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PROGRAM CONCENTRATION: **Government &Public Safety**
CAREER PATHWAY: **JROTC – Navy**
COURSE TITLE: **Naval Science I Cadet Field Manual**

Course Description: The purpose of this course is to combine all information on military drill and ceremonies, uniform regulations, physical fitness, orienteering, principles of health, first aid, survival, leadership, and communications. Minimum performance requirements of this course are in accordance with current Chief of Naval Education Training Instruction, NAVEDTRA 37128. The performance standards in this course are based on the performance standards identified in the curriculum for the United States Navy Junior Reserve Officer Training Corps. Successful completion of three courses of credit will qualify the student for advanced placement in a college ROTC program or accelerated promotion in the military service.

NJROTC UNIFORM REGULATIONS, RANKS, and CUSTOMS

PS- NSICFM-1: Students will demonstrate the knowledge of and ability to present himself/herself properly groomed in a correctly composed designated uniform.

a. Illustrate the uniform as an important element in the morale, pride, discipline, and effectiveness of the NJROTC Program.
b. Model the correct uniform composition.
c. Demonstrate the wearing of uniform and express the uniform standards described in the Cadet Field Manual.
d. Prove how the wearing of the NJROTC uniform reflects upon the student's NJROTC Unit, school, the U.S. Navy, the community, and the country.
e. Demonstrate the importance of proper appearance and grooming standards for wearing an NJROTC uniform.
f. Demonstrate the procedures for wearing the necktie with the NJROTC male uniform.
g. Cite the requirements for wearing insignias and devices on the NJROTC uniform.
h. Derive where awards and decorations (medals, etc…) are worn on the NJROTC uniform.

Academic Standard(s): SSCG7 The student will describe how thoughtful and effective participation in civic life is characterized by obeying the law, paying taxes, serving on a jury, participating in the political process, performing public service, registering for military duty, being informed about current issues, and respecting differing opinions.

PS- NSICFM -2: Students will recognize the various rates/ranks of NJROTC and active duty personnel, and understand the different assignments associated with each billet.

a. Induce and list various NJROTC rates and ranks and be able to understand assignments associated with each billet.
b. Assess and model the rates and ranks of active duty Navy personnel.

Academic Standard(s): MLII.CU1 The students understand perspectives, practices, and products of the cultures where the target language is spoken and how they are interrelated.

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The students:

a. Participate in real or simulated cultural events, such as family activities and holiday celebrations.
b. Identify patterns of behavior typically associate with cultures, such as eating and shopping customs, leisure activities, and celebration of national holidays.

PS- NSICFM -3: Students will demonstrate knowledge of and respect for military customs, courtesies, etiquette, and ceremonies.

a. Evaluate the types of military customs to include their purposes and when courtesies are being rendered.
b. Describe the flag of the United States as a standard of honor.
c. State the procedures in pledging allegiance to the flag.
d. Describe the sequence of events in military ceremonies, reviews, and parades.
e. Demonstrate the prescribed movements in the handling of weapons and military drills and ceremonies.

Academic Standard(s): MLI.CU1 The students develop an awareness of perspectives, practices, and products of the cultures where the target language is spoken. The students:

a. Demonstrate knowledge of contributions of target culture(s) to civilization.
b. Identify commonly held viewpoints of the cultures, such as those relating to time, education, and meals.
c. Describe customs and traditions of the cultures such as greetings, celebrations and courtesies.

INSPECTION

PS- NSICFM -4: Students will understand and fulfill the proper procedures for inspection.

a. Judge the techniques for conducting a personnel inspection.
b. Model the inspecting officer's duties (tour) when he or she inspects a platoon.
c. Adapt the general inspection guidelines (items) that inspecting officers look for when inspecting a cadet in a platoon.
d. Perform the proper procedures for inspection.

Academic Standard(s): SCSh8 Students will understand important features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

a. Scientific investigators control the conditions of their experiments in order to produce valuable data.
b. Scientific researchers are expected to critically assess the quality of data including possible sources of bias in their investigations' hypotheses, observations, data analyses, and interpretations.

c. Scientists use practices such as peer review and publication to reinforce the integrity of scientific activity and reporting.

MILITARY DRILL

PS- NSICFM -5: Students will demonstrate the purposes of military drill, terms used in military drill, different types of commands, proper techniques for giving commands and general rules for drill.

a. State the purpose of military drill.
b. Define terms used in military drill.
c. Illustrate the different types of commands.
d. Adapt general rules for drill.
e. Demonstrate the proper technique when given commands.

Academic Standard(s): SSKG1 The student will describe *American culture* by explaining diverse community and family celebrations and customs.

PS- NSICFM -6: Students will demonstrate the prescribed drill without arms movements in military drill and ceremonies.

a. Name and demonstrate the positions and instructions for basic drill without arms.
b. Express the correct formations and instructions for basic drill without arms.
c. Determine and demonstrate the correct marching steps for basic drill without arms.
d. Illustrate the commands for changing direction for basic drill without arms.

Academic Standard(s): SCSh2 Students will use standard safety practices for all classroom laboratory and field investigations.

b. Demonstrate appropriate techniques in all laboratory situations.
c. Follow correct protocol for identifying and reporting safety problems and violations.

PS- NSICFM -7: Students will demonstrate the prescribed positions, movements, and commands of the Manual of Arms with the NJROTC Drill Rifle (Mark 5 or Mark 6 M-1).

a. State the make-up of the rifle nomenclature.
b. List the importance of all the positions of the rifle.
c. Show all of the positions of the rifle.
d. Prove the procedures for salutes under arms given by individuals.
e. Induce and express the procedure for stacking arms.
f. Demonstrate authorized movements in the Manual of Arms with the NJROTC rifle.
g. Derive and justify the procedures for the platoon to take arms.

Academic Standard(s): SCSh2 Students will use standard safety practices for all classroom laboratory and field investigations.

a. Follow correct procedures for use of scientific apparatus.

b. Demonstrate appropriate techniques in all laboratory situations.
c. Follow correct protocol for identifying and reporting safety problems and violations.

SWORDS

PS- NSICFM -8: Students will demonstrate the prescribed movements and handling execution of swords based on the Sword Manual.

a. Make sense of sword history as it relates to symbol of authority, sword etiquette, ancient history and sword salute.
b. Show how the sword is used at sword ceremonies.
c. Describe the nomenclature and the general rules of the sword.
d. Write the commands and movements of the Sword Manual.

Academic Standard(s): SCSh4 Students will use tools and instruments for observing, measuring, and manipulating scientific equipment and materials.

a. Develop and use systematic procedures for recording and organizing information.
b. Use technology to produce tables and graphs.
c. Use technology to develop, test, and revise experimental or mathematical models.

GUIDON

PS- NSICFM -9: Students will understand the purpose of and positions of the guidon.

a. Assess and solve the execution of the Guidon Manual.
b. Express the positions of the guidon.

Academic Standard(s): SCSh2 Students will use standard safety practices for all classroom laboratory and field investigations.

a. Follow correct procedures for use of scientific apparatus.
b. Demonstrate appropriate techniques in all laboratory situations.
c. Follow correct protocol for identifying and reporting safety problems and violations.

NATIONAL ENSIGN

PS- NSICFM -10: Students will demonstrate a knowledge of and respect for the national ensign (American flag). Students will demonstrate the execution of commands for ceremonies using the American flag.

a. Demonstrate the hoisting and lowering and folding of the national ensign.
b. Derive the meaning of the Color Guard.
c. Explain the execution of the commands for the Manual of the Color(s).
d. Express the execution of movements for the Manual of the Colors.

Academic Standard(s): SSUSH3 The student will explain the primary causes of the American Revolution.

b. Explain colonial response to such British actions such as the Proclamation of 1763 Stamp Act, and the intolerable acts as seen in Sons and Daughters of Liberty, and Committees of Correspondence.
c. Explain the importance of Thomas Paine's Common Sense to the movement for independence.

HUMAN GROWTH & DEVELOPMENT and PHYSICAL FITNESS

PS- NSICFM -11: Students will demonstrate an understanding of the essential elements of human growth and development and the principles of health education.

a. Name the fundamentals of human growth and development.
b. Choose and model the principles of health hygiene.
c. Describe and predict the dangers of drug, alcohol, and tobacco use and abuse.

Academic Standard(s): SAP2 Students will analyze the interdependence of the integumentary, skeletal, and muscular systems as these relate to the protection, support and movement of the human body.

a. Relate the structure of the integumentary system to its functional role in protecting the body and maintaining homeostasis.
b. Explain how the skeletal structures provide support and protection for tissues, and function together with the muscular system to make movements possible.

PS- NSICFM -12: Students will demonstrate an understanding of the skills and knowledge associated with physical fitness and the basic physical exercises and requirements.

a. Explain the principles associated with the word fitness.
b. State the principles associated with physical fitness.
c. Define the principles of a sound exercise program.
d. List the principles for the prevention of heat stress and dehydration.
e. Demonstrate the basic warm-up and cardiovascular exercise.

Academic Standard(s): SAP4 Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.

a. Describe the chemical and physical mechanisms of digestion, elimination, transportation, and absorption within the body to change food and derive energy.
b. Analyze, and explain the relationships between the respiratory and cardiovascular systems as they obtain oxygen needed for the oxidation of nutrients and removal of carbon dioxide.
c. Relate the role of the urinary system to regulation of body wastes (i.e. water-electrolyte balance, volume of body fluids).
d. Examine various conditions that change normal body functions (e.g. tissue rejection, allergies, injury, diseases and disorders) and how the body responds.
e. Describe the effects of aging on body systems.

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PS- NSICFM -13: Students will demonstrate an understanding of the skills and knowledge associated with physical fitness and the basic physical exercises and requirements.

a. Adapt the requirements of the physical fitness test.
b. Prove the physical fitness test procedures.
c. Demonstrate the ability to perform physical fitness exercises correctly.
d. Evaluate the scoring of the physical fitness test.

Academic Standard(s): SAP4 Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.

e. Describe the effects of aging on body systems.

FIRST AID

PS- NSICFM -14: Students will demonstrate those skills needed to administer first aid to help save a life, prevent further injury, and minimize or prevent infection.

a. Make meaning of the fundamentals of first aid.
b. List first aid for maintenance of basic life support.
c. State basic first aid for bleeding and other circulatory problems.
d. Describe basic first aid for injuries to bones and joints.
e. Derive injuries and basic first aid for exposure to temperature extremes.
f. Determine basic first aid for poisoning.
g. Predict first aid for common medical emergencies.
h. Infer basic first aid for shock.
i. Contrast basic first aid for soft tissue injuries.
j. Explain basic emergency transport methods.

Academic Standard(s): SAP4 Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.

b. Analyze, and explain the relationships between the respiratory and cardiovascular systems as they obtain oxygen needed for the oxidation of nutrients and removal of carbon dioxide.
c. Relate the role of the urinary system to regulation of body wastes (i.e. water-electrolyte balance, volume of body fluids).
d. Examine various conditions that change normal body functions (e.g. tissue rejection, allergies, injury, diseases and disorders) and how the body responds.

LAND NAVIGATION & ORIENTEERING

PS- NSICFM -15: Students will demonstrate knowledge and understanding of orienteering and apply the knowledge to land navigation and orienteering field activities.

a. Describe the sport of orienteering.
b. Explain how an orienteering course is laid out

c. List the various forms of orienteering activities
d. Show the qualification requirements for the NJROTC orienteering ribbon.
e. Identify the features and how to read orienteering and other topographical maps.
f. List the four possible adverse impacts of international legal rules affecting the deployment and navigation of naval vessels.
g. Predict how distances are measured in orienteering.
h. Express the land navigation techniques used by the orienteer.

Academic Standard(s): SSWG1 The student will explain the physical aspects of geography.

a. Describe the concept of place by explaining how physical characteristics such as landforms, bodies of water, climate, soils, natural vegetation, and animal life are used to describe a place.

SURVIVAL

PS- NSICFM -16: Students will demonstrate knowledge and understanding of the theory of survival and apply that knowledge to the practice of survival under a variety of climatic conditions.

a. State the fundamentals of survival.
b. State the principles for survival in tropical areas.
c. State the principles for survival in cold areas.
d. State the principles for survival in water.

Academic Standard(s): SSWG2 The student will explain the cultural aspects of geography

c. Analyze how physical factors such as mountains, climate, and bodies of water interact with the people of a region to produce a distinctive culture.

CHAIN OF COMMAND

PS- NSICFM -17: Students will demonstrate knowledge and understanding of the chain of command as it relates to an effective and functioning NJROTC organization.

a. List the chain of command from President of the United States to junior seaman recruit.
b. Prove the NJROTC chain of command is organized like a pyramid with one person on top and many on the bottom.
c. Justify the positions that fall under the NJROTC chain of command.
d. Display how the cadet's uniform and insignia show his or her level of authority in the chain of command.

Academic Standard(s): SSCG15 The student will explain the functions of the departments and agencies of the federal bureaucracy.

a. Compare and contrast the organization and responsibilities of independent regulatory agencies, government corporations, and executive agencies.
b. Explain the functions of the Cabinet.

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ORDERS TO THE SENTRY

PS- NSICFM -18: Students will demonstrate knowledge and understanding of the orders to the sentry as it relates his/her performance of duties as a sentinel and a member of the guard.

a. List the orders to the sentry.
b. State how orders to the sentry are used as a means of security for ships and duty stations.
c. Describe how security involves sentry duty, guard duty, fire watches and barracks watches.
d. Translate the proper response to sentry orders and the correct method of posting a sentry.

Academic Standard(s): SSCG7 The student will describe how thoughtful and effective participation in civic life is characterized by obeying the law, paying taxes, serving on a jury, participating in the political process, performing public service, registering for military duty, being informed about current issues, and respecting differing opinions.

Reading Across the Curriculum

Reading Standard Comment
After the elementary years, students engage in reading for learning. This process sweeps across all disciplinary domains, extending even to the area of personal they experience text in all genres and modes of discourse. In the study of various disciplines of learning (language arts, mathematics, science, social studies), students must learn through reading the communities of discourse of each of those disciplines. Each subject has its own specific vocabulary, and for students to excel in all subjects, they must learn the specific vocabulary of those subject areas in context.

Beginning with the middle grades years, students begin to self-select reading materials based on personal interests established through classroom learning. Students become curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

Reading across curriculum content develops both academic and personal interests in students. As students read, they develop both content and contextual vocabulary. They also build good habits for reading, researching, and learning. The Reading Across the Curriculum standard focuses on the academic and personal skills students acquire as they read in all areas of learning.

Students will enhance reading in all curriculum areas by:
a. Reading in all curriculum areas

- Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
- Read both informational and fictional texts in a variety of genres and modes of discourse.
- Read technical texts related to various subject areas.

b. Discussing books
- Discuss messages and themes from books in all subject areas.
- Respond to a variety of texts in multiple modes of discourse.
- Relate messages and themes from one subject area to messages and themes in another area.
- Evaluate the merit of texts in every subject discipline.
- Examine author's purpose in writing.
- Recognize the features of disciplinary texts.

c. Building vocabulary knowledge
- Demonstrate an understanding of contextual vocabulary in various subjects.
- Use content vocabulary in writing and speaking.
- Explore understanding of new words found in subject area texts.

d. Establishing context
- Explore life experiences related to subject area content.
- Discuss in both writing and speaking how certain words are subject area related.
- Determine strategies for finding content and contextual meaning for unknown words.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and postsecondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.

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PROGRAM CONCENTRATION: Government &Public Safety
CAREER PATHWAY: JROTC – Navy
COURSE TITLE: Naval Science I Introduction to NJROTC

Course Description: The purpose of this course is to help students understand the missions, goals, and opportunities available as members of the NJROTC program. This course will also introduce students to the basic principles of leadership, which combined with the many opportunities for practical experience in the NJROTC program will prepare them for leadership roles in school and upon graduation. Students will gain an understanding of our nation, our values, traditions, heritage, respect for our laws, as well as becoming involved, responsible citizens. Minimum performance requirements of this course are in accordance with current Chief of Naval Education Training Instruction, NAVEDTRA 37128. The performance standards in this course are based on the performance standards identified in the curriculum for the United States Navy Junior Reserve Officer Training Corps. Successful completion of three courses of credit will qualify the student for advanced placement in a college ROTC program or accelerated promotion in the military service.

HISTORY and BACKGROUND of the NJROTC PROGRAM

PS- NSINTRO-1: Students will demonstrate a knowledge of and respect for the responsibilities of loyal citizens in a democratic society.

i. Identify the public law that established the Junior ROTC Program.
j. Assess under whose guidance the NJROTC program is administered.
k. Describe the team members/instructors teaching the NJROTC program.
l. Determine the type of support provided by the Navy for the Naval Science classroom, and for the cadets enrolled in the program.

Academic Standard(s): SSCG3 The student will demonstrate knowledge of the United States Constitution.

b. Analyze the purpose of government stated in the Preamble of the United States Constitution.

MISSIONS, GOALS and POLICIES of the NJROTC PROGRAM

PS- NSINTRO -2: Students will demonstrate a knowledge of and respect for the responsibilities of loyal citizens in a democratic society.

c. State the mission and goals the NJROTC program expects to achieve.
d. Express where the focus of the NJROTC program will lie.
e. Describe the policies a student must meet in order to enroll in the NJROTC unit.
f. Explain the procedures used to disenroll cadets from the NJROTC program.
g. Cite the Navy's core values and explain what it means for everyone to be committed to their fellow cadets in the NJROTC program.

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Academic Standard(s): SSCG7 The student will describe how thoughtful and effective participation in civic life is characterized by obeying the law, paying taxes, serving on a jury, participating in the political process, performing public service, registering for military duty, being informed about current issues, and respecting differing opinions.

THE NAVAL SCIENCE CURRICULUM

PS- NSINTRO -3: Students will demonstrate a knowledge of and respect for the responsibilities of loyal citizens in a democratic society.

f. Discuss the history of the U.S. Navy and the role it has played in building our nation.
g. Prove how the course uses nautical sciences as areas of scientific study in the program.
h. Tell how the course includes various areas of naval knowledge in the study of sea power.
i. Cite how the course will use various areas of naval skills in the study of life in the Navy.
j. Discuss how the basic principles of ethics and morals will be used to teach leadership in the course.

Academic Standard(s): SSCG3 The student will demonstrate knowledge of the United States Constitution.

b. Analyze the purpose of government stated in the Preamble of the United States Constitution.
c. Explain the fundamental principles upon which the United States Constitution is based including the rule of law, popular sovereignty, separation of powers, checks and balances, and federalism.

PS- NSINTRO -4: Students will demonstrate a knowledge of and respect for the responsibilities of loyal citizens in a democratic society.

e. State the purpose of having all students participate in learning the basics of military drill.
f. Determine why the NJROTC program encourages physical fitness for all students.
g. Choose to take orientation trips during the school year, and observe what it does for cadet leadership training.
h. Discuss the objectives of the NJROTC Leadership Academy and the opportunities for cadet advanced leadership training.

