

Course Code: SUR 170

Course Title: Sterile Processing

Department: Allied Health

Effective Date: Summer 2026

PCS Code: 1.2 - Occupational/Technical Instruction

CIP Code: 51.0909

Repeatability: 0

Credit Hours

Catalog Notation: 3-1-3

Credit Hour Distribution:

Lecture: 3

Lab: 1

Clinical: 0

Total: 3

General Course Information

Catalog Description

Introduction to central sterile processing; role of a central sterile service technician, decontamination and disinfection, preparing items for sterilization, sterilization processes, inventory control, sterile storage and distribution.

General Course Objectives

1. Discuss the responsibilities, standards of practice, and ethical principles of a Central Sterile Service Technician.
2. Correlate effective communication with professionalism and teamwork in the workplace.
3. Explain and demonstrate how to handle, use, clean, inspect, and assemble surgical instruments for sterilization.
4. Explain the materials, procedures, and concepts used to package items for sterilization and demonstrate the techniques for packaging items for sterilization.
5. Compare and contrast the advantages, parameters, and methods used for low temperature and high temperature sterilization.
6. Measure the effectiveness of sterilization through the use of quality control indicators and quality assurance.
7. Perform the documentation required for monitoring sterilization cycles, biological testing, and chemical indicators.
8. Identify health and safety standards and regulations that apply to the processing of medical devices.
9. Describe how inventory control processes are used to manage hospital supplies and how those supplies are stored and distributed.
10. Distinguish between decontamination and disinfection and explain the processes and products used to perform these procedures.

Minimum Placement Levels

English	Reading	Math
Placement out of ENG 099	Placement out of CCS 099	None

Prerequisites

Credit in SUR 116 and SUR 150

Concurrent enrollment in SUR 118, SUR 130, and SUR 158

Admission into the Surgical Technology program

Recommended before enrolling (not required):

Credit or concurrent enrollment in BIO 123 and ENG 102

Methods of Evaluation

13-15 worksheet assignments, 14-16 objective exams, group presentation, lab skill competencies.

Instructional Materials and Additional Supplies

Sterile Processing Technical Manual, Healthcare Sterile Processing Association (author), Chicago, current edition.

Course Content

General Learning Outcomes (GLOs)

