

COURSE OUTLINE
RESEARCH METHODOLOGY

(1) GENERAL

SCHOOL	TECHNOLOGY		
DEPARTMENT	FORESTRY, WOOD SCIENCES & DESIGN		
LEVEL	POSTGRADUATE		
COURSE CODE	M115	SEMESTER	1 st
COURSE TITLE	RESEARCH METHODOLOGY		
ACTIVITIES		WEEKLY HOURS	ECTS
	Lectures	2	6
	TOTAL	2	6
TYPE OF COURSE	OBLIGATORY		
PREREQUISITES	NO		
LANGUAGE OF TEACHING AND EXAMINATION	GREEK		
THE COURSE OFFERED TO STUDENTS ERASMUS	No		
WEBPAGES COURSE (URL)	https://eclass.uth.gr/courses/FWSD_P_105/		

(2) LEARNING OUTCOMES

Learning Outcomes
<p>The course aims to introduce students to applied research methodology and particularly for furniture and wood products businesses. The basic principles of social science research methodology and the design processes of an empirical research are the foundations so that students can form an overall picture of how to organize a research, what steps to follow in order to reach the final result. This course is the basic tool for students in the preparation of their thesis in the Master's Program.</p> <p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • To know the steps he should follow to carry out his research. • To be aware of research ethics • Be able to search for reliable bibliographic sources and conduct an effective literature review • To judge, evaluate and decide which is the appropriate method to provide the appropriate answers to the research questions • To use the necessary tools to carry out his research • Effectively communicate research ideas and tasks with supervisors and other researchers • Be able to write very good research reports and papers.
General Skills

(3) COURSE CONTENT

<p>In the theoretical part of the course the student is taught and learns about:</p> <ul style="list-style-type: none"> • Presentation of the course – Purpose – The research process in general. Introduction to the course and the basic concepts of research methodology. What is research, basic forms of research, basic research, applied research, research and development for products, formulation of the research idea.

- **Research philosophies and approaches.** The research questions, ways of formulating a research question, analytical and inductive research. Qualitative and quantitative research and characteristics, types of variables, types of research (poll, experiment, case study).
- **Critical review of the literature.** What is a literature review and what is a critical review, what is a theory, sources for searching bibliographic references, bibliographic references and ways of citing, online bases and sources of bibliographic references, how to cite bibliography within a research text, types of bibliography.
- **Research design.** Research design and research process steps, research schedule, selection of research object and strategy, selection of research approach.
- **Research ethics.** Ethics and research, plagiarism, citation of bibliography texts within a research text, intellectual property and research, contribution of authors to research and research work, process of publishing an article, criteria for evaluating a scientific text.
- **Research Design.** Main purpose of a research and individual goals, theoretical background, research materials and methods, research results and their analysis. Research paper writing and its structure and research-scientific texts, experiment and case study design, structural and conceptual validity of research. Choice of data collection tool, pros and cons of individual tools and methods of use.
- **Sample selection.** Basic concepts of sampling, population, sample, statistical sampling methods, (simple - systematic - stratified), standard deviation, distributions. Qualitative and quantitative characteristics of a sample, population segmentation and sample selection.
- **Collection of primary data.** What is primary data, ways and tools to collect primary data, questionnaires and experimental measurements, recording, storing and processing primary data in SPSS.
- **Collection of secondary data.** What is secondary data, sources of secondary data extraction, statistics and database websites, reliability of studies as sources of secondary data, online libraries.
- **Writing and using a questionnaire.** The questionnaire as a data collection tool, advantages and disadvantages of using a questionnaire, drafting and structure of a questionnaire, types of questions (categorical, dichotomous, hierarchical, likert, open-closed), language and length of the questionnaire, wording of questions, checking of structural and conceptual validity of a questionnaire, pre-questionnaire, development of a questionnaire in electronic format (form).
- **Data processing using statistical programs.** Structure and environment of SPSS, entry, storage and analysis of data in SPSS, selection of statistical analysis, (descriptive, correlations, regressions, analysis of variance, factor and cluster analysis, etc.) extraction of results, interpretation of results - connection to research queries, construction of diagrams.
- **Analysis of qualitative and quantitative data.** Differences between quantitative and qualitative data, collecting qualitative data using questionnaires, interpreting qualitative data. Delve into the statistical analysis of quantitative data.
- **Compilation and presentation of a research project report.** The diploma thesis and the scientific work. Structure of scientific papers and theses, summary writing, key words, chapters in a diploma thesis, content of each chapter, appendices, submission of a scientific paper and publication process in a scientific journal, presentation of work, practical exercises on scientific papers.

(4) TEACHING AND LEARNING METHODS - EVALUATION

COURSE DELIVERY METHOD	In class and remotely	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	<ul style="list-style-type: none"> • Use of PCs, ppt slides, projector • Learning process support through the e-class online platform • Interactive Whiteboard • Eight (8) PCs in the Laboratory to exercise students in a questionnaire processing program 	
MANAGEMENT OF TEACHING	Activity	Semester Workload
	Lectures	26
	Small individual practice tasks	20
	Final Assignment	60
	Independent Study	44
	Course Total (25 workload hours per credit unit)	150
STUDENT EVALUATION	<p>I. Written final exam (60%) which includes:</p> <ul style="list-style-type: none"> - Short answer questions from all the material in the book - Critical presentation questions and solving various research problems. <p>II. Presentation of Individual Assignment (40%).</p>	

(5) RECOMMENDED-BIBLIOGRAPHY

- Suggested Bibliography:

- Saunders M., Lewis Ph., Thornhill, A. (2014). Μέθοδοι έρευνας στις επιχειρήσεις και την Οικονομία. Εκδόσεις ΔΙΣΙΓΜΑ
- Babbie E. (2011), Εισαγωγή στην κοινωνική έρευνα, Κριτική.
- Bell Judith (2007) Πώς να συντάξετε μια επιστημονική εργασία: Οδηγός Ερευνητικής Μεθοδολογίας, Μεταίχμιο.
- Δημητρόπουλος Ευστάθιος (2009) Εισαγωγή στη Μεθοδολογία της Επιστημονικής Έρευνας: Προς ένα συστημικό δυναμικό μοντέλο μεθοδολογίας επιστημονικής έρευνας, Εκδόσεις Ελλην. επιστημονικής εργασίας και βιβλιογραφική έρευνα, Εκδόσεις Διόνικος
- Ζαφειρόπουλος Κώστας (2005) Πως γίνεται μια επιστημονική εργασία, Εκδόσεις Κριτική
- Ιωσηφίδης Θ. (2008), Ανάλυση ποιοτικών δεδομένων στις κοινωνικές επιστήμες. Κριτική.
- Μάντζαρης Ιωάννης (2012) Επιστημονική Έρευνα, Αυτοέκδοση.
- Mason J., (2003). Η διεξαγωγή της ποιοτικής έρευνας. Ελληνικά Γράμματα.
- Μπουρλιάσκος Β. (2010) Πως Γράφεται μια Επιστημονική Εργασία: Συγγραφή
- Τσιώλης Γ. (2014), Μεθοδολογία και τεχνικές ανάλυσης στην ποιοτική κοινωνική έρευνα, Κριτική.