



# Hellenic Naval Academy

## DECK CADETS SYLLABUS



Year of Entry: 2023 – 2024

Fall Semester	Hours	ECTS	Spring Semester	Hours	ECTS
<b>A YEAR</b>					
SINGLE VARIABLE CALCULUS	3	4	VECTOR ANALYSIS	3	4
GENERAL & APPLIED PHYSICS A	2	2	ANALYTIC GEOMETRY – GEOMETRY OF CURVES AND SURFACES	3	4
INTRODUCTION TO NAVIGATION - COASTAL NAVIGATION	4	5	GENERAL & APPLIED PHYSICS B	2	2
LINEAR ALGEBRA	3	4	COLREG - SHIP HANDLING	2	2
INTRODUCTION TO COMPUTER SCIENCE	2	2	APPLIED NAVIGATION	3	4
HISTORY OF THE OARED NAVIES	3	4	SOCIAL PSYCHOLOGY	2	2
SEAMANSHIP	3	4	HISTORY OF THE SAILING NAVY	2	2
FOREIGN LANGUAGES I	3	3	FOREIGN LANGUAGES II & IMO	5	6
PHILOSOPHY	2	2	ECONOMY OF DEFENSE	2	2
			COMPUTER PROGRAMMING	2	2
	Subtotal	25		26	30
<b>B YEAR</b>					
CELESTIAL NAVIGATION - TIDES	4	5	SYSTEM ANALYSIS & INTRODUCTION TO CONTROL SYSTEMS	3	4
BALLISTICS-EXPLOSIVES-ASW WEAPONS	2	2	NUMERICAL ANALYSIS	2	2
DIFFERENTIAL EQUATIONS	3	4	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	5
THEORETICAL & APPLIED ELECTROMAGNETISM I	2	2	MODERN NAVAL HISTORY	2	2
FOREIGN LANGUAGES III	3	4	MARINE METEOROLOGY	3	3
PROBABILITIES	2	2	FOREIGN LANGUAGES IV	2	2
			STATISTICS	2	2
	Subtotal	25		27	30
<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	THEORY AND APPLICATIONS OF NAVAL-MILITARY RADAR & ELECTROOPTICAL SYSTEMS	4	5
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	5	EXPERIMENTAL STRENGTH OF MATERIALS	3	3
NAVAL OPERATIONS	3	3	NAVAL ARTILLERY/GUNNERY	3	3
FOREIGN LANGUAGES V	2	2	HYDROGRAPHY - OCEANOGRAPHY	4	5
MODERN PHYSICS AND NAVAL APPLICATIONS	4	5			
	Subtotal	28		27	30
<b>D YEAR</b>					
OPTIMIZATION – NON LINEAR PROGRAMMING	2	2	INFORMATION SECURITY - CRYPTOGRAPHY - COMPUTATIONAL INTELLIGENCE	2	2
COMPUTER NETWORKS - PROGRAMMING	3	3	LAW OF THE SEA	3	3
SPECIFIC ISSUES IN NAVIGATION I	2	2	SPECIFIC ISSUES IN NAVIGATION II	2	2
LEADERSHIP-MANAGEMENT-DECISION MAKING	2	2	ELECTRONIC WARFARE	2	2
SEA ENVIROMENT AND NAVAL OPERATIONS	3	3	GAME THEORY AND DECISION MAKING	2	2
NAVAL COMMUNICATIONS/SATELLITES/SPACE	3	3	NAVAL ARCHITECTURE	3	3
COMMUNICATION SYSTEMS I	5	5	COMMUNICATION SYSTEMS II	5	5
TACTICAL SYSTEMS/C4I NETWORKS	4	4	COMBAT SYSTEMS ENGINEERING/GUIDED MISSILES/PWO	3	3
FINAL YEAR THESIS		6	UNDERWATER ACOUSTICS	2	2
			FINAL YEAR THESIS		6
	Subtotal	24		24	30