

# Sterile Processing Technician

**8367 36 weeks**

## Table of Contents

Acknowledgments.....	1
Course Description.....	2
Task Essentials Table.....	2
Curriculum Framework.....	4
Exploring the World of Sterile Processing .....	5
Introducing the Roles and Responsibilities of Sterile Processing Technician .....	8
Preparing Instruments for Decontamination and Disinfection.....	11
Preparing Instruments for Packaging.....	16
Documenting Processes and Procedures.....	23
Exploring the Sterilization Process.....	26
Performing Sterile Storage and Inventory Management.....	33
Working with Patient Care Equipment .....	36
Preparing for Industry Certification.....	39
SOL Correlation by Task .....	42
Appendix: Credentials, Course Sequences, and Career Cluster Information .....	45

## Acknowledgments

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

Delzora Barnard, Chesapeake Regional Medical Center, Chesapeake  
Toni Bowman, Pulaski County Senior High School, Pulaski County Public Schools  
Ann Craddock, HOSA Specialist, Charlottesville  
Donna Davis, Giles County Technical Center, Giles County Public Schools  
Lorraine Jenkins, Chesapeake Regional Medical Center, Chesapeake  
Tameka Leftwich, Fortis College, Richmond  
Joan McGowan, Chippenham Hospital, Richmond  
Nicole Meredith, Virginia Commonwealth University, Richmond  
Linda Starks, Piedmont Virginia Community College, Charlottesville

Gregory Wright, T.C. Williams High School, Alexandria City Public Schools  
Deborah Wright, Floyd S. Kay Technical Center, Rockbridge County Public Schools

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

Kevin P. Reilly, Administrative Coordinator  
Robin A. Jedlicka, Writer/Editor

Michele Green-Wright, Specialist, Health and Medical Sciences and Related Clusters  
Office of Career, Technical, and Adult Education n  
Virginia Department of Education

Lolita B. Hall, Director  
Office of Career, Technical, and Adult Education  
Virginia Department of Education

---

Copyright © 2016

## Course Description

**Suggested Grade Level:** 11 or 12

**Prerequisites:** 8302

Students acquire knowledge of sterile processes and clean, disinfect, and distribute sterilized instruments and equipment in health-care facilities. Student instruction focuses on work in a sterile processing department and central service location, working as a team to maintain sterilization and storage, learning about microbiology and infection control, and apply principles and practices of sterile processing and decontamination. Upon completion, students will be able to take the international certification for sterile processing technicians.

Students will complete a 400-hour externship, which requires 200 hours' completion by high school graduation and 200 hours' completion within six months of earning a provisional certification. Note: Following completion of the additional 200 hours, full certification is obtained.

## 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.

8367	Tasks/Competencies	
Exploring the World of Sterile Processing		
39	+	Describe the history of surgical instrumentation.
40	+	Identify basic surgical instruments and equipment.
41	+	Describe the history of decontamination and disinfection.
42	+	Identify best practices recommended by the Association for the Advancement of Medical Instrumentation (AAMI) and the Association of periOperative Registered Nurses (AORN).
43	+	Describe the workflow in the sterile processing department.
Introducing the Roles and Responsibilities of Sterile Processing Technician		
44	+	Explain the roles and responsibilities of the sterile processing technician.
45	+	Apply OSHA guidelines and safety procedures.
46	+	Comply with relevant safety standards and regulations.
47	+	Apply specific medical safety practices.
Preparing Instruments for Decontamination and Disinfection		
48	+	Identify equipment used in the decontamination area.
49	+	List the types of quality control tests and types of troubleshooting.
50	+	Identify the three levels of the Spaulding Classification.
51	+	Describe the differences between disposable and non-disposable items.
52	+	Explain the process for the retrieval of soiled equipment and instruments from operating rooms and other areas.
53	+	Describe the cleaning and decontamination of non-disposable items.
54	+	Perform decontamination based on established standards by International Association of Healthcare Central Service Materiel Management (IAHCSMM).
55	+	Disinfect instruments and equipment.
56	+	Transfer disinfected items to preparation area.
Preparing Instruments for Packaging		
57	+	Describe the process of preparing the work area for packaging.
58	+	Describe the process for receiving items for preparation.
59	+	Inspect items for cleanliness and functionality.
60	+	Demonstrate the selection of items for assembly.
61	+	Assemble items for packaging.
62	+	Select the packaging method.
63	+	Describe the labeling of packages.
64	+	Transfer items to the designated area.
Documenting Processes and Procedures		
65	+	Describe standards for record maintenance.
66	+	Describe the procedure for reporting a variance in temperature/humidity from acceptable ranges.
67	+	Document quality test results on equipment.
68	+	Describe the high-level disinfection process.
69	+	Describe the documentation procedure for employee incident reports.
Exploring the Sterilization Process		
70	+	Explain the preparation of the work area for sterilization.
71	+	Perform sterilizer tests.

8367	Tasks/Competencies	
72	+	Describe sterilization methods and cycles.
73	+	Describe the operation of sterilization equipment.
74	+	Interpret the cycle parameter report.
75	+	Demonstrate the handling of items for sterilization.
76	+	Demonstrate the loading of a sterilizer.
77	+	Describe the method for obtaining a lot control number.
78	+	Describe the method of documenting sterilization load contents.
79	+	Unload the sterilizer.
80	+	Evaluate post-sterilization package integrity.
81	+	Describe the process for completing the biological indicator test.
82	+	Describe potential sterilization process failures.
83	+	Transfer sterilized items to storage and distribution areas.
Performing Sterile Storage and Inventory Management		
84	+	Prepare the work area for sterile storage.
85	+	Perform inventory management.
86	+	Describe the process for ordering inventory.
87	+	Describe the process for receiving inventory.
88	+	Describe the distribution of sterile and non-sterile items.
89	+	Describe the process for monitoring item usage.
90	+	Describe the process of tracking items distributed by the central sterile supply department.
91	+	Describe the process for disposing of inventory.
Working with Patient Care Equipment		
92	+	Prepare work area for distribution.
93	+	Describe the process for receiving items for preparation.
94	+	Describe the inspection of equipment for cleanliness and functionality.
95	+	Describe the assembly of equipment for distribution.
96	+	Describe the care and handling of equipment.
97	+	Describe the distribution of equipment.
98	+	Describe the process for tracking medical equipment.
Preparing for Industry Certification		
99	+	Describe the process and requirements for obtaining industry certifications related to the Sterile Processing Technician course.
100	+	Identify testing skills/strategies for a certification examination.
101	+	Demonstrate ability to successfully complete selected practice examinations (e.g., practice questions similar to those on certification exams).
102	+	Successfully complete an industry certification examination representative of skills learned in this course (e.g., Certified Registered Central Service Technician exam).

Legend: + Essential ○ Non-essential ⊖ Omitted

## Curriculum Framework

---

# Exploring the World of Sterile Processing

---

## Task Number 39

### Describe the history of surgical instrumentation.

#### Definition

Description should include

- Galen's invention of basic surgical instrumentation
- development of field instrumentation
- classification of instruments (e.g., grasping and holding, retracting, clamping and occluding, ligating, cutting)
- general uses of modern surgical instrumentation.

#### Process/Skill Questions

- What practices and methods influenced the development of surgical instruments?

### HOSA Competitive Events (High School)

#### Teamwork Events

- HOSA Bowl
- 

## Task Number 40

### Identify basic surgical instruments and equipment.

#### Definition

Identification should include the names and function of basic surgical instruments in the following categories:

- Retracting/viewing
- Grasping/holding

- Dilating/probing
- Suctioning
- Sewing
- Cutting

Identification also should include the names and function of patient care equipment (e.g., infusion pumps, feeding pumps, suctioning devices).

### **Process/Skill Questions**

- What are the parts of a clamp?
- How are instruments assessed for their function?
- What is the procedure for removing a knife blade from a handle?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Medical Terminology

## **Task Number 41**

### **Describe the history of decontamination and disinfection.**

#### **Definition**

Description should include

- relationship of microorganisms to infection (Joseph Lister, Louis Pasteur, Koch)
- antiseptic technique
- aseptic technique
- early efforts at sterilization (pre-1930)
- modern sterilization techniques (post-1930)
  - chemical
  - mechanical
  - thermal.

#### **Process/Skill Questions**

- What is the antiseptic technique?
- What is the aseptic technique?
- What is one item that can be sterilized while closed?
- How is “germ theory” applied in surgery?

- How did Joseph Lister change surgical practice and the use of surgical instruments?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Medical Spelling
  - Medical Terminology
  - Knowledge Test: Pathophysiology
- 

## **Task Number 42**

**Identify best practices recommended by the Association for the Advancement of Medical Instrumentation (AAMI) and the Association of periOperative Registered Nurses (AORN).**

### **Definition**

Identification should include best practices and guidelines for [AAMI](#) and [AORN](#).

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Medical Law and Ethics
- 

## **Task Number 43**

**Describe the workflow in the sterile processing department.**

### **Definition**

Description should include

- the physical environment (design and workflow)
- standards for air flow, temperature, humidity, and documentation in workspaces
- documentation of temperature and humidity (frequency and standards)
- traffic flow between workspaces
- workspaces and their functions

- decontamination
- preparation/packaging
- sterilization
- sterile storage
- equipment holding area
- distribution.

---

# Introducing the Roles and Responsibilities of Sterile Processing Technician

---

## Task Number 44

**Explain the roles and responsibilities of the sterile processing technician.**

### Definition

Explanation should include

- performing manual cleaning prior to sterilization
- placing cleaned instruments in sterilizers (e.g., autoclaves)
- starting and monitoring sterilizers
- examining equipment for defects and reporting problems to staff
- observing departmental dress code
- understanding the occupational and environmental hazards
- fulfilling the pre-employment requirements (e.g., drug testing, criminal background check).

### Process/Skill Questions

- What are the pre-employment requirements for a sterile processing technician?
- What occupational hazards impact the job of a sterile processing technician?  
Environment hazards?
- What are the steps for reporting equipment defects?
- How long should s sterile processing technician wait to report a defect? Why?

### HOSA Competitive Events (High School)



### **Health Professions Events**

- Clinical Specialty

### **Teamwork Events**

- Health Career Display
- 

## **Task Number 45**

### **Apply OSHA guidelines and safety procedures.**

#### **Definition**

Application should include

- wearing personal protective equipment (PPE) while in the decontamination area as required by OSHA and departmental policy
- using body mechanics when lifting, pushing, or pulling heavy objects
- locating the fire extinguisher, escape routes, pull stations, oxygen shut-off valve, and other facility-specific safety issues
- completing annual safety assessments
- following required actions based on the SDS Manual (including notification of supervisor)
- updating SDS Manual information according to product additions
- taking action to control unsafe conditions if there is imminent likelihood of injury.

#### **Process/Skill Questions**

- How do most on-the-job injuries occur?
- Why would back injuries occur in the central service sterile processing department?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Medical Spelling
  - Medical Terminology
  - Knowledge Test: Pathophysiology
-

## **Task Number 46**

### **Comply with relevant safety standards and regulations.**

#### **Definition**

Compliance should include

- reporting unsafe conditions to a supervisor, using a required facility form
- cleaning all department surface areas, racks, shelves, storage cabinets, and areas as scheduled and required by the Centers for Disease Control and Prevention, the Occupational Safety and Health Administration (OSHA), hospital accreditation standards, the Joint Commission, and departmental policy.

#### **Process/Skill Questions**

- What are the various hospital boards of accreditation?

## **Task Number 47**

### **Apply specific medical safety practices.**

#### **Definition**

Application should include

- following procedures upon exposure to potential body fluid pathogen
- reporting incidents to a supervisor
- filing an incident report
- assessing coworkers' adherence to principles of asepsis
- maintaining a current American Heart Association Basic Life Support (BLS)/Cardiopulmonary Resuscitation (CPR) Healthcare Provider certificate.

#### **HOSA Competitive Events (High School)**

##### **Emergency Preparedness Events**

- CPR/First Aid
  - Life Support Skills
-

# Preparing Instruments for Decontamination and Disinfection

---

## Task Number 48

**Identify equipment used in the decontamination area.**

### Definition

Identification should include

- triple sinks
- ultrasonic units
- washer disinfectors
- driers
- cart wash.

### Process/Skill Questions

- What are the differences between decontamination and disinfection?
- What types of equipment are used in the sterile processing department decontamination area?
- What types of cleaning processes are used in the sterile processing department decontamination area?

## HOSA Competitive Events (High School)

### Health Science Events

- Medical Spelling
- 

## Task Number 49

**List the types of quality control tests and types of troubleshooting.**

### Definition

List should include the following:

- Efficacy testing process for washers
- Efficacy testing process for ultrasonic testing
- Efficacy testing process for Automated Endoscope Reprocessor
- Efficacy testing process for cart washer
- Eater quality test process
  - when to test
  - how to interpret tests
  - water pressure
  - location of outlets: on/off, regular, and emergency
- Chemical feed line processes
  - how to clean and test spray arms
  - how to check manifolds and baskets
  - how to find and how to use the operator's manual
  - how to close equipment doors and proper operation of doors
  - who to call if malfunction or have a question
  - how to identify and respond to alarms
  - how to clean strainers/drains
- Water pressure
  - location of outlets: on/off, regular, and emergency
  - chemical feed line processes
  - how to clean and test spray arms
  - how to check manifolds and baskets operator's manual (where to find, how to use)
  - how to close equipment doors and proper operation of doors

### **Process/Skill Questions**

- Why should quality control tests be done?
- What should a sterile processing technician do if test results fall outside of acceptable parameters?
- Why does a sterile processing technician need to know how to troubleshoot equipment?

### **HOSA Competitive Events (High School)**

#### **Health Professions Events**

- Clinical Specialty

---

## **Task Number 50**

**Identify the three levels of the Spaulding Classification.**

## **Definition**

Identification should include

- the levels (non-critical, semi-critical, and critical)
- how to mix and test chemicals
- documentation of chemical testing
- identifying the disinfectant family.

## **Process/Skill Questions**

- Why are there three levels of Spaulding Classification?

## **HOSA Competitive Events (High School)**

### **Health Professions Events**

- Clinical Specialty
- 

## **Task Number 51**

### **Describe the differences between disposable and non-disposable items.**

#### **Definition**

Description should include

- identification of single-use and reusable items
- identification of items to return to third-party vendors
- types of linens
- processing of broken and repairable instrumentation
- disposal of sharps and non-reprocessed items (e.g. biohazards versus non-regulated trash, sharps container).

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Medical Terminology
-

## **Task Number 52**

**Explain the process for the retrieval of soiled equipment and instruments from operating rooms and other areas.**

### **Definition**

Explanation should include

- containment of soiled items
- labeling of containers
- preventing contamination of transportation containers
- use of PPE
- transport of items to the sterile processing department decontamination room.

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Medical Terminology

#### **Health Professions Events**

- Clinical Specialty
- 

## **Task Number 53**

**Describe the cleaning and decontamination of non-disposable items.**

### **Definition**

Description should include

- directions for locating instructions for use
- directions for opening and positioning instruments, according to procedure
- operation times for manual and mechanical processes
- directions for operating light and magnification devices
- when and how to use water & air
- what goes in each sink (e.g., two- or three-sink method)
- soak process

- selection of brush and size
- brush care
- prevention of aerosols
- directions for loading equipment, according to procedure.

## **HOSA Competitive Events (High School)**

### **Health Professions Events**

- Clinical Specialty

## **Task Number 54**

### **Perform decontamination based on established standards by International Association of Healthcare Central Service Materiel Management (IAHCSMM).**

#### **Definition**

Performance should include

- disassembling instruments
- identifying manual and mechanical cleaning according to manufacturer instructions
- demonstrating methods for reducing the risk of toxic anterior segment syndrome
- loading items into the equipment
- cleaning strainers or drains
- demonstrating special precautions required for Creutzfeldt-Jacob Disease instruments.

#### **Process/Skill Questions**

- What are two testing tools used to check for functionality?
- How do you disassemble a cutting instrument?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Medical Terminology

### **Health Professions Events**

- Clinical Specialty

---

## **Task Number 55**

### **Disinfect instruments and equipment.**

#### **Definition**

Disinfection should include

- use of disinfectant according to instrument and/or disinfectant manufacturer's guidelines
- determining the exposure time based on the chemical and equipment guidelines and the instrument instructions for use
- rinsing equipment based on the chemical and equipment guidelines and the instrument instructions for use.

#### **HOSA Competitive Events (High School)**

##### **Health Science Events**

- Medical Terminology

---

## **Task Number 56**

### **Transfer disinfected items to preparation area.**

#### **Definition**

Transfer should include performing a visual check for cleanliness and functionality.

## **Preparing Instruments for Packaging**

---

## **Task Number 57**

### **Describe the process of preparing the work area for packaging.**



## **Definition**

Description should include

- identifying the supplies needed
- following the dress code
- identifying work area requirements (e.g., cleaning requirements)
- locating instructions for use.

## **Process/Skill Questions**

- What are the three basic principles of packaging?
- Why should the healthcare worker comply with a dress code?
- What supplies would be needed in the preparation area?
- How would the instructions for use be helpful in this setting?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Medical Terminology

### **Health Professions Events**

- Clinical Specialty

### **Teamwork Events**

- Creative Problem Solving

---

## **Task Number 58**

### **Describe the process for receiving items for preparation.**

#### **Definition**

Description should include

- item identification (e.g., visual, computerized)
- how to unload equipment
- how to check for cleanliness
- how to sort items (e.g., service, facility, loaner)
- how to accept items through a pass-through window.

## **Process/Skill Questions**

- What is the proper method for unloading equipment?
- How do you check for cleanliness?
- What is the proper way to accept an item through the pass-through window?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Medical Terminology

### **Health Professions Events**

- Clinical Specialty
- 

## **Task Number 59**

### **Inspect items for cleanliness and functionality.**

#### **Definition**

Inspection should include

- checking for cleanliness and functionality
- following the instructions for use
- selecting proper testing tools and processes for checking functionality of items (e.g., sharpness testing)
- assembling, testing, and disassembling items according to instructions for use
- removing and replacing unacceptable items
- lubricating items according to instructions for use.

## **Process/Skill Questions**

- How would you check for cleanliness and functionality?
- What is the method for testing tools and checking their functionality?
- What is the proper method for lubricating items according to the instructions for use?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Medical Terminology

## **Health Professions Events**

- Clinical Specialty
- 

## **Task Number 60**

### **Demonstrate the selection of items for assembly.**

#### **Definition**

Demonstration should include

- obtaining count sheets, peel pack list, tray list (e.g., where to place count sheets)
- reading and identifying items (e.g., books, product number, computers, tape, etching)
- cross-referencing different instruments
- sizing and measuring items
- visually identifying instruments.

#### **Process/Skill Questions**

- How do you read a product number?
- Where do you place count sheets?
- What is a peel pack list?
- Why are count sheets placed with surgical trays?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Medical Spelling
- Medical Terminology

#### **Health Professions Events**

- Clinical Specialty

#### **Teamwork Events**

- Creative Problem Solving
-

## **Task Number 61**

### **Assemble items for packaging.**

#### **Definition**

Assembly should include

- demonstration of handling procedures
- use of instrument protection devices (e.g., tip protectors, foam, mats)
- use of tray liners
- instrument placement (e.g., facilitate sterilization, protect instruments)
- instrument organizers
- identification of the classes and appropriate use of chemical indicators (e.g., proper placement, intended cycle)
- use of weight limits and weight distribution.

#### **Process/Skill Questions**

- Why is instrument placement important?
- Why are weight limits and weight distribution important?
- What are the types of instrument protection devices?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Medical Terminology

#### **Health Professions Events**

- Clinical Specialty

---

## **Task Number 62**

### **Select the packaging method.**

#### **Definition**

Selection should include

- size and packaging weight

- packaging method (e.g., flat wrap, peel pack, container)
- sterilization method/cycle to be used
- external indicators
- tamper-evident seals
- method of packaging
- wrapping technique.

### **Process/Skill Questions**

- How do you select the appropriate packaging methods?
- What are three types of frequently used packaging materials in central service?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Medical Terminology

#### **Health Professions Events**

- Clinical Specialty

## **Task Number 63**

### **Describe the labeling of packages.**

#### **Definition**

Description should include

- the importance of legible handwriting
- placement of labeling and writing
- how to identify trays that are missing items
- confirming correct tray information
- recording technician identification
- identifying storage destination
- identifying special information identifiers (e.g., implant, loaners, sterilization methods/cycle)
- confirming date of sterilization/date of expiration (e.g., event-related versus time).

### **Process/Skill Questions**

- What is an approved writing instrument to label a package?

- Why is legible handwriting important?
- What information is recorded on the labels for sterilized items?
- What is shelf life?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Medical Spelling
- Medical Terminology

### **Health Professions Events**

- Clinical Specialty

## **Task Number 64**

### **Transfer items to the designated area.**

#### **Definition**

Transfer should include

- the location of sterilization areas (e.g., low temperature, high temperature)
- the location of staging area
- prioritizing items for rapid turn-around
- handling items without damaging them (e.g., stacking, rough handling)
- identifying delivery locations
- using body mechanics and ergonomics
- tracking items (e.g. manual, computer)
- monitoring traffic flow.

#### **Process/Skill Questions**

- How do you handle items without damaging them?
- What are two ways to track items?
- How would you move a 50-pound square box using proper body mechanics?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Medical Terminology

---

# Documenting Processes and Procedures

---

## Task Number 65

### Describe standards for record maintenance.

#### Definition

Description should include

- protocol of time frame to keep records
- what records should be kept
- where records should be kept (e.g., on-site, off-site)
- how to retrieve records.

#### Process/Skill Questions

- What is the purpose of maintaining documentation in the sterile processing department?
- When might documentation need to be retrieved?
- When are biological results recorded?

### HOSA Competitive Events (High School)

#### Health Science Events

- Medical Spelling
- Medical Terminology

---

## Task Number 66

### Describe the procedure for reporting a variance in temperature/humidity from acceptable ranges.

#### Definition

Description should include

- notifying facilities maintenance/engineering of the variance
- documenting the report on log sheet
- following-up within the department to ensure return to acceptable parameters
- retesting the parameters following corrective action.

### **Process/Skill Questions**

- Why is it important to document room temperatures at the beginning of the workday?
- Why should all temperature discrepancies be documented?
- What are the steps to reporting a temperature discrepancy?

## **Task Number 67**

### **Document quality test results on equipment.**

#### **Definition**

Documentation should include results for the following:

- Ultrasonic systems
- Water quality and temperature
- Bowie-Dick tests (e.g., run as first load of the day, empty load)
- Sterilizer leak tests (e.g., when test should be performed)
- Biological and chemical tests (e.g., lot numbers, running control tests, correct placement of tests, incubation procedure, interpreting results, recall process in case of undesirable outcomes)
- Directions for interpreting the results of the test
- Corrective actions to take if the test fails
- Washer decontamination process (e.g., frequency, type)
- Cart washer.

### **Process/Skill Questions**

- Why is it important to document the lot number from sterilant containers?
- What is the significance of documenting a failed Bowie-Dick test?
- Why is it important in documentation to know the parameters for steam, Sterrad, and the Automated Endoscope Processor?
- When are biological results recorded?
- When is documentation for the cart washer complete?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Medical Terminology



---

## **Task Number 68**

### **Describe the high-level disinfection process.**

#### **Definition**

Description should include

- safety procedures
- proper disposal methods
- recording dilution labeling requirements (e.g., concentration, expiration, end of use date)
- recording technician information
- recording patient information.

#### **Process/Skill Questions**

- What safety precautions should be used when using high-level disinfection?
- What needs to be recorded after instrumentation has been processed using high-level disinfection?
- What patient information is required?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Medical Spelling
- Medical Terminology

#### **Health Professions Events**

- Clinical Specialty

---

## **Task Number 69**

### **Describe the documentation procedure for employee incident reports.**

#### **Definition**

Description should include

- hospital reporting policy
- exposure control plan
- state and federal safety regulations
- risk management and safety management policies
- patient tracing procedure (e.g., in the event of a needle stick, cut).

### **Process/Skill Questions**

- What documentation is needed for employee incident reports?
- What is in an exposure control plan?
- Why is it important to report any exposure you may have?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

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

---

# **Exploring the Sterilization Process**

---

## **Task Number 70**

### **Explain the preparation of the work area for sterilization.**

#### **Definition**

Explanation should include

- steps to perform sterilizer component checks according to manufacturer's instructions for use
- steps to perform sterilizer cleaning according to manufacturer's instructions for use.

#### **Process/Skill Questions**

- When should the work area for sterilization be prepared?
- What steps need to be performed to prepare the work area for sterilization?

- When should the sterilizer be cleaned?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Medical Terminology

### **Health Professions Events**

- Clinical Specialty
- 

## **Task Number 71**

### **Perform sterilizer tests.**

#### **Definition**

Performance should include

- conducting leak tests
- conducting Bowie-Dick/air removal test, according to standards
- placing biological test packs for sterilization
- identifying when to perform test (e.g. repair, construction, malfunction, routine).

#### **Process/Skill Questions**

- What tests must be performed on a steam sterilizer during a 24-hour period?
- What is the difference between a chemical indicator and a chemical integrator?
- When should a leak test be performed?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Medical Terminology

### **Health Professions Events**

- Clinical Specialty
-

## **Task Number 72**

### **Describe sterilization methods and cycles.**

#### **Definition**

Description should include

- checking the equipment for time, temperature, and pressure parameters
- selecting and changing the cycle
- identifying appropriate use of external indicators (e.g. sterilization method, placement)
- identifying the sterilization method of items
- identifying packaging for the sterilization method.

#### **Process/Skill Questions**

- What is the use of external indicators during sterilization?
- How do you select the appropriate cycle for items being sterilized?
- What are examples of acceptable methods of packing for the sterilization method? Unacceptable methods?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Medical Terminology

#### **Health Professions Events**

- Clinical Specialty
- 

## **Task Number 73**

### **Describe the operation of sterilization equipment.**

#### **Definition**

Description should include

- how to operate steam sterilizers
- how to operate low-temperature sterilizers
- how to replace and dispose of empty cartridges/tanks/ cassettes

- how to select the cycle
- where to place biological or air removal tests
- how to manage temperature requirements for each sterilization method
- how to access instructions for use.

### **Process/Skill Questions**

- How do you select the sterilization cycle for selected instruments?
- What are the temperature requirements for each sterilization method?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Medical Terminology

#### **Health Professions Events**

- Clinical Specialty
- 

## **Task Number 74**

### **Interpret the cycle parameter report.**

#### **Definition**

Interpretation should include

- analyzing the printout from the sterilizer (e.g., temperature, time, and pressure exposure)
- following sign-off procedures to ensure accountability.

#### **Process/Skill Questions**

- What are the parameters for a power instrument that requires steam sterilization?
  - What information should be included in the printout for the sterilization cycle?
  - Why is it important to follow the sign-off procedures?
- 

## **Task Number 75**

### **Demonstrate the handling of items for sterilization.**

## **Definition**

Demonstration should include

- moving items from cart to cart
- using body mechanics
- handling items to preserve packaging integrity
- accessing instructions for use
- maintaining package integrity
- identifying compromised integrity (e.g. holes, filters, broken locks and seals)
- placing filters, locks, seals, and external indicators in proper locations.

## **Process/Skill Questions**

- How do you handle sterilized items to ensure package integrity?
- How can you identify a compromise in the integrity of the pack to be sterilized?
- Why is it important where the external indicator is located?

## **HOSA Competitive Events (High School)**

### **Health Professions Events**

- Clinical Specialty
- 

## **Task Number 76**

### **Demonstrate the loading of a sterilizer.**

## **Definition**

Demonstration should include

- applying various types of load configuration
  - metal containers
  - wrapped items
  - peel packed
- conducting biological tests per AAMI standards or hospital-established protocol.

## **HOSA Competitive Events (High School)**

### **Health Professions Events**

- Clinical Specialty

---

## **Task Number 77**

**Describe the method for obtaining a lot control number.**

### **Definition**

Description should include computerized and/or manual documentation methods, and where the information is recorded and stored.

---

## **Task Number 78**

**Describe the method of documenting sterilization load contents.**

### **Definition**

Description should include computerized and/or manual documentation methods, and where the information is recorded and stored.

## **Task Number 79**

**Unload the sterilizer.**

### **Definition**

Unloading should include

- mechanisms used to maintain sterility (e.g. cooling time, temperature, handling)
  - body mechanics
  - ergonomics
  - monitoring of traffic flow
  - use of PPE.
- 

## **Task Number 80**

**Evaluate post-sterilization package integrity.**

## **Definition**

Evaluation should include

- confirming package integrity (e.g., no holes, torn filters, broken locks and seals, moisture)
- placement of filters, locks, seals, and external indicators.

## **Task Number 81**

**Describe the process for completing the biological indicator test.**

### **Definition**

Description should include

- handling and incubating the biological test
- interpreting the test results.

### **HOSA Competitive Events (High School)**

#### **Health Professions Events**

- Clinical Specialty
- 

## **Task Number 82**

**Describe potential sterilization process failures.**

### **Definition**

Description should include

- how to identify a process failure (e.g. wet packs, color change, failure to meet sterilization parameters)
- procedure for follow-up after process failure.

### **HOSA Competitive Events (High School)**

#### **Health Professions Events**



- Clinical Specialty
- 

## **Task Number 83**

### **Transfer sterilized items to storage and distribution areas.**

#### **Definition**

Transfer should include

- identification of storage area locations
- identification of staging area location
- prioritization for rapid turn-around
- proper handling of items without damaging them (e.g. stacking, rough handling)
- air exchanges (e.g. negative pressure, positive pressure)
- body mechanics
- ergonomics
- tracking items (e.g. manual, computer)
- traffic flow
- early release of implantable devices.

## **Performing Sterile Storage and Inventory Management**

---

### **Task Number 84**

#### **Prepare the work area for sterile storage.**

#### **Definition**

Preparation should include

- identifying the supplies needed
- following the dress code
- following work area requirements
- locating instructions for use documents.

#### **Process/Skill Questions**

- When would you place containerized items on top of blue-wrapped items?
- Where should sterile instruments be taken after they have been placed in an operating room with a patient but never were used?

## **Task Number 85**

### **Perform inventory management.**

#### **Definition**

Performance should include

- identifying the location of supplies
- following shelf-life policy (e.g., first in, first out [FIFO], expiration, event-related)
- following the process for rotating inventory
- following storage requirements
- maintaining a break-out area (e.g., corrugated cardboard, external shipping containers)

#### **Process/Skill Questions**

- How often should instruments be rotated?
- When putting instruments in the sterile storage area, at what distance should they be placed from the floor, wall, and ceiling?

## **Task Number 86**

### **Describe the process for ordering inventory.**

#### **Definition**

Description should include

- identifying the ordering process (e.g. par levels, computerized, manual)
- identifying the product (e.g., catalog numbers, item number, descriptions)
- identifying the unit of measure (e.g., each, box, package, case)
- handling back-orders.

## **Task Number 87**

### **Describe the process for receiving inventory.**

#### **Definition**

Description should include

- what compromises integrity (e.g., holes, damaged or missing filters, broken locks and seals, water damage, dust)
- external indicators and expiration dates
- matching the delivery document to what was received (e.g., signing for deliveries).

