# **COURSE OUTLINE**

## 1.GENERAL

| 1.GENERAL  |   |          |    |              |        |  |
|--|---|----------|----|--------------|--------|--|
| SCHOOL   | AGRICULTURAL SCIENCES   |          |    |              |        |  |
| DEPARTMENT   | FOOD SCIENCE AND TECHNOLOGY   |          |    |              |        |  |
| LEVEL OF COURSE  | UNDERGRADUATE   |          |    |              |        |  |
| COURSE CODE  | FST_1000 SEMESTER OF 10 <sup>th</sup>                                 |          |    |              |        |  |
|  | STUDIES   |          |    |              |        |  |
| COURSE TITLE   | Thesis  |          |    |              |        |  |
| INDEPENDENT TEA  | ACHING ACTIV  | ITIES    |    |              |        |  |
| if credits are awarded fo  | onents of   | WEEKLY   |    |              |        |  |
| the course, e.g. lectures, l   |   | TEACHING |    | ECTS CREDITS |        |  |
|  | dits are awarded for the whole of the course,                         |          |    |              |        |  |
| give the weekly teaching hours and the total credits                     |   |          |    |              |        |  |
| Feasibility - Theoretical framework                                      |   |          | -  |              | 6<br>6 |  |
| Literature review  |   |          | -  |              | 6      |  |
| Methodology - Experimental or computational preparation and organization |   |          | -  |              | б      |  |
| Measurements - Results   |   |          | _  |              | 6      |  |
| Discussion - Conclusions   |   |          | -  |              | 6      |  |
|  | -   |          | 30 |              |        |  |
| Add rows if necessary. The organisation of teaching                      |   |          |    |              |        |  |
| and the teaching methods used are described in                           |   |          |    |              |        |  |
| detail at (d).   |   |          |    |              |        |  |
| COURSE TYPE  | Obligatory<br>specialised general knowledge                           |          |    |              |        |  |
| general background,<br>special background,                               | specialisea general knowleage<br>skills development                   |          |    |              |        |  |
| specialised general  | ·   |          |    |              |        |  |
| knowledge, skills  |   |          |    |              |        |  |
| development  |   |          |    |              |        |  |
| PREREQUISITE   | Students can declare their Thesis if they have successfully completed |          |    |              |        |  |
| COURSES:   | the examination of courses (Compulsory and Elective) with a total     |          |    |              |        |  |
|  | number of ECTS of at least 180.                                       |          |    |              |        |  |
| LANGUAGE OF  | Greek / English   |          |    |              |        |  |
| INSTRUCTION and  | -   |          |    |              |        |  |
| <b>EXAMINATIONS:</b>   |   |          |    |              |        |  |
| IS THE COURSE  | Yes   |          |    |              |        |  |
| OFFERED TO   |   |          |    |              |        |  |
| ERASMUS STUDENTS   |   |          |    |              |        |  |
| COURSE WEBPAGE   | https://eclass.upatras.gr/  |          |    |              |        |  |
| (URL)  |   |          |    |              |        |  |

# **2.LEARNING OUTCOMES**

# **Learning outcomes**

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area
- Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B
- Guidelines for writing Learning Outcomes

Thesis constitutes an independent scientific and systematic approach to the analysis of a topic and the formulation of a solution, while drawing on existing literature and/or research.

The PE has a research, study, development or applied research character and is prepared by each student, either individually or in collaboration with another student.

With the guidance of the supervising faculty member, students are given the opportunity to gain significant experiences from the comprehensive study and in-depth investigation of a distinct specialization topic and are challenged to develop critical and combinatorial thinking, organization and analysis skills, applying the rigorous, systematic and scientific approach.

The purpose of the PE is the completion of the students' knowledge and the development of their abilities in the processing of independent subjects of Food Science and Technology.

It is the culmination of the long-term effort of each student and the last stage for the creation of a Food Scientist and his integration into the labor market and society in general.

After the successful completion of the PE, the student will be able to:

#### In terms of Knowledge:

- To clearly recognize the limits of a problem to be solved and to fully recognize its main and secondary aspects, focusing on the most essential points for its solution.
- To describe and document the basic knowledge related to the topic of the research being prepared
- Summarize existing scientific knowledge and expertise on the subject

#### At Skill level:

- To use with a critical and synthetic spirit the available bibliography for a specific thematic area.
- Design a research plan and develop an appropriate methodology for approaching and investigating a topic under study and organize a plan for its implementation
- To write a complete scientific/technical essay
- Communicate clearly and effectively his/her conclusions, as well as the knowledge and reasoning on which they are based, by successfully making a comprehensive presentation via ICT, before the three-member examination committee

#### In terms of Skills:

- To combine knowledge and utilize expertise to solve complex problems in applications, or new problems of a broader or interdisciplinary context related to Food Science and Technology
- Select appropriate techniques/approaches and adapt them to the problem at hand using original thinking
- To evaluate the proposed approach/solution, placing it in a context of comparison with equivalents in the Greek and international literature and to comment on its relative advantages and disadvantages, documenting his/her opinions and choices
- To analyze results and draw conclusions