Academic Standard(s): SS4CG3 The student will describe the functions of government.

c. Describe providing for the defense of the nation.
d. Explain limiting the power of people in authority.
e. Explain the fiscal responsibility of government.

PS- NSINTRO -5: Students will demonstrate a knowledge of and respect for the responsibilities of loyal citizens in a democratic society.

f. List the main reasons for enrolling in NJROTC.
g. Derive the kind of self-discipline a cadet hopes to achieve by being a cadet in the NJROTC program.
h. Create opportunities to develop leadership skills when placed in an NJROTC leadership position.

i. Prove the special military pay grade benefits that can be earned through the NJROTC program.

Academic Standard(s): SSCG7 The student will describe how thoughtful and effective participation in civic life is characterized by obeying the law, paying taxes, serving on a jury, participating in the political process, performing public service, registering for military duty, being informed about current issues, and respecting differing opinions.

CAREER PLANNING

PS- NSINTRO -6: Students will demonstrate a knowledge of and respect for the responsibilities of loyal citizens in a democratic society.

e. Develop individual short-term, mid-term, and long-term goals for the future.
f. Infer how a school transcript can be used for admittance to college, scholarships, and job training.
g. Define good study habits and the traits of a successful student.
h. Discuss some advantages of enlistment in the Navy.
i. Determine eligibility requirements for admission to the U.S. Naval Academy and the benefits of the NJROTC college scholarship program.

Academic Standard(s): SSCG6 The student will demonstrate knowledge of civil liberties and civil rights.

a. Examine the Bill of Rights with emphasis on First Amendment freedoms.
b. Analyze due process law expressed in the 5th and 14th Amendments.
c. Explain selective incorporation of the Bill of Rights.
d. Explain how government seeks to maintain the balance between individual liberties and the public interest.
e. Explain every citizen's right to be treated equally under the law.

LEADERSHIP and FOLLOWERSHIP

PS- NSINTRO -7:
Students will demonstrate knowledge of followership and leadership principles, leadership opportunities in NJROTC, and interpersonal skills such as motivation, relationships, attitudes, and emotions.

h. Define followership.
i. Contrast the different types of followers.
j. Compare the qualities of a good follower, and the importance of obedience in a military organization.
k. Describe the duties of a good follower.

Academic Standard(s): SSCG10 The student will describe the legislative process, including the roles played by committees and leadership.

b. Explain the function of various leadership positions within the legislature.

PS- NSINTRO -8: Students will demonstrate knowledge of followership and leadership principles, leadership opportunities in NJROTC, and interpersonal skills such as motivation, relationships, attitudes, and emotions.

e. Define leadership
f. State the traits of an effective leader.
g. Name the personal qualities of an effective leader.
h. Determine the range of leadership styles and strategies of successful leaders, from the very autocratic to the very democratic.

Academic Standard(s): SSCG10 The student will describe the legislative process, including the roles played by committees and leadership.

b. Explain the function of various leadership positions within the legislature.

PS- NSINTRO -9: Students will demonstrate knowledge of followership and leadership principles, leadership opportunities in NJROTC, and interpersonal skills such as motivation, relationships, attitudes, and emotions.

c. Make sense of the typical NJROTC unit organizational chart.
d. Evaluate the leadership positions found in the unit.

Academic Standard(s): SSCG9 The student will explain the differences between the House of Representatives and the Senate with emphasis on terms of office, powers, organization, leadership, and representation of each house.

MOTIVATION, RELATIONSHIPS, ATTITUDES, and EMOTIONS

PS- NSINTRO -10: Students will demonstrate knowledge of followership and leadership principles, leadership opportunities in NJROTC, and interpersonal skills such as motivation, relationships, attitudes, and emotions.

e. Discuss Maslow's priority of human needs
f. Translate the main motivating factors in people's actions, and how it impacts on their attitude to do a better job.
g. Express punishment as a negative approach to motivation.
h. Express rewards as a positive approach to motivation.

Academic Standard(s): SCSh8 Students will understand important features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

a. Scientific investigators control the conditions of their experiments in order to produce valuable data.
b. Scientific researchers are expected to critically assess the quality of data including possible

sources of bias in their investigations' hypotheses, observations, data analyses, and interpretations.
c. Scientists use practices such as peer review and publication to reinforce the integrity of scientific activity and reporting.
d. The merit of a new theory is judged by how well scientific data are explained by the new theory.
e. The ultimate goal of science is to develop an understanding of the natural universe which is free of biases.
f. Science disciplines and traditions differ from one another in what is studied, techniques used, and outcomes sought.

PS- NSINTRO -11: Students will demonstrate knowledge of followership and leadership principles, leadership opportunities in NJROTC, and interpersonal skills such as motivation, relationships, attitudes, and emotions.

d. Model senior and subordinate relationships in a typical military situation.
e. Cite three reasons for chain-of-command.
f. State roadblocks and their effect on relationships in the NJROTC unit.
g. Define prejudice and how people show prejudice in their general behavior.
h. Discuss how frustration, anger, sexual harassment, being picked-on, and unfair situations cause conflicts in human behavior.
i. Predict what the individual can do to learn about solving conflict.

Academic Standard(s): SSEPF6 The student will describe how the earnings of workers are determined in the marketplace.

a. Identify skills which are required to be successful in the workplace.
b. Explain the significance of investment in education, training and skill development.

PS- NSINTRO -12: Students will demonstrate knowledge of followership and leadership principles, leadership opportunities in NJROTC, and interpersonal skills such as motivation, relationships, attitudes, and emotions.

f. Derive how an individual's attitude influences others around him/her and contributes to the success of the NJROTC unit.
g. Adapt the key to having a good attitude.
h. Confer the difference between winning and losing attitudes.
i. State how physical activity can help work out the feelings associated with an intense emotional buildup.
j. Imagine how the ability to retain a sense of humor can be a big asset in the construction of expression of emotions.

Academic Standard(s): SSEPF6 The student will describe how the earnings of workers are determined in the marketplace.

a. Identify skills which are required to be successful in the workplace.
b. Explain the significance of investment in education, training and skill development.

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CITIZENSHIP: LAWS, AUTHORITY, RESPONSIBILITY

PS- NSINTRO -13: Students will demonstrate knowledge of and respect for the responsibilities of loyal citizens in a democratic society.

e. Define the words "citizen" and "citizenship".
f. State the 24 characteristics of a good citizen.
g. Describe how laws affect the way we live.
h. Define "constituted authority" as it relates to the making of laws.
i. Compare the relationship between authority, responsibility, and accountability.
j. Discuss the eleven parts of the Bill of Responsibilities and what they represent when accepted by members of a free society.

Academic Standard(s): SSCG6 The student will demonstrate knowledge of civil liberties and civil rights.

a. Examine the Bill of Rights with emphasis on First Amendment freedoms.
b. Analyze due process law expressed in the 5th and 14th Amendments.
c. Explain selective incorporation of the Bill of Rights.
d. Explain how government seeks to maintain the balance between individual liberties and the public interest.
e. Explain every citizen's right to be treated equally under the law.

PS- NSINTRO -14: Students will demonstrate knowledge of and respect for the responsibilities of loyal citizens in a democratic society.

k. Discuss how the invention of radio and television forced many changes in our government.
l. Define absolute monarchy type of government.
m. Define socialism as a form of government.
n. Evaluate the rise of the fascist movement in two European countries in the early 1920's as a form of government.
o. Critique the communist ideology of combining economical and political systems as a form of government.
p. Prove the success of the democratic form of government and how it is based upon equality, justice, and freedom for all citizens.

Academic Standard(s): SSCG2 The student will analyze the natural rights philosophy and the nature of government expressed in the Declaration of Independence.

a. Compare and contrast the Declaration of Independence to the Social Contract Theory.
b. Evaluate the Declaration of Independence as a persuasive argument.

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PS- NSINTRO -15: Students will demonstrate knowledge of and respect for the responsibilities of loyal citizens in a democratic society.

i. Prove three ways a person can become a citizen of the United States.
j. Discuss a person's rights as a citizen.
k. State a citizen's duty to obey and respect the laws of his/her country.
l. Identify a person's loyalty to their government, their state, and their country.

Academic Standard(s): SSCG6 The student will demonstrate knowledge of civil liberties and civil rights.

a. Examine the Bill of Rights with emphasis on First Amendment freedoms.
b. Analyze due process law expressed in the 5th and 14th Amendments.
c. Explain selective incorporation of the Bill of Rights.
d. Explain how government seeks to maintain the balance between individual liberties and the public interest.
e. Explain every citizen's right to be treated equally under the law.

FOUNDATIONS OF OUR GOVERNMENT

PS- NSINTRO -16: Students will demonstrate knowledge of how the Declaration of Independence and the Constitution of the United States established the foundation for how our democratic form of government operates to protect the rights of, and defend the citizens of the United States.

e. Derive the significance of the Declaration of Independence.
f. List the 5 parts of the Declaration of Independence.
g. Determine how the role of government in an American democracy is to serve the people.

Academic Standard(s): SSCG3 The student will demonstrate knowledge of the United States Constitution.

a. Explain the main ideas in debate over ratification including those in *The Federalist*.
b. Analyze the purpose of government stated in the Preamble of the United States Constitution.
c. Explain the fundamental principles upon which the United States Constitution is based including the rule of law, popular sovereignty, separation of powers, checks and balances, and federalism.

PS- NSINTRO -17: Students will demonstrate knowledge of how the Declaration of Independence and the Constitution of the United States established the foundation for how our democratic form of government operates to protect the rights of, and defend the citizens of the United States.

e. Discuss the significance of the Articles of Confederation.
f. Interpret the series of check and balances in the Constitution, and how they protect the rights of the people and establish boundaries of authority between state and federal government.

g. Adapt the purpose of the Constitution, the preamble, and the power in each of the seven articles.
h. Describe the three branches of the federal government and the specific law-making duties of each branch.
i. Interpret the significance of the Bill of Rights as amendments to the Constitution.

Academic Standard(s): SSCG5 The student will demonstrate knowledge of the federal system of government described in the United States Constitution.

a. Explain the relationship of the state governments to the national government.
b. Define the difference between enumerated and implied powers.
c. Describe the extent to which power is shared.
d. Identify powers denied to state and national governments.
e. Analyze the ongoing debate that focuses on the balance of power between state and national governments.
f. Analyze the supremacy clause found in Article IV and the role of the U.S. Constitution as the "supreme law of the land."

NATIONAL DEFENSE

PS- NSINTRO -18: Students will demonstrate knowledge of how the Declaration of Independence and the Constitution of the United States established the foundation for how our democratic form of government operates to protect the rights of, and defend the citizens of the United States.

e. Compare the relationship between the U.S. Navy with the U.S. government and its role in our national defense.
f. Define the role of the Secretary of Defense under the President of the United States.
g. List the membership of the National Security Council.
h. State the different departments under the Department of Defense.
i. Cite the military responsibilities of the Secretary of the Navy and the Chief of Naval Operations.

Academic Standard(s): SSCG15 The student will explain the functions of the departments and agencies of the federal bureaucracy.

a. Compare and contrast the organization and responsibilities of independent regulatory agencies, government corporations, and executive agencies.
b. Explain the functions of the Cabinet.

ORGANIZATION of the NAVY

PS- NSINTRO -19: Students will demonstrate knowledge of the mission, construction, and different classes of Navy ships used to carry out the military strategy of the United States.

a. Discuss the overall mission of the U.S. Navy.

b. State the geographical locations of the U.S. Navy operating forces throughout the world, and discuss their various missions.
c. Contrast the difference between Navy operating forces and Navy shore establishment.

Academic Standard(s): SSWG8 The student will describe the interaction of physical and human systems that have shaped contemporary Canada and the United States.

a. Describe the location of major physical features and their impact on the Canada and the United States.
f. Analyze how transportation and communications improvements led to the growth of industry in the United States and the consequences of such growth especially environmentally for both Canada and the United States.

NAVY SHIPS: MISSIONS and TERMINOLOGY

PS- NSINTRO: Students will demonstrate knowledge of the mission, construction, and different classes of Navy ships used to carry out the military strategy of the United States.

a. Define the mission of the Navy as it relates to carrying out the military strategy of the United States
b. Realize the objective of strategic deterrence in the Navy's mission.
c. Discuss the Navy's ability to control the use of the seas.
d. Discuss the projection of power ashore as it relates to the Navy's ability to deploy its forces to carry the fight to the enemy.
e. Discuss the Navy's presence throughout the world on the open seas as a show of force.

Academic Standard(s): SSUSH19 The student will identify the origins, major developments, and the domestic impact of World War II, especially the growth of the federal government.

b. Explain the Japanese attack on Pearl Harbor and the internment of Japanese-Americans.
c. Explain major events including the lend-lease program, the Battle of Midway, D-Day, and the fall of Berlin.
d. Describe war mobilization, as indicated by rationing, war-time conversion, and the role of women in war industries.
e. Describe Los Alamos and the scientific, economic, and military implications of developing the atomic bomb.

PS- NSINTRO -21: Students will demonstrate knowledge of the mission, construction, and different classes of Navy ships used to carry out the military strategy of the United States.

a. Explain the differences between civilian and Navy language when referring to various parts and locations aboard ship.
b. Show how ships are identified by name and designation.
c. Identify how the speed of a ship is stated in terms of nautical miles per hour over water, and how this compares to statute miles over land.

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Academic Standard(s):

PS- NSINTRO -22: Students will demonstrate knowledge of the mission, construction, and different classes of Navy ships used to carry out the military strategy of the United States.

a. List Navy ships in terms of type, size, displacement, length, beam, and missions performed.
b. Describe how Navy ships of the United States Navy are divided into two categories: combatant ships and auxiliary ships.
c. Cite the two types of submarines deployed by the Navy.

Academic Standard(s): SSUSH15 The student will analyze the origins and impact of U.S. involvement in World War I.

a. Describe the movement from U.S. neutrality to engagement in World War I, with reference to unrestricted submarine warfare

NAVAL AVIATION

PS- NSINTRO -23: Students will demonstrate knowledge of the history, development, and mission of naval aviation, and the contributions it made to sea warfare.

a. Discuss the beginning of naval aviation and the four approaches used to integrate aircraft with the fleet.
b. Contrast the differences between fixed-wing aircraft and rotary wing aircraft and the missions they perform.
c. Describe the tri-service aircraft model designation symbols used for air identification purposes.

Academic Standard(s): SPS8 Students will determine relationships among force, mass, and motion.

a. Calculate velocity and acceleration.
b. Apply Newton's three laws to everyday situations by explaining the following:

- Inertia
- Relationship between force, mass and acceleration
- Equal and opposite forces

c. Relate falling objects to gravitational force
d. Explain the difference in mass and weight.
e. Calculate amounts of work and mechanical advantage using simple machines.

PS- NSINTRO -24: Students will demonstrate knowledge of the history, development, and mission of naval aviation, and the contributions it made to sea warfare.

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a. Express how naval aircraft of the same type are organized into squadrons for the purpose of training, maintenance and administration.
b. Illustrate the variety of Navy aircraft available in each of its striking forces, and the missions they perform.

Academic Standard(s): SCSh7 Students will analyze how scientific knowledge is developed. Students will recognize that:

e. Testing, revising, and occasionally rejecting new and old theories never ends.

Reading Across the Curriculum

Reading Standard Comment
After the elementary years, students engage in reading for learning. This process sweeps across all disciplinary domains, extending even to the area of personal they experience text in all genres and modes of discourse. In the study of various disciplines of learning (language arts, mathematics, science, social studies), students must learn through reading the communities of discourse of each of those disciplines. Each subject has its own specific vocabulary, and for students to excel in all subjects, they must learn the specific vocabulary of those subject areas in context.

Beginning with the middle grades years, students begin to self-select reading materials based on personal interests established through classroom learning. Students become curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

Reading across curriculum content develops both academic and personal interests in students. As students read, they develop both content and contextual vocabulary. They also build good habits for reading, researching, and learning. The Reading Across the Curriculum standard focuses on the academic and personal skills students acquire as they read in all areas of learning.

Students will enhance reading in all curriculum areas by:

c. Reading in all curriculum areas
- Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
- Read both informational and fictional texts in a variety of genres and modes of discourse.
- Read technical texts related to various subject areas.

d. Discussing books
   - Discuss messages and themes from books in all subject areas.
   - Respond to a variety of texts in multiple modes of discourse.
   - Relate messages and themes from one subject area to messages and themes in another area.
   - Evaluate the merit of texts in every subject discipline.
   - Examine author's purpose in writing.
   - Recognize the features of disciplinary texts.

e. Building vocabulary knowledge
   - Demonstrate an understanding of contextual vocabulary in various subjects.
   - Use content vocabulary in writing and speaking.
   - Explore understanding of new words found in subject area texts.

f. Establishing context
   - Explore life experiences related to subject area content.
   - Discuss in both writing and speaking how certain words are subject area related.
   - Determine strategies for finding content and contextual meaning for unknown words.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and postsecondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

CTAE-FS-2 Academic Foundations: Learners achieve state academic

standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.

PROGRAM CONCENTRATION: **Government &Public Safety**
CAREER PATHWAY: **JROTC – Navy**
COURSE TITLE: **Naval Science II Maritime History**

Implementation date DRAFT
Fall 2010
Course Description: The purpose of this course is to build on the general introduction provided in Naval Science I, to further develop the traits of citizenship and leadership in students, introduce cadets to the maritime history of the world and the United States from the American Revolution through the present time. The material includes Bosnia, the demise of the Soviet Union, and the September 11, 2001 terrorists' attack upon the United States. Minimum performance requirements of this course are in accordance with current Chief of Naval Education Training Instruction, NAVEDTRA 37128. The performance standards in this course are based on the performance standards identified in the curriculum for the United States Navy Junior Reserve Officer Training Corps. Successful completion of three courses of credit will qualify the student for advanced placement in a college ROTC program or accelerated promotion in the military service.

SEA POWER and EARLY WESTERN CIVILIZATION

PS- NSIIMH-1: Students will demonstrate an understanding of how sea power influenced the growth of Early Western Civilization.
Describe the fall of the Roman Empire and the subsequent thousand years of turmoil that followed.
State the importance of sea power.
Determine the events that caused the Turks to lose the Battle of Lepanto in 1571 and their control Assess how sea power evolved and its influence on the ancient world.
of the Mediterranean area.
Describe the conflict between England and Spain in 1570.
Explain how the English defeated the Spanish Armada.

Academic Standard(s): SSWH3 The student will examine the political, philosophical and cultural interaction of Classical Mediterranean societies from 700 BCE to 400 CE.
e. Analyze the factors that led to the collapse of the western Roman Empire.

