

Practical Nursing I

8357 18 weeks / 280 hours

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Acknowledgments

The components of this instructional framework were developed by the following technical panel and curriculum development team members:

Thelma Atkins-Riley, Retired Professor of Nursing, Southside Virginia Community College
Lundy Beard, Practical Nursing Program Director, Northern Virginia Community College
Jane Best, Practical Nursing Instructor, Chesapeake Public Schools
Catherine Corp, Practical Nursing Instructor, Fairfax County Public Schools
Tammy Dean, Director of Practical Nursing, Prince William County Schools
Aileen Edwards Harris, Executive Director, Capital Area Health Education Center
Barbara Evard, Nursing Instructor, Virginia Beach City Public Schools
Wendy Falls, Practical Nursing Program Head, J. Sargeant Reynolds Community College
Aletheia Gaither, Registered Nurse, Southside Regional Medical Center Intensive Care

Unit

Jeanne Maclin, Director of Health and Medical Sciences, Petersburg City Public Schools

Edith Mangrum, Retired Professor of Nursing, Southside Virginia Community College

Kathryn Mauch, Health and Medical Education Specialist, Henrico County Public Schools

Diane Mills, Nursing Instructor, Virginia Beach City Public Schools

Jeannette Pouncey, Retired Registered Nurse and Nurse Supervisor, Southside Regional Medical Center

Annette Reilly-Aurelio, Practical Nursing Program Coordinator, Chesterfield County Public Schools

Paula Saxby, Deputy Executive Director, Virginia Board of Nursing

Eunice Scott, Director of Nursing, Centura College of Richmond

Pamela “Gayle” Shultz, Director of Practical Nursing, Valley Career and Technical Center

Jacqueline Tucker, Practical Nursing Instructor, Petersburg City Public Schools

Michie Walton, Director/Instructor, Chesapeake Public Schools

Lena Whisenhunt, Director of Practical Nursing, Mountain Empire Community College

Mary Worrell, Retired Professor of Practical Nursing, Southside Virginia Community College

Correlations to the Virginia Standards of Learning were reviewed and completed by:

Vickie L. Inge, Mathematics Committee Member, Virginia Mathematics and Science Coalition

Anne F. Markwith, New Teacher Mentor, Gloucester County Public Schools

Cathy Nichols-Cocke, PhD, Fairfax High School, Fairfax County Public Schools

Caroline C. Wheeler, M.T., Secondary English

The framework was edited and produced by the CTE Resource Center:

Robin A. Jedlicka, Writer/Editor

Kevin P. Reilly, Administrative Coordinator

Michele Green-Wright, Specialist for Health Sciences

Office of Career, Technical, and Adult Education

Virginia Department of Education

Dr. Tricia S. Jacobs, CTE Coordinator of Curriculum and Instruction

Office of Career, Technical, and Adult Education Services

Virginia Department of Education

Course Description

Suggested Grade Level: 11 or 12

In the first semester of Practical Nursing, students will learn the fundamentals of nursing that include communication, human anatomy, body function, and nutrition, as related to patients/clients across the life cycle.

Recommended prerequisite(s): Introduction to Health and Medical Sciences 8302

NOTE: *This course has specific state laws and regulations from a governing medical board or agency. Please contact the Virginia Department of Education, Office of Career and Technical Education prior to implementing this course. All inquiries may be sent to cte@doe.virginia.gov.*

Task Essentials Table

- Tasks/competencies designated by plus icons (+) in the left-hand column(s) are essential
- Tasks/competencies designated by empty-circle icons (○) are optional
- Tasks/competencies designated by minus icons (−) are omitted
- Tasks marked with an asterisk (*) are sensitive.

| 8357 | Tasks/Competencies |
|---|---|
| Describing Fundamental Concepts of Nursing | |
| (+) | Describe the role of the practical nursing student. |
| (+) | Relate personal aptitudes and interests to the concept of nursing. |
| (+) | Identify significant factors in the evolution of nursing care. |
| (+) | Describe the differences among the methods of providing nursing care. |
| (+) | Describe the roles of healthcare team members. |
| (+) | Describe the development of professional socialization of the practical nurse that includes working in interdisciplinary teams. |
| (+) | Describe the cultural and psychosocial aspects of health care in a changing society. |
| Understanding the Nursing Process | |
| (+) | Describe the six phases of the nursing process. |
| (+) | Explain the relationship of the nursing process to nursing practice. |
| (+) | Describe a plan of care, using the nursing process. |
| (+) | Explain the principles of effective verbal and nonverbal communication. |
| (+) | Explain the principles of communication when establishing therapeutic relationships. |
| (+) | Identify principles of conflict resolution. |
| (+) | Report information relating to the patient/client. |
| (+) | Describe principles of documentation. |
| (+) | Demonstrate techniques of client education. |
| Describing Legal, Ethical, and Professional Responsibilities in Clinical Practice | |

| 8357 | Tasks/Competencies |
|--|--|
| + | Explain the legalities governing the scope of practical nursing as defined in the Board of Nursing Law and Regulation. |
| + | Identify the rights of clients. |
| + | Explain protection of client rights. |
| + | Describe clients' rights to be free from abuse, mistreatment, neglect, and abandonment. |
| + | Explain the concept of ethics as related to the nursing practice. |
| + | Explain nursing standards of care. |
| + | Describe the influence of various agencies on the delivery of health care. |
| + | Describe organizations that enhance the development of nursing. |
| Explaining Principles of Anatomy and Physiology | |
| + | Explain the basic structural levels of body organization, anatomical structure, and body cavities. |
| + | Explain chemical components of the body. |
| + | Explain structures and functions of the cell. |
| + | Explain structures and functions of tissues, membranes, and glands. |
| + | Explain structures and functions of the integumentary system. |
| + | Explain structures and functions of the skeletal system. |
| + | Explain structures and functions of the muscular system. |
| + | Explain structures and functions of hematological system. |
| + | Explain structures and functions of the cardiovascular system. |
| + | Explain structures and functions of the lymphatic system, including immunity. |
| + | Explain structures and functions of the respiratory system. |
| + | Explain structures and functions of the gastrointestinal system. |
| + | Explain structures and functions of the endocrine system. |
| + | Explain structures and functions of the reproductive system. |
| + | Explain structures and functions of the nervous system. |
| + | Explain structures and functions of the urinary system. |
| + | Explain structures and functions of the sensory system. |
| + | Explain the fundamentals of fluid and electrolyte balance. |
| + | Identify the processes involved in electrolyte movement. |
| Identifying Concepts of Nutrition | |
| + | Identify dietary patterns relating to ethnic, religious, cultural, and personal preferences. |
| + | Identify nutrients essential for optimal health and wellness. |
| + | Describe the digestion and metabolism of food. |
| + | Describe dietary guidelines recommended for health promotion. |
| + | Identify principles of food management and safety. |
| + | Explain basic dietary management techniques. |
| + | Demonstrate the process for providing nourishment. |
| Examining Concepts of Wellness and Illness | |
| + | Identify principles of wellness and the promotion of healthy lifestyles for clients and populations. |

| 8357 | Tasks/Competencies |
|------|---|
| + | Define Complementary and Alternative Medicine (CAM) / Integrative Healing Arts (IHA). |

Legend: + Essential ○ Non-essential - Omitted

Curriculum Framework

Describing Fundamental Concepts of Nursing

Task Number 39

Describe the role of the practical nursing student.

