Nurse in Surgery Essentials (NISE™)

Program Syllabus

Description:

This program provides a comprehensive introduction to the fundamentals of perioperative nursing, equipping nurses new to the operating room with a strong foundation of essential knowledge and skills. The program encompasses 27 content areas covering preoperative, intraoperative, and postoperative care, organized into six structured units that progress from basic to advanced concepts. While sequential completion is recommended to facilitate skill and knowledge development, learners have the flexibility to complete unit segments in alignment with facility opportunities and the needs of both the facility and preceptors. The program is based on current standards, incorporating a variety of instructional methodologies.

Accreditation: Accreditation Board for Specialty Nursing Certification (ABSNC)

Administration: The program contains didactic and clinical coursework, designed to be administered by facility preceptors and educators.

Facility Educator Access: Preceptor/Educator access to the online program is provided to enable facility educators access to program instructional materials and grade progress reports to assist in guiding learner's training, competency acquisition and learner grade reports.

Prerequisites: Must be an RN, employed by a facility and working in perioperative services.

Required Textbooks:

- Phillips, N. (Ed). & Hornacky, A. (2025). Berry & Kohn's Operating Room Technique. (15th Edition).
- Association of periOperative Registered Nurses. AORN Guidelines for Perioperative Practice. (current edition).

NIFA's Online Learning Management System (LMS) Program Access: https://courses.nifaecampus.com/

Program Length: Learners have up to eight months to fulfill the program requirements, with the flexibility to progress at their own pace within this timeframe.

Instructional Methodology:
Instructional methodology includes: reading assignments, video instruction, competency assessments, PowerPoint presentations, recommended policy review, questions for your preceptor. Unit quizzes and competency quizzes are included with each unit, followed by a cumulative final exam.

UNIT 1: Welcome to the Operating Room!

From your first step through the restricted double doors into the perioperative setting, this unit will guide you through the roles and responsibilities of the operating team members, legal, ethical, credentialing, standards and quality controls applicable to the perioperative setting.

Unit 1 - Objectives: Upon completion of the Unit, the learner will be able to:

- Differentiate between the art and science of surgery and their influence on perioperative nursing.
- Describe how the nursing process plays a role in the perioperative setting.
- Recognize the impact of standardization and professional accountability on patient safety and quality care.
- Explain the credentialing process for perioperative nurses and surgical technologists.
- Describe the legal and ethical responsibilities of perioperative nurses, including negligence, informed consent, and documentation.
- Identify the roles and responsibilities of surgical team members, differentiating between sterile and nonsterile roles.
- Discuss the impact of disruptive behavior in the perioperative setting and strategies for conflict resolution.
- Describe the role of The Joint Commission and regulatory bodies impact perioperative nursing in ensuring compliance with patient safety and quality standards.
- Analyze how root cause analysis (RCA) is utilized to improve perioperative care processes.
- Verbalize effective methods for mitigating risks, such as retained surgical items and contamination prevention.

Unit 1 Competencies: Upon completion of the Unit, the learner will be able demonstrate:

- Proper surgical attire, sterile technique, and adherence to aseptic principles, including hand hygiene, gowning, and gloving.
- Crucial safety measures and protocols to prevent wrong-site, wrong-procedure, and wrong-patient errors.

Provided competency forms:

- Sterile Technique
- Hand Hygiene
- Gowning and Gloving
- Surgical Attire
- Universal Protocol - Time Out
- Information Management

UNIT 2: Introduction to Operating Room Skills

*Here is where the fun starts. After completing Unit 1, you have a basic understanding of standards pertaining to perioperative nursing. This unit is focused o*n acquiring the skills needed to achieve optimal patient outcomes from preoperative care through i*ntraoperative care.*

Unit 2 Objectives: Upon completion of the Unit, the learner will be able to:

- Verbalize a patient-centered approach by integrating communication, emotional support, and shared decision-making.
- Analyze how patients perceive their care and the impact of the surgical team's approach on patient outcomes and satisfaction.
- Discuss comprehensive preoperative preparation, including patient assessment, surgical site marking, and transfer-of-care protocols.
- Identify key preoperative assessment factors for surgical patients, including medical history, allergies, and anesthesia considerations.
- Describe the importance of positioning, prepping, and draping related to various surgical procedures and patient safety.
- Identify patient safety hazards associated with transferring and positioning, applying ergonomic principles and safety measures to prevent injury.
- Assess anatomical considerations for positioning, recognizing risks such as nerve damage and pressure injuries.
- Evaluate the physiological effects of positioning on respiratory, circulatory, and musculoskeletal systems, ensuring optimal patient outcomes.