THE AMERICAN REVOLUTION

PS- NSIIMH -2: Students will demonstrate an understanding of how sea power influenced the American Revolution.
Name the taxing system used by England on the colonies and the subsequent events that led to the American Revolution.
State the difficulties the British faced in fighting naval battles with the colonies.
Tell how the American Navy was born and the significance of building the Navy.
Cite the importance of the first American Naval operation against the English Navy in the American Revolution.
Describe the two major events (turning point) of the battle of Saratoga and the impact it had on the American Revolutionary War.
Explain how naval power affected the outcome of the War at Sea.

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Describe the events leading up to the battle of Yorktown and the subsequent end of the fighting in the colonies.

Academic Standard(s): SSUSH3 The student will explain the primary causes of the American Revolution.

a. Explain how the end of Anglo-French imperial competition as seen in the French-Indian War, and the 1763 Treaty of Paris, laid the groundwork for the American Revolution.
b. Explain colonial response to such British actions such as the Proclamation of 1763 Stamp Act, and the intolerable acts as seen in Sons and Daughters of Liberty, and Committees of Correspondence.
c. Explain the importance of Thomas Paine's Common Sense to the movement for independence.

SSUSH4 The student will identify the ideological, military, and diplomatic aspects of the American Revolution.

a. Explain the language, organization, and intellectual sources including the writing of John Locke and Montesquieu of the Declaration of Independence and the role of Thomas Jefferson.
b. Explain the reason for and significance of the French alliance and foreign assistance and the roles of Benjamin Franklin and the Marquis de Lafayette.
c. Analyze George Washington as a military leader including the creation of a professional military and the life of a common soldier, crossing the Delaware River, and Valley Forge.
d. Explain Yorktown, the role of Lord Cornwallis and the Treaty of Paris, 1783.

THE GROWTH of AMERICAN SEA POWER, 1783-1860

PS- NSIIMH -3: Students will demonstrate an understanding of the growth of American sea power from 1783-1860.
List the reasons why the American economy suffered in 1783.
Cite the events surrounding the Navy Act of 1794.
Express the events during the quasi-war between America and France.
State the events surrounding the capture and destruction of the USS Philadelphia.
Describe the events that led to the final moves toward war between the United States and Britain.
Describe the major sea battles between the American and British forces during the War of 1812.
List other battles that occurred during the War of 1812.
Compare other major incidents where the British prevailed over American's sea vessels.
State the offensive maneuvers used by the British Navy during the War of 1812.
Assess how sea power influenced the spread of Western Civilization and the formative years of the new American republic.
Judge the contribution the U.S. Navy made to the progress of world trade between 1815 and 1860.

Academic Standard(s): SSUSH6 The student will analyze the nature of territorial and population growth, and its impact in the early decades of the new nation.

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a. Explain the Northwest Ordinance's importance in the westward migration of Americans, on slavery, public education, and the addition of new states.
b. Describe Jefferson's diplomacy of obtaining the Louisiana Purchase from France and the territory's exploration by Lewis and Clark.
c. Explain major reasons for the War of 1812 and the war's significance of the development of a national identity.
d. Describe the construction of the Erie Canal, the rise of New York City, and the development of the nation's infrastructure.
e. Describe the reasons for and importance of the Monroe Doctrine.

THE CIVIL WAR, 1861-1865

PS- NSIIMH -4: Students will demonstrate knowledge of the Civil War.
Discuss how the issue of slavery divided the North and South and led to the outbreak of the Civil War in 1861.
Investigate the major events that occurred during 1860-61 in America.
Write the resources of both the North and South and the preparations required to fight the Civil War.
Discuss the role of the Union Navy during the Civil War.
Describe the CSS *Virginia* (Formerly USS Merrimack) and the USS *Monitor*.
State how General Robert E. Lee was able to prolong the life of the Confederacy after the Battle of Hampton Roads.
Describe the Emancipation Proclamation as a significant psychological move for the North in the Civil War.
Describe the Battle of Gettysburg as the turning point in the Civil War.
Explain the role that Captain Semmes and the CSS Alabama played in the Civil War.
Explain the primary reason General Robert E. Lee was forced to surrender.
Define the changes in American Life that resulted during or as a result of the Civil War.

Academic Standard(s): SSUSH9 The student will identify key events, issues, and individuals relating to the causes, course, and consequences of the Civil War.

a. Explain the Kansas-Nebraska Act, the failure of popular sovereignty, Dred Scott case, and John Brown's Raid.
b. Describe President Lincoln's efforts to preserve the Union as seen in his second inaugural addresses and the Gettysburg speech and in his use of emergency powers such as his decision to suspend habeas corpus.
c. Describe the role of Ulysses Grant, Robert E. Lee, "Stonewall Jackson," William T. Sherman, and Jefferson Davis.
d. Explain the importance of Fort Sumter, Antietam, Vicksburg, Gettysburg, and the Battle for Atlanta.

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e. Describe the significance of the Emancipation Proclamation.
f. Explain the importance of the growing economic disparity between the North, and the South through an examination of population, functioning railroads, and industrial output.

THE RISE to WORLD POWER STATUS, 1865-1914

PS- NSIIMH -5: Students will demonstrate knowledge of the Navy's role from the Rise to World Power Status, 1865-1914.
Critique the changes in foreign relations and technology that affected the U.S. Navy following the Civil War.
Cite the education and training programs that were developed after the Civil War for the U.S. Navy.
List five major contributions Alfred T. Mahan made to modern navies.
Explain how the United States rebuilt its Navy or contributed to its expansion following the Civil War.
Explain American reaction to the sinking of the USS Maine and the war preparations made by the United States before the start of the Spanish-American War.
Describe the advances in naval power and technology under Theodore Roosevelt.
Discuss America's international relations from 1903 until World War I.
Derive the difficulties and importance of building the Panama Canal.

Academic Standard(s): SSUSH14 The student will explain America's evolving relationship with the world at the turn of the twentieth century.

a. Explain the Chinese Exclusion Act of 1882 and anti-Asian immigration sentiment on the west coast.
b. Describe the Spanish-American War, the war in the Philippines, and the debate over American expansionism.
c. Explain U.S. involvement in Latin America, as reflected by the Roosevelt Corollary to the Monroe Doctrine and the creation of the Panama Canal.

WORLD WAR I: 1914-1918

PS- NSIIMH -6: Students will demonstrate knowledge of the Navy's role in World War I, 1914-1918.
Explain the war plans made by Great Britain and Germany during World War I.
Describe actions taken by the German and the British during the Pacific Action.
List operational advantages of the German U-boats over the Allies during World War I.
Prove the events that brought America into World War I.
Evaluate the operation and significance of the convoy system that was used by Great Britain during World War I.
Describe the antisubmarine operations used by the U.S. Navy during World War I.

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State the role America played during World War I.
Translate events leading up to the surrender of Germany.

Academic Standard(s): SSUSH15 The student will analyze the origins and impact of U.S. involvement in World War I.

a. Describe the movement from U.S. neutrality to engagement in World War I, with reference to unrestricted submarine warfare.
b. Explain the domestic impact of World War I, reflected by the origins of the Great Migration, and the Espionage Act and socialist Eugene Debs.
c. Explain Wilson's Fourteen Points, the proposed League of Nations.
d. Passage of the Eighteenth Amendment, establishing Prohibition, and the Nineteenth Amendment, establishing women suffrage.

THE INTERWAR YEARS: 1918-1941

PS- NSIIMH -7: Students will demonstrate an understanding of the Interwar years, 1918-1941.
List the conditions set forth in the Naval Disarmament Treaty.
Identify the dictatorships that grew out of the great world depression.
Explain the condition of the U.S. Navy during the pre-war years.
Make sense of the final steps toward the war in Europe.
Justify U.S. isolationism/involvement from 1935 until the U.S. declared war on Japan on 8 December 1941.

Academic Standard(s): SSWH17 The student will be able to identify the major political and economic factors that shaped world societies between World War I and World War II.

a. Examine the impact of the war on science, art, and social thinking by identifying the cultural significance of Sigmund Freud, Albert Einstein, and Picasso.
b. Determine the causes and results of the Russian Revolution from the rise of the Bolsheviks under Lenin to Stalin's first Five Year Plan.
c. Describe the rise of fascism in Europe and Asia by comparing the policies of Benito Mussolini in Italy, Adolf Hitler in Germany, and Hirohito in Japan.
d. Analyze the rise of nationalism as seen in the ideas of Sun Yat Sen, Mustafa Kemal Attaturk, and Mohandas Ghandi.
e. Describe the nature of totalitarianism and the police state that existed in Russia, Germany, and Italy and how they differ from authoritarian governments.
f. Explain the aggression and conflict leading to World War II in Europe and Asia including the Italian invasion of Ethiopia, the Spanish Civil War, the rape of Nanjing in China, and the German annexation of the Sudentenland.

WORLD WAR II: 1941-1945

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PS- NSIIMH -8: Students will demonstrate an understanding of naval history in World War II in the Atlantic from 1941-1945.
Explain the events that led up to the Japanese attack on Pearl Harbor.
Describe the state of U.S. military readiness during and after the attack on Pearl Harbor.
List three miscalculations the Japanese made during and after the attack on Pearl Harbor.
Explain the outcome of the Battle of Anzio.
Determine why successful Allied air attacks in Operation Overlord were essential to the success of the invasion of Normandy.
Describe the major events of D-Day in Normandy.
Describe major events of Operation Anvil: Invasion of Southern France.

Academic Standard(s): SSUSH19 The student will identify the origins, major developments, and the domestic impact of World War II, especially the growth of the federal government.

a. Explain A. Philip Randolph's proposed march on Washington, D.C. and President Franklin D. Roosevelt's response.
b. Explain the Japanese attack on Pearl Harbor and the internment of Japanese-Americans.
c. Explain major events including the lend-lease program, the Battle of Midway, D-Day, and the fall of Berlin.
d. Describe war mobilization, as indicated by rationing, war-time conversion, and the role of women in war industries.
e. Describe Los Alamos and the scientific, economic, and military implications of developing the atomic bomb

PS- NSIIMH -9: Students will demonstrate an understanding of naval history in World War II in the Pacific from 1941-1945.
State the events that led up to the Japanese attack on Pearl Harbor.
Describe the state of U.S. military readiness during and after the attack on Pearl Harbor.
Explain three miscalculations the Japanese made during and following the attack on Pearl Harbor.
Cite two reasons the Battle of the Coral Sea was important.
Explain the significance of the Battle of Midway.
List the Battles of Guadalcanal.
Explain the submarine war in the Pacific.
Describe the battle of the Philippines Sea.
Discuss the condition of the Imperial Japanese Navy following Battles for Leyte Gulf.
Describe the U.S. occupation of Iwo Jima and its logistic significance.

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a. Explain A. Philip Randolph's proposed march on Washington, D.C. and President Franklin D.

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Roosevelt's response.
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e. Describe Los Alamos and the scientific, economic, and military implications of developing the atomic bomb

THE COLD WAR ERA: 1945-1991

PS- NSIIMH -10: Students will demonstrate an understanding of naval history in the Cold War Era, 1945-1991.
State the views and events during the demobilization following World War II.
Describe the events leading to the "Cold War".
Explain the postwar views and actions in relations to the unification of the armed forces and provisions for national security.
Assess postwar activities in the Far East in regard to insurgencies, nationalism, and anti-colonialism.
Illustrate initial stages of the Korean War.
State naval contributions in the Korean War.
List events involved with Operation Chromite: Inchon.
Describe the events involved in the Chinese Intervention within the Korean War.
Discuss the events involved in the Truce Talks of the Korean War.
Determine the outcome of the Korean War in regard to naval participation, U.S. government policy, global perspective, and Communist objectives.
Describe naval confrontations in the post-Korean era.
Discuss the Korean post-war period as it related to the U.S. Navy.
Express the Navy's movement into the nuclear age.
Show major events in the Cuban missile crisis.
Prove the major events that led to the breakup of Vietnam into North and South Vietnam.
State the restrictions placed on military forces stationed in Vietnam.
Describe the Vietnamization process established by the United States.
State the major events that led to the end of the Vietnam War.
Discuss the events that were included in the Post-Vietnam Modernization efforts.
Assess the joint U.S. task force's role in Grenada in the fall of 1983.
Induce the role the United States played in restoring democracy to Panama and the importance of Operation Just Cause to U.S. interests in Panama.
Discuss the rise of terrorism worldwide with events in the Middle East during the 1980's.
Describe the major events that occurred between Iran and Iraq in the Persian Gulf region.
Discuss the great changes experienced by the Soviet Union after the demolition of the Berlin Wall.

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Academic Standards(s): SSUSH20 The student will analyze the domestic and international impact of the Cold War on the United States.

a. Describe the creation of the Marshall Plan, U.S. commitment to Europe, the Truman Doctrine, and the origins and implications of the containment policy.
b. Explain the impact of the new communist regime in China, the outbreak of the Korean War, and how these events contributed to the rise of Senator Joseph McCarthy.
c. Describe the Cuban Revolution, the Bay of Pigs and the Cuban missile crisis.
d. Describe the Vietnam War, the Tet offensive and growing opposition to the war.

THE 1990'S and BEYOND

PS- NSIIMH -11: Students will gain an understanding of naval history in the 1990s and beyond.
List the terms of START II signed by the U.S. and Russia in 1993.
Describe the major events that occurred between Iran and Iraq in the Persian Gulf region.
Cite major events that occurred during both Operations Desert Shield and Desert Storm.
State the conflicts that took place in Somalia during the early 1990's.
Justify some of the actions taken by the U.S. in the aftermath of Desert Storm.
Define international terrorist attacks against the U.S. during the late 1990s.
Discuss domestic terrorist events that occurred in the late 1990s and September 11, 2001.
Predict the challenging years ahead facing our Navy.

Academic Standard(s): SSUSH25 The student will describe changes in national politics since 1968.
f. Analyze the response of President George W. Bush to the attacks of September 11, 2001 on the United States, the war against terrorism, and the subsequent American interventions in Afghanistan and Iraq.

Reading Across the Curriculum

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curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

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   - Read both informational and fictional texts in a variety of genres and modes of discourse.
   - Read technical texts related to various subject areas.

b. Discussing books
   - Discuss messages and themes from books in all subject areas.
   - Respond to a variety of texts in multiple modes of discourse.
   - Relate messages and themes from one subject area to messages and themes in another area.
   - Evaluate the merit of texts in every subject discipline.
   - Examine author's purpose in writing.
   - Recognize the features of disciplinary texts.

c. Building vocabulary knowledge
   - Demonstrate an understanding of contextual vocabulary in various subjects.
   - Use content vocabulary in writing and speaking.
   - Explore understanding of new words found in subject area texts.

d. Establishing context
   - Explore life experiences related to subject area content.
   - Discuss in both writing and speaking how certain words are subject area related.
   - Determine strategies for finding content and contextual meaning for unknown words.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be

successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and postsecondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to

work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.

PROGRAM CONCENTRATION: **Government &Public Safety**
CAREER PATHWAY: **JROTC – Navy**
COURSE TITLE: **Naval Science II Nautical Science**

Course Description: The purpose of this course is to introduce the various nautical sciences through classroom work and some laboratory time. The development of core skills that students should master is integrated throughout the course and includes geography, oceanography, astronomy, physical science, meteorology, and weather. Minimum performance requirements of this course are in accordance with current Chief of Naval Education Training Instruction, NAVEDTRA 37128. The performance standards in this course are based on the performance standards identified in the curriculum for the United States Navy Junior Reserve Officer Training Corps. Successful completion of three courses of credit will qualify the student for advanced placement in a college ROTC program or accelerated promotion in the military service.

MARITIME GEOGRAPHY of the EASTERN and WESTERN SEAS

PS- NSIINS-1: Students will demonstrate an understanding of maritime geography as it relates to our national resources, land forms, climate, soil, bodies of water, people, governments, military, and geopolitics.

a. Cite three important reasons for the study of geography.
b. Describe the subdivisions of the World Ocean.
c. State the importance of geography in military planning and operations.
d. Describe the Atlantic Ocean, Arctic Ocean, and Mediterranean Sea in terms of their economic and strategic importance to the United States and its allies.
e. Explain the importance of the Caribbean Sea and Gulf of Mexico to the United States.

Academic Standard(s): SSWG1 The student will explain the physical aspects of geography.

a. Describe the concept of place by explaining how physical characteristics such as landforms, bodies of water, climate, soils, natural vegetation, and animal life are used to describe a place.
b. Explain how human characteristics including population settlement patterns and human activities such as agriculture and industry can describe a place.
c. Analyze the interrelationship between physical and human characteristics of a place.

SSWG2 The student will explain the cultural aspects of geography

a. Describe the concept of place by explaining how the culture of a region is product of the regions physical characteristics.
b. Explain how cultural characteristics of a place can be used to describe a place.
c. Analyze how physical factors such as mountains, climate, and bodies of water interact with the people of a region to produce a distinctive culture.
d. Explain the how the development of customs and traditions help to define a culture and a people.

SSWG6 The student will describe the interaction of physical and human systems that have shaped contemporary Europe.

a. Describe the location of major physical features and their impact on Europe.
b. Describe the major climates of Europe and how they have affected Europe.
c. Analyze the importance of Europe's coastal location, climatic characteristics, and river systems regarding population, economic development, and world influence.
d. Describe the various ethnic and religious groups in Europe and the influence of geography on those groups and their major customs and traditions.
e. Explain why Europe has a highly integrated network of highways, waterways, railroads, and airline linkages.
f. Analyze the impact of geography on Russia in terms of population distribution, trade, and involvement in European affairs.
g. Analyze the environmental issues associated with industrial and natural resource development in Europe including Russia.

SSWG8 The student will describe the interaction of physical and human systems that have shaped contemporary Canada and the United States.

a. Describe the location of major physical features and their impact on the Canada and the United States.
b. Describe the major climates of Canada and the United States and how they affect Canada and the United States.
c. Explain the reasons for the population distribution in Canada and the United States.
d. Explain how the physical geography of Canada and the United States contributed to regional growth and development.

e. Describe the ethnic and religious groups in Canada and the United States including major customs and traditions.
f. Analyze how transportation and communications improvements led to the growth of industry in the United States and the consequences of such growth especially environmentally for both Canada and the United States.

PS- NSIINS -2: Students will demonstrate an understanding of maritime geography as it relates to our national resources, land forms, climate, soil, bodies of water, people, governments, military, and geopolitics.

a. Cite the importance of the Red Sea and the Gulf of Aden to American interests.
b. Explain the role of the United States and its allies in the Persian Gulf and the Gulf of Oman.
c. Describe the Indian Ocean in terms of its economic and strategic value to the United States and its allies.
d. Describe the value of the Pacific Ocean to the United States and its allies.
e. Show the special features of the Antarctic Ocean.

