

ΠΕ01 – DIPLOMA THESIS

1. For the acquisition of the Diploma of the FWSD Department, it is obligatory the conduction of a diploma thesis. The diploma thesis is an extended study in a specific scientific field. The aim of the diploma thesis is to enter the undergraduate students to the procedure of research as long as for the Department to develop research activities investing on its own human resources. Each student can choose the field in which he wants to conduct the diploma thesis, in collaboration with the professors of the FWSD Department. The diploma thesis contributes in the sum of the credits of the Undergraduate Study Program with 30 ECTS.
2. The diploma thesis is finalized with the writing of the dissertation and its public oral presentation before a three members examination committee, which is also responsible for the final evaluation of the thesis. The diploma thesis are presented in an event that is organized three times per year (January, May, October).
3. The procedure for conduction the diploma thesis is analytically described to the Diploma Thesis Guidelines (Annex C - <http://fwsd.uth.gr/wp-content/uploads/2020/03/esoterikos-kanonismos-proptyxiakon-spoudwn.pdf>)

OUTLINE OF DIPLOMA THESIS

1. GENERAL

INSTITUTE	UNIVERSITY OF THESSALY		
SCHOOL	SCHOOL OF TECHNOLOGY		
DEPARTMENT	FORESTRY, WOOD SCIENCES AND DESIGN		
LEVEL	Undergraduate		
CODE	ΠΕ01	STUDENT SEMESTER	10 th
COURSE TITLE	DIPLOMA THESIS		
ACTIVITIES		WEEKLY HRS	ECTS
Study of the bibliography, research and/or development/writing of dissertation, public presentation.			30
TOTAL			30
TYPE OF COURSE	Mandatory course of specializations and skills' development		
PREREQUISITES:	NO		
LANGUAGE OF TEACHING AND EXAMINATION:	Greek		
COURSE OFFERED TO ERASMUS STUDENTS	NO		
COURSE WEBPAGE (URL)	https://fwsd.uth.gr/programm/		

2. LEARNING OUTCOMES

Learning Outcomes
The Diploma Thesis constitutes an autotelic scientific and systematic approach for the analysis of a subjects and the composition of a solution, while it is based on existing literature or/and research. The

Diploma Thesis has a research, study, development or applied character and it is conducted by each student, either personally or in cooperation with one more student.

With the guidance of the supervising professor the students are given the capability to acquire significant experiences from the integrated study and exploration in depth of a distinguished subject of specialization and they are motivated to develop criticism and combined thinking capabilities, organization and analysis capabilities, applying the strict, systematic and scientific approach.

Its aim is the integration of knowledge of the students and the development of their capabilities on the processing of autotelic subjects in the science of the Forester, Wood Scientist and Designer. It constitutes the peak of a long year effort for each student and the last stage for the creation of a scientist and its integration in the labor market and in the society in general.

After the successful completion of the Diploma Thesis, the students will be able to:

At knowledge level:

- Be able to go deep in research in a specific thematic area using their knowledge that they gained during their studies.
- Clearly recognize the boundaries of a problem for solution and to identify fully the basic and the secondary aspects, focusing to the most fundamental points for its solution.
- Describe and document the basic knowledge that are related to the subject of the research under conduction.
- Summarize the existing scientific knowledge and know-how on the subject.

At skills level:

- Use with critic and compositional culture the available literature in a specific thematic area.
- Design a research plan and to develop the appropriate methodology for exploration of a subject under study and to organize an implementation plan.
- Design, simulate or/and manufacture a prototype material/product/software for the selected solution.
- To conduct a full scientific/technical text.
- Publish with clarity and effectiveness his/her conclusions as well as the knowledge and the reasoning on which they are based implementing successfully an integrated presentation through IT before a three-members examination committee, answering in questions related to the narrow or the wider scientific field of the Diploma Thesis.
- Plan experiments, adopt protocols and practices internationally accepted, write a scientific text with references avoiding plagiarism, to imprint with critical approach the results of their research (underlining their contribution to the scientific reality).

At capabilities level:

- Be incorporated in research teams and to adjust to the requirements of the team.
- Combine knowledge and to utilize know-how for solving complicated problems in applications or new problems of a wider or interdisciplinary framework related to the science of Forester, Wood Scientist and Designer.
- Choose appropriate techniques/approaches and to adjust them to the problem for solution using prototype thinking.
- Evaluate the approach/solution that proposes, placing it to a benchmark framework with relative ones in the Greek and international literature and to comment the relative advantages and disadvantages by documenting their opinions and choices.
- Analyze results and to extract conclusions

Γενικές Ικανότητες

- Search, analysis and composition of data and information with the use of required technologies
- Adjustment in new challenges
- Decision making
- Autonomous work
- Working in an interdisciplinary environment
- Production of new research ideas
- Projects' design and management
- Development of social, professional and moral responsibility.