Definition

Description should include

- mission/philosophy of the practical nursing program
- school/classroom policies and procedures
- requirements of the standards set forth by the Board of Nursing
- elements of effective learning environments
- methods and styles of learning and time management.

See also “Resources, Facilities, Publications, and Services” (Virginia Administrative Code): [18VAC90-20-110. \(Repealed.\)](#)

Process/Skill Questions

- What are the rules, policies, and procedures regarding the nursing program at school and in the classroom?
- In what ways do classroom demeanor; reading and memory-enhancing techniques; studying, note-taking, test-taking, and time-management skills contribute to academic success?
- In what ways do the mission, philosophy, and objectives of the practical nursing program influence the nursing curriculum?

- What is the student's responsibility regarding learning through lectures, multimedia, CAI instruction, and reading assignments?

Task Number 40

Relate personal aptitudes and interests to the concept of nursing.

Definition

Relating should include

- explanation of the concept of nursing
- discussion about the important attributes of a nurse
- discussion about health habits, stress, occupational risks.

Process/Skill Questions

- What is the current definition of nursing according to the American Nurses Association (ANA) and Virginia Board of Nursing?
- In what ways have nursing theorists influenced the practice and understanding of nursing?
- What attributes are important to the success of a nurse?
- How do personal health habits, eustress, distress, and coping mechanism impact a nurse?
- Of what concern are occupational exposures to diseases, such as AIDS, tuberculosis, or hepatitis B, to a nurse?

HOSA Competitive Events (High School)

Leadership Events

- Medical Photography

Teamwork Events

- Health Career Display

Task Number 41

Identify significant factors in the evolution of nursing care.

Definition

Identification should include

- a timeline of significant historical events
- significant contributions of various nursing care professionals
- current nursing care and future trends.

See also “Curriculum: B.5.f” (Virginia Administrative Code): [18VAC90-20-120. \(Repealed.\)](#)

Process/Skill Questions

- What significant events have contributed to the development and practice of modern nursing? In what order would they be placed on a timeline?
- What did female nurses throughout history, such as Florence Nightingale, Clara Barton, Linda Richards, and Margaret Sanger, contribute to nursing?
- What did male nurses throughout history, such as St. Dominic, St. Francis of Assisi, John Ciudad, St. Camillus de Lellis, Friar Juan de Mena, James Derham, and others contribute to nursing?
- What are examples of current models of the delivery of nursing care?
- How has the delivery of health care changed, especially in relation to community-based care (e.g., home health, outpatient services)?
- What future trends may evolve in health care? Why?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Teamwork Events

- HOSA Bowl

Task Number 42

Describe the differences among the methods of providing nursing care.

Definition

Description should include

- related terminology
- differences among the types of nursing care
- types of healthcare facilities (including alternative health care)
- levels of healthcare delivery
- various agencies
- legal requirements.

Process/Skill Questions

- What are the differences among primary, acute, and long-term care?
- What are the distinguishing characteristics of each level of healthcare delivery?
- What examples of alternative health care are represented at each level of healthcare delivery, including hospice, home health, and urgent care?
- What is the level of healthcare delivery at various agencies, and what is the interaction among these agencies?
- What purpose do healthcare regulatory agencies serve?
- How have diagnosis-related groups (DRGs), health-maintenance organizations (HMOs), Medicaid, and Medicare impacted health care?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 43

Describe the roles of healthcare team members.

Definition

Description should include

- responsibilities of each member
- accepted local practices.

Process/Skill Questions

- What is meant by multidisciplinary as it relates to the healthcare team?
- What occupations are represented in a healthcare team?
- What are the educational and certification requirements of selected healthcare providers?
- How can the role of a practical nurse be described?
- How can the responsibilities of each healthcare team member in assessing, planning, implementing, and evaluating a client's care be summarized?
- What national organizations are designed to meet the needs of the LPN? In what ways do they meet LPN needs?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Teamwork Events

- HOSA Bowl

Task Number 44

Describe the development of professional socialization of the practical nurse that includes working in interdisciplinary teams.

Definition

Description should include acquisition of

- values, behaviors, and attitudes necessary to assume the professional role of a licensed practical nurse (LPN)
- the ability to work on an interdisciplinary team.

See also “Curriculum: B.4.a” (Virginia Administrative Code): [18VAC90-20-120. \(Repealed.\)](#)

Process/Skill Questions

- What is the definition of an *interdisciplinary team*?
- How can professional behavior and participation during an interdisciplinary meeting be described?
- What is a nurse's role in an interdisciplinary team?
- What is a primary healthcare provider's role in an interdisciplinary team?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 45

Describe the cultural and psychosocial aspects of health care in a changing society.

Definition

Description should include

- cultural and psychosocial factors
- spiritual health
- concept of "healing touch"
- changes in family structure
- financial and geographical considerations
- concept of global nursing.

See also “Curriculum: B.7.a, B.7.b” (Virginia Administrative Code): [18VAC90-20-120](#).
([Repealed.](#))

Process/Skill Questions

- How do beliefs and cultural factors affect the nursing practice and health care?
- Why is it important to understand spiritual health?
- What is the concept of caring as it relates to health, including the "healing touch" concept?
- In what ways do changes to the family structure affect society?
- How can factors that influence access to health care, such as financial and geographical considerations, be explained?
- How does effective communication help you meet the needs of patients from all walks of life?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology
- Knowledge Test: Transcultural Health Care

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Understanding the Nursing Process

Task Number 46

Describe the six phases of the nursing process.

Definition

Description should include

- conducting a focused nursing assessment of the client
- identifying client needs /analysis/diagnosis
- planning for episodic nursing care
- implementing the appropriate aspects of client care

- contributing to data collection
- evaluating the client.

Process/Skill Questions

- How can the nursing process, as a goal-oriented activity, be described?
- What is the assessment phase of the nursing process?
- What is identified in the analysis/diagnosis phase of the nursing process?
- What is the result of the planning phase of the nursing process?
- How does the implementation phase of the nursing process relate to patient care?
- What occurs during and after the evaluation phase of the nursing process?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl
-

Task Number 47

Explain the relationship of the nursing process to nursing practice.

Definition

Explanation should include the use of the nursing process in relation to identified standards of practice.

Process/Skill Questions

- How do the terms *audit* and *quality management* relate to the nursing practice?
- What is the Joint Commission on Accreditation of Hospitals?
- How does the nursing process meet the identified standards of practice?