Academic Standard(s): SSWG1 The student will explain the physical aspects of geography.

a. Describe the concept of place by explaining how physical characteristics such as landforms, bodies of water, climate, soils, natural vegetation, and animal life are used to describe a place.
b. Explain how human characteristics including population settlement patterns and human activities such as agriculture and industry can describe a place.
c. Analyze the interrelationship between physical and human characteristics of a place.

SSWG2 The student will explain the cultural aspects of geography

a. Describe the concept of place by explaining how the culture of a region is product of the regions physical characteristics.
b. Explain how cultural characteristics of a place can be used to describe a place.
c. Analyze how physical factors such as mountains, climate, and bodies of water interact with the people of a region to produce a distinctive culture.

OCEANOGRAPHY

PS- NSIINS -3: Students will have an understanding of the significance of oceanographic study.

a. Describe the significance of oceanographic study.
b. Explain four reasons for the great interests now being shown in the world's oceans.
c. Imagine those historical events that created great bodies of water.
d. State the continental drift theory.
e. Cite those great geological phenomena that occur today as a result of our changing Earth.

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Academic Standard(s): SCSh7 Students will analyze how scientific knowledge is developed. Students will recognize that:

a. The universe is a vast single system in which the basic principles are the same everywhere.
b. Universal principles are discovered through observation and experimental verification.
c. From time to time, major shifts occur in the scientific view of how the world works. More often, however, the changes that take place in the body of scientific knowledge are small modifications of prior knowledge. Major shifts in scientific views typically occur after the observation of a new phenomenon or an insightful interpretation of existing data by an individual or research group.
d. Hypotheses often cause scientists to develop new experiments that produce additional data.
e. Testing, revising, and occasionally rejecting new and old theories never ends.

SES3 Students will explore the actions of water, wind, ice, and gravity that create landforms and systems of landforms (landscapes).

a. Describe how surface water and groundwater act as the major agents of physical and chemical weathering.
b. Explain how soil results from weathering and biological processes acting on parent rock.
c. Describe the processes and hazards associated with both sudden and gradual mass wasting.
d. Relate the past and present actions of ice, wind, and water to landform distribution and landscape evolution.
e. Explain the processes that transport and deposit material in terrestrial and marine sedimentary basins, which result, over time, in sedimentary rock.

SES6 Students will explain how life on Earth responds to and shapes Earth systems.

a. Relate the nature and distribution of life on Earth, including humans, to the chemistry and availability of water.
b. Relate the distribution of biomes (terrestrial, freshwater, and marine) to climate regions through time.
c. Explain how geological and ecological processes interact through time to cycle matter and energy, and how human activity alters the rates of these processes (e.g., fossil fuel formation and combustion).
d. Describe how fossils provide a record of shared ancestry, evolution, and extinction that is best explained by the mechanism of natural selection.
e. Identify the evolutionary innovations that most profoundly shaped Earth systems: photosynthetic prokaryotes and the atmosphere; multicellular animals and marine environments; land plants and terrestrial environments.

PS- NSIINS -4: Students will have an understanding of the significance of undersea landscapes.

a. Explain methods used to explore the ocean floor.
b. Describe the benefits of the continental shelf.
c. Discuss the makeup of the continental slope.

d. Derive the features of the deep ocean basin.
e. State the sediments found on the ocean floor.

Academic Standard(s): SES1 Students will investigate the composition and formation of Earth systems, including the Earth's relationship to the solar system.

a. Describe the early evolution of the Earth and solar system, including the formation of Earth's solid layers (core, mantle, and crust), the distribution of major elements, the origin of internal heat sources, and the mechanism by which heat transfer drives plate tectonics.
b. Explain how the composition of the Earth's crust, mantle and core is determined and compare it to that of other solar system objects.
c. Describe how the decay of radioactive isotopes is used to determine the age of rocks, Earth, and solar system.
d. Describe how the Earth acquired its initial oceans and atmosphere.
e. Identify the transformations and major reservoirs that make up the rock cycle, hydrologic cycle, carbon cycle, and other important geochemical cycles.

SES5 Students will investigate the interaction of insulation and Earth systems to produce weather and climate.

a. Explain how latitudinal variations in solar heating create atmospheric and ocean currents that redistribute heat globally.
b. Explain the relationship between air masses and the surfaces over which they form.
c. Relate weather patterns to interactions among ocean currents, air masses, and topography.
d. Describe how temperature and precipitation produce the pattern of climate regions (classes) on Earth.
e. Describe the hazards associated with extreme weather events and climate change (e.g., hurricanes, tornadoes, El Niño/La Niña, global warming).

PS- NSIINS -5: Students will have an understanding of the make up and movement of sea water.

a. Describe the chemical makeup and physical properties of water.
b. State the composition of seawater.
c. Cite the causes of waves.
d. Write the causes of beach, coastline erosion, ocean currents, and gyres.
e. List the effects of tides on coastal areas.
f. Express the theory of tidal energy.

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e. Identify the evolutionary innovations that most profoundly shaped Earth systems: photosynthetic prokaryotes and the atmosphere; multicellular animals and marine environments; land plants and terrestrial environments.

PS- NSIINS -6: Students will have an understanding of life in the seas.

a. Evaluate how microscopic plant life is involved in the ecological system of the oceans.
b. Imagine life-sustaining characteristics of marine life at the edge of the sea.
c. Compare two major divisions of marine animals and their characteristics.
d. Contrast four categories of harmful marine animals that pose a threat to man.
e. Determine the types of equipment used to improve man's capability to penetrate the sea.
f. Create six major groups of pollutants and their effects on marine life.

Academic Standard(s): SES3 Students will explore the actions of water, wind, ice, and gravity that create landforms and systems of landforms (landscapes).

a. Describe how surface water and groundwater act as the major agents of physical and chemical weathering.
b. Explain how soil results from weathering and biological processes acting on parent rock.
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b. Explain the relationship between air masses and the surfaces over which they form.
c. Relate weather patterns to interactions among ocean currents, air masses, and topography.
d. Describe how temperature and precipitation produce the pattern of climate regions (classes) on Earth.
e. Describe the hazards associated with extreme weather events and climate change (e.g., hurricanes, tornadoes, El Niño/La Niña, global warming).

SCSh4 Students will use tools and instruments for observing, measuring, and manipulating scientific equipment and materials.

a. Develop and use systematic procedures for recording and organizing information.
b. Use technology to produce tables and graphs.

c. Use technology to develop, test, and revise experimental or mathematical models.

SCSh7 Students will analyze how scientific knowledge is developed. Students will recognize that:

a. The universe is a vast single system in which the basic principles are the same everywhere.
b. Universal principles are discovered through observation and experimental verification.
c. From time to time, major shifts occur in the scientific view of how the world works. More often, however, the changes that take place in the body of scientific knowledge are small modifications of prior knowledge. Major shifts in scientific views typically occur after the observation of a new phenomenon or an insightful interpretation of existing data by an individual or research group.
d. Hypotheses often cause scientists to develop new experiments that produce additional data.

METEOROLOGY:

PS- NSIINS -7: Students will demonstrate a working knowledge of meteorology and how it affects us.

a. Investigate the aspects of the science of weather and the Earth's atmosphere.
b. Express the significance of weather in history.
c. Describe the meaning and characteristics of the troposphere, tropopause, stratosphere, ionosphere, and exosphere.
d. Evaluate the aspects of atmospheric pressure.
e. Induce the aspects in measuring temperature, relative humidity, and dew point.

Academic Standard(s): SPS5 Students will compare and contrast the phases of matter as they relate to atomic and molecular motion.

a. Compare and contrast the atomic/molecular motion of solids, liquids, gases and plasmas.
b. Relate temperature, pressure, and volume of gases to the behavior of gases.

SES1 Students will investigate the composition and formation of Earth systems, including the Earth's relationship to the solar system.

a. Describe the early evolution of the Earth and solar system, including the formation of Earth's solid layers (core, mantle, and crust), the distribution of major elements, the origin of internal heat sources, and the mechanism by which heat transfer drives plate tectonics.
b. Explain how the composition of the Earth's crust, mantle and core is determined and compare it to that of other solar system objects.
c. Describe how the decay of radioactive isotopes is used to determine the age of rocks, Earth, and solar system.
d. Describe how the Earth acquired its initial oceans and atmosphere.
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SES5 Students will investigate the interaction of insulation and Earth systems to produce weather and climate.

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b. Explain the relationship between air masses and the surfaces over which they form.
c. Relate weather patterns to interactions among ocean currents, air masses, and topography.
d. Describe how temperature and precipitation produce the pattern of climate regions (classes) on Earth.
e. Describe the hazards associated with extreme weather events and climate change (e.g., hurricanes, tornadoes, El Niño/La Niña, global warming).

SES4 Students will understand how rock relationships and fossils are used to reconstruct the Earth's past.

a. Describe and apply principles of relative age (superposition, original horizontality, cross-cutting relations, and original lateral continuity) and describe how unconformities form.
b. Interpret the geologic history of a succession of rocks and unconformities.
c. Apply the principle of uniformitarianism to relate sedimentary rock associations and their fossils to the environments in which the rocks were deposited.
d. Explain how sedimentary rock units are correlated within and across regions by a variety of methods (e.g., geologic map relationships, the principle of fossil succession, radiometric dating, and paleomagnetism).
e. Use geologic maps and stratigraphic relationships to interpret major events in Earth history (e.g., mass extinction, major climatic change, tectonic events).

SES6 Students will explain how life on Earth responds to and shapes Earth systems.

a. Relate the nature and distribution of life on Earth, including humans, to the chemistry and availability of water.
b. Relate the distribution of biomes (terrestrial, freshwater, and marine) to climate regions through time.
c. Explain how geological and ecological processes interact through time to cycle matter and energy, and how human activity alters the rates of these processes (e.g., fossil fuel formation and combustion).
d. Describe how fossils provide a record of shared ancestry, evolution, and extinction that is best explained by the mechanism of natural selection.
e. Identify the evolutionary innovations that most profoundly shaped Earth systems: photosynthetic prokaryotes and the atmosphere; multicellular animals and marine environments; land plants and terrestrial environments.

PS- NSIINS -8: Students will demonstrate understanding of clouds and fog and how it affects us.

a. Write the factors associated with cloud formation.

b. Draw cloud classifications as they relate to cloud types, altitudes, classes, and overall appearance.
c. Solve the factors associated when clouds are at sea.
d. Assess the formation of rain.
e. Illustrate the process of how fog is formed on the Earth's surface as well as hazards in relation to fog formation.

Academic Standard(s): S4E3 Students will differentiate between the states of water and how they relate to the water cycle and weather.

a. Demonstrate how water changes states from solid (ice) to liquid (water) to gas (water vapor/steam) and changes from gas to liquid to solid.
b. Identify the temperatures at which water becomes a solid and at which water becomes a gas.
c. Investigate how clouds are formed.
d. Explain the water cycle (evaporation, condensation, and precipitation).
e. Investigate different forms of precipitation and sky conditions (rain, snow, sleet, hail, clouds, and fog).

PS- NSIINS -9: Students will demonstrate understanding of wind and weather and how it affects us.

a. Cite the conditions that cause wind movements.
b. State effects of the Earth's revolution and inclination movement on our weather patterns.
c. List the characteristics of low-pressure and high-pressure areas.
d. Compare the types of monsoons in Southeast Asia.
e. Evaluate the Beaufort scale and how it is used.

Academic Standard(s): S4E4 Students will analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes.

a. Identify weather instruments and explain how each is used in gathering weather data and making forecasts (thermometer, rain gauge, barometer, wind vane, anemometer).
b. Using a weather map, identify the fronts, temperature, and precipitation and use the information to interpret the weather conditions.
c. Use observations and records of weather conditions to predict weather patterns throughout the year.
d. Differentiate between weather and climate.

S6E4 Students will understand how the distribution of land and oceans affects climate and weather.

a. Demonstrate that land and water absorb and lose heat at different rates and explain the resulting effects on weather patterns.
b. Relate unequal heating of land and water surfaces to form large global wind systems and weather events such as tornados and thunderstorms.
c. Relate how moisture evaporating from the oceans affects the weather patterns and the weather events such as hurricanes.

PS- NSIINS -10: Students will demonstrate understanding of fronts and storms and how it affects us.

a. Imagine the development of weather fronts.
b. Draw the primary frontal zones: Inter-tropical Convergence Zone, Arctic Frontal Zone, and Polar Frontal Zone.
c. Express the characteristics of cold, warm, and occluded fronts.
d. Determine the formations, characteristics, and developmental stages of a thunderstorm, hurricane, and tornado.
e. Justify the purpose and function of Storm Warning Signals and Hurricane Warning System.

Academic Standard(s): S4E4 Students will analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes.

a. Identify weather instruments and explain how each is used in gathering weather data and making forecasts (thermometer, rain gauge, barometer, wind vane, anemometer).
b. Using a weather map, identify the fronts, temperature, and precipitation and use the information to interpret the weather conditions.
c. Use observations and records of weather conditions to predict weather patterns throughout the year.
d. Differentiate between weather and climate.

S1E1 Students will observe, measure, and communicate weather data to see patterns in weather and climate.

a. Identify different types of weather and the characteristics of each type.
b. Investigate weather by observing, measuring with simple weather instruments (thermometer, wind vane, rain gauge), and recording weather data (temperature, precipitation, sky conditions, and weather events) in a periodic journal or on a calendar seasonally.
c. Correlate weather data (temperature, precipitation, sky conditions, and weather events) to seasonal changes.

S6E4 Students will understand how the distribution of land and oceans affects climate and weather.

a. Demonstrate that land and water absorb and lose heat at different rates and explain the resulting effects on weather patterns.
b. Relate unequal heating of land and water surfaces to form large global wind systems and weather events such as tornados and thunderstorms.
c. Relate how moisture evaporating from the oceans affects the weather patterns and the weather events such as hurricanes.

PS- NSIINS -11: Students will demonstrate a working knowledge of weather forecasting and how it affects us.

a. State the function and structure of the National Weather Service.
b. Express the function of the Navy Weather Service.
c. Translate the purpose of weather satellites.

Academic Standard(s): S4E4 Students will analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes.

a. Identify weather instruments and explain how each is used in gathering weather data and making forecasts (thermometer, rain gauge, barometer, wind vane, anemometer).
b. Using a weather map, identify the fronts, temperature, and precipitation and use the information to interpret the weather conditions.
c. Use observations and records of weather conditions to predict weather patterns throughout the year.
d. Differentiate between weather and climate.

ASTRONOMY

PS- NSIINS -12: Students will demonstrate an understanding of astronomy and how it pertains to our solar system and its related bodies: Moon, Sun, stars and planets.

a. State the theories of the creation of the universe.
b. List the methods for astronomical observation.
c. Describe the methods for using the telescope.
d. Identify the methods for using the spectrum and balloon observatories.
e. Show examples of satellites and other exploratory spacecraft.
f. Explain the efforts in exploring the Solar System.
g. Predict important events in the field of astronomy and space exploration in the next 20 years.

Academic Standard(s): S6E1 Students will explore current scientific views of the universe

and how those views evolved.

a. Relate the Nature of Science to the progression of basic historical scientific theories (geocentric and heliocentric) as they describe our solar system, and the Big Bang as it describes the formation
b. Describe the position of the solar system in the Milky Way galaxy and the universe.
c. Compare and contrast the planets in terms of

- Size relative to the earth
- Surface and atmospheric features
- Relative distance from the sun
- Ability to support life

d. Explain the motion of objects in the day/night sky in terms of relative position.
e. Explain that gravity is the force that governs the motion in the solar system.
f. Describe the characteristics of comets, asteroids, and meteors.

SES1 Students will investigate the composition and formation of Earth systems, including the Earth's relationship to the solar system.

a. Describe the early evolution of the Earth and solar system, including the formation of Earth's solid layers (core, mantle, and crust), the distribution of major elements, the origin of internal heat sources, and the mechanism by which heat transfer drives plate tectonics.
b. Explain how the composition of the Earth's crust, mantle and core is determined and compare it to that of other solar system objects.
c. Describe how the decay of radioactive isotopes is used to determine the age of rocks, Earth, and solar system.
d. Describe how the Earth acquired its initial oceans and atmosphere.
e. Identify the transformations and major reservoirs that make up the rock cycle, hydrologic cycle, carbon cycle, and other important geochemical cycles.

SCSh7 Students will analyze how scientific knowledge is developed. Students will recognize that:

a. The universe is a vast single system in which the basic principles are the same everywhere.
b. Universal principles are discovered through observation and experimental verification.
c. From time to time, major shifts occur in the scientific view of how the world works. More often, however, the changes that take place in the body of scientific knowledge are small modifications of prior knowledge. Major shifts in scientific views typically occur after the observation of a new phenomenon or an insightful interpretation of existing data by an individual

or research group.
d. Hypotheses often cause scientists to develop new experiments that produce additional data.
e. Testing, revising, and occasionally rejecting new and old theories never ends.

S4E2 Students will model the position and motion of the earth in the solar system and will explain the role of relative position and motion in determining sequence of the phases of the moon.

a. Explain the day/night cycle of the earth using a model.
b. Explain the sequence of the phases of the moon.
c. Demonstrate the revolution of the earth around the sun and the earth's tilt to explain the seasonal changes.
d. Demonstrate the relative size and order from the sun of the planets in the solar system.

PS- NSIINS -13: Students will demonstrate an understanding of the moon and how it pertains to our solar system and its related bodies: Sun, stars and planets.

a. Solve basic facts about the moon such as size, distance from Earth, and atmosphere.
b. Express the surface features and geological structure of the Moon.
c. Explain those theories that describe Moon craters and their formations.
d. Describe the mountain ranges and riles on the surface of the Moon.
e. Prove the effect moonquakes have on the Moon.
f. Cite the basic reasons for Moon exploration.

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d. Describe how the Earth acquired its initial oceans and atmosphere.
e. Identify the transformations and major reservoirs that make up the rock cycle, hydrologic cycle, carbon cycle, and other important geochemical cycles.

S6E2 Students will understand the effects of the relative positions of the earth, moon and sun.

a. Demonstrate the phases of the moon by showing the alignment of the earth, moon, and sun.
b. Explain the alignment of the earth, moon, and sun during solar and lunar eclipses.
c. Relate the tilt of the earth to the distribution of sunlight throughout the year and its effect on climate.

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S4E2 Students will model the position and motion of the earth in the solar system and will explain the role of relative position and motion in determining sequence of the phases of the moon.

a. Explain the day/night cycle of the earth using a model.
b. Explain the sequence of the phases of the moon.
c. Demonstrate the revolution of the earth around the sun and the earth's tilt to explain the seasonal changes.
d. Demonstrate the relative size and order from the sun of the planets in the solar system.

PS- NSIINS -14: Students will demonstrate an understanding of the sun and how it pertains to our solar system and its related bodies: Moon, stars and planets.

a. State basic facts about the Sun, and its relationship to the Earth.
b. Describe the composition of the Sun.
c. Explain sunspots and the effects they have on the Earth's atmosphere.
d. Illustrate the effects the Sun has on the Earth's magnetic field.
e. Test the effects the Sun's energy has on the Earth.
f. Discuss the importance of developing solar energy systems.

