Democritus University of Thrace, Kavala, Greece
School of Science
Department of Informatics

Department of European and International Programmes – Erasmus+
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Proposed Course for incoming Erasmus students[1]

Responsible for the course (lecturer) (name, phone number, e-mail address)	Lefteris Moussiades 0030 2510 462 346 lmous@cs.duth.gr
Title of the Course	**Design Patterns**
ECTS credits	5
Short contents of the course	This course provides a comprehensive introduction to software design patterns, focusing on reusable solutions to common design problems in software development. The course begins by exploring what design patterns are, their significance, and the foundational principles of good software design, such as flexibility, modularity, and encapsulation. Students will delve into three major categories of design patterns: Creational Patterns, which focus on the creation of objects, ensuring flexibility and reusability in the construction process. Structural Patterns, which help in composing classes and objects into larger structures while promoting code efficiency and organization. Behavioral Patterns, which address communication and interaction between objects, enhancing the scalability and maintainability of the system.
Aim of the course and target audience	The aim of the course is to provide students with a deep understanding of proven design solutions that can be applied to common software development challenges. Target Audience: Computer science students who are preparing for advanced software design projects or roles in software development.
Teaching Methods duration and Evaluation	Face to Face Lectures, Course total Work load: 126 hours, Individual Project
Offered Period	Spring semester

Indicative bibliography	1. 2.

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1 Could be easily used and offered for TS movement to our Erasmus partners