1.1.1 Constructional Drawing through Computer Aided Design

GENERAL

SCHOOL	Engineering
ACADEMIC UNIT	CIVIL ENGINEERING
LEVEL OF STUDIES	Undergraduate
COURSE CODE	ΔΟΜ003 · **SEMESTER** 2nd
COURSE TITLE	Constructional Drawing through Computer Aided Design

INDEPENDENT TEACHING ACTIVITIES *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*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures, exercises, assignements.	4	4
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Scientific Background
PREREQUISITE COURSES:	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://elearning.cm.ihu.gr

LEARNING OUTCOMES

Learning outcomes
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   *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*

Upon completing this course students should be able create 2D digital drawings of buildings (plans, sections, elevations) as well as masterplans of their surrounding area. Drawings are to be complete with constructional information for the scale of 1:50. They should be able to organize layouts, sheet drawings, plot and publish them respectively, exchange files and share information through .dwg files, keep up with software updates and finally establish a background for engaging with similar CAD systems.

General Competences
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?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*

Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*......*
Production of new research ideas	*Others...*
	....

The course contributes to the following skills:
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, Criticism and self-criticism, Production of free, Creative and inductive thinking

SYLLABUS

The course introduces students to AutoCAD software in order to provide them with the knowledge and skill to digitally design 2D representations of buildings, working through scales of 1/100 to 1/50. Students learn thoroughly Drawing and Modify commands, along with Annotations, Dimensioning and Insertion options, achieving accuracy with Drafting Settings and supporting all architectural drafting conventions. Drawings are plotted in scales, organised in layouts and sheets to be published. Students also learn to organize project files, templates and exchange efficiently drawing information within AutoCAD environment as well as with other applications.

TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face.
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Powerpoint presentations, E-learning platform for educational material.

TEACHING METHODS *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*	**Activity**	**Semester workload**
	Lectures	13
	Practice/exercises	28
	Project(s)	24
	Individual study	39
	Course total (26 hours workload per ECTS credit)	***104***

| **STUDENT PERFORMANCE EVALUATION**
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. | Compulsory individual assignements. (20% of final grade)
Final examination: short-answer questions, multiple choice, drawing assignment in AutoCAD (80% of final grade). |

ATTACHED BIBLIOGRAPHY

Malikouti, St., Markopoulou, N., "ARCHITECTURAL DRAWING: Methodology for drawing in scale of 1:50", Sygxroni Publications, Athens, 2017. (in Greek)

Omura, G., Benton, B.C., "Mastering AutoCAD 2019 and AutoCAD LT 2019", Sybex, 1st edition, 2018.

Kappos, I. "Working with AutoCAD 2017", Kleidarithmos Publications, Athems 2017. (in Greek)

Kappos, I. "Introduction to AutoCAD 2010", Kleidarithmos Publications, Athems 2010. (in Greek)

Tzouvadakis, I., Gousis, Ch., "2D 3D drawing in AutoCAD", Symmetria Publications, Athens, 2007. (In Greek).

Veneris, I., "INFORMATICS AND ARCHITECTURE: concepts and technologies", Tziolas Publications, Thessaloniki, 2011. (In Greek).

Kourniatis, N., "Techniques of representation with geometrical methods and contemporary digital media", Tziolas Publications, Thessaloniki, 2018. (In Greek).