

## COURSE OUTLINE

### (1) GENERAL

<b>SCHOOL</b>	School of Agricultural Sciences		
<b>ACADEMIC UNIT</b>	Biosystems & Agricultural Engineering		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	<b>BAE_310</b>	<b>SEMESTER</b>	<b>3<sup>RD</sup></b>
<b>COURSE TITLE</b>	<b>COMPUTER ASSISTED TECHNICAL DRAWING</b>		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <i>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</i>	<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>	
Lectures	2		
Tutorials	0		
Laboratory	3		
<b>TOTAL</b>	<b>5</b>	<b>5</b>	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
<b>COURSE TYPE</b> <i>general background, special background, specialised general knowledge, skills development</i>	Background General Knowledge Skills development		
<b>PREREQUISITE COURSES:</b>	There are no prerequisite courses.		
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek .-For Erasmus students in English		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	Yes		
<b>COURSE WEBSITE (URL)</b>			

### (2) LEARNING OUTCOMES

<p><b>Learning outcomes</b></p> <p><i>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.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> <li>• <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i></li> <li>• <i>Descriptors for Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i></li> <li>• <i>Guidelines for writing Learning Outcomes</i></li> </ul>		
<ul style="list-style-type: none"> <li>• Acquisition of knowledge for the principles of technical design</li> <li>• Learning and using design software</li> </ul>		
<p><b>General Competences</b></p> <p><i>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?</i></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>.....</i>  <i>Others...</i>  <i>.....</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>.....</i> <i>Others...</i> <i>.....</i>
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<p>Search, analysis and synthesis of data and information, using the necessary technologies</p>		

Decision making  
Autonomous work  
Teamwork  
Production of new research ideas  
Respect for the natural environment  
Promoting free, creative and inductive thinking

### (3) SYLLABUS

- Apeikónisi trisdiástaton schimáton se dýo diastáseis – Chrísi orgánon schedíasis – Vasikés archés schediasmoú.
- Chrísi trigónou gia schediasmó – Schediasmós geometrikón schimáton.
- Chrísi diavíti – Schediasmós geometrikón schimáton.
- Perigrafí kátopsis – Schediasmós kátopsis (molývi).
- Schediasmós ypó klímaka – Schediasmós kátopsis se 1/50 (molývi).
- Schediasmós kátopsis ypó klímaka 1/100 (meláni).
- Schediasmó kátopsis ypó klímaka (meláni).
- Perigrafí tomís – Schediasmós tomís.
- Schediasmós kátopsis – tomís 1:100 (molývi).
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- Schediasmós kátopsis – tomís ypó klímaka (meláni).
- Schediasmós leptoméreas.

#### CAD

- Chrísi ilektronikou ypologistí
- Emváthynsi sto schediastikó próγραμμα CAD
- Vasikés archés schedíasis se CAD (schetikés kai apólytes syntetagménes, dekadiká, diagrafí, zoom, save, print)
- Entolés schedíasis se CAD (line, rectangular, circle, object snap, move, copy, offset, hatch, trim, explode, divide, join, text, dimlinear, ddim)

#### Show more

1030/5000

- Display of 3D shapes in two dimensions - Use of drawing tools - Basic design principles.
- Using a triangle for design - Designing geometric shapes.
- Use of diabetes - Design of geometric shapes.
- Floor plan description - Floor plan design (pencil).
- Scale drawing - Floor plan drawing in 1/50 (pencil).
- Floor plan design at 1/100 scale (ink).
- Scale floor plan design (ink).
- Section description - Section design.
- Plan of plan - section 1: 100 (pencil).
- Layout plan - section in scale (pencil).
- Floor plan design - section under scale (ink).
- Floor plan design - section under scale (ink).
- Detail design.

#### CAD

- Computer use

- Deepening in the CAD design program
- Basic design principles in CAD (relevant and absolute coordinates, decimal, delete, zoom, save, print)
- Design commands in CAD (line, rectangular, circle, object snap, move, copy, offset, hatch, trim, explode, divide, join, text, dimlinear, ddim)

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

<b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i>	Face to face teaching, Experiential activities, Laboratory training												
<b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i>	<ul style="list-style-type: none"> <li>• Use of ICT (power point) in Teaching</li> <li>• Use of ICT (power point) in Laboratory Training</li> <li>• Use of ICT in Communication with students (Learning process support through the electronic platform e-class).</li> </ul>												
<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.  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>	<table border="1"> <thead> <tr> <th style="text-align: left;"><i>Activity</i></th> <th style="text-align: right;"><i>Semester workload</i></th> </tr> </thead> <tbody> <tr> <td>Lectures</td> <td style="text-align: right;">26</td> </tr> <tr> <td>Laboratory</td> <td style="text-align: right;">39</td> </tr> <tr> <td>UNGUIDED STUDY</td> <td style="text-align: right;">20</td> </tr> <tr> <td>Study hours. Literature survey'EXAMS</td> <td style="text-align: right;">40</td> </tr> <tr> <td>Course total</td> <td style="text-align: right;"><b>125</b></td> </tr> </tbody> </table>	<i>Activity</i>	<i>Semester workload</i>	Lectures	26	Laboratory	39	UNGUIDED STUDY	20	Study hours. Literature survey'EXAMS	40	Course total	<b>125</b>
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<b>STUDENT PERFORMANCE EVALUATION</b> <i>Description of the evaluation procedure  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.</i>	<ol style="list-style-type: none"> <li>1. The laboratories participate by 30% in the final grade. In order to be examined in theory, the student must have completed all the laboratories and have been successfully examined in them.</li> <li>2. The main assessment criteria focus on understanding and correlating the knowledge that students gain from the course with other knowledge. Particular emphasis is placed on whether they have developed the ability to apply this knowledge to crop selection and to assess the impact of these changes on the environment. Emphasis is also placed on demonstrating critical ability and justifying the choices they make in each problem.</li> <li>3. Evaluation is dynamic. It mainly involves problem solving. is done orally or in writing or with a combination of the two, with or without pre-examination on the basic principles of the course, with or without exculpatory advances and with other test or inventive methods, depending on the composition of the dynamics and the needs of the audience.</li> <li>4. The above are done in the Greek language. For foreign language students (eg Erasmus students) conducted in English</li> </ol>												

#### (5) ATTACHED BIBLIOGRAPHY

- 1. Κάππος Γ., (2017). *Δουλέψτε με το AUTOCAD 2017*, Αθήνα: Κλειδάριθμος.
- 2. Κάππος Γ., (2008). *3D Τοπογραφικά και Αρχιτεκτονικά Παραδείγματα στο AUTOCAD*, Αθήνα: Κλειδάριθμος.
- 3. Μουρούτσος Σ., Μαλλιάρης Γ., (2016) *Τεχνικό Σχέδιο, 3η Έκδοση*, Αθήνα: Τσότρας.

- 4. Σαράφης Η., Τσεμπεκλής Σ., Καζανίδης Ο. (2016) Τεχνικό Σχέδιο με AUTOCAD σε Απλά Αυτοτελή Μαθήματα,