Academic Standard(s):

S2E2 Students will investigate the position of sun and moon to show patterns throughout the year.

a. Investigate the position of the sun in relation to a fixed object on earth at various times of the day.
b. Determine how the shadows change through the day by making a shadow stick or using a sundial.
c. Relate the length of the day and night to the change in seasons (for example: Days are longer than the night in the summer.)
d. Use observations and charts to record the shape of the moon for a period of time.

S6E2 Students will understand the effects of the relative positions of the earth, moon and sun.

a. Demonstrate the phases of the moon by showing the alignment of the earth, moon, and sun.
b. Explain the alignment of the earth, moon, and sun during solar and lunar eclipses.
c. Relate the tilt of the earth to the distribution of sunlight throughout the year and its effect on climate.

SKE1 Students will describe time patterns (such as day to night and night to day) and objects (such as sun, moon, stars) in the day and night sky.

a. Describe changes that occur in the sky during the day, as day turns into night, during the night, and as night turns into day.
b. Classify objects according to those seen in the day sky and those seen in the night sky.
c. Recognize that the Sun supplies heat and light to the Earth.

PS- NSIINS -15: Students will demonstrate an understanding of the planets and how they pertain to our solar system and its related bodies: Moon, Sun, and stars.

a. State the solar system in which we live.
b. Cite the major features and characteristics of the planets Mercury, Mars, Jupiter, Uranus, and Pluto.
c. Express the special features of Venus as it relates to our solar system.
d. List the prime features of Saturn and explain how it differs from other planets in our solar system.
e. Compare the relationship of Neptune and Uranus.

Academic Standard(s): S4E1 Students will compare and contrast the physical attributes of stars, star patterns, and planets.

a. Recognize the physical attributes of stars in the night sky such as number, size, color and patterns.
b. Compare the similarities and differences of planets to the stars in appearance, position, and number in the night sky.
c. Explain why the pattern of stars in a constellation stays the same, but a planet can be seen in different locations at different times.
d. Identify how technology is used to observe distant objects in the sky.

S4E2 Students will model the position and motion of the earth in the solar system and will explain the role of relative position and motion in determining sequence of the phases of the moon.

a. Explain the day/night cycle of the earth using a model.
b. Explain the sequence of the phases of the moon.
c. Demonstrate the revolution of the earth around the sun and the earth's tilt to explain the seasonal changes.
d. Demonstrate the relative size and order from the sun of the planets in the solar system.

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ASTEROIDS, COMETS, and METEORS

PS- NSIINS -16: Students will demonstrate an understanding of asteroids, comets, and meteors and how they pertain to our solar system and its related bodies: Moon, Sun, stars and planets.

a. Identify the asteroid belt as it relates to our solar system.
b. Describe the composition of comets and their movement.
c. Contrast the difference between meteoroids, meteors, and meteorites.

Academic Standard(s): S6E1 Students will explore current scientific views of the universe and how those views evolved.

a. Relate the Nature of Science to the progression of basic historical scientific theories (geocentric and heliocentric) as they describe our solar system, and the Big Bang as it describes the formation
b. Describe the position of the solar system in the Milky Way galaxy and the universe.
c. Compare and contrast the planets in terms of

- Size relative to the earth
- Surface and atmospheric features
- Relative distance from the sun
- Ability to support life

d. Explain the motion of objects in the day/night sky in terms of relative position.
e. Explain that gravity is the force that governs the motion in the solar system.
f. Describe the characteristics of comets, asteroids, and meteors.

PS- NSIINS -17: Students will demonstrate an understanding of the stars and how they pertain to our solar system and its related bodies: Moon, Sun, and planets.

a. List the theory adopted as the common unit of astronomical distances.
b. State the system used to classify stars.
c. Explain the terms used to identify temporary stars from 134 B.C. to the present.
d. Write three Nebulae stars and their makeup.
e. Determine the characteristics of our galaxy and the three ways other galaxies are classified according to their shape.

Academic Standard(s): S4E1 Students will compare and contrast the physical attributes of stars, star patterns, and planets.

a. Recognize the physical attributes of stars in the night sky such as number, size, color and patterns.

b. Compare the similarities and differences of planets to the stars in appearance, position, and number in the night sky.
c. Explain why the pattern of stars in a constellation stays the same, but a planet can be seen in different locations at different times.
d. Identify how technology is used to observe distant objects in the sky.

PHYSICAL SCIENCE

PS- NSIINS -18: Students will demonstrate an understanding of Motion, Force, and Aerodynamics.

a. Describe the two main topics in the field of physical science.
b. List the six steps in the scientific method approach.
c. State the differences in a theory and a law.
d. Describe Newton's three laws of motion.
e. Discuss Bernoulli's theorem.

Academic Standard(s): SPS8 Students will determine relationships among force, mass, and motion.

a. Calculate velocity and acceleration.
b. Apply Newton's three laws to everyday situations by explaining the following:

- Inertia
- Relationship between force, mass and acceleration
- Equal and opposite forces

c. Relate falling objects to gravitational force
d. Explain the difference in mass and weight.
e. Calculate amounts of work and mechanical advantage using simple machines.

S4P3 Students will demonstrate the relationship between the application of a force and the resulting change in position and motion on an object.

a. Identify simple machines and explain their uses (lever, pulley, wedge, inclined plane, screw, wheel and axle).
b. Using different size objects, observe how force affects speed and motion.
c. Explain what happens to the speed or direction of an object when a greater force than the initial one is applied.
d. Demonstrate the effect of gravitational force on the motion of an object.
Teacher note: The use of mathematical formulas is not recommended in S4P3. Fourth grade students should carry out investigations to provide a foundation of concrete experience for the abstract understandings of physical science in upper grades.

S8P3 Students will investigate relationship between force, mass, and the motion of objects.

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a. Determine the relationship between velocity and acceleration.
b. Demonstrate the effect of balanced and unbalanced forces on an object in terms of gravity, inertia, and friction.
c. Demonstrate the effect of simple machines (lever, inclined plane, pulley, wedge, screw, and wheel and axle) on work.

PS- NSIINS -19: Students will demonstrate an understanding of buoyancy.

a. Describe Archimedes Law.
b. Explain how objects float. Infer how a submarine floats and submerges.
c. Define stability in a ship and its importance.

Academic Standard(s): SP1 Students will analyze the relationships between force, mass, gravity, and the motion of objects.

a. Calculate average velocity, instantaneous velocity, and acceleration in a given frame of reference.
b. Compare and contrast scalar and vector quantities.
c. Compare graphically and algebraically the relationships among position, velocity, acceleration, and time.
d. Measure and calculate the magnitude of frictional forces and Newton's three Laws of Motion.
e. Measure and calculate the magnitude of gravitational forces.
f. Measure and calculate two-dimensional motion (projectile and circular) by using component vectors.
g. Measure and calculate centripetal force.
h. Determine the conditions required to maintain a body in a state of static equilibrium.

PS- NSIINS -20: Students will demonstrate an understanding of basic electricity.

a. Define the fundamental theory of electricity.
b. Cite the properties of conductors and insulators.
c. List the six common methods of producing voltage.
d. Test battery construction and significant characteristics.
e. Adapt the principle of electrical circuits.
f. Define Ohm's Law as it relates to current and resistance.
g. Derive the electrical power theory.

Academic Standard(s): SPS10 Students will investigate the properties of electricity and magnetism.

a. Investigate static electricity in terms of

- friction
- induction
- conduction

b. Explain the flow of electrons in terms of

- alternating and direct current.
- the relationship among voltage, resistance and current.
- simple series and parallel circuits.

c. Investigate applications of magnetism and/or its relationship to the movement of electrical charge as it relates to

- electromagnets
- simple motors
- permanent magnets

PS- NSIINS -21: Students will demonstrate an understanding of electronics.

a. Discuss the principles of radio-frequency wave transmission.
b. Describe the principals of radar.
c. Illustrate the use of radar as a navigational aid.
d. Critique the use of radar in combat.

Academic Standard(s): S8P4 Students will explore the wave nature of sound and electromagnetic radiation.

a. Identify the characteristics of electromagnetic and mechanical waves.
b. Describe how the behavior of light waves is manipulated causing reflection, refraction diffraction, and absorption.
c. Explain how the human eye sees objects and colors in terms of wavelengths.
d. Describe how the behavior of waves is affected by medium (such as air, water, solids).
e. Relate the properties of sound to everyday experiences.

PS- NSIINS -22: Students will demonstrate an understanding of sound and sonar.

a. Explain the effects that density and temperature have on sound.
b. Describe how the ear detects sound.
c. Make sense of Doppler shift.
d. Investigate the characteristics of sound in seawater.
e. Assess sonar and its characteristics.

Academic Standard(s): S4P2 Students will demonstrate how sound is produced by vibrating objects and how sound can be varied by changing the rate of vibration.

a. Investigate how sound is produced.
b. Recognize the conditions that cause pitch to vary.

S1P1 Students will investigate light and sound.

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a. Recognize sources of light.
b. Explain how shadows are made.
c. Investigate how vibrations produce sound.
d. Differentiate between various sounds in terms of (pitch) high or low and (volume) loud or soft.
e. Identify emergency sounds and sounds that help us stay safe

Reading Across the Curriculum

Reading Standard Comment

After the elementary years, students engage in reading for learning. This process sweeps across all disciplinary domains, extending even to the area of personal they experience text in all genres and modes of discourse. In the study of various disciplines of learning (language arts, mathematics, science, social studies), students must learn through reading the communities of discourse of each of those disciplines. Each subject has its own specific vocabulary, and for students to excel in all subjects, they must learn the specific vocabulary of those subject areas in context.

Beginning with the middle grades years, students begin to self-select reading materials based on personal interests established through classroom learning. Students become curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

Reading across curriculum content develops both academic and personal interests in students. As students read, they develop both content and contextual vocabulary. They also build good habits for reading, researching, and learning. The Reading Across the Curriculum standard focuses on the academic and personal skills students acquire as they read in all areas of learning.

Students will enhance reading in all curriculum areas by:

c. Reading in all curriculum areas
   - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
   - Read both informational and fictional texts in a variety of genres and modes of discourse.
   - Read technical texts related to various subject areas.

d. Discussing books
   - Discuss messages and themes from books in all subject areas.
   - Respond to a variety of texts in multiple modes of discourse.
   - Relate messages and themes from one subject area to messages and

themes in another area.
- Evaluate the merit of texts in every subject discipline.
- Examine author's purpose in writing.
- Recognize the features of disciplinary texts.

e. Building vocabulary knowledge
- Demonstrate an understanding of contextual vocabulary in various subjects.
- Use content vocabulary in writing and speaking.
- Explore understanding of new words found in subject area texts.

f. Establishing context
- Explore life experiences related to subject area content.
- Discuss in both writing and speaking how certain words are subject area related.
- Determine strategies for finding content and contextual meaning for unknown words.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and postsecondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

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CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.

PROGRAM CONCENTRATION: Government &Public Safety
CAREER PATHWAY: JROTC – Navy
COURSE TITLE: Naval Science III Naval Knowledge

Course Description: The purpose of this course is to further the foundation in citizenship and leadership established in Naval Science One and Two and to expound upon the virtues of the

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United States citizenship with knowledge of uses of the world's waterways through the viewpoint of National power and International law. Minimum performance requirements of this course are in accordance with current Chief of Naval Education Training Instruction, NAVEDTRA 37128. The performance standards in this course are based on the performance standards identified in the curriculum for the United States Navy Junior Reserve Officer Training Corps. Successful completion of three courses of credit will qualify the student for advanced placement in a college ROTC program or accelerated promotion in the military service.

SEA POWER AND NATIONAL SECURITY

PS- NSIIINK-1: Students will investigate the importance of sea power and national security.

f. State the importance of sea power as it relates to America.
g. List four major developments since World War II that have increased the importance of the oceans of the world.
h. Describe the strategic ocean areas.
i. Determine the hot spots and choke points of the world's waterways and the importance of keeping them open.
j. Describe the purpose and function of the United States Merchant Marine.
k. Explain the relationship between maritime commerce and its effects on the total economy of the United States.

Academic Standard(s): SSWG1: The student will explain the physical aspects of geography.

a. Describe the concept of place by explaining how physical characteristics such as landforms, bodies of water, climate, soils, natural vegetation, and animal life are used to describe a place

GRAND STRATEGY and PREPAREDNESS

PS- NSIIINK -2: Students will investigate the role of sea power and national security.

a. List the major strategists from 400 B.C. to the mid-nineteenth century.
b. Describe the three classic schools of strategy.
c. Illustrate the evolution of modern strategy during World War I.
d. Assess the global strategy during World War II.
e. Determine the national grand strategy after World War II, and the preparedness for maintaining appropriate strength.

Academic Standard(s): SSWH16: The student will demonstrate an understanding of long-term causes of World War I and its global impact.

a. Identify the causes of the war; include Balkan nationalism, entangling alliances, and militarism.

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SSWH17: The student will be able to identify the major political and economic factors that shaped world societies between World War I and World War II.

a. Examine the impact of the war on science, art, and social thinking by identifying the cultural significance of Sigmund Freud, Albert Einstein, and Picasso.
b. Analyze the rise of nationalism, as seem in the eyes of Sun Yat Sen, Mustafa Kernal Attaturk, and Mohandas Ghandi.
c. Describe the nature of totalitarianism and the police state that existed in Russia, Germany, and Italy and how they differ from authoritarian governments.

SSWH18: The student will demonstrate an understanding of the global political, economic, and social impact of World War II.

d. Explain allied Post-World War II policies; include formation of the United Nations, the Marshall Plan for Europe, and MacArthur's plan for Japan.

SSWH19: The student will demonstrate an understanding of the global social, economic, and political impact of the Cold War and decolonization from 1945 to 1989.

c. Explain the arms race; include development of the hydrogen bomb (1954) and SALT (Strategic Arms Lim.

PS- NSIIINK -3: Students will investigate United States strategy.

a. Describe the importance of a sound national security program.
b. Explain the three principal phases of the united grand strategy.
c. Describe the U.S. military strategy.
d. State the U.S. Navy's mission in national strategy.

Academic Standard(s): SSWH20: The student will examine change and continuity in the world since the 1960s.

a. Identify ethnic conflicts and new nationalisms; include pan-Africanism, pan-Arabism, and the conflicts in Boznia-Herzegovina and Rwanda.
b. Describe the breakup of the Soviet Union in 1991 that produced independent countries; include Ukraine, Kazakhstan, and the Baltic States
c. Analyze terrorism as a form of warfare in the 20th century; include Shining Path, Red Brigade, Hamas, and Al Qaeda; and analyze the impact of terrorism on daily life; include travel, world energy supplies, and financial markets.

PS- NSIIINK -4: Students will investigate the role of sea power and national security through Naval Tactics.

a. Evaluate the posture of U.S. Naval forces and their commitment of overseas deployment.
b. Describe the U.S. Navy's role in our national military strategy.
c. List the three major characteristics of naval warfare.
d. Explain the two major categories for naval tactical forces.
e. Describe the tactics of naval presence used to achieve political objectives.

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Academic Standard(s): SSCG20: The student will describe the tools used to carry out United States foreign policy (diplomatic; economic, military, and humanitarian aid; treaties; sanctions and military intervention).

PS- NSIIINK -5: Students will investigate national security and modern conflict.

a. Discuss the major concerns and elements used to evaluate national security.
b. Illustrate the national grand and military strategies that are used to protect U.S. interest.
c. Describe the United States' three conventional schools of military strategy and how they work together in the interest of this country.
d. Explain the possible causes of general war.
e. State the principal elements of war.

Academic Standard(s): SSUSH25: The student will describe changes in national politics since 1968.

g. Analyze the response of President George W. Bush to the attacks of September 11, 2001, on the United States, the war against terrorism, and the subsequent American interventions in Afghanistan and Iraq.

MERCHANT MARINE

PS- NSIIINK -6: Students will investigate the role of the merchant marine.

a. Cite a historical view of the United States Merchant Marine from 1850 to the present.
b. Describe the Merchant Marine Act of 1936 and the amending Act of 1970 that placed a dual role on the U.S. Merchant Marine.
c. Describe the basic method of moving vast quantities of primary products and manufactured trade goods on water.
d. Explain the Merchant Marine's role in supporting our military forces in both peace and war.
e. Identify the contribution of the Merchant Marine to national defense, and its role in the support of foreign policy.

Academic Standard(s): SSEIN1: The student will explain why individuals, businesses, and governments trade goods and services.

b. Explain that most trade takes place because of comparative advantages in the production of a good or service.

SSEIN2: The student will explain why countries sometimes erect trade barriers and sometimes advocate free trade.

d. List specific examples of trading blocks such as the EU, NAFTA, and ASEAN.

NAVAL OPERATIONS, COMMUNICATIONS, AND INTELLIGENCE

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PS- NSIIINK -7: Students will expand their understanding and knowledge of naval operations and support functions.

a. Describe the role the U.S. Naval Forces play in national strategies.
b. Explain the capabilities of the U.S. Naval Forces.
c. Describe the purpose of the Navy's task force.
d. List the methods used by U.S. Navy's strike forces.
e. Describe the purpose of air, surface, and undersea warfare.
f. Cite the phases of an amphibious operation.

Academic Standard(s): SSCG20: The student will describe the tools used to carry out United States foreign policy (diplomatic; economic, military, and humanitarian aid; treaties; sanctions and military intervention).

PS- NSIIINK -8: Students will expand their understanding and knowledge of naval communications.

a. List the major functions of naval communications.
b. Illustrate the major telecommunications commands under the Chief of Naval Operations.
c. Explain the purpose of International Morse Code.
d. Describe the advantages of visual communication.
e. Express the general information that all officers must be familiar with concerning naval messages.

Academic Standard(s): SSUSH21: The student will explain economic growth and its impact on the United States, 1945-1970.

c. Analyze the impact of technology on American life; include the development of the personal computer and the cellular telephone.
d. Describe the impact of competition with the USSR as evidenced by the launch of Sputnik I and President Eisenhower's actions.

PS- NSIIINK -9: Students will expand their understanding and knowledge of naval intelligence and counterintelligence.

a. Relate the historical background and significance of intelligence and counterintelligence.
b. Evaluate the roles that collection, planning and direction, processing, analysis and production, and disseminating play in the intelligence process.
c. Derive the make-up of the U.S. intelligence community and its defense attack system.
d. State the role of the Office of Naval Intelligence (ONI).
e. Illustrate the basis of foreign intelligence organizations.
f. Describe the roles of spies and diplomats in espionage operations.
g. List and discuss three different security classifications.
h. Cite four ways in which classified materials are protected.
i. Explain the purposes of security clearances.

