

## Module Layout COS521 / Cognitive Knowledge Acquisition

<b>Faculty</b>	ΣΓΕΕ	Faculty of Pure and Applied Science	
<b>Programme of Study</b>	COS	M.Sc. in Cognitive Systems	
<b>Module</b>	COS521	Cognitive Knowledge Acquisition	
<b>Level of Study</b>	<b>Undergraduate</b>		<b>Graduate</b>
		<b>Master</b>	<b>Doctoral</b>
		X	
<b>Language of Instruction</b>	English		
<b>Mode of Delivery</b>	Distance		
<b>Module Type</b>	<b>Required</b>		<b>Electives</b>
			X
<b>Number of Group Consulting Meetings</b>	<b>Total</b>	<b>Physical Presence</b>	<b>Online</b>
	12 + 1 revision	-	12 + 1 revision
<b>Number of Assignments</b>	1 Assignment / Project and 12 Interactive Activities		
<b>Final Grade Calculation</b>	<b>Interactive Activities</b>	<b>Assignment / Project</b>	<b>Final Exam</b>
	24 %	26 %	50 %
<b>Number of European Credit Transfer System (ECTS)</b>	10		

### Module Description

This course presents basic frameworks of learning, offering the theoretical underpinning for the development of machine learning algorithms, with an emphasis on the development of naturalistic solutions for the acquisition of symbolically-represented cognitive knowledge. It examines learning in the limit, the mistake-bounded model of online learning, active learning with queries, and the probably approximately correct model of batch learning. It then discusses learnability in the presence of missing or corrupted information. An effort is made to connect the formal properties of these models to real world situations, and examine the extent to which these properties capture or reflect some aspects of human learning. The relation of learning to the processes of perception and reasoning is also discussed, as well as the relation of learning to other natural processes, including the process of evolution.

### 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	-
<b>Total</b>	<b>100%</b>	<b>Total</b>	<b>Total</b>

### 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.