- Describe the facility policy related to prevention of deep vein thrombosis (DVT).
- Discuss a variety of correct sterile draping techniques, with a focus on maintaining aseptic integrity while accommodating surgical site exposure.
- Ensure accountability for surgical instruments, sponges, and other retained items, distinguishing between counting and overall responsibility in preventing retained surgical items (RSIs).
- Differentiate between the roles and responsibilities and of the scrub person and circulating nurse, ensuring seamless intraoperative teamwork.
- Outline the preliminary patient care duties of the circulating nurse, including equipment checks, surgical team coordination, and patient advocacy.

Unit 2 Competencies: Upon completion of the Unit, the learner will be able:

- Perform a structured preoperative interview, gathering relevant patient information to optimize surgical safety and efficiency.
- Conduct effective preoperative teaching, ensuring informed decision-making and reduced anxiety.
- Demonstrate preoperative patient preparation including, patient assessment, surgical site marking, and transfer-of-care protocols.
- Perform draping, prepping, and patient positioning for a variety of surgical procedures.
- Execute correct sterile draping techniques, maintaining aseptic integrity while accommodating surgical site exposure.
- Demonstrate effective methods for mitigating risks, such as retained surgical items and contamination prevention.

Provided competency forms:

- Draping - Sterile Technique
- Patient Skin Antisepsis
- Patient Positioning
- Transfer of Patient Care Information
- Hypothermia – Unplanned
- Prevention of Deep Vein Thrombosis
- Retained Surgical Items

UNIT 3: The Perioperative Environment and Safety

The layout of the perioperative environment and specific surgical suite zones will be explored, along with environmental controls to uphold an aseptic surgical setting in each area. Potential environmental hazards and sources of injury to patients and personnel will be studied along with avoidance and mitigating measures.

Unit 3 Objectives: Upon completion of the Unit, the learner will be able to:

- Identify specific surgical suite zones and understand how attire and behaviors influence asepsis, safety, and care delivery.
- Analyze the environmental layout of the operating room (OR) and its role in maintaining sterile technique and infection control.
- Discuss environmental controls that uphold an aseptic surgical setting, including ventilation, traffic control, and surface disinfection.
- Recognize the specialty rooms utilized for endoscopy, minimally invasive surgery, and urological procedures, emphasizing equipment and layout considerations.
- Compare hospital-based surgical services with ambulatory surgery centers, understanding workflow, patient management, and regulatory differences.
- Discuss environmental responsibility in perioperative settings, including sustainable practices for waste management and energy use.
- Identify environmental hazards that pose risks to patients and surgical staff, such as chemical exposures, radiation, and ergonomic challenges and discuss protocols for hazardous materials handling.

- Implement preventive strategies for injury reduction, including proper testing, maintenance, and safe operation of surgical equipment.
- Discuss the protocols related to latex and radiation safety.
- Emphasize the importance of fire and disaster drills, ensuring readiness for emergencies within the perioperative environment.
- Discuss terminal cleaning of the OR at the end of the day, following hospital and regulatory standards for environmental hygiene.

Unit 3 Competencies: Upon completion of the Unit, the learner will be able:

- Execute the proper preparation of the surgical suite before the first case, ensuring readiness and compliance with infection control protocols.
- Execute appropriate room turnover procedures, including cleaning, disinfection, and equipment reset between surgical cases.
- Demonstrate radiation, sharps and latex safety procedures.
- Perform proper and safe ergonomics.

Provided competency forms:

- Environmental Cleaning
- Ergonomic Safety
- Hazardous Materials Handling
- Radiation Safety
- Sharps Safety
- Latex Safety

UNIT 4: Infection Prevention and Instrumentation

This unit will delve into infection prevention principles and methods in the perioperative setting and central supply. Instrumentation, including its' care and use will be explored. Invasive and non-invasive diagnostic procedures and testing will be studied.

