Universidad Zaragoza

Academic Year/course: 2023/24

68773 - Master's Dissertation

Syllabus Information

Academic year: 2023/24
Subject: 68773 - Master's Dissertation
Faculty / School: 105 - Facultad de Veterinaria
Degree: 631 - Master's Degree in Food Quality, Safety and Technology
ECTS: 30.0
Year: 2
Semester: First semester
Subject type: Master Final Project
Module:

1. General information

The objective of this subject is to conduct a research work in the area of Food Science and Technology. The work will be individual and original, and may not coincide with any of the work done in other subjects of the master. The content and methodology of this work must be related to the subject matter of the Master's program. The objectives of this subject are aligned with some Sustainable Development Goals, SDGs, of the 2030 Agenda (https://www.un.org/sustainabledevelopment/en/), depending on the activities carried out, such as: SDG2, Zero Hunger; SDG3, Health and Wellbeing; SDG4, Quality Education; SDG5: Gender equality; SDG6, Clean water and sanitation; SDG8, Decent work and economic growth; SDG9, Industry, innovation and infrastructure, SDG12, Responsible production and consumption; SDG13, Climate action.

2. Learning results

1. To perform the necessary bibliographic search in order to know the state of the art of the research topic of the master´s final project.
2. To propose the starting hypothesis and the experimental planning of the MFP together with the tutor.
3. To write an MFP report that includes the methodology used for its development, the results obtained in the experiments conducted and the interpretation and discussion of these results comparing them with those of other works related to the topic.
4. To communicate and defend orally the experimental results and the conclusions of the research carried out, before the board of examiners.

4. Academic activities

The student will have a tutor (or tutors) who will supervise the different aspects of the MFP: the development of the working hypothesis, the experimental part and the preparation and presentation of the report. The MFP may also be of a bibliographic kind.

The general lines of research for the MFP are included below, although it should be noted that they may be subject to slight variations, modifying their focus, adding new lines or eliminating some of them, depending on the research projects being conducted by the teachers. Therefore, information will be provided at the beginning of the academic year on the lines offered for the development of the MFP in each academic year.

General lines of research of the MFP:

LINES OF RESEARCH IN THE FOOD TECHNOLOGY AREA

- Processes in the food industry.

- Food preservation and sanitation.

- Pre-harvest factors influencing the quality of plant foods.

- Application of post-harvest technologies to the preservation of fruits, vegetables and edible carpophores and to obtaining new vegetable products.

- Extra virgin olive oil: characterization and use raw and in the culinary process of frying.

- Culinary technology: changes that occur in food during cooking and design of new textures and flavours in the kitchen.

- Development of new functional foods in bakery and confectionery for groups with specific pathologies.

- Milk proteins with biological activity.
- Effect of technological treatments on the structure and technological and functional properties of food proteins.
- Development of immunochemical methods applied to food quality control.
- Development of new systems to improve the preservation of fresh meat and fish and their products.
- Optimization of formulation and processing in the production of meat products.

LINES OF RESEARCH IN THE AREA OF NUTRITION AND BROMATOLOGY

I) Assessment and control of chemical risks conveyed by food.

- Monitoring and risk assessment of persistent organic pollutants in the food chain.
- Mycotoxins in raw materials, food and feedstuffs
- Animal health products and their residues.
- Residues in honey and other bee products.

II) Evaluation and control of foodborne biological hazards.

- Pathogenic microorganisms in food.
- Prevalence of antibiotic resistance of pathogenic bacteria isolated from food.
- Microbiological quality of foods of plant and fungal origin.
- Application of molecular techniques in the evaluation of food quality and safety.
- Parasitic agents.

III) Nutritional and bromatological quality of food.

- Bioactive substances and antioxidant activity of foods.

5. Assessment system

The master´s final project will be submitted on the dates indicated on the website of the Faculty of Veterinary Medicine (https://veterinaria.unizar.es/academico/trabajo-fin-master-csta-nuevo). The composition of the examiners board and the dates of the presentation and defence will also be published on this website.

The document of the master´s final project will consist of a maximum of 50 pages and will be written in Times New Roman 12 point font and 1.5 line spacing.

The master´s final project will include following sections:

- Title
- Abstract in English and Spanish
- Introduction
- Objectives of the study
- Methodology
- Results and discussion
- Conclusions
- Bibliographic references

The master´s final project will be publicly presented and defended before a board of three teachers of the master's program, who will be appointed by the Faculty of Veterinary Medicine. The time for the presentation will be 20 minutes and the board may ask questions to the student for 15 minutes. The presentation of the master´s final project may only be done in two of the following terms: February, July, September and December.

The evaluation will include the assessment of the written report (15%), the scientific content of the work (60%) and its oral presentation and defence (25%).