COURSE OUTLINE

1. GENERAL

SCHOOL	ENGINEERING
DEPARTMENT	PRODUCT AND SYSTEMS DESIGN ENGINEERING
LEVEL OF STUDY	GRADUATE
COURSE UNIT CODE	MSCCAD23 **SEMESTER OF STUDY** 2nd
COURSE TITLE	Reverse Engineering and Prototyping

	TEACHING WEEKLY HOURS	ECTS Credits
Lectures **Laboratory Exercises**	3	6

COURSE UNIT TYPE *general background,* *special background, specialised*	Specialised
PREREQUISITES :	none
LANGUAGE OF INSTRUCTION/EXAMS:	Greek/English
COURSE DELIVERED TO ERASMUS STUDENTS	Yes
MODULE WEB PAGE (URL)	https://eclass.uowm.gr/

2. LEARNING OUTCOMES

Learning Outcomes

On successful completion of this module the learner will be able to:

1. Know the basic stages of Reverse Engineering

2. Know the steps of Prototyping

3. Use appropriate software (interface, tools, etc.).

4. Scan models from real life environment.

5. Prototype models for real life environment.

General Skills

On successful completion of this module the learner will have:

- Understanding the reverse engineering stages.
- Knowledge of principles of prototyping.
- Knowledge of the properties and applications of 3d scanning and prototyping software.

3. COURSE CONTENTS

- Principles of Reverse Engineering.
- Principles of Prototyping
- Software Interface & Software tools.
- Exercises (Reverse Engineering).
- Exercises (Prototyping).

	• Exercises (Character Design).

4. TEACHING METHODS - ASSESSMENT

MODE OF DELIVERY	Theory: Face-to-face. Lectures Face-to-face using PC
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY	Teaching with the use of supervisory means. Support of teaching process via the electronic platform e-class

TEACHING METHODS	*Method description*	*Semester Workload*
	Lectures	70
	Laboratory Exercises	30
	Projects	50
	Total	**150**

ASSESSMENT METHODS	• Four (4) projects.

5. RESOURCES

- Recommended Book Resources:

1. V. Raja, K.J. Fernades, (2008), 'Reverse engineering: an industrial perspective', Springer
2. D. Bryden (2014), 'CAD and Rapid Prototyping for Product Design', Laurence King
3. P. Gianniotis, A. Manavis, K. Kakoulis, P. Kyratsis, (2015), 'Reverse Engineering Applications', ISBN: 978-960-499-162-4