- Communication: Students will demonstrate the ability to read, write, listen, and speak effectively.
- Critical Thinking and Information Literacy: Students will demonstrate the ability to evaluate perspectives, evidence, and implications, and to locate, assess, and use information effectively.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Introduction to Central Sterile Service	1. Explain the importance of the central service department and how it plays a role in quality patient care. 2. Review the work flow process in an effectively organized central service department. 3. Identify the knowledge and skills required for working as a Central Sterile Service Technician. 4. Define the job responsibilities of the Central Sterile Service Technician. 5. Discuss concerns of central sterile processing personnel.	2	0	0
Regulations and Standards	1. Identify the difference between regulations, voluntary standards, and regulatory standards. 2. Explain the roles and responsibilities of federal and state regulating agencies that have jurisdiction over processing in healthcare facilities. 3. Describe the U.S. Food and Drug Administration and its regulations that are applicable to medical device classification, pre and post market requirements, medical device recalls, the re-use of single use medical devices, and the FDA labeling document. 4. Discuss professional organizations and accrediting agencies that develop regulations and standards affecting central service. 5. Define the purpose of a procedure manual and explain the difference between policies and procedures in a health care facility.	2	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Infection Prevention and Decontamination: Point-of-Use Preparation and Transport	1. Explain the role of the central sterile service technician in a healthcare facility's infection prevention and control efforts. 2. Describe the modes of disease transmission and how transmission-based precautions are used in the infection control process. 3. Define standard precautions and their role in preventing disease transmission. 4. Explain the principles, practice, and importance of personal hygiene and attire including personal protective equipment. 5. Identify key elements in the Bloodborne Pathogens standard. 6. Describe the physical design of the central service department and how traffic control, work area cleanliness, and work flow procedures impact infection control. 7. Define the terms asepsis and aseptic technique and describe the five basic principles of asepsis. 8. Explain the rationale for the separation of clean and dirty and the environmental requirements for maintaining that separation. 9. Identify the sources of contaminated items. 10. Discuss safety guidelines for transporting soiled items to the central service decontamination area. 11. Examine the procedures to transport soiled items to the central service decontamination area. 12. Review basic procedures for the transport of soiled items from the user areas to the central service decontamination area. 13. Demonstrate the steps of a medical handwash.	3	0	0
Decontamination and Disinfection	1. Discuss the factors that impact cleaning and decontamination. 2. Describe the selection and usage concerns for cleaning agents and lubricants. 3. Review the procedures to perform manual and mechanical cleaning and decontamination. 4. Describe the procedure to clean surgical instruments. 5. Define cleaning and identify challenges to cleaning medical devices. 6. Discuss the purpose and setup of the decontamination area. 7. Identify the importance of personal protective equipment and standard precautions. 8. Identify common cleaning tools and chemicals and explain their use. 9. Demonstrate the proper cleaning of surgical instruments and rigid endoscopes. 10. Define the term disinfection and explain how disinfection differs from sterilization. 11. Describe the factors that impact the effectiveness of a disinfectant. 12. Explain disinfection levels as identified in the Spaulding Classification system. 13. Describe the factors which affect the chemical action of disinfection and how disinfectants are selected. 14. Describe the types of disinfectants commonly used in the healthcare setting. 15. Explain safety requirements that should be followed when using chemical disinfectants. 16. Define the term thermal disinfection and identify key points that ensure it is occurring. 17. Discuss automated equipment utilized for disinfection and good work practices for working with automated disinfection processes. 18. Explain disinfection quality assurance practices. 19. List the steps in the cleaning process. 20. Discuss mechanical cleaners.	5	5	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Assembly and Packaging	1. Explain the purpose of packaging items for sterilization. 2. Explain the setup and function of the assembly area. 3. Describe the materials used for packaging and how they are selected to specific sterilization methods. 4. Discuss reusable and disposable packaging materials. 5. Describe the methods used to seal a package for sterilization. 6. Demonstrate the packaging of items for sterilization by the peel pack, container system, envelope fold, and square fold wrap method. 7. Identify process monitoring devices and methods in the sterilization process. 8. List the principles of packaging. 9. Describe the structure, use, and testing of rigid sterilization container systems. 10. Discuss the organization of instrument sets and the preparation of basin sets and textile packs. 11. Demonstrate the assembly of instrument sets. 12. Discuss the safeguards utilized during surgical instrument tray assembly.	4	3	0
Instrumentation Concepts and Inspection	1. Identify the features and points of inspection of surgical instruments and explain the procedures used to measure the instrument's effectiveness. 2. Identify solutions that can damage stainless steel instruments. 3. Explain the procedures used to test instruments for sharpness. 4. Identify methods used to mark instruments for easier identification. 5. Explain the importance of instrument lubrication. 6. Describe the procedures used to care for and effectively process powered surgical instruments. 7. Explain the handling and processing of endoscopic instruments. 8. Describe the reprocessing and inspection procedures utilized for rigid and semi-rigid endoscopes and laparoscopic instruments. 9. Identify the protocols and steps involved for accepting, receiving, and processing loaner instrumentation. 10. Identify infection prevention concerns regarding endoscopes and loaner instrumentation. 11. Review the steps in the surgical instrumentation manufacturing process. 12. Identify the basic categories of surgical instruments based on their function.	3	0	0
