

COURSE OUTLINE

(1) General information

FACULTY/SCHOOL			
DEPARTMENT	Department Of Maritime Studies		
LEVEL OF STUDY	Undergraduate		
COURSE UNIT CODE	NAAΓΓ46	SEMESTER	Spring semester elective
COURSE TITLE	Intelligent Maritime Systems		
INDEPENDENT TEACHING ACTIVITIES <i>in case credits are awarded for separate components/parts of the course, e.g. in lectures, laboratory exercises, etc. If credits are awarded for the entire course, give the weekly teaching hours and the total credits</i>	WEEKLY TEACHING HOURS	CREDITS	
Lectures and Tutorials	4	6	
<i>Add rows if necessary. The organization of teaching and the teaching methods used are described in detail under section 4</i>			
COURSE TYPE <i>Background knowledge, Scientific expertise, General Knowledge, Skills Development</i>	Background knowledge		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION:	Greek		
LANGUAGE OF EXAMINATION/ASSESSMENT:			
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.unipi.gr/courses/NAS315/		

(2) LEARNING OUTCOMES

Learning Outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate (certain) level, which students will acquire upon successful completion of the course, are described in detail.

It is necessary to consult:

APPENDIX A

- *Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications' Framework.*
- *Descriptive indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and*

APPENDIX B

- *Guidelines for writing Learning Outcomes*

Upon completion of the course, the students will be able to:

- Understand the concepts of autonomous information systems.
- Develop autonomous agents.
- Apply autonomous systems concepts to the maritime domain.

General Competences
 Taking into consideration the general competences that students/graduates must acquire (as those are described in the Diploma Supplement and are mentioned below), at which of the following does the course attendance aim?

Search for, analysis and synthesis of data and information by the use of appropriate technologies,	Project planning and management
Adapting to new situations	Respect for diversity and multiculturalism
Decision-making	Environmental awareness
Individual/Independent work	Social, professional and ethical responsibility and sensitivity to gender issues
Group/Team work	Critical thinking
Working in an international environment	Development of free, creative and inductive thinking
Working in an interdisciplinary environment
Introduction of innovative research	(Other.....citizenship, spiritual freedom, social awareness, altruism etc.)

Adapting to new situations
 Decision-making
 Individual/Independent work
 Group/Team work
 Project planning and management
 Critical thinking
 Development of free, creative and inductive thinking

(3) COURSE CONTENT

- Introduction to Autonomous agents.
- Agent architectures.
- Multi-agent systems.
- Autonomous vessels.

(4) TEACHING METHODS--ASSESSMENT

MODES OF DELIVERY <i>Face-to-face, in-class lecturing, distance teaching and distance learning etc.</i>	<i>Face-to-face, in-class lecturing</i>	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY <i>Use of ICT in teaching, Laboratory Education, Communication with students</i>	<i>Use of ICT in teaching; use of eClass; use of software platform illustrating game theoretic concepts.</i>	
COURSE DESIGN <i>Description of teaching techniques, practices and methods:</i>	Activity/Method	Semester workload
	Lectures	52

<p><i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, Internship, Art Workshop, Interactive teaching, Educational visits, projects, Essay writing, Artistic creativity, etc.</i></p> <p><i>The study hours for each learning activity as well as the hours of self-directed study are given following the principles of the ECTS.</i></p>	Tutorials	10
	Coursework	29
	Study and analysis	59
	Total	150
<p>STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS</p> <p><i>Detailed description of the evaluation procedures:</i></p> <p><i>Language of evaluation, assessment methods, formative or summative (conclusive), multiple choice tests, short- answer questions, open-ended questions, problem solving, written work, essay/report, oral exam, presentation, laboratory work, other.....etc.</i></p> <p><i>Specifically defined evaluation criteria are stated, as well as if and where they are accessible by the students.</i></p>	<ul style="list-style-type: none"> • Final written exam. • Coursework. 	

(5) SUGGESTED BIBLIOGRAPHY:

-Suggested bibliography:

Database Systems Concepts. M. Wooldridge. Introduction to Multi-Agent Systems.