COURSE OUTLINE

(1) GENERAL

SCHOOL	ANIMAL BIOSCIENCES		
ACADEMIC UNIT	DEPARTMENT OF ANIMAL SCIENCE		
LEVEL OF STUDIES	Undergraduate [Required]		
COURSE CODE	XXXX	**SEMESTER**	10th
COURSE TITLE	DIPLOMA DISSERTATION – PART II		

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS (ECTS)**
Implementation, thesis writing, public presentation, evaluation		20
Total		**20**
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Required course for specialization and skills development
PREREQUISITE COURSES:	-
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS:	-
COURSE WEBSITE (URL):	https://zp.aua.gr/degree-study-2/

(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*

The Diploma Dissertation constitutes an independent, scientific, and systematic approach to the analysis of a specific topic and the development of a well-founded solution, based on existing literature and/or research. It may be of a research-based, analytical, developmental, or applied scientific nature and is undertaken individually by each student.
Under the guidance of a faculty supervisor, students are given the opportunity to gain significant experience through the in-depth study and exploration of a specialized subject. They are expected to develop competencies in critical and integrative thinking, as well as in organization and analysis, by applying a rigorous, systematic, and scientific methodology. The aim of the thesis is to consolidate the students' knowledge and to strengthen their ability to independently address specific topics within the field of Animal Science. It represents the culmination of the student's academic journey and serves as the final step toward becoming a scientist and integrating into the labor market and society at large.

Upon completion of the first part of the Undergraduate Thesis (Thesis – Part I), the student will be able:
At the Knowledge Level:

• Deepen their understanding of research within a specific thematic area, utilizing knowledge acquired during their studies.
• Clearly identify the boundaries of a problem to be solved, fully recognizing both primary and secondary aspects, and focus on the most critical points for its resolution.
• Describe and justify fundamental knowledge related to the subject of the research being conducted. • Summarize existing scientific knowledge and expertise on the topic.
At the Skills Level:
• Critically and synthetically use available literature for a specific thematic area.
• Design a research plan, develop an appropriate methodology for the investigation of a subject under study, and organize its implementation.
• Compose a complete scientific/technical report.
• Communicate findings clearly and effectively, along with the reasoning and knowledge supporting them, through a successful presentation using ICT tools before a three-member examination committee, responding to questions related either to the specific study or the broader scientific field.
• Design experiments, adopt internationally accepted protocols and practices, write a scientific paper with proper bibliographic citations avoiding plagiarism, and critically interpret research results
At the Competencies Level:
• Integrate into research teams and adapt to group requirements.
• Combine knowledge and apply technical expertise to solve complex problems in applications or new challenges within broader or interdisciplinary frameworks related to animal science or agricultural science in general.
• Select and adapt appropriate techniques/approaches to the problem at hand using original thinking.
• Evaluate the proposed solution/approach by comparing it to similar ones in Greek and international literature, and comment on its advantages and disadvantages with wellsupported arguments.
• 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 information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Others…*
	…….

• Searching, analyzing, and synthesizing data and information, utilizing the necessary technologies
• Adapting to new situations
• Decision-making
• Independent work
• Working in interdisciplinary environments
• Generating new research ideas
• Project planning and management
• Demonstrating social, professional, and ethical responsibility
• Exercising critical thinking and self-reflection
• Promoting free, creative, and inductive thinking

(3) SYLLABUS

The completion of the dissertation – Part I corresponds to the 9th semester of the Undergraduate Study Program.
The purpose of the thesis is to address issues by solving, at both theoretical and applied (implementation) levels, one or more problems within the sciences and technologies related to the Department's field of study or those of other University Departments, as well as to implement a technology or idea. This process provides the student with an opportunity to synthesize and apply the knowledge acquired during their studies.

Diploma Dissertations may be categorized as follows:
I. Literature-based: Focused on developing a new theoretical model, extending an existing one, or critically reviewing the international literature.

II. Experimental: Concentrated on acquiring, combining, shaping, and utilizing existing scientific, technological, business, and related knowledge and skills, aiming at the development of new or improved products, processes, or services within the Department's fields or other University Departments.
III. Technical-economic: Focused on developing business plans by integrating technical/theoretical and economic knowledge or proposals for significantly improving existing products, processes, or services.