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Academic Standard(s): SSUSH15: The student will analyze the origins and impact of U.S. involvement in World War I.

b. Explain the domestic impact of World War I, as reflected by the origins of the Great Migration, the Espionage Act, and socialist Eugene Debs.

NAVY LOGISTICS, RESEARCH and DEVELOPMENT

PS- NSIIINK -10: Students will expand their understanding and knowledge of navy logistics.

a. State the Navy's logistics supply and services system that began in World War II.
b. Describe the handling of the logistic details in the Desert Shield/Desert Storm operation.
c. Cite those major elements that go into Navy logistic planning.

Academic Standard(s): SSWG3: The student will describe the interaction of physical and human systems that have shaped contemporary North Africa/Southwest Asia.

a. Describe the location of major physical features and their impact on North Africa/Southwest Asia.

SSWG4: The student will describe the interaction of physical and human systems that have shaped contemporary Sub-Saharan Africa.

a. Describe the location of major physical features and their impact on Sub-Saharan Africa.

SSWG5: The student will describe the interaction of physical and human systems that have shaped contemporary South Asia, Southeastern Asia, and Eastern Asia.

a. Describe the location of major physical features and their impact on the regions of Asia.

SSWG6: The student will describe the interaction of physical and human systems that have shaped contemporary Europe.

a. Describe the location of major physical features and their impact on Europe.

SSWG7: The student will describe the interaction of physical and human systems that have shaped contemporary Latin America.

b. Describe the location of major physical features and their impact on the region.

SSWG8: The student will describe the interaction of physical and human systems that have shaped contemporary Canada and the United States.

a. Describe the location of major physical features and their impact on Canada and the United States.

SSWG9: The student will describe the interaction of physical and human systems that have shaped contemporary Oceania, including Australia, New Zealand, and Antarctica.

a. Describe the location of major physical features and their impact on the region.

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PS- NSIIINK -11: Students will expand their understanding and knowledge of naval research and development.

a. Describe the science and technology program of the Department of Defense.
b. Describe the Navy's strategic research and development program.
c. Describe the Naval Research Laboratory and its four main research areas.

Academic Standard(s): SSUSH21: The student will explain economic growth and its impact on the United States, 1945-1970.

c. Analyze the impact of technology on American life; include the development of the personal computer and the cellular telephone.

MILITARY JUSTICE AND INTERNATIONAL LAW

PS- NSIIINK -12: Students will have broad basis knowledge of military law.

a. Explain the history of law codes as it pertains to the Navy.
b. State the relationship between the U.S. Constitution and Military Law.
c. Cite the aspects of Navy Regulations.
d. Express the purpose of the Uniform Code of Military Justice (UCMJ).

Academic Standard(s): SSCG1: The student will demonstrate knowledge of the political philosophies that shaped the development of United States constitutional government.

a. Analyze key ideas of limited government and the rule of law as seen in the Magna Carta, the Petition of Rights, and the English Bill of Rights.

SSCG3: The student will demonstrate knowledge of the political philosophies that shaped the development of United States constitutional government.

c. Explain the fundamental principles upon which the United States Constitution is based; include the rule of law, popular sovereignty, separation of powers, checks and balances, and federalism.

PS- NSIIINK -13: Students will have broad basis knowledge of discipline and punishment.

a. State the procedures for applying discipline and punishment in the Navy.
b. List the process of apprehension, arrest, restriction, and confinement used in the Navy.

Academic Standard(s): SSCG21: The student will describe the causes and effects of criminal activity.

c. Categorize different types of crimes.

PS- NSIIINK -14: Students will have broad basis knowledge of non-judicial punishment and courts-martial.

a. List features of non-judicial punishment.
b. Cite three types of military courts-martial.

c. Describe the relationship between civil jurisdiction and military justice.
d. Explain the purposes for letters of censure.
e. Describe the methods used for disciplinary separations from the service.

Academic Standard(s): SSCG16: The student will demonstrate knowledge of the operation of the federal judiciary.

a. Explain the jurisdiction of the federal courts and the state courts.

PS- NSIIINK -15: Students will have a working knowledge of the fundamentals of international law.

a. Identify the United States' role in international relationships.
b. Explain the purpose for International Law and diplomacy.
c. Cite specific characteristics sovereign nations have in common.
d. Define ligerency, insurgency and counterinsurgency and their effect on International Law.
e. State how international problems are solved through effective use of International Law.

Academic Standard(s): SSCG20: The student will describe the tools used to carry our United States foreign policy (diplomatic; economic; military; and humanitarian aid; treaties; sanctions and military intervention).

PS- NSIIINK -16: Students will have a working knowledge of the fundamentals of international law of the sea.

a. Explain the customs and treaties from 1604 to the present that relate the International Law of the Sea.
b. Identify three main ideas that have formed customary International Law of the Sea.
c. Cite the four possible adverse impacts of international legal rules affecting the deployment and navigation of Navy vessels.
d. Explain the law of the high seas.
e. Explain the international law on the continental shelf and sea beds of the world.

Academic Standard(s): SSCG20: The student will describe the tools used to carry our United States foreign policy (diplomatic; economic; military; and humanitarian aid; treaties; sanctions and military intervention).

PS- NSIIINK -17: Students will have a working knowledge of the fundamentals of the law of war at sea.

a. State the purpose of International Rules of the Road.
b. Describe the international law as it relates to war ships.
c. Explain the general rules of war on land and at sea.
d. Describe war at sea and the effects war has on international law.
e. Cite those methods used to enforce laws of war.

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Academic Standard(s): SSUSH15: The student will analyze the origins and impact of U.S. involvement in World War I.

e. Describe the movement from U.S. neutrality to engagement in World War I, with reference to unrestricted submarine warfare.

PS- NSIIINK -18: Students will have a working knowledge of the fundamentals of international law of the sea through collective security.

a. Define the events that lead to the formation of the International organization.
b. State the basic purpose of the United Nations.
c. Justify the purpose of international regional and collective arrangements as recognized by the Security Council of the United Nations.
d. Critique the collective security trends and their effects on U.S. foreign policies.

Academic Standard(s): SSWH21: The student will analyze globalization in the contemporary world.

a. Analyze global economic and political connections; include multinational corporations, the United Nations, OPEC, and the World Trade Organization.

Reading Across the Curriculum

Reading Standard Comment

After the elementary years, students engage in reading for learning. This process sweeps across all disciplinary domains, extending even to the area of personal they experience text in all genres and modes of discourse. In the study of various disciplines of learning (language arts, mathematics, science, social studies), students must learn through reading the communities of discourse of each of those disciplines. Each subject has its own specific vocabulary, and for students to excel in all subjects, they must learn the specific vocabulary of those subject areas in context.

Beginning with the middle grades years, students begin to self-select reading materials based on personal interests established through classroom learning. Students become curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

Reading across curriculum content develops both academic and personal interests in students. As students read, they develop both content and contextual vocabulary. They also build good habits for reading, researching, and learning. The Reading Across the Curriculum standard focuses on the academic and personal skills students acquire as they read in all areas of learning.

Students will enhance reading in all curriculum areas by:

e. Reading in all curriculum areas
   - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
   - Read both informational and fictional texts in a variety of genres and modes of discourse.
   - Read technical texts related to various subject areas.

f. Discussing books
   - Discuss messages and themes from books in all subject areas.
   - Respond to a variety of texts in multiple modes of discourse.
   - Relate messages and themes from one subject area to messages and themes in another area.
   - Evaluate the merit of texts in every subject discipline.
   - Examine author's purpose in writing.
   - Recognize the features of disciplinary texts.

g. Building vocabulary knowledge
   - Demonstrate an understanding of contextual vocabulary in various subjects.
   - Use content vocabulary in writing and speaking.
   - Explore understanding of new words found in subject area texts.

h. Establishing context
   - Explore life experiences related to subject area content.
   - Discuss in both writing and speaking how certain words are subject area related.
   - Determine strategies for finding content and contextual meaning for unknown words.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and postsecondary educators, labor associations, and other stakeholders. The Knowledge

and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.

Implementation date DRAFT
Fall 2010

PROGRAM CONCENTRATION: Government &Public Safety
CAREER PATHWAY: JROTC – Navy
COURSE TITLE: Naval Science III Naval Orientation and Skills

Course Description: The purpose of this course is to further the foundation in citizenship and leadership established in Naval Science One and Two and to provide classroom and practical application in Naval and Ship Organization. Minimum performance requirements of this course are in accordance with current Chief of Naval Education Training Instruction, NAVEDTRA 37128. The performance standards in this course are based on the performance standards identified in the curriculum for the United States Navy Junior Reserve Officer Training Corps. Successful completion of three courses of credit will qualify the student for advanced placement in a college ROTC program or accelerated promotion in the military service.

SHIPBOARD ORGANIZATION AND WATCHSTANDING

PS- NSIIINOS-1: Students will expand their understanding and knowledge of Navy ships, their construction, operation, mission, and objectives of damage control through shipboard organization.

l. State the administrative organization of a typical Navy fighting ship, to include the responsibilities of key personnel.
m. List the responsibilities of department heads and division officers aboard Navy vessels.
n. Describe the publications that establish the functional shipboard organization.

Academic Standard(s):

SSEPF6 The student will describe how the earnings of workers are determined in the marketplace.
a. Identify skills which are required to be successful in the workplace.
b. Explain the significance of investment in education, training and skill development.

WATCHES

PS- NSIIINOS -2: Students will recognize and learn the organizational elements of and relationships within a typical Navy shipboard organization.

f. Describe the watch structure used in the U.S. Navy.
g. Cite the duties and responsibilities of shipboard watch-standers.
h. Illustrate the duties performed by crewmen during in-port and underway watches.
i. Assess the duties of Navy personnel performing watches ashore.

Academic Standard(s): SSEF3 The student will explain how specialization and voluntary exchange between buyers and sellers increase the satisfaction of both parties.

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a. Give examples of how individuals and businesses specialize.
b. Explain that both parties gain as a result of voluntary, non-fraudulent exchange.

SSEPF6 The student will describe how the earnings of workers are determined in the marketplace.
a. Identify skills which are required to be successful in the workplace.
b. Explain the significance of investment in education, training and skill development.

GENERAL BILLS

PS- NSIIINOS -3: Students will recognize and learn the organizational elements of and relationships within a typical Navy shipboard organization.

e. Describe the specific duties associated with each assigned watch.

Academic Standard(s): SSEF3 The student will explain how specialization and voluntary exchange between buyers and sellers increase the satisfaction of both parties.

a. Give examples of how individuals and businesses specialize.
b. Explain that both parties gain as a result of voluntary, non-fraudulent exchange.

SSEPF6 The student will describe how the earnings of workers are determined in the marketplace.
a. Identify skills which are required to be successful in the workplace.
b. Explain the significance of investment in education, training and skill development.

SEAMANSHIP

PS- NSIIINOS -4: Students will exhibit an understanding of the various types of equipment and terminology used in marlinspike seamanship. Students will:

f. Evaluate the duties and responsibilities of deck personnel department.
g. Describe the types and makeup of ropes used in the Navy.
h. List the proper procedure for handling, stowing, and caring for fiber rope.
i. Demonstrate how to tie knots, bends, and hitches.
j. Explain the importance of securing at sea.

Academic Standard(s): SPS8 Students will determine relationships among force, mass, and motion.
a. Calculate velocity and acceleration.
b. Apply Newton's three laws to everyday situations by explaining the following:

- Inertia
- Relationship between force, mass and acceleration
- Equal and opposite forces

c. Relate falling objects to gravitational force
d. Explain the difference in mass and weight.
e. Calculate amounts of work and mechanical advantage using simple machines.

PS- NSIIINOS -5: Students will exhibit an understanding of ground tackle and deck equipment used in basic seamanship. Students will:

f. Discuss the terms associated with and the use of ground tackle, anchors, and chains.
g. Describe the operation of an anchor windlass.
h. State the terms associated with and the use of deck and pier fittings used in mooring.
i. Cite the equipment and the basic procedures used in towing.
j. List the equipment used and explain the terms associated with cargo handling.

Academic Standard(s):
SPS8 Students will determine relationships among force, mass, and motion.
a. Calculate velocity and acceleration.
b. Apply Newton's three laws to everyday situations by explaining the following:

- Inertia
- Relationship between force, mass and acceleration
- Equal and opposite forces

c. Relate falling objects to gravitational force
d. Explain the difference in mass and weight.
e. Calculate amounts of work and mechanical advantage using simple machines.

PS- NSIIINOS -6: Students will exhibit an understanding of the various types of equipment and terminology used in small boat seamanship. Students will:

f. State the purpose of small boat seamanship.
g. Identify nomenclature that applies to small boat parts and structure.
h. Describe small types of craft as they apply to the NJROTC program.
i. Explain the procedures for small boat handling.
j. Discuss boat etiquette as practiced by the United States Navy.

Academic Standard(s):
SP1 Students will analyze the relationships between force, mass, gravity, and the motion of objects.
a. Calculate average velocity, instantaneous velocity, and acceleration in a given frame of reference.
b. Compare and contrast scalar and vector quantities.
c. Compare graphically and algebraically the relationships among position, velocity, acceleration, and time.
d. Measure and calculate the magnitude of frictional forces and Newton's three Laws of Motion.
e. Measure and calculate the magnitude of gravitational forces.
f. Measure and calculate two-dimensional motion (projectile and circular) by using component vectors.

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g. Measure and calculate centripetal force.
h. Determine the conditions required to maintain a body in a state of static equilibrium.

RULES of the NAUTICAL ROAD

PS- NSIIINOS -7: Students will demonstrate knowledge of basic theory of the nautical rules of the road and be skilled in the many uses of the maneuvering board. Students will:

g. Describe the two main sets of nautical rules.
h. Explain the rules for shipboard lights in inland and international waters.
i. Describe those sound signals used on large vessels.
j. List the inland and international rules for steering and sailing vessels.
k. Assess three principal characteristics of navigational lights.
l. Describe the eight types of buoys used along waterways.
m. Cite how day beacons and ranges are used as navigational aids.

Academic Standard(s):
SCSh3 Students will identify and investigate problems scientifically.
a. Suggest reasonable hypotheses for identified problems.
b. Develop procedures for solving scientific problems.
c. Collect, organize and record appropriate data.
d. Graphically compare and analyze data points and/or summary statistics.
e. Develop reasonable conclusions based on data collected.
f. Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.

SP1 Students will analyze the relationships between force, mass, gravity, and the motion of objects.
a. Calculate average velocity, instantaneous velocity, and acceleration in a given frame of reference.
b. Compare and contrast scalar and vector quantities.
c. Compare graphically and algebraically the relationships among position, velocity, acceleration, and time.
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e. Measure and calculate the magnitude of gravitational forces.
f. Measure and calculate two-dimensional motion (projectile and circular) by using component vectors.
g. Measure and calculate centripetal force.
h. Determine the conditions required to maintain a body in a state of static equilibrium.

INTRODUCTION TO NAVIGATION AND TIME

PS- NSIIINOS -8: Students will become familiar with the tools and terminology of navigation and do basic navigational plotting.

f. Express the terrestrial sphere as it relates to navigation.

g. Infer the relationship of meridians as it pertains to measurement.
h. Explain how latitude and longitude are used to locate places on a map.
i. Describe the use of navigational charts.
j. Express how mercator projection is used by navigators.
k. State the purpose for the basic types of charts listed in the text.

Academic Standard(s):
SP1 Students will analyze the relationships between force, mass, gravity, and the motion of objects.
a. Calculate average velocity, instantaneous velocity, and acceleration in a given frame of reference.
b. Compare and contrast scalar and vector quantities.
c. Compare graphically and algebraically the relationships among position, velocity, acceleration, and time.
d. Measure and calculate the magnitude of frictional forces and Newton's three Laws of Motion.
e. Measure and calculate the magnitude of gravitational forces.
f. Measure and calculate two-dimensional motion (projectile and circular) by using component vectors.
g. Measure and calculate centripetal force.
h. Determine the conditions required to maintain a body in a state of static equilibrium.

PS- NSIIINOS -9: Students will become familiar with the tools and terminology of navigation and time, and do basic navigational plotting.
j. Relate the basic timekeeping instruments used in the U.S. Navy.
k. Evaluate the purpose of the ship's bell system on board a Navy vessel.
l. Derive how time is measured by the sun with the use of special instruments.
m. State the importance of Greenwich Time for navigational purposes.

Academic Standard(s):
SCSh7 Students will analyze how scientific knowledge is developed. Students will recognize that:
a. The universe is a vast single system in which the basic principles are the same everywhere.
b. Universal principles are discovered through observation and experimental verification.
c. From time to time, major shifts occur in the scientific view of how the world works. More often, however, the changes that take place in the body of scientific knowledge are small modifications of prior knowledge. Major shifts in scientific views typically occur after the observation of a new phenomenon or an insightful interpretation of existing data by an individual or research group.
d. Hypotheses often cause scientists to develop new experiments that produce additional data.
e. Testing, revising, and occasionally rejecting new and old theories never ends.

SP1 Students will analyze the relationships between force, mass, gravity, and the motion of objects.
a. Calculate average velocity, instantaneous velocity, and acceleration in a given frame of reference.

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b. Compare and contrast scalar and vector quantities.
c. Compare graphically and algebraically the relationships among position, velocity, acceleration, and time.
d. Measure and calculate the magnitude of frictional forces and Newton's three Laws of Motion.
e. Measure and calculate the magnitude of gravitational forces.
f. Measure and calculate two-dimensional motion (projectile and circular) by using component vectors.
g. Measure and calculate centripetal force.
h. Determine the conditions required to maintain a body in a state of static equilibrium

INTRODUCTION TO MANUEVERING BOARD

PS- NSIIINOS -10: Students will demonstrate knowledge of basic theory of the nautical rules of the road and be skilled in the many uses of the maneuvering board.

d. State the purpose and use of the maneuvering board.
e. Describe the relationship between relative motion and reference point.
f. Cite the major steps for plotting directions with the use of a maneuvering board.
g. Demonstrate the major concepts of maneuvering a vessel.
h. Describe the wind's effect on maneuvering a vessel.

Academic Standard(s):
SP1 Students will analyze the relationships between force, mass, gravity, and the motion of objects.
a. Calculate average velocity, instantaneous velocity, and acceleration in a given frame of reference.
b. Compare and contrast scalar and vector quantities.
c. Compare graphically and algebraically the relationships among position, velocity, acceleration, and time.
d. Measure and calculate the magnitude of frictional forces and Newton's three Laws of Motion.
e. Measure and calculate the magnitude of gravitational forces.
f. Measure and calculate two-dimensional motion (projectile and circular) by using component vectors.
g. Measure and calculate centripetal force.
h. Determine the conditions required to maintain a body in a state of static equilibrium.

