UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO

General information	
Academic subject	Informatics
Degree course	Science and Management of Maritime Activities
Academic Year	II
European Credit Transfer and Accumulation System (ECTS)	9
Language	*italian*
Academic calendar (starting and ending date)	*II semester*
Attendance	

Professor/ Lecturer	
Name and Surname	Antonella Serra
E-mail	antonella.serra@uniba.it
Telephone	
Department and address	*Ionian department*
Virtual headquarters	*Teams*
Tutoring (time and day)	After class, in person Online, by appointment via e-mail

Syllabus	
Learning Objectives	*acquire the skills necessary for the autonomous use of computer systems of common use and software resources made available and implement the skills related to the development of Computational Thinking.*
Course prerequisites	
Contents	*Theoretical part* *Part I Hardware* *What is a computer?* *Bits and bytes. The representation of information* *Analog and digital* *Conversion from analog to digital* *Bit, byte and binary* *Computer architecture* *The main memory* *The processor* *Secondary memory* *Input / output devices* *Part II Software* *Operating systems* *How an operating system works* *Other operating systems* *File system* *Applications* *Part III Communications* *Networks* *Local and Ethernet networks* *Internet* *An overview on the Internet* *Domain names and addresses* *TCP / IP protocols*

	Copyright on the Internet
	The Internet of Things
	The World Wide Web
	How the Web Works
	Cookies
	Active content on web pages
	Viruses, worms and trojans
	Web security
	How to defend yourself
	Data and information
	Research
	Tracking
	Social network
	l cloud computing
	Privacy and security
	Encryption
	Anonymity
	How to defend against tracking
	Practical part
	Introduction to computational thinking
	Basic exercises for developing programming skills
	Flowchart
	Pseudocoding.
Books and bibliography	*Brian W. Kernighan, Informatica. Orientarsi nel labirinto digitale – Egea, 2019*
Additional materials	

Work schedule	

Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
Hours			
225	*72*		*153*
ECTS 6			

Teaching strategy	
	Frontal lessons

Expected learning outcomes	
Knowledge and understanding on:	o Know the fundamental concepts for a wise use of ICT technologies in the company.
Applying knowledge and understanding on:	o Autonomy in decisions about the right software / service to be used in the company
Soft skills	• *Autonomy of judgment* • *Show that you have acquired autonomy of judgment on the choices in relation to the design of a Company Information System.* • *Communication skills* • *Show to be able to communicate in an appropriate way the technical characteristics of a Company Information System.*

	• *Ability to learn independently*
	• *Show that you have developed the ability to independently learn further insights on topics relating to ICT resources that can be used in Company Information Systems.*

Assessment and feedback	
Methods of assessment	*written exam*
Evaluation criteria	• Knowledge and understanding: • Show that you have developed the ability to independently learn further insights on topics relating to ICT resources that can be used in Company Information Systems. • Applied knowledge and understanding: • Show that they have developed the ability to independently apply the concepts relating to ICT resources that can be used in Company Information Systems. • Autonomy of judgment: • Show that you have developed evaluation skills in real contexts • Communication skills: • Show that you have developed the ability to communicate what you have learned in a clear and rigorous way. • Ability to learn: • Show that you have acquired a learning methodology
Criteria for assessment and attribution of the final mark	*The results obtained, of all the expected learning criteria, will be evaluated through appropriate questions included in the exams.*
Additional information	