

Module Layout COS622 / Cognitive Neuroscience

Faculty	ΣΘΕΕ	Faculty of Pure and Applied Science	
Programme of Study	COS	M.Sc. in Cognitive Systems	
Module	COS622	Cognitive Neuroscience	
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

This module provides an in-depth survey of the extant data and models of a wide variety of human cognitive functions. Drawing on behavioral, neuropsychological, and neuroimaging research, the course explores the neural mechanisms underlying complex cognitive processes, such as attention, perception, memory, language, emotion and decision-making. Importantly, the module examines the logic and assumptions permitting the interpretation of brain activity in psychological terms. The module aims to provide students with a strong foundation in the field of Cognitive Neuroscience, a field that studies the intricate links between the mind, the brain, and behavior. Students first learn basics about brain anatomy and function, and about the methods used to study how the brain supports cognition and behavior. Then, the module explores the various functions of the brain by taking a journey from lower- to higher level cognitive processes: we are studying how we can sense and perceive the world, act in it, learn and think about it, and remember it. Current research issues (e.g., brain-behaviour interactions, modularity vs. brain connectivity) are discussed and supplemented with recent peer-reviewed journal articles. Class participation in presenting and critiquing these articles is expected. Moreover, this module provides an introduction into basic human functional neuroanatomy. Students will learn about the principles underlying the anatomical organisation and functional segregation of the human brain. Evolutionary and developmental origins of brain structure and function, as well as the relation between brain structure and function are also discussed.

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.