The thesis must include a set of activities covering all stages of its development, which can ensure a successful outcome in every respect. The results of these activities are summarized in the text of the thesis, for which a detailed guide is available on the Department's website. Indicatively, it should include:

1. **Introduction:** This section includes a description and analysis of the thesis topic in a manner that allows the reader to clearly understand the subject of the study, the working hypotheses, and the scope of the solutions.
2. **Literature Review:** A review of related scientific fields, presenting the key concepts and requirements of the problem, the research or other results on which the work is based, and the objectives of the study in relation to the state-of-the-art practice, published articles, books, and other scientifically accepted sources. The contribution of the study to scientific research should be highlighted, along with suggestions for future research.
3. **Materials and Methods:** This section describes the assumptions and methodology used in the study. It includes a detailed description of the experimental methods followed, without commentary on the results. There should be a clear correspondence between the methods described and the Results chapter.
4. **Results:** This section may include a theoretical solution and/or the implementation of a product/material/system/process in relation to the use cases recorded during the analysis. The outputs of data analysis and the resulting results (quantitative and/or qualitative) are presented without commentary or comparison with other researchers' results.
5. **Discussion and Commentary:** The results of the study are presented alongside results from related published work. The findings are interpreted and explained, and comparisons are made with existing research.
6. **Conclusions:** The main outcomes of the study are summarized concisely.
7. **References:** All sources cited within the text must be included in the reference list.
8. **Appendices:** All tools used, along with any additional material not included in the main body of the thesis, should be presented here if the researcher considers them relevant.

The thesis should rely on reliable published sources, and these should be cited and critically reviewed scientifically.

(4) TEACHING and LEARNING METHODS - EVALUATION

<table>
<tr><td>TEACHING METHOD
Face-to-face, Distance learning, etc.</td><td>Face-to-face communication between the student and the supervising faculty member.
In-person execution in research laboratories.
Remote study and implementation.
Teleconferences.</td></tr>
<tr><td>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students</td><td>• Use of computers, PowerPoint slides, and projectors
• Use of specialized software for simulation, design, programming, statistical analysis, or digital processing, depending on the requirements of the topic
• Use of the e-class platform for posting topics
• Use of teleconferencing platforms for meetings with the supervising professor</td></tr>
<tr><td>TEACHING METHODS
The manner and methods of teaching are described in detail.
Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.

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 ECTS</td><td>
<table>
<tr><th>Activity</th><th>Semester workload</th></tr>
<tr><td>Study Implementation</td><td>300</td></tr>
<tr><td>Thesis Writing, Presentation Preparation, and Evaluation</td><td>200</td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td>Course total (25 h of workload per ECTS)</td><td>500</td></tr>
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<tr><td>STUDENT PERFORMANCE EVALUATION
Description of the evaluation procedure</td><td>Thesis Presentation
The undergraduate thesis is presented (orally and publicly) in a designated session organized immediately after its completion.

Thesis Presentation Procedure</td></tr>
</table>

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*.	Each thesis presentation is allocated up to 20 minutes, followed by 5 minutes for questions. Both the audience and the Three-Member Examination Committee have the right to ask questions. • To proceed with the presentation, the student must submit the final version of the thesis (approved by the Supervisor) in three hard copies for the members of the Examination Committee. • For the thesis to be presented, at least two members of the Examination Committee (including the Supervisor) must be physically or virtually present. • After the defence, any necessary corrections or modifications to improve the thesis are communicated to the student by all committee members. • Upon incorporation of the suggested corrections/changes, the student is required to submit the final version of the thesis in electronic format to the Department's Secretariat within seven days of the presentation. **Thesis Evaluation** The evaluation of the thesis is conducted by a three-member committee composed of faculty members (DEP or EDIP) of the Department or of other Departments of the same or a different Higher Education Institution. The evaluation criteria include the student's progress during the thesis development, the written document, and the presentation and defense of the thesis, specifically: • The adequacy and effectiveness of the student throughout the research and learning process during the preparation of the thesis. • Adherence to the agreed-upon terms with the Supervisor: literature review, accuracy of experimental/study execution, timelines, and deliverables. • The scope of work carried out until the thesis completion. • The quality of scientific writing, thematic investigation approach, and use of relevant literature. The thesis structure and written presentation, including textual coherence, correct use of terminology and language, accurate articulation of concepts, and scientifically valid justification of conclusions. • The coherence of the oral presentation and demonstration of adequate knowledge of the thesis topic as well as its broader subject area (including responses to questions). Each member of the Three-Member Examination Committee assigns a grade on a scale from 0 to 10 (to one decimal point). The final grade of the thesis is the arithmetic mean of the grades assigned by the three committee members (to one decimal point), with a minimum passing grade of 5.0.

(5) ATTACHED BIBLIOGRAPHY

- Proposed literature for theory:

https://zp.aua.gr/wp-content/uploads/2020/09/8%CE%B1.- %CE%9F%CE%94%CE%97%CE%93%CE%9F%CE%A3-%CE%A3%CE%A5%CE%93%CE%93%CE%A1%CE%91%CE%A6%CE%97%CE%A3-%CE%A0%CE%A4%CE%A5%CE%A7%CE%99%CE%91%CE%9A%CE%A9%CE%9D-%CE%9C%CE%95%CE%A4%CE%91%CE%A0%CE%A4%CE%A5%CE%A7%CE%99%CE%91%CE% 9A%CE%A9%CE%9D-%CE%9C%CE%95%CE%9B%CE%95%CE%A4%CE%A9%CE%9D.pdf

Other literature: Depending on the supervisor.