Unit 4 Objectives: Upon completion of this Unit, the learner will be able to:

- Apply decontamination principles to ensure surgical instruments are properly cleaned, disinfected, and safe for handling.
- Differentiate Spaulding's classifications of patient care items and their impact on infection prevention strategies.
- Compare and contrast the three levels of disinfection, identifying appropriate use cases and limitations.
- Recognize key safety concerns associated with chemical disinfectants, including handling precautions and exposure risks.
- Define sterilization and outline the three primary methods, evaluating their effectiveness and potential hazards.
- Discuss proper instrument preparation and packaging for sterilization, ensuring compliance with perioperative standards.
- Describe the case cart system and its function in ensuring surgical readiness and efficiency.
- Identify various types of surgical instruments, understanding their function, handling, and intraoperative use.
- Differentiate between invasive and noninvasive diagnostic tests, discussing their role in surgical decision-making and patient management.
- Explain interventional diagnostic procedures and their integration into perioperative care, including oncology-related applications.
- Analyze patient care considerations associated with diagnostic testing, emphasizing safety, accuracy, and procedural preparation.
- Define and apply the principles of aseptic and sterile technique, ensuring adherence to infection control protocols.

- Describe modes of microorganism transmission in the perioperative environment and strategies for prevention.

Unit 4 Competencies: Upon completion of the Unit, the learner will be able:

- Demonstrate sterilization monitoring processes and their role in quality assurance and patient safety.
- Implement best practices for instrument decontamination and reprocessing, ensuring compliance with sterile processing protocols.
- Demonstrate proper instrument passing techniques, including safe handling of sharps and specialty tools.
- Identify and implement standard precautions, reinforcing the surgical team's obligation to maintain sterility and patient safety.
- Demonstrate proper specimen management protocols.
- Implement proper instrument cleaning techniques.

Provided competency forms:

- Sterilization
- Specimen Management
- Prevention of Transmittable Infections
- Instrument Cleaning
- Sterile Packaging Systems

UNIT 5: Equipment, Medication & Monitoring

This unit will explore surgical specialized equipment, including its' use, care and safety hazards. Anesthesia and pharmacology will be studied as it applies to the perioperative setting. Physiologic maintenance for optimal patient outcomes will be explored.

Unit 5 Competencies: Upon completion of the Unit, the learner will be able:

- Differentiate between monopolar and bipolar electrosurgical units (ESUs), including their mechanisms, applications, and patient safety considerations.
- Identify the key elements of electrosurgical safety, preventing burns, circuit failures, and inadvertent energy transfer.
- Classify the three primary types of lasers used in surgery and analyze their effects on different tissue types.
- Assess tissue responses to laser energy, understanding its role in precision cutting, coagulation, and vaporization.
- Recognize safety hazards associated with high-tech surgical equipment, including thermal injury, optical risks, and electrical malfunctions.
- Perform accurate drug dosage calculations for perioperative medications, ensuring correct administration and patient safety.
- Identify common surgical drugs, including their classifications, indications, and contraindications.
- Evaluate drug sources and their physiological effects, considering pharmacokinetics and perioperative implications.
- Differentiate between general, regional, and local anesthesia, recognizing their mechanisms, indications, and contraindications.
- Analyze the physiological effects of general anesthesia, including cardiovascular, respiratory, and neurological implications.
- Explain the purpose and application of cricoid pressure (Sellick's maneuver) in preventing aspiration during induction.
- Identify key safety measures for anesthetized patients, including airway management, positioning, and thermoregulation.
- Compare invasive and noninvasive monitoring techniques, understanding their role in real-time patient assessment.

- Emphasize the importance of perioperative personnel proficiency in monitoring devices, ensuring accurate data interpretation and timely interventions.
- Correlate monitoring parameters with interrelated body system functions, recognizing early signs of surgical complications.