- What is a quality management report?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing
-

Task Number 48

Describe a plan of care, using the nursing process.

Definition

Description should include

- development of a plan
- selection and prioritization of a nursing diagnosis
- establishment of goals
- use of interventions, orders/actions, evaluation, modification.

Process/Skill Questions

- How is a plan of care developed? Modified?
- What is the relationship between subjective and objective data collection?
- What is an example of a nursing diagnosis as included in the NANDA list?
- How can nursing diagnoses be prioritized?
- What are established goals in a plan of care, and how are they evaluated for achievement?
- What rationales are used for nursing interventions?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing
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Task Number 49

Explain the principles of effective verbal and nonverbal communication.

Definition

Explanation should include

- communication process
- influencing factors, including cultural considerations
- methods of verbal and nonverbal communication
- techniques
- blocks and barriers.

See also “Curriculum: B.5.c” (Virginia Administrative Code): [18VAC90-20-120. \(Repealed.\)](#)

Process/Skill Questions

- What is meant by the communication process?
- What are key factors that influence communication?
- What are methods of verbal and nonverbal communication in a clinical situation? What are the strengths of each?
- How might various communication techniques be demonstrated?
- How would communication barriers be demonstrated through role-play?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology
- Knowledge Test: Behavioral Health
- Knowledge Test: Transcultural Health Care

Teamwork Events

- HOSA Bowl
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Task Number 50

Explain the principles of communication when establishing therapeutic relationships.

Definition

Explanation should include

- classroom and clinical situations
- interviewing techniques
- establishment of rapport.

Process/Skill Questions

- What are the benefits of establishing therapeutic relationships with the client, family, and significant others?
- What is the difference between therapeutic and non-therapeutic communication?
- How can interviewing techniques be demonstrated?
- How can communication be evaluated (e.g., videotape, role-play, observation)?
- How is the success of the communication process evaluated?
- What are the various methods used to establish rapport with a special-needs client?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing
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Task Number 51

Identify principles of conflict resolution.

Definition

Identification should include

- listing principles used to resolve conflicts
- demonstrating appropriate conflict-resolution methods.

See also “Curriculum: B.4.b” (Virginia Administrative Code): [18VAC90-20-120. \(Repealed.\)](#)

Process/Skill Questions

- What are examples of situations when conflict resolution is needed?
- What skills are needed to resolve conflicts?
- What are the steps in conflict resolution?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl
-

Task Number 52

Report information relating to the patient/client.

Definition

Report should include

- medical terminology
- oral and written report/documentation.

Process/Skill Questions

- What medical terminology might be used when reporting and documenting the client's medical record?
- What criteria are used to differentiate between subjective and objective reporting?

- How would you determine whether or not the nursing process had been applied in reporting?
- What lines of authority are followed when reporting client information?
- How would you make an oral report of pertinent client information?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Task Number 53

Describe principles of documentation.

Definition

Description should include use of

- ethical and legal considerations
- medical terminology
- SOAP (Subjective-Objective-Assessment-Plan) charting, SBAR (Situation-Background-Action-Recommendation) communications, narrative charting, checklists, charting by exception
- confidentiality
- electronic health records.

Process/Skill Questions

- What are the ethical and legal issues related to documentation?
- What criteria are considered universal for all client documentation?
- How would you write documentation, using accurate, standard medical terminology and abbreviations?
- What are the basic guidelines and mechanisms of various charting formats?
- What is considered confidential regarding a nurse's knowledge of the client?
- What is a nurse's role in informed consent and in advanced directives?
- What are the ethical and legal issues related to the use of computers in health care?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology
- Knowledge Test: Medical Law and Ethics

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl
-

Task Number 54

Demonstrate techniques of client education.

Definition

Demonstration should include

- determining client knowledge
- meeting individual needs
- involving family/significant others
- presenting in a clear and professional manner, using correct medical terminology.

Process/Skill Questions

- How is the nursing process used to determine client knowledge?
- How might you involve the client's family and significant others in the education plan?
- What are the four criteria needed to provide an environment for learning?
- How are the results of client education evaluated?
- What resources enhance the education process?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Describing Legal, Ethical, and Professional Responsibilities in Clinical Practice

Task Number 55

Explain the legalities governing the scope of practical nursing as defined in the Board of Nursing Law and Regulation.

Definition

Explanation should include

- consideration of Nurse Practice Act, Virginia Board of Nursing, Patient's Bill of Rights, Good Samaritan Act, National Council of State Board of Nursing (NCSBN)
- licensure process
- professional boundaries
- implications of contract, liability, advanced directives, client chart
- legal issues related to client care
- issues of an agency's policies and procedures.

See also “Curriculum: B.5.a, B.5.b, B.5.c” (Virginia Administrative Code): [18VAC90-20-120. \(Repealed.\)](#)

See also “A Nurse’s Guide to the Use of Social Media” (National Council of State Boards of Nursing [NCSBN]): https://www.ncsbn.org/NCSBN_SocialMedia.pdf

See also “Social Media Guidelines for Nurses” (NCSBN): [Social Media Guidelines for Nurses | NCSBN](#)

See also “Guidance on the use of Social Media” (Virginia Board of Nursing): http://www.dhp.virginia.gov/nursing/guidelines/90-48_SocialMedia.doc

Process/Skill Questions

- What are the functions and importance of the Virginia Nurse Practice Act, Virginia Board of Nursing Patient's Bill of Rights, and Good Samaritan Act to nurses? To clients?
- What steps are involved to practice legally as a nurse in Virginia or in another state?
- How would you demonstrate understanding of the legal implications of the nursing practice, such as contracts, liabilities, advanced directives, and charts?
- What are common litigation issues, such as the client's chart?
- How do the legal issues of assault and battery, child abuse/elder abuse, confidentiality of information, duty of care, negligence, and informed consent relate to client care?
- How are nursing tasks and procedures delegated to unlicensed persons, according to the current State Board regulation?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology
- Knowledge Test: Medical Law and Ethics

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 56

Identify the rights of clients.

Definition

Identification should include

- Patient's Bill of Rights
- nurse's role.

Process/Skill Questions

- What is the rationale for a Patient's Bill of Rights?
- What is a nurse's role in identifying the client's rights?

HOSA Competitive Events (High School)

Health Science Events

- Knowledge Test: Medical Law and Ethics

Teamwork Events

- HOSA Bowl
-

Task Number 57

Explain protection of client rights.

Definition

Explanation should include

- providing privacy and confidentiality
- promoting the client's right to make personal choices.

Process/Skill Questions

- What resources are available to inform you of the client's rights?
- What steps can you take to provide privacy and confidentiality for the client?
- What are examples of ways you can encourage the client in decision-making?
- What actions should be taken if the client's rights are being violated?

