



# Hellenic Naval Academy

## DECK CADETS SYLLABUS



Academic Year: 2024 – 2025

Fall Semester	Hours	ECTS	Spring Semester	Hours	ECTS
<b>A YEAR</b>					
SINGLE VARIABLE CALCULUS	4	4	VECTOR ANALYSIS	4	5
GENERAL & APPLIED PHYSICS A	4	5	ANALYTIC GEOMETRY – GEOMETRY OF CURVES AND SURFACES	3	3
GENERAL NAVIGATION - COASTAL NAVIGATION	4	5	GENERAL & APPLIED PHYSICS B	3	3
LINEAR ALGEBRA	3	3	COLREG - SHIP HANDLING AND MANEUVERING	2	2
INTRODUCTION TO COMPUTER SCIENCE	2	2	APPLIED NAVIGATION	3	3
ANCIENT AND MEDIEVAL NAVAL HISTORY	3	3	SOCIAL PSYCHOLOGY	3	3
NAVAL SKILLS	3	3	EARLY MODERN NAVAL HISTORY	3	3
FOREIGN LANGUAGES I	3	3	FOREIGN LANGUAGES II & IMO	5	6
PHILOSOPHY	2	2	COMPUTER PROGRAMMING	2	2
Subtotal	<b>28</b>	<b>30</b>	Subtotal	<b>28</b>	<b>30</b>
<b>B YEAR</b>					
CELESTIAL NAVIGATION - TIDES	4	5	SYSTEM ANALYSIS & INTRODUCTION TO CONTROL SYSTEMS	3	3
BALLISTICS-EXPLOSIVES	2	2	NUMERICAL ANALYSIS	2	2
DIFFERENTIAL EQUATIONS	3	3	INTRODUCTION TO MARINE ENGINEERING	5	6
INTRODUCTION TO ELECTRIC CIRCUITS THEORY	3	4	THEORETICAL MECHANICS II	2	2
THEORETICAL MECHANICS I	2	2	THEORETICAL & APPLIED ELECTROMAGNETISM II	2	2
THEORY OF NAVIGATION AND APPLICATIONS	4	5	ELECTRIC CIRCUITS THEORY AND APPLICATIONS	4	4
THEORETICAL & APPLIED ELECTROMAGNETISM I	2	2	MODERN NAVAL HISTORY	2	2
FOREIGN LANGUAGES III	3	3	MARINE METEOROLOGY	3	3
PROBABILITIES	2	2	FOREIGN LANGUAGES IV	2	2
COMPUTER ARCHITECTURE	2	2	STATISTICS	2	2
			DATA BASES	2	2
Subtotal	<b>27</b>	<b>30</b>	Subtotal	<b>29</b>	<b>30</b>
<b>C YEAR</b>					
ELECTRONIC CHARTS - GIS - ECDIS	4	5	ELECTRONIC NAVIGATION SYSTEMS	3	3
INTRODUCTION TO ELECTRICAL POWER SYSTEMS	3	3	ELECTRONICS II	5	6
INTRODUCTION TO APPLIED MECHANICS	3	3	NAVAL RADARS & ELECTROOPTICAL SYSTEMS	4	4
NAVAL MATERIALS SCIENCE AND TECHNOLOGY	2	2	MATHEMATICAL MODELING AND APPLICATIONS	2	2
OPERATIONAL RESEARCH – LINEAR PROGRAMMING	2	2	FOREIGN LANGUAGES VI	3	3
ELECTRONICS I	5	6	EXPERIMENTAL STRENGTH AND FAILURE OF MATERIALS	3	3
NAVAL OPERATIONS	3	3	NAVAL GUNNERY	3	3
FOREIGN LANGUAGES V	2	2	HYDROGRAPHY - OCEANOGRAPHY	4	4
MODERN PHYSICS AND NAVAL APPLICATIONS	4	4	ARTIFICIAL INTELLIGENCE	2	2
Subtotal	<b>28</b>	<b>30</b>	Subtotal	<b>29</b>	<b>30</b>
<b>D YEAR</b>					
COMPUTER NETWORKS – NETWORK PROGRAMMING	3	3	INFORMATION SECURITY - CRYPTOGRAPHY - COMPUTATIONAL INTELLIGENCE	2	2
SPECIAL TOPICS IN NAVIGATION AND OCEAN SCIENCES I	2	2	LAW OF THE SEA	3	3
LEADERSHIP-MANAGEMENT-DECISION MAKING	2	2	SPECIAL TOPICS IN NAVIGATION AND OCEAN SCIENCES II	2	2
SEA ENVIROMENT AND NAVAL OPERATIONS	3	4	ELECTRONIC WARFARE	2	2
NAVAL COMMUNICATIONS/SATELLITES	3	3	GAME THEORY AND DECISION MAKING	2	2
COMMUNICATION SYSTEMS I	5	6	NAVAL ARCHITECTURE	3	3
TACTICAL SYSTEMS/C4I NETWORKS	3	4	COMMUNICATION SYSTEMS II	5	4
THESIS		6	COMBAT SYSTEMS ENGINEERING/GUIDED MISSILES/PWO	3	3
			UNDERWATER ACOUSTICS AND WEAPONS SYSTEMS	3	3
			THESIS		6
Subtotal	<b>21</b>	<b>30</b>	Subtotal	<b>25</b>	<b>30</b>