Unit 5 Competencies: Upon completion of the Unit, the learner will be able:

- Demonstrate medication safely, including aseptic drug handling techniques, ensuring sterility and compliance with medication safety protocols.
- Assess patient monitoring requirements during the perioperative period, identifying essential body systems for intraoperative assessment.
- Demonstrate the proper use and safety measures during pneumatic tourniquet use.
- Demonstrate proper use and safety measures related to electrocautery use.
- Assist with moderate sedation per protocol and standards.

Provided competency forms:

- Laser Safety
- Local Anesthesia
- Medication Safety
- Moderate Sedation
- Pneumatic Tourniquet
- Fire Safety
- Minimally Invasive Surgical Safety
- Electrocautery - Energy Generating Device

UNIT 6: Wound Management & Postop Complications

This unit will explore surgical specialized equipment, including its' use, care and safety hazards. Anesthesia and pharmacology will be studied as it applies to the perioperative setting. Physiologic maintenance for optimal patient outcomes will be explored.

Unit 6 Competencies: Upon completion of the Unit, the learner will be able:

- Describe the anatomy of the skin and underlying tissues, emphasizing their role in surgical incision planning and wound healing.
- Identify common surgical incisions and their associated procedures, recognizing their impact on exposure, healing, and postoperative recovery.
- Differentiate between absorbable and nonabsorbable sutures, selecting appropriate materials based on tissue type, healing properties, and procedural requirements.
- Recognize various surgical needles, understanding their design, application, and impact on tissue integrity.
- Identify tissue layers specific to various anatomic sites, applying this knowledge to wound management.
- Discuss factors that influence wound healing, including systemic conditions, infection control, and surgical technique.
- Compare the three primary mechanisms of wound healing and their implications for postoperative care.
- Discuss common wound healing complications, such as dehiscence, infection, and hypertrophic scarring, and discuss prevention strategies.
- Select appropriate wound dressings based on wound type, drainage needs, and healing stage.
- Discuss potential respiratory complications in the perioperative period, implementing strategies for early detection and intervention.
- List the primary drugs used in managing an acute malignant hyperthermic crisis, recognizing early signs and emergency response protocols.
- Describe the functions of the postanesthesia recovery unit (PACU) and its role in the continuum of perioperative care.

- Discuss the role of the perianesthesia nurse, including patient assessment, airway management, and pain control.
- Differentiate between postanesthesia phases, correlating recovery stages with patient condition and required interventions.

Unit 6 Competencies: Upon completion of the Unit, the learner will be able:

- Demonstrate the correct procedure for weighing surgical sponges, ensuring accurate blood loss estimation and patient safety.
- Implement hypothermia prevention techniques to maintain normothermia and improve perioperative patient outcomes.
- Demonstrates the procedures for preserving and handling tissue, focusing on minimizing risks and ensuring tissue viability.

Provided competency forms:

- Autologous Tissue Management

Grading and Completion Awards

Grading Scale: Quizzes

A = 90% – 100%
B = 80% – 89%
F = 79% and below

Grading Scale: Final Exam

- 85%-100% awards a Certificate of Mastery
- Less than 85% awards a Certificate of Completion

Competencies:

At least five competencies must be submitted as a sampling of the preceptor's evaluation of the learner's progress. Competencies were developed by NIFA and the Education Division of the CCI. They are updated annually by NIFA and referenced to the current AORN Guidelines for Perioperative Practice.

Program Awards:

- **Certificate of Mastery** - Indicates that the learner has successfully completed the program with a grade of 85%-100% on the final assessment.
- **Certificate of Completion** – Indicates that the learner received less than 85% on the final assessment, however, learner did successfully complete all required program assignments.
- 67 CEs through the California Board of Nursing* (includes didactic and clinical time for required activities).

Clinical Information:

Facility will provide and assign a preceptor to guide and instruct the learner on facility specific policies and processes and procedures. Learner questions will be addressed by either the facility preceptor or educator. Consultations with a NISE instructor are available upon request.

Class Participation:

All learners are responsible for assigned material related to the program. It is expected that the learner will complete all required assignments. Recommended learning activities are contained within each unit to enhance understanding, including spending time within the Preop Department, PACU, Sterile Processing, and Environmental Services departments to enhance their understanding of perioperative nursing.

* NIFA is a licensed provider approved by the California Board of Registered Nursing. Provider Number CEP11471