HOSA Competitive Events (High School)

Health Science Events

- Knowledge Test: Medical Law and Ethics
-

Task Number 58

Describe clients' rights to be free from abuse, mistreatment, neglect, and abandonment.

Definition

Description should include

- professional methods to protect clients from abuse, mistreatment, neglect, and abandonment
- examples of abuse, mistreatment, neglect, and abandonment
- methods used to document reconciliation of abuse, mistreatment, neglect, and abandonment
- ways to avoid the need for restraints in accordance with current professional standards.

See also “Curriculum: B.5.c” (Virginia Administrative Code): [18VAC90-20-120. \(Repealed.\)](#)

Process/Skill Questions

- To whom do you report instances of abuse, mistreatment, neglect, and abandonment?
- What measures should be taken to protect the client from abuse, mistreatment, neglect, and abandonment?
- Where are instances of abuse, mistreatment, neglect, and abandonment documented?

HOSA Competitive Events (High School)

Health Science Events

- Knowledge Test: Medical Law and Ethics
-

Task Number 59

Explain the concept of ethics as related to the nursing practice.

Definition

Explanation should include

- ethical dilemmas and considerations
- value systems of individuals
- role of the nurse in controversial situations
- appropriate use of social media.

Process/Skill Questions

- What are examples of social media violations?
- What are the legalities governing the scope of social media in nursing?
- What is the importance of the Code of Ethics of the National Federation of Licensed Practical Nurses (NFLPN) and the Code of Conduct of the National Association for Practical Nurse Education and Service (NAPNES)?
- Why are issues, such as refusing blood transfusions and receiving gifts, ethical dilemmas for a nurse?
- What is the importance of the client's value system as it relates to autonomy, accountability, standards of conduct, and the withholding/withdrawal of food and fluids?
- What is the role of a nurse in the areas of abortions, euthanasia, and unlawful deaths?
- How might ethical considerations be a factor in issues such as genetics, right-to-die, surrogates, and donor-recipient allocations?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Task Number 60

Explain nursing standards of care.

Definition

Explanation should include

- identification of standards in established nursing agencies
- accountability and documentation.

Process/Skill Questions

- How does the American Nurses Association (ANA) Standards of Care influence nursing standards?
- How does the Joint Commission influence the nursing practice?
- Why is accountability, including documentation, important?
- What is a Quality Management and Utilization Review?
- What is the meaning of the term of “just culture”? How does it relate to nursing?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing
-

Task Number 61

Describe the influence of various agencies on the delivery of health care.

Definition

Description should include

- roles and responsibilities of various governmental organizations
- nongovernmental agencies that support health care
- local offices of various agencies.

Process/Skill Questions

- What are the roles and responsibilities of various governmental organizations such as the Department of Health and Human Services, the Virginia Department of Health, and the World Health Organization?
- In what ways do nongovernmental agencies, such as the American Red Cross, American Cancer Society, American Heart Association, and UNICEF, support health care?
- What methods are used to finance health care?
- How does care of the uninsured affect healthcare delivery?
- Where are the local offices of agencies, such as the American Red Cross and Department of Health, located in your community?

HOSA Competitive Events (High School)

Teamwork Events

- HOSA Bowl

Task Number 62

Describe organizations that enhance the development of nursing.

Definition

Description should include

- methods of promoting nursing education
- organizations that award scholarships
- membership in organizations.

Process/Skill Questions

- What are examples of healthcare agencies that promote nursing education?
- How is nursing education promoted, including tuition assistance, continuing education courses, and in-service workshops?
- What organizations promote nursing education by awarding scholarships, such as the Mary Marshall Scholarship, the Mildred Mason Scholarship, VLN, HOSA, and NFLPN?
- How do memberships in professional organizations support nursing development?
- What are examples of political decisions that have influenced nursing development?

HOSA Competitive Events (High School)

Health Professions Events

- Clinical Nursing

Explaining Principles of Anatomy and Physiology

Task Number 63

Explain the basic structural levels of body organization, anatomical structure, and body cavities.

Definition

Explanation should include

- chemical components
- each body system and its general function
- each major organ and its general function
- location of body cavities.

Process/Skill Questions

- How can the organization of the body from chemicals to the whole organism be described?
- What are the 11 body systems and the general function of each?
- What are the major organs in each body system and the general function of each?
- Where on a body torso or a diagram are the body cavities, abdominal regions, quadrants of the abdomen, and the subdivisions of the dorsal and ventral cavities?
- What are the main directional terms for the body? Where are they located? How is each defined?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 64

Explain chemical components of the body.

Definition

Explanation should include

- structures of an atom and a molecule
- explanation of ionic and covalent bonding
- elements, compounds, and mixtures
- chemical symbols for major electrolytes
- pH scale
- types of organic compounds
- composition and work of enzymes.

Process/Skill Questions

- How can the basic chemical components and elements of the body be described and identified by symbol?
- How can atoms and molecules be described and differentiated?
- What are ionic and covalent bonds, and how can they be compared and contrasted?
- What are the differences among elements, compounds, and mixtures? What are examples of each?
- What are the pH scale, the pH scale's purpose, and the normal pH range of the body?
- What are the three main types and building blocks of organic compounds?
- What are enzymes and their functions?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 65

Explain structures and functions of the cell.

Definition

Explanation should include

- composition, location, and function of DNA in the cell
- process of protein synthesis
- relationship among cells, tissues, organs, and systems.

Process/Skill Questions

- What are the parts of a cell, and how does each function, including organelles?
- What is DNA? Where is DNA located? What is the function of DNA?
- What is RNA? Where is RNA located? What is the function of RNA?
- What are protein synthesis and mitosis, and how does each occur?
- What are the processes by which solutes and solvents move through (exit/enter) cell membranes, and how can these processes be compared and contrasted?
- What is the relationship among cells, tissues, organs, and systems?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 66

Explain structures and functions of tissues, membranes, and glands.

Definition

Explanation should include

- four types of tissues, their locations, and their characteristics
- types of epithelial tissue
- types of muscle tissue
- types of membranes
- types of glands.

Process/Skill Questions

- What are the four types of body tissues, their locations, and characteristics?
- What are the different types of epithelial tissue, and where is each type found in the body?
- What are the different types of muscle tissue, and where is each type found in the body?
- What are the two major types of membranes? How are they similar/different? What are the characteristics of each?
- What are the two types of glands? How are they similar/different?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 67

Explain structures and functions of the integumentary system.

Definition

Explanation should include

- names and descriptions of the layers of the skin
- functions of the skin

- location and functions of the appendages of the skin.

Process/Skill Questions

- What are the functions of the skin?
- What are the layers of the skin, and what are their similarities and differences?
- How can the appendages of the skin be located and described?
- What is the function of each type of appendage?
- What would you recommend to minimize the effects of aging on the integumentary system?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 68

Explain structures and functions of the skeletal system.

Definition

Explanation should include

- two divisions of the skeleton
- types, structures, functions, and formations of bones
- bone marrow, cranial sinuses, and cartilage
- number of vertebrae in each segment of the vertebral column
- difference between male and female pelvis
- changes in the skeleton across the life cycle.

Process/Skill Questions

- What are the two divisions of the skeleton, and which bones are included in each division?
- How can the parts, structures, purposes, and formation of bone be explained?
- How can red bone marrow and yellow bone marrow be differentiated?
- Where are the cranial sinuses located? What are their names in each location?
- What are the names of the three types of cartilage, and where is each type located?
- How are the different segments of the vertebral column and the number of vertebrae in each segment identified?
- What differentiates the male pelvis from the female pelvis?
- What evidence can you find that age affects the human skeleton across the life cycle?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology
- Knowledge Test: Human Growth and Development

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 69

Explain structures and functions of the muscular system.

Definition

Explanation should include

- basic unit of muscle tissue
- three types of muscle tissue, their characteristics, and their functions
- physiology and types of muscle contractions
- effects of aging on muscles.

Process/Skill Questions

- What is the basic unit of muscle tissue?

- What are the differences among and functions of the three types of muscle tissue?
- How can the physiology of muscle contraction, including the Sliding Filament Theory, neurotransmitters, polarization, depolarization, muscle fatigue, and events leading to oxygen debt, be described?
- What are the types of muscle contractions?
- How can the body's physiological responses to exercise be described? Summarize how each response assists homeostasis.
- What minimizes the effects of aging on the muscular system?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology
- Knowledge Test: Human Growth and Development

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 70

Explain structures and functions of hematological system.

Definition

Explanation should include

- normal constituents of blood
- types of elements formed in blood
- formation of blood cells
- blood clotting
- compatibility of blood, including the RH factor.

Process/Skill Questions

- What are the normal constituents of blood, and what are their functions?
- What are the three plasma proteins found in blood, and what are the functions of each?

- How are blood cells formed, and what are their different functions?
- What are the steps in blood clotting, including the role of platelets?
- How can blood grouping be determined, using ABO antigens?
- What judgments can be made about the compatibility of blood, including the Rh factor?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 71

Explain structures and functions of the cardiovascular system.

Definition

Explanation should include

- types of vessels, structures, and functions
- oxygenated versus deoxygenated blood
- factors influencing blood flow
- factors affecting pulse rate
- location, structures, and functions of the heart
- circulation of blood
- cardiac cycle
- electrical conduction system
- coronary circulation
- relationship between the autonomic nervous system and the heart.

Process/Skill Questions

- What are the functions of the cardiovascular system?
- What are the names and functions of the major arteries and veins in the body, and where on the human torso is each located?
- What is the difference between the two major pathways of circulation, including subdivisions?
- How does the cardiovascular system affect other body systems?
- What are the differences between vessels carrying oxygenated blood versus those carrying unoxygenated blood?
- What are the factors that contribute to the distribution of blood flow?
- What are the factors that affect the pulse rate?
- What are the structures of the heart and their functions, including pericardial membranes, chambers, vessels, and valves?
- What is the route of blood circulation through the cardiovascular system?
- What is coronary circulation, and why is it critical even though the heart chambers contain blood?
- What are the different parts of the cardio cycle?
- What is the route of the electrical conduction system of the heart?
- How can the regulation of the heart be explained?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 72

Explain structures and functions of the lymphatic system, including immunity.

Definition

Explanation should include

- functions of the lymphatic system
- structures of the lymphatic system
- location of lymph nodes
- blood and lymphatic capillaries
- circulation of lymphatic fluid
- forms of immunity.

Process/Skill Questions

- What are the functions of the lymphatic system?
- What are the major structures of the lymphatic system, and where are they located?
- Where are the major lymph node groups located?
- What are the differences and similarities between blood capillaries and lymphatic capillaries?
- How can the circulation of lymphatic fluid be explained?
- How can immunity be explained?
- What are the differences among the various forms of immunity (e.g., nonspecific body defenses, specific body defenses)?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 73

Explain structures and functions of the respiratory system.

Definition

Explanation should include

- process of pulmonary ventilation

- external and internal respiration
- structure and function of the organs of the respiratory system
- pathway of gases
- transportation of oxygen and carbon dioxide in blood
- comparison of air pressures
- production of carbonic acid.

Process/Skill Questions

- What is the process of pulmonary ventilation?
- What are the differences between external and internal respiration?
- What are the name, structure, and function(s) of each organ of the respiratory system?
- How is the pathway of gases through inspiration to the alveoli and from the alveoli into the cell determined?
- How is the pathway of gases from the cell through expiration determined?
- How are oxygen and carbon dioxide transported in the blood?
- How can intrapulmonic, intrapleural, and intrathoracic air pressures be compared and contrasted?
- What is the significance of carbonic acid to respiratory function, and how does this process operate?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 74

Explain structures and functions of the gastrointestinal system.

Definition

Explanation should include

- organs of the digestive tract, structures, and functions
- discussion of the associated structures of digestion
- labeling of ducts and their point of convergence
- essential mechanical and chemical steps in digestion
- factors of absorption
- role of blood sugar
- role of the hypothalamus
- explanation of basal metabolic rate.

Process/Skill Questions

- What are the organs of the digestive tract and the accessory organs of digestion, and how can their structures and functions be described?
- Where is the point of convergence of the hepatic duct, cystic duct, common bile duct, and pancreatic duct after labeling each and identifying the liver?
- How can the essential mechanical and chemical steps in the digestion process be described?
- What is the process and purpose of absorption?
- What are mechanisms that aid in the maintenance of blood sugar?
- What is the role of the hypothalamus in the regulation of food intake?
- What factors influence the basal metabolic rate, and how does the basal metabolic rate affect digestion and calorie usage?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 75

Explain structures and functions of the endocrine system.

Definition

Explanation should include

- distinction between an endocrine and exocrine gland
- functions of hormones.

Process/Skill Questions

- What key factors differentiate the endocrine and exocrine glands?
- How are the three groups of hormones, based on differences in their chemical structures, classified and described?
- What mechanisms control hormone secretions, and how can the mechanisms of hormone action be summarized?
- What hormone(s) is secreted by each gland? What is each hormone's homeostatic action in the human body?
- What is the hypo- and hyper-activity of each hormone?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 76

Explain structures and functions of the reproductive system.

Definition

Explanation should include

- male and female reproductive systems
- process of fertilization.

Process/Skill Questions

- What similarities and differences exist between mitosis and meiosis?
- What are the structures and functions of the male and female reproductive systems?
- What are the functions of the main male/female sex hormones?
- What is the process of fertilization? How can the composition and function of semen be described?
- How can the development of gametes and their pathways through the reproductive organs be explained?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 77

Explain structures and functions of the nervous system.

Definition

Explanation should include

- discussion of central and peripheral systems
- discussion of neurons
- discussion of nerve impulses
- role of myelin
- role of the spinal cord
- role of the brain.

Process/Skill Questions

- What are the two major divisions of the nervous system? What are their components?
- How can the functions of the central and peripheral systems, including the autonomic nervous system, be compared and contrasted?

- How can the classifications, structures, and functions of neurons be described?
- How can transmission, including neurotransmitters and transmission at a synapse, be described?
- How can the structure and functions of the spinal cord be described? Where does it begin and end?
- What are the different structures and functions of the brain, including the blood-brain barrier?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 78

Explain structures and functions of the urinary system.

Definition

Explanation should include

- related organs
- male and female urinary systems
- role of the kidneys
- constituents of urine.

Process/Skill Questions

- What are the functions of the urinary system?
- What are the structure and function of each organ comprising the urinary system?
- How can the male and female urinary systems be differentiated?
- What factors affect kidney function and urine formation?
- How can the formation of urine, including flow through the kidneys, be described?

- What are the normal characteristics and constituents of urine?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 79

Explain structures and functions of the sensory system.

Definition

Explanation should include

- special and general senses
- protective sensory mechanisms
- role of the eyes
- role of the ears.

Process/Skill Questions

- What are the different sensory pathways, and how can the parts and functions of each pathway be summarized?
- How can the special and general senses be differentiated, and what are examples of each?
- What is the physiology of the special senses of taste, smell, touch, temperature, proprioception, and pain? How does this information enter the body, reach the brain, and affect response?
- How can the physiology of protective sensory mechanisms be described?
- How could the structure of the eye, including the accessory structures, be described?
- How can the structure of the ear, differentiating among the three divisions, be explained?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl
-

Task Number 80

Explain the fundamentals of fluid and electrolyte balance.

Definition

Explanation should include

- two major body fluid compartments
- different percentages of body water related to age
- location of body fluids
- definitions of *active transport*, *osmosis*, *diffusion*, *filtration* and *phagocytosis*
- role of electrolytes, including sodium, potassium, chloride
- magnesium as it pertains to fluid movement
- role of kidneys, lungs, skin, gastrointestinal tract
- definitions of *hypertonic*, *hypotonic*, and *isotonic* solutions
- the effect on fluid movement.

Process/Skill Questions

- What fluid compartments contain the greatest percent of body fluid?
- How does the percent of body fluid weight of the infant and elderly adult compare to the middle adult?
- Where is extracellular fluid distributed?
- What mechanisms maintain fluid balance?
- How are fluids and electrolytes passively transported in the body?
- Of what importance is the kidney in maintaining fluid balance?
- What substances are measured when you implement intake and output for the client?
- How do you document intake and output?
- What happens to cells in hypertonic, hypotonic, and isotonic solutions?

- What are the body's major electrolytes, their symbols, and basic functions?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl
-

Task Number 81

Identify the processes involved in electrolyte movement.

Definition

Identification should include

- extracellular electrolytes
- intracellular electrolytes
- passive and active transport mechanisms.

Process/Skill Questions

- What are the major extracellular electrolytes?
- What are the major intracellular electrolytes?
- How do active and passive mechanisms transport substances back and forth across cell membrane?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Identifying Concepts of Nutrition

Task Number 82

Identify dietary patterns relating to ethnic, religious, cultural, and personal preferences.

Definition

Identification should include

- general patterns
- ethnic, religious, and cultural influences
- personal preferences
- effects of fads/trends
- psychological influences.

Process/Skill Questions

- What is the significance of understanding the general food patterns of various religious and ethnic groups in the nursing profession?
- How do personal preferences influence dietary patterns?
- What are the effects of American food fads on individuals, families, students, and society in general?
- How can psychological factors influence diet/eating patterns?

HOSA Competitive Events (High School)

Health Science Events

- Knowledge Test: Behavioral Health

- Knowledge Test: Transcultural Health Care

Health Professions Events

- Clinical Nursing
-

Task Number 83

Identify nutrients essential for optimal health and wellness.

Definition

Identification should include

- characteristics of nutritional status
- carbohydrates
- protein
- fat
- vitamins
- minerals
- water.

Process/Skill Questions

- How can the characteristics of good nutrition be described? Of poor nutrition?
- What are the characteristics of carbohydrates, including their chemical composition, functions, food sources, requirements, classification, and deficiency/excessive disorders?
- What are the characteristics of protein, including their chemical composition, functions, classification, food sources, requirements, and deficiency/excessive disorders?
- What are the characteristics of fats, including their chemical composition, functions, classification, food sources, requirements, and deficiency/excessive disorders?
- What are the characteristics of vitamins, including their chemical composition, food sources, functions, requirements, classification, and deficiency/excessive disorders?
- What are the characteristics of minerals, including their chemical composition, food sources, functions, requirements, classification, and deficiency/excessive disorders?
- What are the characteristics of water, including fluid compartments, mechanisms of transportation, normal water loss, functions, sources, requirements, and deficiency/excessive disorders?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 84

Describe the digestion and metabolism of food.

Definition

Description should include

- processes of digestion, absorption, and metabolism of nutrients
- signs and symptoms of imbalances
- hormonal effects of nutrients
- basal metabolic rate
- anabolism
- catabolism
- digestive enzymes
- hormones
- calorie, kilocalorie, and empty calorie
- homeostasis.

Process/Skill Questions

- How are carbohydrates, proteins, and fats digested, absorbed, and metabolized?
- What are the signs and symptoms of nitrogen balance and imbalance?
- What factors influence the basal metabolic need?
- What health problems are associated with energy imbalance?
- How is the Krebs cycle related to homeostasis?
- Which hormones affect the body's use of carbohydrates, fats, and proteins?
- What is the relationship between enzymes and coenzymes in the body?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl
-

Task Number 85

Describe dietary guidelines recommended for health promotion.

Definition

Description should include

- established nutritional standards
- basic food groups
- nutritional balance
- poor nutrition
- government programs that address nutritional concerns.

See also: ChooseMyPlate.gov

Process/Skill Questions

- What is the purpose of Recommended Dietary Allowances? Of Dietary Guidelines for Americans? Of what importance are the basic food groups to overall health and wellness?
- What criteria may be used to evaluate diets in terms of nutritional balance?
- What risk factors are related to poor nutrition?
- In what ways do government programs, such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and Weight-control Information Network (WIN), address nutritional concerns?
- What are the recommended portions for each of the food groups?
- How can these serving sizes be linked to everyday objects (i.e., the recommended serving of meat is comparable to the size of a deck of cards)?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology
- Knowledge Test: Nutrition

Teamwork Events

- HOSA Bowl
-

Task Number 86

Identify principles of food management and safety.

Definition

Identification should include

- use of food labels
- controls for food quality
- microorganisms that cause illness
- methods of purchase, care, and handling of food
- hazards: additives, infection/poisoning, toxins.

See also “Read the Food Label” (ChooseMyPlate.gov): <https://www.choosemyplate.gov/budget-food-label>

Process/Skill Questions

- How are food labels interpreted?
- What control methods ensure food quality?
- Which microorganisms are responsible for most foodborne illness? What measures are taken to prevent foodborne illness?
- What nutritional principles are important to follow when purchasing food?
- What are the purposes and hazards of food additives?
- What are the symptoms of food infection/poisoning?
- What natural foods contain toxic substances?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling

- Medical Terminology
- Knowledge Test: Nutrition

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl
-

Task Number 87

Explain basic dietary management techniques.

Definition

Explanation should include

- diets served in healthcare agencies
- adjustments in diet for specific conditions
- selection of foods for specific diets
- nutritional supplements.

Process/Skill Questions

- What standard diets, including regular, soft, and liquid, are served in healthcare agencies?
- In what ways are diets adjusted to meet the nutritional needs of clients with diabetes, cardiovascular disease, renal disorders, gastric disorders, metabolic disorders, and physical disabilities?
- What are examples of specific diets? What foods are included or excluded for those specific diet orders?
- What are the principles and purposes of alternate nutritional feedings, such as total parenteral nutrition and enteral nutrition? How do you identify food allergies?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology
- Knowledge Test: Nutrition

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl
-

Task Number 88

Demonstrate the process for providing nourishment.

Definition

Demonstration should include

- preparing the patient/client to receive nourishment
- setting up a tray
- meeting the unique feeding needs of a variety of clients
- documenting the client's nutritional intake.

Process/Skill Questions

- How is a therapeutic diet identified; how is the food permitted on the diet listed; and how is the rationale for the therapeutic intent of the diet explained?
- What are intake and output procedures, including conversion factors, milliliter and ounce equivalencies, and the amount of liquid in various containers often dispensed on hospital dietary trays?
- How should the client be prepared for a meal?
- What are the steps to set up the client's tray?
- What methods are used to feed clients, including special-needs clients, infants, and children?
- How can the nursing process be applied to provide nourishment for the client?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology
- Medical Math
- Knowledge Test: Pharmacology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Examining Concepts of Wellness and Illness

Task Number 89

Identify principles of wellness and the promotion of healthy lifestyles for clients and populations.

Definition

Identification should include

- stress factors and coping mechanisms
- lifestyles for wellness
- natural body defenses and ways to improve them.

Process/Skill Questions

- How can stress factors and coping mechanisms be explained?
- How should stress-related disorders be explained to the client?
- What lifestyles promote optimal wellness?
- How should the client be taught about natural body defenses?
- What are ways to maintain or improve body defenses, such as immunizations, nutrition, exercise, and relaxation?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology

Health Professions Events

- Clinical Nursing

Teamwork Events

- HOSA Bowl

Task Number 90

Define Complementary and Alternative Medicine (CAM) / Integrative Healing Arts (IHA).

Definition

Definition should include an explanation of integrative, complementary, alternative, Eastern medicine, and Western medicine in terms of how they relate to *CAM/IHA.

- **Integrative medicine**, as defined by National Center for Complementary and Alternative Medicine (NCCAM), combines mainstream medical therapies and complementary alternative medicine (CAM) therapies for which there is some high-quality scientific evidence of safety and effectiveness.
- **Complementary medicine** is used together with conventional medicine. An example of a complementary therapy is using aromatherapy to help lessen a patient's discomfort following surgery.
- **Alternative medicine** is used in place of conventional medicine. An example of an alternative therapy is using a special diet to treat cancer instead of undergoing surgery, radiation, or chemotherapy. *CAM is referenced by the National Institutes of Health, but IHA is the term that is more current.

See also the National Center for Complementary and Integrative Health: <https://nccih.nih.gov/>

Process/Skill Questions

- How does CAM/IHA differ from traditional Western medical practice?
- How might CAM/IHA be used in combination with traditional Western medical practice?
- How does the term IHA add to the term CAM?
- What United States agency classifies CAM/IHA?
- What are the most common IHA treatments used in Western medical practice? What percentage of Americans use IHA?
- What are the most common IHA therapies being used in the United States, including the medical conditions for which they are used?

- What are the main reasons people use IHA instead of, or to augment, traditional medicine?
- How are these IHA and CAMs used safely with traditional medicine?

HOSA Competitive Events (High School)

Health Science Events

- Medical Spelling
- Medical Terminology
- Knowledge Test: Transcultural Health Care

Teamwork Events

- HOSA Bowl

SOL Correlation by Task

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|---|--|
| Describe the role of the practical nursing student. | English: 11.5, 11.8 |
| Relate personal aptitudes and interests to the concept of nursing. | English: 11.5 |
| Identify significant factors in the evolution of nursing care. | English: 11.5, 11.8 History and Social Science: GOVT.9, VUS.7, VUS.11, VUS.13 |
| Describe the differences among the methods of providing nursing care. | English: 11.5 History and Social Science: GOVT.14, GOVT.15 |
| Describe the roles of healthcare team members. | English: 11.5 History and Social Science: GOVT.15 |
| Describe the development of professional socialization of the practical nurse that includes working in interdisciplinary teams. | English: 11.5 History and Social Science: GOVT.16 |
| Describe the cultural and psychosocial aspects of health care in a changing society. | English: 11.5 History and Social Science: GOVT.16 |
| Describe the six phases of the nursing process. | English: 11.5, 12.5 |

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|--|--|
| Explain the relationship of the nursing process to nursing practice. | English: 11.5, 12.5 |
| Describe a plan of care, using the nursing process. | English: 11.5, 12.5 |
| Explain the principles of effective verbal and nonverbal communication. | English: 11.5, 12.5 History and Social Science: GOVT.15 |
| Explain the principles of communication when establishing therapeutic relationships. | English: 11.5, 12.5 |
| Identify principles of conflict resolution. | English: 11.5, 12.5 History and Social Science: GOVT.16 |
| Report information relating to the patient/client. | English: 11.1, 11.5, 11.6, 11.7, 12.1, 12.5, 12.6, 12.7 |
| Describe principles of documentation. | English: 11.5, 12.5 History and Social Science: GOVT.15, GOVT.16 |
| Demonstrate techniques of client education. | |
| Explain the legalities governing the scope of practical nursing as defined in the Board of Nursing Law and Regulation. | English: 11.5, 11.8, 12.5, 12.8 History and Social Science: GOVT.9 |
| Identify the rights of clients. | English: 11.5, 12.5 |
| Explain protection of client rights. | English: 11.5, 12.5 History and Social Science: GOVT.11, GOVT.15, GOVT.16 |
| Describe clients' rights to be free from abuse, mistreatment, neglect, and abandonment. | English: 11.5, 12.5 History and Social Science: GOVT.11, GOVT.15, GOVT.16 |
| Explain the concept of ethics as related to the nursing practice. | English: 11.5, 12.5 |
| Explain nursing standards of care. | English: 11.5, 12.5 |
| Describe the influence of various agencies on the delivery of health care. | English: 11.5, 12.5 History and Social Science: GOVT.14 |
| Describe organizations that enhance the development of nursing. | English: 11.5, 12.5 |
| Explain the basic structural levels of body organization, anatomical structure, and body cavities. | English: 11.5, 12.5 |