- Implementation of criticism and self-criticism
- Promotion of independent creative and inductive thinking.

3. COURSE CONTENT

The conduction of the Diploma Thesis covers the whole 10th semester of the Undergraduate Studies Program.

The Diploma Thesis is aiming to address subjects to be solved in a theoretical, and applied level for one or more problems that are belonging to the sciences and technologies of the Department and to materialize a technology or idea. Thus, the students are gaining in this way the opportunity for synthesis and utilization of knowledge that they gain during their studies.

The Diploma Thesis could be:

I. Research /Basic research: focusing to the development of a new theoretical model or expansion of an existing one,

II. Research/applied research: focusing to the acquisition of new knowledge, having mainly a particular practical aim or target related to the scientific fields of the Department.

III. Industrial: focusing to the planned research or critical exploration aiming to the acquisition of new knowledge and skills for the development of new products, procedures, or services or for the significant improvement of existing products, procedures, services.

iv. Experimental development: focusing to the acquisition, the combination, shaping and the use of existing scientific, technological, business and other related knowledge and skills aiming to the development of new products and processes or services.

The diploma thesis has to include a sum of activities, which are extended throughout the whole phases of its conduction and which could guarantee the successful completion. The results of these activities are summarized to the text of the dissertation which could include:

1. Introduction. Includes the description and analysis of the subject of the thesis in a way that is understandable by the reader the field of the thesis, the hypothesis, and the dimensions of the solutions

2. Literature review to the related scientific fields presenting the basic meanings and demands of the problem, the research or other results on which the thesis is based and the aims of the thesis in relation to the international state-of-the-art, published papers, books and other scientific acceptable and reliable published sources and the reference and critical literature review in a scientific way.

3. Materials and methods. It concerns the description of the admissions and of the methodology for implementing the study. It includes the analytical description of the experimental methods that have been followed, without comments related to the results. It should exist correspondence of the methods that are described with the chapter of the results.

4. Results. This description could include a theoretical solution or/and materialization of a product/material/system/process in relation to the cases for use that have been described during the analysis phase. The products of the data analysis are presented and the results (quantitative or/and qualitative) that emerge from them, without a specific comment to be made or benchmark with the results of other researchers.

5. Discussion. The results of the Diploma Thesis along with the results of related published papers are connected aiming to their explanation, a benchmark is also made highlighting the contribution of the Diploma Thesis to the scientific research and by stating fields for future research.

6. Conclusions They are shortly presented (in a form of a list) the main findings of the Diploma Thesis.

7. References. All the references made into the thesis text they should be listed in the reference chapter.

8. Annexes. They include all the tools that have been used with whichever other element that is not included in the main body of the thesis text and the researcher believes that should be mentioned.