SCSh4 Students will use tools and instruments for observing, measuring, and manipulating scientific equipment and materials.
a. Develop and use systematic procedures for recording and organizing information.
b. Use technology to produce tables and graphs.
c. Use technology to develop, test, and revise experimental or mathematical models.

NAVAL SHIPS: MISSIONS, CONSTRUCTION, AND DAMAGE CONTROL

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PS- NSIIINOS -11: Students will recognize and learn the organizational elements of and relationships within a typical Navy shipboard organization, and learn the different types of naval ships and their missions.

d. Identify U.S. Navy vessels by name, designation, and hull number.
e. Describe the Navy's major combatant chips and their missions.
f. Describe the Navy's major auxiliary ships and their missions.

Academic Standard(s):

SSUSH19 The student will identify the origins, major developments, and the domestic impact of World War II, especially the growth of the federal government.

a. Explain A. Philip Randolph's proposed march on Washington, D.C. and President Franklin D. Roosevelt's response.
b. Explain the Japanese attack on Pearl Harbor and the internment of Japanese-Americans.
c. Explain major events including the lend-lease program, the Battle of Midway, D-Day, and the fall of Berlin.
d. Describe war mobilization, as indicated by rationing, war-time conversion, and the role of women in war industries.
e. Describe Los Alamos and the scientific, economic, and military implications of developing the atomic bomb.

SSUSH25 The student will describe changes in national politics since 1968.

a. Describe President Richard M. Nixon's opening of China, his resignation due to the Watergate scandal, changing attitudes toward government, and the Presidency of Gerald Ford.
b. Explain the impact of Supreme Court decisions on ideas about civil liberties and civil rights including such decisions as Roe v. Wade (1973 and the Bakke decision on affirmative action).
c. Explain the Carter administrations efforts in the Middle East including the Camp David Accords, his response to the 1979 Iranian Revolution and Iranian hostage crisis.
c. Describe domestic and international events of Ronald Reagan's presidency including Reagonomics, the Iran-contra scandal and the collapse of the Soviet Union.
d. Explain the relationship between Congress and President Bill Clinton including the North American Free Trade Agreement and his impeachment and acquittal.
e. Analyze the 2000 presidential election and its outcome emphasizing the role of the electoral college.
f. Analyze the response of President George W. Bush to the attacks of September 11, 2001 on the United States, the war against terrorism, and the subsequent American interventions in Afghanistan and Iraq.

SHIP CONSTRUCTION

PS- NSIIINOS -12: Students will recognize and learn the different types of naval ships and their construction.

e. State the eight major factors used in the construction of any U.S. Navy ship.
f. Define those terms that characterize a ship's structure.
g. Describe the decks of a U.S. Navy vessel by their names.
h. Cite the three types of propulsion plants used in Navy vessels.

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i. List the classifications and designations of U.S. Navy ships.

Academic Standard(s):
SCSh3 Students will identify and investigate problems scientifically.
a. Suggest reasonable hypotheses for identified problems.
b. Develop procedures for solving scientific problems.
c. Collect, organize and record appropriate data.
d. Graphically compare and analyze data points and/or summary statistics.
e. Develop reasonable conclusions based on data collected.
f. Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.

DAMAGE CONTROL AND FIREFIGHTING

PS- NSIIINOS -13: Students will expand their understanding and knowledge of damage control and firefighting onboard a vessel.

c. Describe the functions and responsibilities of key personnel assigned to the damage control organization.
d. Explain the material condition of readiness.
e. Determine the methods and materials used by repair parties to make emergency repairs.
f. List the systems used to communicate throughout the damage control organization.
g. Cite the three physical requirements for a fire to occur and the four classes of fires.
h. State the procedures for fighting fires.

Academic Standard(s):
SCSh5 Students will demonstrate the computation and estimation skills necessary for analyzing data and developing reasonable scientific explanations.
a. Trace the source on any large disparity between estimated and calculated answers to problems.
b. Consider possible effects of measurement errors on calculations.
c. Recognize the relationship between accuracy and precision.
d. Express appropriate numbers of significant figures for calculated data, using scientific notation where appropriate.
e. Solve scientific problems by substituting quantitative values, using dimensional analysis and/or simple algebraic formulas as appropriate.

NAVAL GUNNERY and WEAPONS

PS- NSIIINOS -14: Students will demonstrate knowledge of naval gunnery and weapons.

f. State the evolution of naval weapons from 1453 to the present.
g. Discuss basic weapons terminology as it applies to the Navy.
h. Describe the Navy weapons organization.
i. Discuss the range of weapons used by the Navy.
j. Describe the major considerations used to select ship weapons systems.
k. State shipboard weapons control systems used by the Navy.

l. Cite the major characteristics and nomenclature of naval guns.
m. Evaluate the principal components of gun ammunition.
n. Relate the techniques used by the Navy to provide gunfire support.

Academic Standard(s):
SCSh5 Students will demonstrate the computation and estimation skills necessary for analyzing data and developing reasonable scientific explanations.
a. Trace the source on any large disparity between estimated and calculated answers to problems.
b. Consider possible effects of measurement errors on calculations.
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d. Express appropriate numbers of significant figures for calculated data, using scientific notation where appropriate.
e. Solve scientific problems by substituting quantitative values, using dimensional analysis and/or simple algebraic formulas as appropriate.

NAVAL AIRCRAFT and GUIDED MISSILES

PS- NSIIINOS -15: Students will demonstrate knowledge of naval aviation in terms of their aircraft and their weapons.
f. Identify the types of naval aircraft.
g. Explain the military aircraft designation system.
h. Cite the evolution of naval aircraft weapons systems.
i. Describe naval aircraft guns.
j. List the general types of guided missiles.
k. Describe the four basic component parts of guided missile systems.
l. Define the types of usage of guided missiles used in the Navy.
m. Illustrate the Navy's submarine-launched ballistic missile program.
n. Make sense of the Navy's air-to-air missiles used in front line defense of naval task force.
o. Induce the second line of fleet defense with the use of the Navy's surface-to-air missiles.
p. Imagine the Navy's current under sea warfare weapons.
q. Determine the physics affecting missile and aircraft flight.
r. Explain the two basic types of guided missile trajectories.

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b. Compare and contrast scalar and vector quantities.
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d. Measure and calculate the magnitude of frictional forces and Newton's three Laws of Motion.
e. Measure and calculate the magnitude of gravitational forces.

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Fall 2010
f. Measure and calculate two-dimensional motion (projectile and circular) by using component vectors.
g. Measure and calculate centripetal force.
h. Determine the conditions required to maintain a body in a state of static equilibrium.

SPS10 Students will investigate the properties of electricity and magnetism.
a. Investigate static electricity in terms of
- friction
- induction
- conduction

b. Explain the flow of electrons in terms of
- alternating and direct current.
- the relationship among voltage, resistance and current.
- simple series and parallel circuits.

c. Investigate applications of magnetism and/or its relationship to the movement of electrical charge as it relates to
- electromagnets
- simple motors
- permanent magnets

MINE WARFARE

PS- NSIIINOS -16: Students will demonstrate knowledge of mine warfare.
f. Explain the principals used in mine warfare from the American Revolution to the present.
g. Identify the four systems of mine classification.
h. Cite the three major types of mine countermeasures, to include ship treatment against magnetic and acoustic mines, minesweeping, and mine hunting.
i. Explain the major attributes of mine warfare.
j. Define the key elements of mine warfare strategy.

Academic Standard(s):
SCSh5 Students will demonstrate the computation and estimation skills necessary for analyzing data and developing reasonable scientific explanations.
a. Trace the source on any large disparity between estimated and calculated answers to problems.
b. Consider possible effects of measurement errors on calculations.
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c. Investigate applications of magnetism and/or its relationship to the movement of electrical charge as it relates to
- electromagnets
- simple motors
- permanent magnets

CHEMICAL, BIOLOGICAL, and NUCLEAR WEAPONS

PS- NSIIINOS -17: Students will demonstrate knowledge in chemical, biological, and nuclear weapons.
f. Define conventional weapons.
g. State examples of the use of chemical and biological warfare in earlier times.
h. Describe chemical warfare and explain the common types of CW agents found in the weapons stockpiles of most major nations today.
i. Explain biological warfare.
j. Make meaning of nuclear warfare and imagine the possible effects of a nuclear warhead explosion.
k. Cite the three types of nuclear bursts to which a ship may be exposed.
l. Show the physiological effects of radiation exposure on personnel.
m. State CBR damage control procedures, including pre-attack countermeasures and post-attack shipboard decontamination.

Academic Standard(s):
SCSh5 Students will demonstrate the computation and estimation skills necessary for analyzing data and developing reasonable scientific explanations.
a. Trace the source on any large disparity between estimated and calculated answers to problems.
b. Consider possible effects of measurement errors on calculations.
c. Recognize the relationship between accuracy and precision.
d. Express appropriate numbers of significant figures for calculated data, using scientific notation where appropriate.

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e. Solve scientific problems by substituting quantitative values, using dimensional analysis and/or simple algebraic formulas as appropriate.

SAP3 Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.
a. Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.
b. Investigate the physiology of electrochemical impulses and neural integration and trace the pathway of an impulse, relating biochemical changes involved in the conduction of the impulse.
c. Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback

SPS3 Students will distinguish the characteristics and components of radioactivity.

a. Differentiate between alpha and beta particles and gamma radiation.
b. Differentiate between fission and fusion.
c. Explain the process half-life as related to radioactive decay.
d. Describe nuclear energy, its practical application as an alternative energy source, and its potential problems.

Reading Across the Curriculum

Reading Standard Comment
After the elementary years, students engage in reading for learning. This process sweeps across all disciplinary domains, extending even to the area of personal they experience text in all genres and modes of discourse. In the study of various disciplines of learning (language arts, mathematics, science, social studies), students must learn through reading the communities of discourse of each of those disciplines. Each subject has its own specific vocabulary, and for students to excel in all subjects, they must learn the specific vocabulary of those subject areas in context.

Beginning with the middle grades years, students begin to self-select reading materials based on personal interests established through classroom learning. Students become curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

Reading across curriculum content develops both academic and personal interests in students. As students read, they develop both content and contextual vocabulary. They also build good habits for reading, researching, and learning. The Reading Across the Curriculum standard focuses on the academic and personal skills students acquire as they read in all areas of learning.

Students will enhance reading in all curriculum areas by:

g. Reading in all curriculum areas
    - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
    - Read both informational and fictional texts in a variety of genres and modes of discourse.
    - Read technical texts related to various subject areas.

h. Discussing books
    - Discuss messages and themes from books in all subject areas.
    - Respond to a variety of texts in multiple modes of discourse.
    - Relate messages and themes from one subject area to messages and themes in another area.
    - Evaluate the merit of texts in every subject discipline.
    - Examine author's purpose in writing.
    - Recognize the features of disciplinary texts.

i. Building vocabulary knowledge
    - Demonstrate an understanding of contextual vocabulary in various subjects.
    - Use content vocabulary in writing and speaking.
    - Explore understanding of new words found in subject area texts.

j. Establishing context
    - Explore life experiences related to subject area content.
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Implementation date DRAFT
Fall 2010

PROGRAM CONCENTRATION: Government &Public Safety
CAREER PATHWAY: JROTC – Navy
COURSE TITLE: Naval Science IV Naval Leadership and Ethics

Course Description: The purpose of this course is to take a more in-depth look at what leadership is and to learn how to maximize leadership abilities. More importantly, this course will assist the student in adding the polish necessary to be a truly effective leader in the NJROTC unit, school, community, and in life. Minimum performance requirements of this course are in accordance with current Chief of Naval Education Training Instruction, NAVEDTRA 37128. The performance standards in this course are based on the performance standards identified in the curriculum for the United States Navy Junior Reserve Officer Training Corps. Successful completion of three courses of credit will qualify the student for advanced placement in a college ROTC program or accelerated promotion in the military service.

FUNDAMENTALS OF LEADERSHIP

PS- NSIVNLE-1: Students will demonstrate knowledge of leadership group dynamics and how and why groups behave as they do.

o. Describe the things that influence persons in a group.
p. List the membership condition that characterized true functioning groups.
q. Cite effects of a group on individuals within the group.
r. Explain what a leader must do to guard against losing group members and effectiveness of the group.
s. Describe the main factors that influence the internal dynamics of a group.
t. Identify formal and informal factors regarding communications that an effective leader must keep in mind.
u. Discuss group standards.
v. Discuss group solidarity and how it is achieved.
w. Describe what characteristics an organization with high esprit de corps.
x. Illustrate which external group dynamic factors may influence a group.
y. Discuss four things a leader can do to motivate his or her group toward the achievement of their mission or goals.
z. Prove long recommended techniques for giving praise and reprimands.

Academic Standard(s): SSCG11 The student will describe the influence of lobbyists (business, labor, professional organizations) and special interest groups on the legislative process.

a. Explain the function of lobbyists.
b. Describe the laws and rules that govern lobbyists.
c. Explain the function of special interest groups.

THOUGHTS ON THE PURPOSE OF LIFE

PS- NSIVNLE -2: Students will understand that the human capacity to capture the essence of a purpose in life is based on working, creating, excelling and being concerned about the world and its affairs.

j. Explain and discuss the human capacity for effort.
k. Discuss what is necessary to solve many of today's problems.
l. Illustrate the five basic goals for education that apply to everyone.
m. Explain why reading is important.
n. Discuss why we should see to understand the past.
o. Discuss why religion is an area that merits a more sympathetic understanding by modern intellectuals.
p. Cite the evidence for one to conclude that morals and ethics are becoming less prevalent in people's lives.

Academic Standard(s): SSCG2 The student will analyze the natural rights philosophy and the nature of government expressed in the Declaration of Independence.

a. Compare and contrast the Declaration of Independence to the Social Contract Theory.
b. Evaluate the Declaration of Independence as a persuasive argument.

THEORY OF HUMAN MOTIVATION

PS- NSIVNLE -3: Students will understand that human motivation is based on the hierarchical system of physiological needs, safety needs, love and belonging needs, status and esteem needs, and the need for self-actualization or self-fulfillment.

f. Explain what is meant by Maslow's statement, "The basic human needs are organized into a hierarchy or relative prepotency."
g. State why safety need are usually not motivators in our society.
h. Describe where satisfaction of a person's self-esteem need leads.
i. Cite the highest needs that emerge after satisfaction of physiological, safety, love, and esteem needs.
j. Explain the most common exception to the hierarchy of needs as postulated by Maslow.
k. Explain why it is necessary that all lower needs by 100% satisfied in order for higher needs to become motivators.
l. Discuss what it means to say most behavior is multi-motivated.

Academic Standard(s): SAP5 Students will analyze the role of the reproductive system as it pertains to the growth and development of humans.

c. Describe the stages of development from birth to adulthood (i.e. neonatal period, infancy, childhood, adolescence and puberty, and maturity).

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PS- NSIVNLE -4: Students will understand that leadership begins with the leader's personal example and does not end until the organization comprehends, accepts, complies with, and resonates with the highest possible standards.

k. Evaluate the four intangibilities upon which leadership should be based.
l. Describe where moral strength begins.
m. Discuss what a leader must do to be sure of getting the real facts about a problem.
n. Define the meaning of "knowing one's people".
o. Discuss what has significantly changed about leadership today as opposed to the past.
p. Explain which type of leader subordinates best respond to and give their all.

Academic Standard(s): SSUSH18 The student will describe Franklin Roosevelt's New Deal as a response to the depression and compare the ways governmental programs aided those in need.

e. Identify the political challenges to Roosevelt's domestic and international leadership including the role of Huey Long, the "court packing bill," and the Neutrality Act.

PS- NSIVNLE -5: Students will understand that effective leadership uses the arts of communication and supervision to get the job done, and that effective leadership is an ongoing, growing, and learning process--not a finished product.

k. Describe which arts are used in practicing effective leadership.
l. Explain why it is important to communicate well.
m. State the essence of good leadership.
n. Cite three characteristics of effective leadership.
o. Discuss what is involved in sharing and teamwork.
p. Describe the basic rules that effective leaders follow.
q. Cite the beneficial effects obtained when a person makes a real contribution to the unit mission.

Academic Standard(s): ELA10RL2 The student identifies, analyzes, and applies knowledge of theme in literary works and provides evidence from the works to support understanding. The student

a. Applies knowledge of the concept that the theme or meaning of a selection represents a universal view or comment on life or society and provides support from the text for the identified theme.
b. Evaluates the way an author's choice of words advances the theme or purpose of the work.
c. Applies knowledge of the concept that a text can contain more than one theme.
d. Analyzes and compares texts that express a universal theme, and locates support in the text for the identified theme.
e. Compares and contrasts the presentation of a theme or topic across genres and explains how the selection of genre affects the delivery of universal ideas about life and society.

PS- NSIVNLE -6: Students will demonstrate knowledge that every technique of positive leadership should make the follower feel that, as long as he is doing his best to follow, he will be secure and his efforts will receive recognition.

k. State a major problem often faced by a leader.
l. State the seven categories into which the techniques of leadership may be grouped.
m. Describe the four leadership techniques involved in giving orders.
n. Describe the eleven leadership techniques involved in getting cooperation.
o. Describe the ten leadership techniques involved in establishing discipline.
p. Describe the nine leadership techniques involved in improving feelings of security.
q. Describe the seven leadership techniques involved in giving recognition.
r. Describe the six leadership techniques involved in improving organization and administration.

Academic Standard(s): SSCG10 The student will describe the legislative process, including the roles played by committees and leadership.

a. Explain the steps in the legislative process.
b. Explain the function of various leadership positions within the legislature.

THE RESPONSIBILITIES AND QUALITIES OF LEADERSHIP

PS- NSIVNLE -7: Students will understand that a leader knows where he is going and how to get there, is willing to let his subordinates in on the ultimate goal and the path(s) thereto, and to enlist their support.

n. State the difference between a leader and a manager.
o. Explain a leader's "service reputation".
p. Discuss how an officer's humanity is perceived.
q. Describe what ability an individual must have in order to be effective and successful in the Navy.
r. Discuss the element of surprise.
s. Explain how an officer can lose the respect of his or her troops.
t. Discuss how behavior is a basic element of "setting the example".

Academic Standard(s): SSCG12 The student will analyze the various roles played by the President of the United States including Commander-in-Chief of the Armed Forces, Chief Executive, Chief Agenda Setter, Representative of the Nation, Chief of State, Foreign Policy Leader, and Party Leader.

THE CHAIN of COMMAND

PS- NSIVNLE -8: Students will understand that the military chain of command is the pyramid structure of communications, authority, and responsibilities which allows every individual in the organization to know what is going on with those below and what is expected by those above.

l. Express why the chain if command is so important.

m. Infer the benefits of following the chain of command.
n. Explain when the chain of command should be bypassed.
o. Describe what actions are taken when it has been necessary to bypass the chain of command.
p. Express what juniors must do when a senior's perceptions are believed to be in error.
q. State the possible detrimental results that may occur when the chain of command is bypassed.
r. Describe the typical effective span of control.
s. Discuss the negative concept of using the chain of command as a crutch for not taking the initiative and responsibility for starting the job.

