

## COURSE OUTLINE

### (1) GENERAL

<b>SCHOOL</b>	PHILOSOPHY		
<b>ACADEMIC UNIT</b>	PHILOLOGY		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	GLOF209	<b>SEMESTER</b>	3-8
<b>COURSE TITLE</b>	Topics in Computational Semantics		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>	<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>	
	3		
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
<b>COURSE TYPE</b> <i>general background, special background, specialised general knowledge, skills development</i>	SCIENTIFIC AREA OF SPECIALIZATION		
<b>PREREQUISITE COURSES:</b>	GLOF142		
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	Yes (in Greek)		
<b>COURSE WEBSITE (URL)</b>	<a href="https://elearn.uoc.gr/">https://elearn.uoc.gr/</a>		

### (2) LEARNING OUTCOMES

<p><b>Learning outcomes</b></p> <p><i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> <li>• <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i></li> <li>• <i>Descriptors for Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i></li> <li>• <i>Guidelines for writing Learning Outcomes</i></li> </ul>
<p>The general goal of the seminar is to delve into issues related to Computational Semantics. More specifically, upon completion of this course students should be able to:</p> <ul style="list-style-type: none"> <li>• Know the main methodological and formal tools used in Computational Semantics as well as its main applications</li> <li>• To implement small-scale Computational Semantics projects</li> <li>• To critically assess the relevant literature</li> </ul>

*Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?*

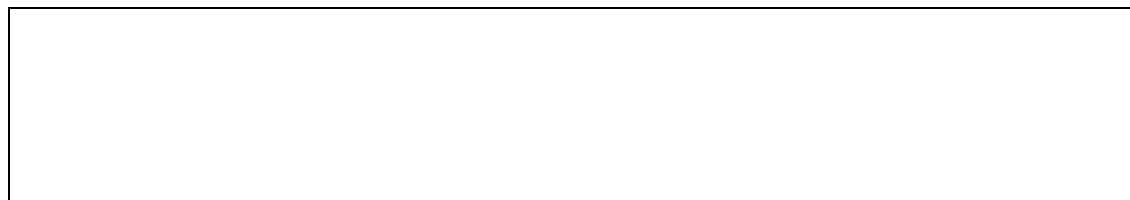
*Search for, analysis and synthesis of data and information, with the use of the necessary technology*  
*Adapting to new situations*  
*Decision-making*  
*Working independently*  
*Team work*  
*Working in an international environment*  
*Working in an interdisciplinary environment*  
*Production of new research ideas*

*Project planning and management*  
*Respect for difference and multiculturalism*  
*Respect for the natural environment*  
*Showing social, professional and ethical responsibility and sensitivity to gender issues*  
*Criticism and self-criticism*  
*Production of free, creative and inductive thinking*  
*.....*  
*Others...*  
*.....*

*Search for, analysis and synthesis of data and information, with the use of the necessary technology*  
*Working independently*  
*Working in an international environment*  
*Decision-making*  
*Production of free, creative and inductive thinking*  
*Working in an interdisciplinary environment*  
*Team work*

### **(3) SYLLABUS**

The seminar explores a number of issues in Computational Semantics. Various approaches used in Computational Semantics are examined, ranging from logical and probabilistic approaches to machine learning and deep learning ones, as well as a variety of applications like sentiment analysis, natural language inference, paraphrasing, etc. The students will get to choose the topic of their interest, perform a descriptive and theoretical analysis, present it to class and, finally, write the final term paper.



**(4) TEACHING and LEARNING METHODS - EVALUATION**

<p><b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i></p>	<p>Face-to-face</p>	
<p><b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i></p>	<ul style="list-style-type: none"> <li>• Class lectures, presentations, slides (pdf)</li> <li>• Class notes, announcements &amp; communication via ClassWeb</li> <li>• Communication via email</li> </ul>	
<p><b>TEACHING METHODS</b> <i>The manner and methods of teaching are described in detail.</i> <i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i></p> <p><i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i></p>	<p><b>Activity</b></p>	<p><b>Semester workload</b></p>
	<p>Lectures</p>	<p>39</p>
	<p>Independent study and exam preparation</p>	<p>113</p>
	<p>Writing of final term paper</p>	<p>89</p>
	<p></p>	<p></p>
	<p></p>	<p></p>
	<p><b>Course total</b></p>	<p><b>125</b></p>
<p><b>STUDENT PERFORMANCE EVALUATION</b> <i>Description of the evaluation procedure</i></p> <p><i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<p>I. Oral presentation in class (40%)</p> <p>II. Final term paper (60 %)</p>	

## (5) ATTACHED BIBLIOGRAPHY

- *Suggested bibliography:*

- *Προτεινόμενη Βιβλιογραφία:*

Bird, Steven, Edward Loper and Ewan Klein (2009), *Natural Language Processing with Python*. O'Reilly (διαθέσιμο ηλεκτρονικά εδώ: <https://www.nltk.org/book/>)

Van Eijck, J., & Unger, C. (2010). *Computational semantics with functional programming*. Cambridge University Press.

Χατζηκυριακίδης Σ. *Διαφάνειες από τις διαλέξεις* (ανάρτηση στην ιστοσελίδα του μαθήματος στο eLearn).

- *Συναφή επιστημονικά περιοδικά:*

Journal of Logic, Language and Information

Computational Linguistics

Transactions of the Association for Computational Linguistics