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY METHOD	Face to face communication of the student with the supervising teaching staff. Face to face implementation into laboratories. Distance study and implementation Distance online meetings
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<p align="center">USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES</p>	<ul style="list-style-type: none"> • Use of PCs, slides ppt, projector • Use of specialized software of simulation or designing or programming or of statistical packages, or digital processing according to the demands of the thesis. • Use of the e-class platform for uploading list of subjects. • Use of online meetings platforms with the supervisor professor. 															
<p>MANAGEMENT OF TEACHING</p>	<table border="1"> <thead> <tr> <th data-bbox="694 434 1029 465"><i>Activity</i></th> <th data-bbox="1034 434 1359 465"><i>Semester Workload</i></th> </tr> </thead> <tbody> <tr> <td data-bbox="694 465 1029 528">Study and analysis of the literature</td> <td data-bbox="1034 465 1359 528">100</td> </tr> <tr> <td data-bbox="694 528 1029 692">Conduction of assignment analysis, design, programming, simulation, construction, evaluation etc.</td> <td data-bbox="1034 528 1359 692">500</td> </tr> <tr> <td data-bbox="694 692 1029 790">Writing of Diploma Thesis, preparation for presentation</td> <td data-bbox="1034 692 1359 790">150</td> </tr> <tr> <td data-bbox="694 790 1029 853"></td> <td data-bbox="1034 790 1359 853"></td> </tr> <tr> <td data-bbox="694 853 1029 952">Course total (25 hours of workload pre credit unit <i>εργασίας ανά π</i>)</td> <td data-bbox="1034 853 1359 952">750 (30 ECTS)</td> </tr> <tr> <td data-bbox="694 952 1029 987"></td> <td data-bbox="1034 952 1359 987"></td> </tr> </tbody> </table>		<i>Activity</i>	<i>Semester Workload</i>	Study and analysis of the literature	100	Conduction of assignment analysis, design, programming, simulation, construction, evaluation etc.	500	Writing of Diploma Thesis, preparation for presentation	150			Course total (25 hours of workload pre credit unit <i>εργασίας ανά π</i>)	750 (30 ECTS)		
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<p>STUDENT EVALUATION</p>	<p>By the completion of the Diploma Thesis it is presented (oral and public) in a relative event that is organized three times per year (January, May, October).</p> <p>Presentation of Diploma Thesis</p> <p>ΓFor the presentation of each Diploma Thesis 15' are available and 5' for questions. The right for questions belongs only to the examination three-members committee.</p> <ul style="list-style-type: none"> • For the participation to the presentation event the student should have delivered the final version of the Diploma Thesis (with the agreement of the supervisor) to the secretary office of the FWSD Department at least 15 days before the event, in three hard copies and in electronic format. • After the deliverance of the final text a plagiarism check occurs, and the examination committee is informed for the results. • For the presentation of the Diploma Thesis it should be present with natural presence or online at least two members of the committee (including the supervisor). • After the examination of the thesis the possible corrections are given to the students under examination that are required for the improvement of the Diploma Thesis by all the members of the committee. • After the incorporation of the possible corrections/changes the students are obligated in seven days to deliver to the secretary of the Department as an incoming document four copies of good quality the Diploma Thesis along with a CD with a PDF archive of the Thesis after the corrections. <p>Evaluation of the Diploma Thesis</p> <p>The evaluation of the Diploma Thesis is made by a three members examination committee of professors of the Department who have a relative scientific field with the one of</p>															

	<p>the Thesis. The committee can be filled by professors or scientific collaborators of the same or other HEI related to the field of the Thesis.</p> <p>The criteria under consideration for the evaluation of the Diploma Thesis, are dealing to the progress of the students during the conduction of the Thesis, to the written scientific text and the presentation and supporting of the Diploma Thesis as following:</p> <ul style="list-style-type: none"> • The adequacy and effectiveness of the student during the research and teaching course of the Thesis. • The consistency to the agreed with the supervisor: literature preparation, accuracy in conducting experiments/studies, time scheduling and deliverables. • The volume of the work and the volume of work during the academic mediate semesters till the end of the Diploma Thesis. • The quality of the written scientific language, of the approach for the exploration of the subject and the treatment of the relative literature. The structure of the Diploma Thesis and the written presentation e.g. the coherence of the text, the right use of terminology and language, the correct statement of the meanings, the scientifically correct documentation of the conclusions. • The correct use of the written and oral scientific language during the presentation of the Thesis. • The coherence of the presentation and the proof of the adequate knowledge for the subject of the Thesis as long as of the thematic part that the Thesis belongs (questions and answers). <p>Each member of the examination committee evaluates with a scale from 0 to 20 (with one decimal accuracy). The members of the examination committee evaluate the Diploma Thesis by evaluating the written text (60%) and the presentation and support of the Thesis (40%). The final score of the Diploma Thesis occurs as a mean of the scores of the three – members examination committee (with one decimal accuracy) and with the lower score for successful completion the 5,0 (five).</p>
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5. RECOMMENDED BIBLIOGRAPHY

-Recommended bibliogrpahy :

- Saunders M., Lewis Ph., Thornhill, A. (2014). Researc methods in businesses and the economy. Disigma publications.
- Babbie E. (2011), An introduction to social studies. Kritiki publications.
- Bell Judith (2007) How to conduct a scientific paper: A guide of research methodology. Metaixmio publications.
- Dimitropoulos E. (2009) An introduction to the scientific research methodology. Towards a systemic dynamic model of methodology of scientific research. Ellin publications
- Zafiropoulos, K. (2005) How a scientific paper is done. Kritiki publications.
- Iosofodis Th. (2008), Qualitative data analysis in social sciences. Kritiki publications
- Mantzaris, I. (2012) Scientific research. Self-publication.
- Mason J., (2003). The implementation of qualitative research, Ellinika grammata
- Bourliaskos B. (2010) How a scientific paper is written.
- Tsiolis, G.. (2014), Methodology and techniques of analysis in qualitative social research. Krititki publications.

Furthermore, bibliography is recommended by the supervising professor according to the subject of the Thesis.