

Course Title:	Naval Science Level 3 – Naval Knowledge, Leadership and Nautical Skills
Department:	Department of Naval Science (NJROTC)
Course #:	7987
Grade Level/s:	11 – 12
Length of Course:	Year
Prerequisite/s:	Successful Completion of Naval Science Level 1 and 2
UC/CSU (A-G) Req:	None
Brief Course Description:	This course meets district graduation requirements for elective credit. The purpose of Naval Science Level 3 – Naval knowledge, leadership and Nautical Skills is to further develop the understanding and importance of sea power, national security, naval operations, military law, international law as it applies to being out at sea, naval leadership and support functions.

I. GOALS

The NJROTC program goals are to provide an opportunity to learn the basic elements and requirements for national security and personal obligations as American citizens to national security. The NJROTC goals, as established by the Chief of Naval Education and Training (CNET) are:

- A. Promote Patriotism: This includes love of country, respect for the flag and pride in the American way of life as set forth in the Declaration of Independence and U.S. Constitution.
- B. Develop informed and responsible American citizens: This includes awareness of civic responsibilities, duties and rights.
- C. Develop a high degree of personal honor, self-reliance, individual discipline and leadership: These qualities are embodied by the Navy's Core Values of Honor, Courage and Commitment.
- D. Promote an understanding of national security: This includes the basic elements and requirements for national security, the need for armed forces and their relationship to the U.S. government.
- E. Develop and understanding and respect for a democratic society: This includes the role of government and laws as set forth in the U.S. Constitution.

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- F. Promote a healthy lifestyle: This includes nutrition, physical fitness and a drug-free lifestyle.
- G. Develop leadership potential: This includes a wide range of opportunities to engage in various such as drill team and staff positions.
- H. Promote college and career readiness: This includes access and knowledge of post-secondary educational and career opportunities incorporating the various military branches.

II. OUTLINE OF CONTENT FOR MAJOR AREAS OF STUDY

Semester I

Sea Power and National Security

- A. Importance of Sea Power
 - 1. Define the importance of sea power as it relates to America
 - 2. Describe four major developments since World War II that have increased the importance of the oceans of the world
 - 3. Describe the strategic oceans of the world
 - 4. Describe the mobility of sea power
- B. The U.S. Merchant Marine
 - 1. Describe the purpose and function of the United States Merchant Marine
 - 2. Describe the relationship between maritime commerce and the economy of the United States
 - 3. Describe national policy as it relates to the Merchant Marine Acts
 - 4. Describe the impact of waterborne commerce
 - 5. Describe the auxiliary functions of the U.S. Merchant Marine in national defense
 - 6. Explain the Merchant Marine's role in supporting our military forces in both peace and war
- C. U.S. Strategy and Naval Tactics
 - 1. Define national, grand and military strategy
 - 2. Describe the three classic schools of strategy
 - 3. Describe the three phases of U.S. grand strategy
 - 4. Describe the three principle elements of today's national military strategy
 - 5. Describe the two basic functions of the United States Navy
- D. National Security and Modern Conflict
 - 1. Explain the following forms of modern armed conflict: general war, limited war, revolutionary war and terrorism
 - 2. List the possible causes of general war
 - 3. Describe the prerequisites of a revolution

Naval Operations and Support Functions

- A. Naval Operations
 - 1. Describe the organization of a naval task force
 - 2. Describe the naval command and control organization
 - 3. Describe the organization of a modern carrier strike group (CSG)

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4. Describe the principal objectives for amphibious operations
- B. Naval Communications
1. Describe the major functions of naval telecommunication
 2. Describe major telecommunications commands under the Chief of Naval Operations
 3. Describe how electronic equipment has assisted in improving communication in the U.S. Navy
 4. Describe the advantages of visual communications
- C. Naval Intelligence
1. Define and describe U.S. naval intelligence and the intelligence community
 2. Describe the purpose of security clearances and the three types of security classifications
- D. Naval Logistics
1. Describe the principles and elements of naval logistics
- E. Naval Research and Development
1. Describe the Research and Development (R&D) Program of the Department of Defense (DOD)
 2. Explain the role of the Office of Naval Research (ONR)
 3. Describe the role of the Naval Research Laboratory (NRL)
 4. Describe the objectives of naval oceanographic research
 5. Describe the current advanced research and development project areas

Military Law

- A. Introduction to Military Law
1. Describe the history of law codes as it pertains to the U.S Navy
 2. Describe the relationship between the U.S. Constitution and military law
 3. Define and describe the importance of Navy regulations
 4. Explain the purpose of the Uniform Code of Military Justice (UCMJ)
- B. Discipline and Punishment
1. Describe the classes of naval disciplinary actions
 2. Explain the purpose and give examples of nonjudicial punishment
 3. Describe the types of military court martials and the review process
 4. Explain the relationship between civil jurisdiction and military justice
 5. Describe the process of disciplinary separation from the services

