

COURSE OUTLINE

(1) GENERAL

SCHOOL	SCHOOL OF ENGINEERING		
ACADEMIC UNIT	DEPARTMENT OF MINERAL RESOURCES ENGINEERING		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	MRE304	SEMESTER	3
COURSE TITLE	Computer Aided Design		
INDEPENDENT TEACHING ACTIVITIES <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>	WEEKLY TEACHING HOURS	CREDITS	
Theory - lectures	1	5	
Exercises	3		
Total (hours)	4		
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	general background		
PREREQUISITE COURSES:	-		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes		
COURSE WEBSITE (URL)	https://eclass.uowm.gr/courses/MRE129/		

(2) LEARNING OUTCOMES

<p>Learning outcomes</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>Consult Appendix A</p> <ul style="list-style-type: none"> • Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area • Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B • Guidelines for writing Learning Outcomes 		
<p>The course is the basic introductory course in the concepts of computer aided designing (CAD). The aim of the course is to introduce students to the basic concepts of CAD. Upon successful completion of the course, the student should have sufficient knowledge of the basic principles of CAD.</p>		
<p>General Competences</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;"> Search for, analysis and synthesis of data and information, with the use of the necessary technology Adapting to new situations Decision-making Working independently Team work Working in an international environment Working in an interdisciplinary environment Production of new research ideas </td> <td style="width: 50%; vertical-align: top;"> Project planning and management Respect for difference and multiculturalism Respect for the natural environment Showing social, professional and ethical responsibility and sensitivity to gender issues Criticism and self-criticism Production of free, creative and inductive thinking Others... </td> </tr> </table>	Search for, analysis and synthesis of data and information, with the use of the necessary technology Adapting to new situations Decision-making Working independently Team work Working in an international environment Working in an interdisciplinary environment Production of new research ideas	Project planning and management Respect for difference and multiculturalism Respect for the natural environment Showing social, professional and ethical responsibility and sensitivity to gender issues Criticism and self-criticism Production of free, creative and inductive thinking Others...
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<p><i>Search for, analysis and synthesis of data and information</i></p> <p><i>Working independently</i></p>		

(3) SYLLABUS

Technical drawing is a way for engineers to communicate.

The design using a computer is the current form of visualization to achieve the aforementioned goal.

The course is organized in three thematic units covering not only the learning and handling of a specialized design program, but also the general trends of electronic design and interoperability:

- At the first part of the course there is an extensive conceptual presentation on the basic elements of CAD / CAM and BIM.
- The second part of the course focuses on electronic design in a specific design environment, aiming at learning it, presenting the basic design commands, how to organize, browse, modify, edit and place text, layouts, dimension as well as print the design.
- The third part presents design applications focused on the general needs of Mineral Resources Engineering.

(4) TEACHING and LEARNING METHODS - EVALUATION

<p>DELIVERY <i>Face-to-face, Distance learning, etc.</i></p>	<p><i>Face-to-face, Distance learning</i></p>		
<p>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i></p>	<ul style="list-style-type: none"> • Projector/pc presenting all lectures, • COURSE RELATED NOTES AND ALSO UNSOLVED EXERCISES DATABASE SITED AT THE COURSE' e-class WEBSITE 		
<p>TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i> <i>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>	<p>Activity</p>	<p>Semester workload</p>	
	<p>lectures</p>	<p>13</p>	
	<p>Exercises</p>	<p>13</p>	
	<p>Group work</p>	<p>-</p>	
	<p>Educational visit to industries</p>	<p>-</p>	
	<p>Atomic avocation</p>	<p>COMPULSORY ATOMIC THEME (SEVERAL UNSOLVED INCREASED DIFFICULTY CAD EXERCISES) FOR ALL STUDENTS</p>	
	<p>Personal study</p>	<p>13</p>	
	<p>Total (ects credits * 25)</p>	<p>125</p>	
<p>Course total</p>	<p>125</p>		
<p>STUDENT PERFORMANCE EVALUATION <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>Students at the exams only have to deal with CAD.</p> <p>THE FINAL GRADE OF EACH STUDENT, COMES OUT FROM THE SUMMARY OF:</p> <ul style="list-style-type: none"> • THE EXAMINATION GRADE 50 % AND • THE CAD DEGREES THROUGHOUT THE ATOMIC AVOCATION OF ALL SEMESTER 50 %. 		

(5) SUGGESTED BIBLIOGRAPHY

- Suggested bibliography:

- Book [77112314]: TECHNICAL DRAWING WITH AUTOCAD, SARAFIS ILIAS, TSEMPEKLIS SPYROS, KAZANIDIS IOANNIS
- Book [50656018]: Learn AutoCAD through architectural examples, 3rd Edition, Kappos Giannis Th.

- Related academic journals: