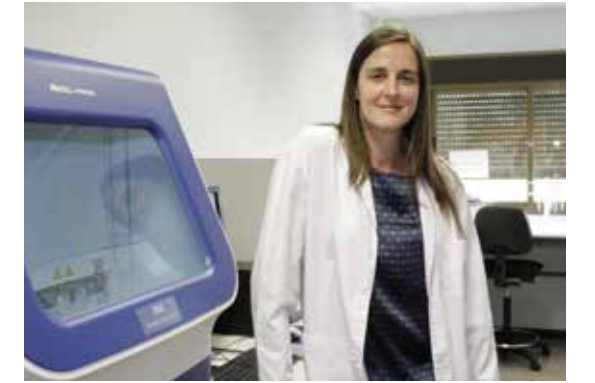
TESTIMONIALS

MARÍA BARREDA SÁNCHEZ

Graduate in Biology and Specialist in Clinical Analysis via BIR (specialized health training)

“ Today it is essential that investigation is in the hands of the clinic, so that when I finished my degree, I knew I wanted to pursue a Ph.D., specifically in the field of Medical Genetics. At UCAM, I had the opportunity to work with a great professional in this field, Dr. Encarna Guillén, thus after applying for a pre-doctoral contract, which is convoked annually by UCAM, I was finally awarded one of these grants to train as a researcher.

Since joining the university, I have had access to a range of essential resources to develop my thesis such as the Genetics laboratory. In addition, I am part of the research group on "Genetics, molecular pathology and rare diseases".



Thanks to the aid for research projects through the UCAM Research Plan, I have obtained funds to carry out a project, which is what my thesis largely deals with. I also work in other research projects alongside members of the doctoral group. Without the support of the university, all of this would not have been possible. ”

PILAR HERNÁNDEZ SÁNCHEZ

Graduate in Human Nutrition and Dietetics, Master's in Food Sciences and Technologies, Master's in Nutrition and Food Safety

“ I studied Science and Food Technology at UCAM, after which I completed a Master's in Nutrition and Food Safety, followed by a doctorate in the same field. Currently I work in the Department of Food Technology and Nutrition. My research group is called REM - Molecular Encapsulation and Recognition. REM works the encapsulation using Cyclodextrins. These compounds have the ability to trap and encapsulate bio-active compounds. These have multiple applications such as extending product life, and increasing solubility and bio-availability.

Professionally speaking, I think the continuous link to the university has been very beneficial, both in terms of my research and teacher training. Furthermore, during my studies I had the opportunity to do a research stay at the



University of Davis (California, USA), which gave me the opportunity to work together with other research groups, resulting in a great experience, professionally and personally.

My passage through UCAM's doctoral school has clearly marked and defined my career. On a personal level, it allowed me to have great experiences within the department to which I belong. ”



TESTIMONIALS

PEDRO E. ALCARAZ

Graduate in Sports Science, Performance and Management in Sports Science, Master's in High Performance Sport

“ Since the third year of my UCAM degree I knew I wanted to go on to do a doctorate. Moreover, I was aware that the University strongly supports research and promotes the incorporation of first-rate students into predoctoral programs. Teachers are highly qualified, so a PhD study here was synonymous to success.

I wrote my doctoral thesis on the effects of a training program on national level athletes. Currently, I am a principal researcher of the OPEN_RED group which is dedicated to research in training optimization, athletic performance and fitness. In addition, I have published articles which are widely accepted in the scientific community, with about 400 citations.

My thesis earned international acknowledgement. The experience of visiting international



universities and conducting research with world-renowned scientists, is something I would recommend to every researcher, as it allows you to grow professionally and personally.

In my professional life, holding a doctorate is essential because most of my work is research oriented. My passage through the UCAM doctoral program was very positive because it allowed me to work with great professionals and researchers and opened the doors for me to become the researcher I am now. ”

TOMÁS FREITAS

Graduate in Sports Science, Master's in High Performance Sport

“ I'm portuguese and I'm about to start my PhD program in UCAM. I have a 4-year pre-doctoral grant and I'm a researcher in UCAM Research Center for High Performance Sports. My research line is related to strength and power training in elite team-sport players.

I decided to study my PhD in this university because of the great experience I had in UCAM while studying my Master in High Performance Sports. The conditions offered by the university to develop Sport Science related studies and research are quite good as there is a significant investment in this particular area.



I believe that studying in UCAM will help me be a top level researcher and will be a great opportunity to develop a worldwide professional network with some of the world best sport scientists as UCAM is getting more and more international and focused in external relations. ”



TESTIMONIALS

RAQUEL VAQUERO CRISTÓBAL

Graduate in Sports Science, Master's in Aging, Master's in High Performance Sport

“ After studying CAFD (Science of Sports and Physical Activity), I decided to do a PhD in UCAM for several reasons. Firstly, because this University has major international experts in the field of my doctoral thesis. And secondly, the project offered by UCAM for young researchers is irresistible, both because of the research facilities and the familiar treatment of all the professors and doctors who are around you and care about your professional and personal development.

Personally, I have to thank UCAM for the unique opportunity that it has granted me, because it has allowed me to devote myself exclusively to the development of my studies for four years in a subject that fascinates me, related to health effects of Pilates practice. The result of this study has been that I have written several scientific papers with international circulation.



In addition, I have been involved in other, equally interesting international projects of the Sports Traumatology Department, which are also having a great scientific diffusion. Finally, during this period of formation, the Faculty of Sport has given me the opportunity to begin training as a teacher of the CAFD degree. Thanks to all these experiences, I am learning something new and I'm improving professionally and personally. ”



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UNIVERSIDAD CATÓLICA
DE MURCIA

UCAM PhD
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