Point-of-Use Processing and High Temperature Sterilization	1. Define the term immediate use sterilization. 2. Explain the industry standards for immediate use sterilization. 3. Describe immediate use sterilization and examine its requirements. 4. Discuss the factors that impact the effectiveness of sterilization. 5. Explain the advantages of steam sterilization. 6. Explain the anatomy of a steam sterilizer and identify the function of each major component. 7. Describe the different types of steam sterilizers. 8. Describe the phases in a steam sterilization cycle. 9. Describe the conditions necessary for an effective steam sterilization process. 10. Explain the processes for preparing devices and packs, controlling wet packs, and cleaning and maintaining sterilizers. 11. Demonstrate the process for loading, operating, and unloading a sterilizer. 12. Explain dry heat sterilization. 13. Identify concerns related to high temperature sterilization. 14. Discuss the use of oxidative agents for low temperature point-of-use processing. 15. Describe quality control monitoring procedures for immediate use sterilizers.	4	4	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Low Temperature Sterilization	1. Explain the requirements for low temperature sterilization. 2. Describe low temperature sterilization methods and explain the parameters and requirements of each method. 3. Explain the advantages of low temperature sterilization.	3	0	0
Monitoring and Record Keeping for Central Service	1. Explain the need for quality control in sterilization practices. 2. Describe mechanical, chemical, and biological monitoring in the sterilization process. 3. Explain chemical indicators and the validation and verification process. 4. Demonstrate the procedure for performing a Bowie Dick test. 5. Demonstrate the procedure for biological monitoring in a steam sterilizer. 6. Demonstrate the procedure for documenting steam sterilization cycles.	3	3	0
Sterile Storage and Transport	1. Define shelf life of a product and identify the factors that affect shelf life and sterility maintenance. 2. Describe the environmental controls and cleaning protocols used in sterile storage areas. 3. Describe stock rotation methods. 4. Describe the handling and transportation of sterile items. 5. Review sterile storage considerations. 6. Identify procedures for moving sterile items into storage. 7. Explain the concept of event related sterility. 8. Explain storage guidelines. 9. Describe the types of sterile storage shelving.	3	0	0
Managing Inventory	1. Discuss the importance of effective inventory management. 2. Explain common inventory replacement systems. 3. Describe the procedures for effectively distributing supplies to clinical units and the operating room. 4. Identify and describe inventory management concepts. 5. Describe stock distribution and patient charge mechanisms used in healthcare facilities. 6. Explain the purpose of cost containment. 7. Explain the cycle of consumable items. 8. Define the role of the Central Service Technician as it relates to inventory management. 9. Explain the partnership between central service and materials management. 10. Describe the guidelines for handling commercially sterilized packages.	3	0	0
Patient Care Equipment	1. Discuss the responsibilities of Central Service Technicians in managing patient care equipment. 2. Identify commonly used patient care equipment and its use. 3. Explain the importance of communication and coordination as it relates to patient care equipment. 4. Describe the processes utilized to effectively clean and disinfect patient care equipment. 5. Describe the handling of inoperative patient care equipment. 6. Explain the preparation, storing, and tracking of patient care equipment. 7. Differentiate between purchase, lease, rent, and loan options for patient care equipment and explain the advantages and disadvantages of each. 8. Discuss the maintenance, repair, and outsourcing of patient care equipment. 9. Discuss the use of bar codes and radio frequency identification to track inventories.	3	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Quality Assurance and Role of Information Technology in Central Service	1. Define quality in the context of central service operations and explain how quality is identified. 2. Describe the components of a quality central service program. 3. Discuss quality control indicators. 4. Explain the basics of failure mode, effects analysis, and root cause analysis. 5. Identify common quality assurance programs. 6. Explain the purpose of tracking equipment, instruments, and supplies. 7. Describe the use of computers and information systems to support the tracking of equipment, instruments, and supplies.	2	0	0
Safety and Risk Management for Central Service	1. Explain the importance of safety and risk management in the central service department. 2. Explain hazardous substances, bloodborne pathogens, and fire workplace hazards. 3. Describe the safety concerns required for handling ethylene oxide. 4. Review the procedures utilized to report employee accidents and injuries. 5. Explain the importance of ergonomics and health awareness for Central Service Technicians. 6. Discuss common safety hazards applicable to central service functions and work areas and explain how employee injuries can be prevented. 7. Describe the basics of internal and external disaster plans for a healthcare facility.	3	0	0
Communication and Human Relation Skills	1. Explain the need for Central Service Technicians to utilize effective communication. 2. Define the term professionalism. 3. List the traits of a professional Central Service Technician. 4. Describe the fundamental beliefs and behaviors of a Central Service Technician. 5. Explain the importance of effective communication in the workplace. 6. Describe procedures to enhance and maintain effective and positive working relationships. 7. Explain methods to improve teamwork. 8. Define the term diversity and explain why diversity is important. 9. Describe positive customer service skills and methods to handle customer complaints. 10. Review common communication issues. 11. Develop a plan for career development, job seeking, and resume writing. 12. Discuss strategies to enhance professional skills and expertise. 13. Discuss interview strategies in preparing for employment.	2	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
45	15	0