Academic Standard(s): SSCG4 The student will demonstrate knowledge of the organization and powers of the national government.

a. Describe the structure and powers of the legislative, executive, and judicial branches.
b. Analyze the relationship between the three branches in a system of checks and balances and separation of powers.

PS- NSIVNLE -9: Students will demonstrate knowledge that authority and responsibility is invested in the captain of a ship, and every leader below him has the unequivocal requirement for obedience to his command.

n. Relate a fundamental assumption every leader must make.
o. Evaluate decisions that are made contrary to one's belief.
p. Derive what one does when faced with difficult decisions.
q. State the tenacity of an officer who adheres to his values system.
r. Discuss how one goes about building the strength of a unit.
s. Describe the proper action to be taken if one has a problem with a senior.

Academic Standard(s) SSCG14 The student will explain the impeachment process and its usage for elected officials.

a. Explain the impeachment process as defined in the U.S. Constitution.
b. Describe the impeachment proceedings of Andrew Johnson and Bill Clinton.

PS- NSIVNLE -10: Students will understand how discipline within a body of men and carrying out orders can turn an unruly mob into a cohesive group, banded for specific objectives.

i. Compare authority verses responsibility.
j. Discuss how quickly an officer can decide to implement a command.
k. Describe the posture a leader takes when carrying out an order.

Academic Standard(s): SSCG22 The student will demonstrate knowledge of the criminal justice process.

a. Analyze the steps in the criminal justice process.

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b. Explain an individual's due process rights.
c. Describe the steps in a criminal trial or civil suit.
d. Examine the different types of sentences a convicted person can receive.

CRITICISM and the NAVAL OFFICER:

PS- NSIVNLE -11: Students will understand the leadership abilities necessary to deliver criticism smoothly, to receive criticism with equanimity, and to elicit criticism where it would be helpful.

g. Identify the concept of seeking and taking responsibility as a key of successful leadership.
h. Cite the mechanism by which leaders exercise their responsibility to help subordinates past rough spots.
i. Discuss setting standards as an integral part of a leader's job.
j. Discuss how often a senior should review subordinate's performance with them.
k. Discuss the phrase, "May I make a suggestion, Sir?" as a good method to be used by juniors who wish to make their views on an issue known to their senior.
l. Discuss a characteristic displayed by good followers and leaders in the naval service when giving advice.
m. Cite the rule that should always be followed regarding the delivery of criticism.
n. Describe what characteristic criticism must have to be useful.
o. Discuss what attitude junior officers should take toward suggestion given by subordinate enlisted personnel.

Academic Standard(s): SSCG6 The student will demonstrate knowledge of civil liberties and civil rights.

a. Examine the Bill of Rights with emphasis on First Amendment freedoms.
b. Analyze due process law expressed in the 5th and 14th Amendments.
c. Explain selective incorporation of the Bill of Rights.
d. Explain how government seeks to maintain the balance between individual liberties and the public interest.
e. Explain every citizen's right to be treated equally under the law.

RESPONSIBILITY and the NAVAL OFFICER

PS- NSIVNLE -12: Students will understand that a naval officer is morally responsible for all aspects of what happens to his unit.

j. State the four cardinal virtues of moral responsibility and leadership.
k. Discuss what is meant by the term "responsibility".
l. Discuss the concept of possessing moral courage as paramount to a junior officer.
d. Describe what happens when a junior leader turns a blind eye to a situation or exhibits behavior that he or she knows to be wrong.

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Academic Standard(s): B3 The student will demonstrate an understanding of the Bible's impact on the history, religion, government and law of various cultures

b.Investigate and explains the biblical roots and influences on contemporary culture, to include history, government, law, customs, morals, and values

PS- NSIVNLE -13: Students will understand that the difference between leaders and those who follow is the propensity on the part of the leader to seek out situations in which they can contribute and take charge as necessary, and accept responsibility if something goes wrong.

i. Discuss how a leader shows that he or she is responsible.
j. Discuss the leader's responsibilities when given an unpleasant assignment.
k. Explain how a leader develops a sense of responsibility among subordinates.
l. Explain the relationship between delegating and assigning responsibility for a task or mission.
m. Discuss when a senior will regard a failure of a junior as unavoidable.

Academic Standard(s): SSUSH22 The student will identify dimensions of the Civil Rights movement 1945-1970.

a. Explain the importance of President Truman's order to integrate the U.S. military and the federal government.
e. Describe the causes and consequences of the Civil Rights Act of 1964 and the Vote

PS- NSIVNLE -14: Students will understand that within the triad of responsibility, accountability, and authority, the officers' corps has an ethical code that ensures that officers always do what is right and always use authority properly.

o. Discuss one of the most important qualities of leadership.
p. Discuss when a leader's legitimate authority rests over a subordinate.
q. Explain how a military leader's authority can be strengthened.
r. Describe the difference between positive and negative exercise of authority.

Academic Standard(s): SSCG1 The student will demonstrate knowledge of the political philosophies that shaped the development of United States constitutional government.

a. Analyze key ideas of limited government and the rule of law as seen in the Magna Carta, the Petition of Rights, and the English Bill of Rights.
b. Analyze the writings of Hobbes (Leviathan), Locke (Second Treatise on Government), and Montesquieu (The Spirit of Laws) as they impact our concept of government.

Reading Across the Curriculum

Reading Standard	Comment

After the elementary years, students engage in reading for learning. This process sweeps across all disciplinary domains, extending even to the area of personal they experience text in all genres and modes of discourse. In the study of various disciplines of learning (language arts, mathematics, science, social studies), students must learn through reading the communities of discourse of each of those disciplines. Each subject has its own specific vocabulary, and for students to excel in all subjects, they must learn the specific vocabulary of those subject areas in context.

Beginning with the middle grades years, students begin to self-select reading materials based on personal interests established through classroom learning. Students become curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

Reading across curriculum content develops both academic and personal interests in students. As students read, they develop both content and contextual vocabulary. They also build good habits for reading, researching, and learning. The Reading Across the Curriculum standard focuses on the academic and personal skills students acquire as they read in all areas of learning.

Students will enhance reading in all curriculum areas by:

i. Reading in all curriculum areas
   - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
   - Read both informational and fictional texts in a variety of genres and modes of discourse.
   - Read technical texts related to various subject areas.

j. Discussing books
   - Discuss messages and themes from books in all subject areas.
   - Respond to a variety of texts in multiple modes of discourse.
   - Relate messages and themes from one subject area to messages and themes in another area.
   - Evaluate the merit of texts in every subject discipline.
   - Examine author's purpose in writing.
   - Recognize the features of disciplinary texts.

k. Building vocabulary knowledge
   - Demonstrate an understanding of contextual vocabulary in various subjects.
   - Use content vocabulary in writing and speaking.
   - Explore understanding of new words found in subject area texts.

l. Establishing context
   - Explore life experiences related to subject area content.

- Discuss in both writing and speaking how certain words are subject area related.
- Determine strategies for finding content and contextual meaning for unknown words.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and postsecondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational

structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.

PROGRAM CONCENTRATION: Government &Public Safety
CAREER PATHWAY: JROTC – Navy
COURSE TITLE: Naval Science IV Effective Communications

Course Description: The purpose of this course is to teach the students the techniques of effective communication, which is one of the most important skills that a good leader must develop in order to be successful. Minimum performance requirements of this course are in accordance with current Chief of Naval Education Training Instruction, NAVEDTRA 37128. The performance standards in this course are based on the performance standards identified in the curriculum for the United States Navy Junior Reserve Officer Training Corps. Successful completion of three courses of credit will qualify the student for advanced placement in a college ROTC program or accelerated promotion in the military service.

ACHIEVING EFFECTIVE COMMUNICATIONS

PS- NSIVEC-1: Students will demonstrate an understanding of the aspects involved in achieving effective communications.

aa. Discuss the importance of communication to the accomplishment of a units' mission.
bb. Discuss the security a message has further down the chain of command.
cc. Explain the basics involved in effective communications.
dd. Explain what occurs when power is effectively used.

ee. Explain five techniques for tailoring communication to people's level of understanding.
ff. Describe what an officer must do prior to communicating with the crew.

Academic Standard(s): ELA11LSV2 The student formulates reasoned judgments about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration, exposition, persuasion, and description.

Critical Component: When responding to visual and oral texts and media (e.g., television, radio, film productions, and electronic media), the student:
a. Recognizes strategies used by the media to inform, persuade, entertain (e.g., advertisements, perpetuation of stereotypes, use of visual representations, special effects, language).
b. Analyzes visual or aural techniques used in a media message for a particular audience and evaluates their effectiveness.
c. Develops and applies criteria for assessing the effectiveness of the presentation, style, and content of films and other forms of electronic communication.

d. Identifies the aesthetic effects of a media presentation (e.g., layout, lighting, color, camera angles, background, etc.)
e. Analyzes the effect of dialect and language on positive or negative stereotypes among social groups.
Critical Component: When delivering and responding to presentations, the student:
a. Uses effective and interesting language, including informal expressions for effect, Standard American English for clarity, technical language for specificity.
b. Evaluates and uses different effects (e.g., visual, music, sound, graphics) to create competent presentations or productions.
d. Delivers oral presentations that incorporate the elements of narration, exposition, persuasion, and/or literary analysis.
c. Analyzes effective speeches made for a variety of purposes and prepares and delivers a speech containing these same features.

PRODUCING EFFECTIVE ORAL and WRITTEN COMMUNICATIONS

PS- NSIVEC -2: Students will understand that for an order to be effective it must be understood by the lowest command level tasked with carrying out the mission or objective.

a. Discuss what a leader must do before he or she can issue a crisp, clear oral or written message.
b. Discuss the ways seniors and subordinates may react to a communication.

Academic Standard(s): ELA9LSV2 The student formulates reasoned judgments about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration,

exposition, persuasion, and description.

Critical Component: When responding to written and oral texts and media (e.g., television, radio, film productions, and electronic media), the student:
a. Assesses the ways language and delivery affect the mood and tone of the oral communication and impact the audience.

PS- NSIVEC -3: Students will understand that to ensure that an intended message has been received is to look at the results.

m. Discuss the concept that a successful communicator understands that different people respond differently to messages.
n. Discuss the concept that setting the example is the basic way to communicate with others.
o. Explain the two assumptions that can cause difficulty in communications.
p. Explain Descartes' rules of logic of speaking.
q. Discuss what a leader should do when delivering an order.
r. Explain what voice and inflection convey.
s. Discuss the importance about the manner in which the reader is addressed in written communications.

Academic Standard(s): ELAWLRC3 The student acquires new vocabulary in each content area and uses it correctly. The student

a. Demonstrates an understanding of contextual vocabulary in various subjects.
b. Uses content vocabulary in writing and speaking.
c. Explores understanding of new words found in subject area texts.

COMMUNICATIONS: A TWO-WAY EXCHANGE of INFORMATION

PS- NSIVEC -4: Students will understand that the ability to convey messages from one person to another is dependent on the attitude and the motivation of the receiver.

q. Identify the primary consideration in the communication process.
r. Cite the five principles that help increase the accuracy of a message.
s. Discuss the dual responsibility in effective communication.

Academic Standard(s): ELA10LSV2 The student formulates reasoned judgments about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration, exposition, persuasion, and description.

Critical Component: When responding to visual and oral texts and media (e.g., television, radio, film productions, and electronic media), the student:
b. Evaluates the clarity, quality, effectiveness, and general coherence of a speaker's important points, arguments, evidence, organization of ideas, delivery, diction, and syntax.
e. Analyzes the four basic types of persuasive speech (e.g., propositions of fact, value, problem,

or policy) and understands the similarities and differences in their patterns of organization and the use of persuasive language, reasoning, and proof.

PS- NSIVEC -5: Students will understand that one of the foremost responsibilities of a leader is to serve as the example or model for his or her followers in everything that he or she does or is.

r. Discuss the concepts of setting the example as one of the foremost responsibilities of a leader.
s. Identify what great leaders like Winston Churchill, Franklin Roosevelt, General MacArthur and Admirals Nimitz and Halsey have in common.
t. Discuss the simple formula for successful communication.
u. Describe the stereotypes that individuals carry with them.
v. Discuss how a leader sets the moral tone for subordinates.

Academic Standard(s): ELA12W2 The student demonstrates competence in a variety of genres.

Critical Component:The student produces narrative writing that applies polished narrative strategies acquired in previous grades, in other genres of writing such as reflective compositions, historical investigative reports, and literary analyses, by raising the level of critical thinking skills and rhetorical techniques
Critical Component: The student produces expository (informational) writing to explain an idea or concept and/or convey information and ideas from primary and secondary sources accurately and coherently; the student:
a. Engages the interest of the reader.
b. Formulates a coherent thesis or controlling idea.
c. Coherently develops the controlling idea and/or supports the thesis by incorporating evidence from both primary and secondary sources, as applicable.

PS- NSIVEC -6: Students will understand that communications as a component of planning requires a leader to engage in a continual exchange of ideas, requirements, and objectives with others.

s. Discuss what a leader does to ensure development of useful plans.
t. Discuss the three aspects of communication that are sufficient to convey an order.
u. Explain why a follow-up system on plans and objectives are important.
v. Cite the five criteria for effective listening techniques.
w. Discuss how to go about seeking acknowledgement of a message when the delivery and comprehension of the message are important.

Academic Standard(s): ELA10W4 The student practices both timed and process writing and, when applicable, uses the writing process to develop, revise, and evaluate writing. The student

a. Plans and drafts independently and resourcefully.

b. Revises writing to improve the logic and coherence of the organization and controlling perspective.
c. Revises writing for specific audiences, purposes, and formality of the contexts.
d. Revises writing to sharpen the precision of word choice and achieve desired tone.
e. Edits writing to improve word choice, grammar, punctuation, etc.

WRITTEN COMMUNICATIONS

PS- NSIVEC -7: Students will demonstrate knowledge that written communications are very important when orders are complicated, when they are extremely formal, and when they are very important to the safety of the men and the ship.

u. Discuss when it is better to communicate in writing as opposed to verbally.
v. Describe a key advantage of written orders.
w. Identify the characteristics that are normally associated with the use of written orders in the Navy.
x. Discuss when a written order should be used, and when it should not be used.

Academic Standard(s): ELA10RC2 The student participates in discussions related to curricular learning in all subject areas. The student

a. Identifies messages and themes from books in all subject areas.
b. Responds to a variety of texts in multiple modes of discourse.
c. Relates messages and themes from one subject area to those in another area.
d. Evaluates the merits of texts in every subject discipline.
e. Examines the author's purpose in writing.
f. Recognizes the features of disciplinary texts.

ORAL COMMUNICATIONS

PS- NSIVEC -8: Students will understand the limitations of oral communications as they pertain to complex tasks requiring detailed explanations.

t. Discuss what is meant by a verbal order.
u. Identify three criteria that good orders meet.
v. Identify four situations particularly suited for using oral orders.

Academic Standard(s): ELA11LSV2 The student formulates reasoned judgments about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration, exposition, persuasion, and description.

Critical Component: When responding to visual and oral texts and media (e.g., television, radio, film productions, and electronic media), the student:

d. Delivers oral presentations that incorporate the elements of narration, exposition, persuasion,

and/or literary analysis.
c. Analyzes effective speeches made for a variety of purposes and prepares and delivers a speech containing these same features.

AVOIDING COMMUNICATION PITFALLS

PS- NSIVEC -9: Students will demonstrate knowledge of how to avoid communication pitfalls that leave room for interpretation of meaning.

t. Discuss when it is most likely that orders will be misunderstood.
u. Discuss the importance of providing background information for the proper execution of an order.
v. Discuss how a leader can avoid having his orders distorted as they pass through the chain of command.
w. Discuss why administrative failures can occur when strict compliance is expected from discretionary orders.

Academic Standard(s): ELA10LSV2 The student formulates reasoned judgments about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration, exposition, persuasion, and description.

Critical Component: When responding to visual and oral texts and media (e.g., television, radio, film productions, and electronic media), the student:
a. Analyzes historically significant speeches to find the rhetorical devices and features that make them memorable.
b. Evaluates the clarity, quality, effectiveness, and general coherence of a speaker's important points, arguments, evidence, organization of ideas, delivery, diction, and syntax.
c. Analyzes the types of arguments used by the speaker, including argument by causation, analogy, authority, emotion, and logic.

COMMUNICATION PRESENTATIONS

PS- NSIVEC -10: Students will demonstrate confidence and proficiency in communications by presenting both a written and an oral presentation.

l. Develop and present a written communiqué.
b. Develop and present an oral communiqué.

Academic Standard(s): ELA10LSV2 The student formulates reasoned judgments about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration, exposition, persuasion, and description.

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Critical Component: When delivering and responding to presentations, the student:
a. Delivers narrative, expository, or persuasive presentations that incorporate the same elements found in that mode or genre of writing.
b. Delivers oral responses to literature that incorporate the same elements found in written literary analysis.
c. Uses props, visual aids, graphs, or electronic media to enhance the appeal and accuracy of presentations.

Reading Across the Curriculum

Reading Standard Comment
After the elementary years, students engage in reading for learning. This process sweeps across all disciplinary domains, extending even to the area of personal they experience text in all genres and modes of discourse. In the study of various disciplines of learning (language arts, mathematics, science, social studies), students must learn through reading the communities of discourse of each of those disciplines. Each subject has its own specific vocabulary, and for students to excel in all subjects, they must learn the specific vocabulary of those subject areas in context.

Beginning with the middle grades years, students begin to self-select reading materials based on personal interests established through classroom learning. Students become curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

Reading across curriculum content develops both academic and personal interests in students. As students read, they develop both content and contextual vocabulary. They also build good habits for reading, researching, and learning. The Reading Across the Curriculum standard focuses on the academic and personal skills students acquire as they read in all areas of learning.

Students will enhance reading in all curriculum areas by:

k. Reading in all curriculum areas
- Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
- Read both informational and fictional texts in a variety of genres and modes of discourse.
- Read technical texts related to various subject areas.

l. Discussing books
- Discuss messages and themes from books in all subject areas.
- Respond to a variety of texts in multiple modes of discourse.

- Relate messages and themes from one subject area to messages and themes in another area.
- Evaluate the merit of texts in every subject discipline.
- Examine author's purpose in writing.
- Recognize the features of disciplinary texts.

m. Building vocabulary knowledge
- Demonstrate an understanding of contextual vocabulary in various subjects.
- Use content vocabulary in writing and speaking.
- Explore understanding of new words found in subject area texts.

n. Establishing context
- Explore life experiences related to subject area content.
- Discuss in both writing and speaking how certain words are subject area related.
- Determine strategies for finding content and contextual meaning for unknown words.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and postsecondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication

skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.

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