| | |
|---|--|
| | Science: BIO.4d |
| Explain chemical components of the body. | English: 11.5, 12.5 Science: BIO.2, CH.2, CH.3 |
| Explain structures and functions of the cell. | English: 11.5, 12.5 Science: BIO.5 |
| Explain structures and functions of tissues, membranes, and glands. | English: 11.5, 12.5 Science: BIO.4d |
| Explain structures and functions of the integumentary system. | English: 11.5, 12.5 Science: BIO.4d |
| Explain structures and functions of the skeletal system. | English: 11.5, 12.5 Science: BIO.4d |
| Explain structures and functions of the muscular system. | English: 11.5, 12.5 Science: BIO.4d |
| Explain structures and functions of hematological system. | English: 11.5, 12.5 Science: BIO.4d |
| Explain structures and functions of the cardiovascular system. | English: 11.5, 12.5 Science: BIO.4d |
| Explain structures and functions of the lymphatic system, including immunity. | English: 11.5, 12.5 Science: BIO.4d |
| Explain structures and functions of the respiratory system. | English: 11.5, 12.5 Science: BIO.4d |
| Explain structures and functions of the gastrointestinal system. | English: 11.5, 12.5 Science: BIO.4d |
| Explain structures and functions of the endocrine system. | English: 11.5, 12.5 Science: BIO.4d |
| Explain structures and functions of the reproductive system. | English: 11.5, 12.5 Science: BIO.4d |
| Explain structures and functions of the nervous system. | English: 11.1, 11.5, 12.1, 12.5 Science: BIO.4d |
| Explain structures and functions of the urinary system. | English: 11.5, 12.5 Science: BIO.4d |

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| Explain structures and functions of the sensory system. | English: 11.5, 12.5 Science: BIO.4d |
| Explain the fundamentals of fluid and electrolyte balance. | English: 11.3, 11.5, 12.3, 12.5 Science: BIO.3, BIO.4b, BIO.4d |
| Identify the processes involved in electrolyte movement. | Science: BIO.2, BIO.3 |
| Identify dietary patterns relating to ethnic, religious, cultural, and personal preferences. | |
| Identify nutrients essential for optimal health and wellness. | Science: BIO.2 |
| Describe the digestion and metabolism of food. | English: 11.5, 12.5 Science: BIO.2, BIO.4d |
| Describe dietary guidelines recommended for health promotion. | English: 11.5, 12.5 |
| Identify principles of food management and safety. | English: 11.5, 12.5 History and Social Science: GOVT.14 |
| Explain basic dietary management techniques. | English: 11.5, 12.5 History and Social Science: GOVT.14 |
| Demonstrate the process for providing nourishment. | |
| Identify principles of wellness and the promotion of healthy lifestyles for clients and populations. | |
| Define Complementary and Alternative Medicine (CAM) / Integrative Healing Arts (IHA). | English: 11.3, 11.5, 12.3, 12.5 |

HOSA Information

Health Occupations Students of America (HOSA), the co-curricular student organization for Health and Medical Sciences, provides many opportunities for students to apply the knowledge, skills, and processes learned in a variety of courses. A correlation of HOSA activities and competitive events to the Duty Areas in Practical Nursing I appears elsewhere in this document.

For additional information about the student organization, see the national HOSA website at <http://www.hosa.org/> and the Virginia HOSA website at <http://www.vahosa.org/>.

HOSA Competitive Events Correlated by Duty Areas

Describing Fundamental Concepts of Nursing

- Medical Spelling
- Medical Terminology
- Creative Problem Solving
- Extemporaneous Health Poster
- Extemporaneous Speaking
- Extemporaneous Writing
- Prepared Speaking
- Researched Persuasive Speaking
- HOSA Bowl
- Career Health Display
- Medical Reading
- Health Care Issues Exam

Understanding the Nursing Process

- Creative problem Solving
- Clinical Nursing

Communicating Effectively

- Medical Spelling
- Medical Terminology
- Creative Problem Solving
- Extemporaneous Health Poster
- Extemporaneous Speaking
- Extemporaneous Writing
- Prepared Speaking
- Researched Persuasive Speaking
- Community Awareness
- HOSA Bowl
- Biomedical Debate
- Health Education
- Health Care Issues Exam

Describing Legal, Ethical, and Professional Responsibilities in Clinical Practice

- Medical Spelling
- Medical Terminology
- Creative Problem Solving
- Extemporaneous Health Poster
- Extemporaneous Speaking
- Extemporaneous Writing
- Job Seeking Skills
- Prepared Speaking

- Researched Persuasive Speaking
- Community Awareness
- HOSA Bowl
- Biomedical Debate
- Medical Reading
- Health Care Issues Exam
- Knowledge Test: Medical Law and Ethics

Explaining Principles of Anatomy and Physiology

- Medical Spelling
- Medical Terminology
- Knowledge Tests: Nutrition, Pharmacology, Pathophysiology
- HOSA Bowl

Identifying Concepts of Nutrition

- Medical Spelling
- Medical Terminology
- Creative Problem Solving
- Knowledge Tests: Nutrition
- Extemporaneous Health Poster
- Community Awareness
- HOSA Bowl
- Health Education

Examining Concepts of Wellness and Illness

- Medical Spelling
- Medical Terminology
- Creative Problem Solving
- Knowledge Tests: Nutrition
- Extemporaneous Health Poster
- Community Awareness
- HOSA Bowl
- Biomedical Debate
- Medical Reading
- Health Education
- Health Care Issues Exam
- Public Service Announcement
- Healthy Lifestyle

Appendix: Credentials, Course Sequences, and Career Cluster Information

Industry Credentials: Only apply to 36-week courses

- EKG Technician Certification (ETC) Examination

Concentration sequences: *A combination of this course and those below, equivalent to two 36-week courses, is a concentration sequence. Students wishing to complete a specialization may take additional courses based on their career pathways. A program completer is a student who has met the requirements for a CTE concentration sequence and all other requirements for high school graduation or an approved alternative education program.*

- Introduction to Health and Medical Sciences (8302/36 weeks)
- Introduction to Health and Medical Sciences (8301/18 weeks)
- Practical Nursing II (8358/18 weeks, 280 hours)
- Practical Nursing III (8359/36 weeks, 420 hours)

| Career Cluster: Health Science | |
|--------------------------------|--|
| Pathway | Occupations |
| Therapeutic Services | Licensed Practical Nurse Registered Nurse |