

## COURSE OUTLINE

### (1) GENERAL

<b>SCHOOL</b>	School of Science	
<b>ACADEMIC UNIT</b>	Department of Digital Industry Technologies	
<b>LEVEL OF STUDIES</b>	Postgraduate (MSc on Robotics and Industrial Control)	
<b>COURSE CODE</b>	<b>013</b>	<b>SEMESTER</b> 3 <sup>rd</sup>
<b>COURSE TITLE</b>	Master's Thesis	
<b>INDEPENDENT TEACHING ACTIVITIES</b> 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	<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>
Master's Thesis		30
<i>Total</i>		30
<b>COURSE TYPE</b> <i>special background, specialised general knowledge, skills development</i>	Specialization Course	
<b>PREREQUISITE COURSES:</b>	---	
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek and/or English	
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	Yes, under conditions	
<b>COURSE WEBSITE (URL)</b>	<a href="https://ric.dind.uoa.gr/programma/mathimata/g_examino/metapychiaki_diplomatiki_ergasia/">https://ric.dind.uoa.gr/programma/mathimata/g_examino/metapychiaki_diplomatiki_ergasia/</a>	

### (2) LEARNING OUTCOMES

<p><b>Learning outcomes</b> 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</p> <ul style="list-style-type: none"> <li>• Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</li> <li>• Descriptors for Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</li> <li>• Guidelines for writing Learning Outcomes</li> </ul>		
<p>As a learning process, it allows the student to:</p> <ul style="list-style-type: none"> <li>- Engage in the research process in the fields of robotics and industrial control,</li> <li>- Gain experience in scientifically formulating technological problems, research methodology, designing and implementing methods or tools, evaluating results, and finally in written and oral presentation.</li> </ul>		
<p><b>General Competences</b> 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?</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i>  <i>Adapting to new situations</i> <i>Decision-making</i>  <i>Working independently</i> <i>Team work</i>  <i>Working in an international environment</i> <i>Working in an interdisciplinary environment</i> <i>Production of new research ideas</i> </td> <td style="width: 50%; vertical-align: top;"> <i>Project planning and management</i> <i>Respect for difference and multiculturalism</i> <i>Respect for the natural environment</i>  <i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i>  <i>Criticism and self-criticism</i>  <i>Production of free, creative and inductive thinking</i>            .....  <i>Others... ..</i> </td> </tr> </table>	<i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i> <i>Adapting to new situations</i> <i>Decision-making</i> <i>Working independently</i> <i>Team work</i> <i>Working in an international environment</i> <i>Working in an interdisciplinary environment</i> <i>Production of new research ideas</i>	<i>Project planning and management</i> <i>Respect for difference and multiculturalism</i> <i>Respect for the natural environment</i> <i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i> <i>Criticism and self-criticism</i> <i>Production of free, creative and inductive thinking</i> ..... <i>Others... ..</i>
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<p>Search for, analysis and synthesis of data and information, with the use of the necessary technology, Decision-making, Working independently, Team work, Project planning and management, Criticism and self-criticism, Production of free, creative and inductive thinking.</p>		

### (3) SYLLABUS

The elaboration of the master's thesis takes place in the third semester of studies and is credited with thirty ECTS, provided that the student chooses to elaborate a thesis instead of attending the courses of the third semester of studies. The assignment of the master's thesis, if the student chooses to undertake it, takes place after successfully attending and passing at least five out of the eight compulsory courses of the first and second semester of the study program. The Master's Thesis must be individual, original, have a research character, and be prepared according to the writing guidelines posted on the MSc program's website. After a request from the candidate, stating the proposed title of the thesis, the supervisor and having attached an abstract of the proposed work, the Department's Assembly appoints the supervisor and forms the three-member examination committee for the approval of the thesis, one of whose members is the supervisor. The candidate's application is submitted before the end of the second semester. The title of the thesis can be finalized upon a student's request and with the consent of the supervisor to the Coordinating Committee of the MSc program.

#### (4) TEACHING and LEARNING METHODS - EVALUATION

<p style="text-align: center;"><b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i></p>	Face to face, Synchronous and Asynchronous distance learning																	
<p style="text-align: center;"><b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i></p>	<p>Supporting the learning process through</p> <ul style="list-style-type: none"> <li>• use of an electronic platform for interactive two-way communication and participation,</li> <li>• use of an electronic classroom platform for providing educational material, discussions, announcements, assignments,</li> <li>• e-mail communication,</li> <li>• use of projectors during lectures</li> <li>• use of software packages depending on the subject of the master's thesis.</li> </ul>																	
<p style="text-align: center;"><b>TEACHING METHODS</b> <i>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.</i></p> <p><i>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</i></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><i>Activity</i></th> <th style="text-align: center;"><i>Semester Workload</i></th> </tr> </thead> <tbody> <tr> <td>Literature study &amp; analysis</td> <td style="text-align: center;">150</td> </tr> <tr> <td>Working meetings with the supervisor</td> <td style="text-align: center;">45</td> </tr> <tr> <td>Project</td> <td style="text-align: center;">360</td> </tr> <tr> <td>Essay writing</td> <td style="text-align: center;">190</td> </tr> <tr> <td>Prepare a presentation</td> <td style="text-align: center;">4</td> </tr> <tr> <td>Oral presentation</td> <td style="text-align: center;">1</td> </tr> <tr> <td><b>Total Course</b></td> <td style="text-align: center;"><b>750</b></td> </tr> </tbody> </table>		<i>Activity</i>	<i>Semester Workload</i>	Literature study & analysis	150	Working meetings with the supervisor	45	Project	360	Essay writing	190	Prepare a presentation	4	Oral presentation	1	<b>Total Course</b>	<b>750</b>
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<p style="text-align: center;"><b>STUDENT PERFORMANCE EVALUATION</b> <i>Description of the evaluation procedure</i></p> <p><i>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</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<p>The evaluation of the master's thesis is done either in Greek or English. The evaluation process of the master's thesis is carried out in accordance with the provisions of the relevant regulations of the postgraduate program. In order for the thesis to be approved, the student must defend it before a three-member examination committee. The grading by the committee members is done on a scale of 0-10 and the final grade is obtained as the average of the grading of the three committee members. Each committee member's grade takes into account the master's thesis essay and its oral public defense.</p>																	

#### (5) ATTACHED BIBLIOGRAPHY

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