# **General Competences**

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the

Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and

Search for, analysis and synthesis of data and information, with

information, with the use of the necessary the use of the necessary technology

technology Adapting to new situations

Adapting to new situations Decision-making
Decision-making Working independently

Working independently Team work

Team work Working in an international environment Working in an international environment Working in an interdisciplinary environment

Working in an interdisciplinary environment Production of new research ideas

Production of new research ideas

Search for, analysis and synthesis of data and information, with the use of the necessary technology

Adapting to new situations Decision-making

Working independently Working in an interdisciplinary environment

Production of new research ideas

## 3.SYLLABUS

The students of the Department of Food Science & Technology are required to prepare a Bachelor's Thesis. The PE is typically prepared during the tenth semester of studies and requires the substantial employment of the student for at least one normal semester of studies, i.e. its preparation time is at least one academic semester. This work has a distinct subject of specialization, is scientific and can be either research, including performing experiments in laboratory or outdoor areas of the institution, or even in areas of other organizations, or a thorough bibliographic review of the Department's academic subjects.

When it comes to a research paper, the following structure is suggested:

- Cover Section template
- Title page
- Plagiarism Statement
- Thanks / dedication page (optional)
- Table of contents (optional Contents of Tables and Figures and Table of Abbreviations)
- Summary (Greek and English language)
- Introduction
- Theoretical Framework
- Methodology
- Results
- Conclusions and practical applications
- Limitations and Suggestions for further research
- Bibliography
- Appendix (optional)
- Index (optional)

When it comes to a bibliographic study, the following structure is recommended:

- Cover Section template
- Title page
- Plagiarism Statement
- Thanks / dedication page (optional)
- Table of contents (optional Contents of Tables and Figures and Table of Abbreviations)
- Summary (Greek and English language)
- Introduction
- Conceptual approach
- Literature review methodology

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- Results
- Conclusions
- Limitations and Suggestions for further research
- Bibliography
- Appendix (optional)
- Index (optional)

# 4. TEACHING AND LEARNING METHODS - EVALUATION

|  | Face-to-face, Distance learning, etc.  | Face-to-face  |                        |  |
|--|--|---|------------------------|--|
| USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY Use of ICT in teaching, laboratory education, communication with students |  | Communication with students will take place via e-mail and via the e-class platform. Learning process support through the electronic platform eclass.upatras.gr |                        |  |
|  | TEACHING METHODS   | Activities  | Work Load per semester |  |
|  | The manner and methods of  | Feasibility - Theoretical framework   | 150                    |  |
|  | teaching are described in detail.  | Literature review   | 150                    |  |
|  | Lectures, seminars, laboratory<br>practice, fieldwork, study and<br>analysis of bibliography, tutorials, | Methodology - Experimental or computational preparation and organization  | 150                    |  |
|  | placements, clinical practice, art   | Measurements - Results  | 150                    |  |
|  | workshop, interactive teaching,  | Discussion - Conclusions  | 150                    |  |
|  | educational visits, project, essay writing, artistic creativity, etc.                                    | Total number of hours for the   | 750                    |  |
|  | mining, at these of each viey, ever  |   |                        |  |

The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the

Course (25 hours of work-load per ECTS credit)

# STUDENT PERFORMANCE EVALUATION

Description of the evaluation procedure

Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other

Specifically-defined evaluation criteria are given, and if and where they are accessible to students.

- 1. The grading of the Thesis is done with the agreement of the three members of the examination committee (supervising professor and two members).
- 2. The grade of the Thesis results from the evaluation of two parameters: (1) the delivered text at a percentage of 80% and (2) the presentation/examination at a percentage of 20%. Its maximum score is 10 (100%) (allowed scores are 0.0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10.0).
- a) Deliverable text

The supervising professor in collaboration with the other two members of the examination committee evaluates the content of the Thesis and grades it with a maximum of 80%. The evaluation of the deliverable project is carried out by checking:

- the performance and general cooperation of the candidate during the preparation of the PE with the supervising professor
- the degree of difficulty (requirement to learn special knowledge, use of instruments, programming, etc.)
- the degree of data processing
- the presentation of the results
- b) Presentation examination

For the presentation of the PE, as mentioned above, the certificate of successful completion of all courses is required. During the public presentation - examination, the undergraduate student develops his Thesis in public, within twenty (20) minutes (15 minutes presentation and 5 minutes questions), before the three-member examination committee, which judges the way of presentation, the fluency of explanations/answers and general knowledge of the subject.

3. The final score of the Thesis is submitted by the supervising professor to the Department Secretariat no later than three days from the date of its public presentation.

### 5. ATTACHED BIBLIOGRAPHY

- 1. Ζαφειρόπουλος Κώστας, Πώς γίνεται μια επιστημονική εργασία;, 2η Έκδοση, 2015, Εκδόσεις Κριτική ΑΕ (in Greek).
- 2. Σαρρής Μενέλαος, Πως γράφεται μια επιστημονική εργασία Ένας οδηγός ακαδημαϊκής γραφής, 1η Έκδοση, 2023, Εκδόσεις Δισίγμα (in Greek).