

Module Layout COS513 / Computational Intelligent Systems

Faculty	ΣΓΕΕ	Faculty of Pure and Applied Science	
Programme of Study	COS	M.Sc. in Cognitive Systems	
Module	COS513	Computational Intelligent Systems	
Level of Study	Undergraduate		Graduate
		Master	Doctoral
		X	
Language of Instruction	English		
Mode of Delivery	Distance		
Module Type	Required		Electives
			X
Number of Group Consulting Meetings	Total	Physical Presence	Online
	12 + 1 revision	-	12 + 1 revision
Number of Assignments	1 Assignment / Project and 12 Interactive Activities		
Final Grade Calculation	Interactive Activities	Assignment / Project	Final Exam
	24 %	26 %	50 %
Number of European Credit Transfer System (ECTS)	10		

Module Description

The COS513 Computational Intelligent Systems module provides a global overview of Computational Intelligent Systems, and their applications in understanding various aspects of cognition and the operation of the mind. The study of the brain from the computer scientists' perspective will be emphasized by providing an in depth analysis of the methodology and basic concepts on how to model cognition and how to develop intelligent computer systems that try to mimic the way a human brain works. The theoretical framework of Computational Intelligence algorithms and techniques, such as Artificial Neural Networks, Genetic Algorithms and Fuzzy Logic, is covered together with hands on experience in the development and implementation of Computational Intelligent Systems. The main aim of the course is to provide students with the knowledge and skills required to design and implement effective and efficient Computational Intelligence solutions to problems for which a direct solution is impractical or unknown. Moreover, the course studies the area of cognitive systems and big-data analytics.

Pre-requisite Modules

Co-requisite Modules

Grading Scheme

Assessment Method	Percentage on Final Grade	Workload	
		Hours	ECTS
Interactive Activities	24 %	25-30	1
Assignment / Project	26 %	50-50	2
Final/Repeat Examination	50 %	3	-
Total	100%	Total	Total

Grading Rules and Assessment methods

- Passing rate
 - 50% of the Interactive Activities
 - 50% of the Assignment / Project
 - Students are allowed to participate in the final exam of a Module if they have overall earned the minimum grade ($\geq 50\%$) in both their Assignment / Project and Interactive Activities
 - 50% of the Final Exam

If a student earns a grade with decimal points, then it is rounded to the nearest half unit.