International Law and the Sea

- A. Fundamentals of International Law
1. Describe the parts and significance of the Declaration of Independence
 2. Describe the role of the government in an American democracy
- B. International Law of the Sea
1. Define the five principles of international law
 2. Identify the three sources of law which bind nations in a contractual manner and its effect on the sovereignty of a nation
 3. Describe the relationship between the U.S. Constitution and international treaties
 4. Describe the process in which the United States grants diplomatic recognition to any state

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C. The Law of War at Sea

1. Describe territorial sea and the establishment of boundaries on the high seas and between nations divided by international rivers
2. Describe the Law of the Sea and its' impact on straits, archipelagoes, gulfs, bays, rivers, lakes, canals and seas
3. Describe the potential economic zone problems as it relates to territorial sea

Ship Construction and Damage Control

A. Ship Construction

1. Describe the eight major factors for the construction of any United States Naval Ship
2. Describe terms of a ship's structure
3. Describe the three types of Naval vessel propulsion plants

B. Damage Control and Firefighting

1. Describe the damage control organizational structure, services, functions and responsibilities
2. Describe repair parties responsibilities
3. Explain the material conditions of readiness
4. Describe the three physical requirements for a fire to occur
5. Describe the four classes of fires

Basic Seamanship

A. Deck Seamanship

1. Describe the importance of securing at sea
2. Describe the duties and responsibilities of deck department personnel
3. Describe the types and makeup of ropes used in the Navy

B. Ground Tackle and Deck Equipment's

1. Describe naval aircraft squadrons including organization, administration, training and maintenance
2. Describe the purposes of the various U.S. Navy aircraft in each of its' striking forces and their missions

Naval Weapons and Aircraft

A. Introduction to Naval Weapons

1. Describe the evolution of naval weapons from 1453 to present
2. Discuss basic weapons terminology
3. Describe the Naval weapons organization
4. Discuss the range of weapons
5. Describe the major considerations used to select a ship's weapons systems
6. Describe weapon systems elements and requirements
7. Describe the shipboard weapons control systems

B. Naval Guns

1. Describe the major characteristics and nomenclature of naval guns
2. Describe the principle components of gun ammunition
3. Describe the techniques to provide gunfire support
4. Describe the principles of gun projectiles

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C. Naval Aircraft and Missiles

1. Describe the evolution of naval aviation and their weapons systems
2. Describe the types of naval aircraft
3. Describe the general types of guided missiles
4. Describe the types, usage and four basic components of guided missile systems
5. Describe the Navy's submarine-launched ballistic missile program
6. Describe the purpose and use of cruise, air-to-air and air-to-surface missiles

D. Chemical, Biological, and Nuclear Warfare

1. Describe the purpose and use of conventional weapons
2. Describe the purpose of chemical and biological warfare
3. Describe the concerns with the use of chemical and biological warfare
4. Describe the impact and types of chemical warfare agents found in most major nations today
5. Describe nuclear warfare and the possible effects of a nuclear warhead explosion
6. Explain the physiological effects of radiation exposure on personnel

III. ACCOUNTABILITY DETERMINANTS

A. Key Assignments

1. Semester drill and platoon ceremony inspections
2. Monthly platoon commander uniform inspections
3. Weekly senior naval science instructor uniform inspections
4. State physical fitness test
5. Presidential Physical Fitness Test

B. Assessment Methods

Assessment of student performance will include but not be limited to;

1. Quizzes
2. Tests (End of each semester)
3. Youth Physical Fitness Tests (One per semester)
4. Midterm and Semester Final Exams
5. Drill performance evaluations
6. Uniform inspections
7. Assignment of merits/de-merits

IV. INSTRUCTIONAL MATERIALS AND METHODOLOGIES

A. Required Textbook(s)

Hobbs, R. (2009). Naval Science 3: Naval Knowledge, Leadership and Nautical Skills for the NJROTC Student (2nd ed.). Naval Institute Press. ISBN 9781591143673

B. Supplementary Materials

1. Classroom Performance System (CPS)
2. CPS Pulse™ clickers
3. Mobi™ View Interactive Smart-Board
4. Examination/Assessment Software Suite

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- C. Instructional Methodologies
 - 1. Classroom Performance System
 - 2. Computer(s)
 - 3. Television
 - 4. DVD Player
 - 5. PowerPoint
 - 6. Presentations
 - 7. Group Discussions
 - 8. Demonstrations
 - 9. Handouts
 - 10. Lecture(s)
 - 11. Teaching Interviews
 - 12. Case Studies
 - 13. Practical Application(s)