Stampare su carta intestata del CdS

General information		
Academic subject	**Computer science**	
Degree course	*Science and Management of Maritime Activities*	
Academic Year	*I*	
European Credit Transfer and Accumulation System (ECTS)	*9*	
Language	*Italian*	
Academic calendar (starting and ending date)	07 marzo 2022	25 giugno 2022
Attendance	*no*	

Professor/ Lecturer	
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Department and address	
Virtual headquarters	
Tutoring (time and day)	

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	*none*
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
	Wireless
	Bandwidth
	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
	HTML
	Cookies
	Active content on web pages
	Viruses, worms and trojans
	Web security
	How to defend yourself
	Data and information
	Research
	Tracking
	Social network
	Data mining and data aggregation
	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	*handouts provided by the teacher*

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			
9			
Teaching strategy			
	Classroom lessons/online lessons		
Expected learning outcomes			
Knowledge and understanding on:	- 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. - Making informed judgements and choices		
Applying knowledge and understanding on:	Acquire the methodology necessary for the application of knowledge and understanding of computer science in daily life and in the work activities envisaged for the students of the Navy and not.		

Soft skills	*Making informed judgments and choices* - Development of self-employed and group work skills. - Communicating knowledge and understanding - Development of critical study and argumentation skills to share, compare and question one's own ideas and those of others. - Capacities to continue learning - Develop the ability to independently learn further insights on topics related to ICT resources.

Assessment and feedback	
Methods of assessment	*Oral / written exam*
Evaluation criteria	*Knowledge and understanding* *Show that you have developed the ability to independently learn further insights on topics related to ICT resources.* *Applying knowledge and understanding* *Autonomy of judgment* *Development of self-employed and group work skills.* *Communicating knowledge and understanding* *Development of critical study and argumentation skills to share, compare and question one's own ideas and those of others.* *Capacities to continue learning.* *Develop the ability to independently learn further insights on topics related to ICT resources.*
Criteria for assessment and attribution of the final mark	*The final grade is awarded out of thirty. The exam is passed when the grade is greater than or equal to 18.*
Additional information	