ECI601 - Research Methods and Practices

Course Title	Research Methods and Practices				
Course Code	ECI601				
Course Type	Compulsory				
Level	PhD				
Year / Semester	1st Semester				
Teacher's Name	Costas Kyriacou				
ECTS	7	Lectures / week	2	Laboratories / week	NA
Course Purpose and Objectives	This course aims to educate doctoral students on the methods employed by the researcher to conduct research and on the practices employed in research related activities such as activities related to research proposals, refereed publications and research outcome presentation and reporting.				
Learning Outcomes	By the end of this course, students will be able to: (a) demonstrate an understanding of the role and significance of the key elements of the research process; (b) use effectively the available sources of information and data in relation to the research process; (c) appreciate the need for validating and evaluating the research results and outcomes; (d) employ internationally established practices concerning research integrity, as well as research ethical and legal issues; (e) show competency in disseminating research results through scientific conferences and refereed journal publications; (f) demonstrate competency in writing and presenting a successful research proposal, as well as a research final report;				
Prerequisites	None		Co-requisites	None	
Course Content	• **Research:** research process, primary research, applied research, research methods and research methodology, key elements of the research process. • **Research design:** methodology, sources of information, references, bibliography and literature reviews, record keeping, data management, validation and evaluation of the research outcome. • **Ethics and legal compliance:** Human subjects, using children as subjects, using animals as subjects, ethics compliance procedures and bodies, handling personal data. • **Research integrity and misconduct:** Citations, plagiarism, falsification, misrepresentation, conflict of interest.				

	• **Dissemination of research results:** literature review papers, the paper reviewing process and criteria, research papers for a refereed journal or conference, open access, and other means for dissemination. • **Research proposals:** proposals to secure research funding, research proposals for graduate studies research, key elements for a successful research proposal. Proposal report and presentation. • **Research Reports:** Key elements of the doctoral Thesis, the PhD defense process and oral defense elements. • **Research output exploitation:** Technical reports, Intellectual Property Rights and Patents.
Teaching Methodology	The course is delivered to the students by means of lectures, conducted with the help of computer presentations. Lecture notes and presentations are available through the e-learning facility.
Bibliography	Teaching material consists of lectures notes prepared by the instructor. The lecture notes for each topic are provided with links to documents, reports and guidelines related to the topic. An indicative list is given below: 1. ALLEA, "The European Code of Conduct for Research Integrity", url: https://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf 2. IEEE, "Identifying Plagiarism", url: https://www.ieee.org/publications/rights/plagiarism/id-plagiarism.html 3. E-Learning Tees, "Interpreting Turnitin Originality Reports", url: https://eat.scedt.tees.ac.uk/bb8content/resources/recipes/interpretTurnitin.pdf 4. Elsevier, "Successful grant writing", url: https://www.elsevier.com/__data/assets/pdf_file/0003/91038/Get_Published_A4_brochure_2018_web.pdf
Assessment	Course assessment consists of three modules: (a) submission of a research paper review, (b) submission of a research proposal report, and (c) presentation of the research proposal. The topics for all three modules could be related to the content of a course of the Master Level Coursework, or to the research area of the Thesis of the student. Assessment will be based on the methodologies used, not on the actual content and novelty of the proposed work. This is a "Pass" / "Fail" course. A student is granted a passing grade if he gets a passing grade in all three modules.
Language	English