## **Task Number 88**

**Describe the distribution of sterile and non-sterile items.**

### **Definition**

Description should include

- methods of distribution
- proper handling of items
- use of ergonomics and body mechanics
- transport guidelines (e.g., closed cart, bins, dust covers).

## **Task Number 89**

**Describe the process for monitoring item usage.**

### **Definition**

Description should include

- the purpose(s) for monitoring item usage
- the types of systems used (e.g., manual, computerized).

### **Process/Skill Questions**

- How does monitoring item usage help with cost control?
- Why is it important to monitor usage of supplies?

## **Task Number 90**

**Describe the process of tracking items distributed by the central sterile supply department.**

### **Definition**

Description should include procedures for tracking

- high-dollar items
- specialty carts
- critical items
- vendor-owned items
- how items are tracked (e.g., manual, RFID, computerized)
- when to review Safety Data Sheet (SDS) information and how to access and interpret SDS information.

### **Process/Skill Questions**

- What is a consignment system?

## **Task Number 91**

**Describe the process for disposing of inventory.**

### **Definition**

Description should include procedures for the handling of

- recalled items
- open or unused single-use item
- damaged items
- expired items
- obsolete items
- recycled items
- donations of items to others.

## **Working with Patient Care Equipment**

---

### **Task Number 92**

**Prepare work area for distribution.**

### **Definition**

Preparation should include

- identifying the supplies needed

- implementing dress code
- meeting work area requirements (e.g. cleaning requirements)
- locating instructions for uses.

## **Task Number 93**

**Describe the process for receiving items for preparation.**

### **Definition**

Description should include

- process for recording and tracking rental equipment
- item identification (e.g., visual, computerized)
- how to unload equipment
- how to sort items (e.g., type of equipment).

## **Task Number 94**

**Describe the inspection of equipment for cleanliness and functionality.**

### **Definition**

Description should include

- checking for cleanliness
- checking for compliance with safety standards (e.g., frayed cords, preventative maintenance date, damage).

### **Process/Skill Questions**

- What is the process to check for cleanliness?
- How is the equipment broken down for cleaning and storage?
- Where is the equipment checked for functionality prior to packing and/or storage?

## **Task Number 95**

**Describe the assembly of equipment for distribution.**

### **Definition**

Description should include

- assembling equipment for distribution
- testing equipment per manufacturer's use policy
- packaging equipment
- labeling equipment
- accessing instructions for uses
- accessing disposable components.

### **Process/Skill Questions**

- How are disposables for each piece of equipment stored with the equipment?
- Where are the instructions for use stored for easy access by the user?

## **Task Number 96**

### **Describe the care and handling of equipment.**

#### **Definition**

Description should include

- equipment requiring charging or battery replacement
- location and proper storage of equipment
- environmental requirements for stored equipment (e.g. dry, clean)
- preventative maintenance dates.

### **Process/Skill Questions**

- Where is preventative maintenance done?
- How is preventative maintenance recorded?
- How is the equipment stored to allow for battery charging?

## **Task Number 97**

### **Describe the distribution of equipment.**

#### **Definition**

Description should include

- process for recording distribution
- types of equipment maintained in central service
- delivery protocols

- delivery locations.

### **Process/Skill Questions**

- What methods are used to track equipment use and location?
- Where does the CS deliver equipment?
- How is equipment transported to maintain integrity and cleanliness?

## **Task Number 98**

### **Describe the process for tracking medical equipment.**

#### **Definition**

Description should include

- systems used (e.g. manual, computer, RFID, hybrid)
- recording and tracking the distribution.

### **Process/Skill Questions**

- What computer software is used to track equipment and or manual record system?
- What back-up systems are available to locate equipment if the computer system is down?
- How is equipment labeled to allow identification of each individual piece?

## **Preparing for Industry Certification**

---

### **Task Number 99**

### **Describe the process and requirements for obtaining industry certifications related to the Sterile Processing Technician course.**

#### **Definition**

The description should include a list of industry certifications related to the course and the process/requirements for obtaining the certifications from

- official Web sites of the testing organization/vendor

- materials from publishers that have developed practice materials and tests based on information from the testing organization/vendor
- information from certified instructors or industry-certified professionals
- information from the Virginia Department of Education's [Administrative Planning Guide](#)
- information in the "Introduction/Course Description" section of this document.

### **Process/Skill Questions**

- What types of certification are available?
- What are the requirements for eligibility for each certification process?
- What is the time frame for certification?

### **HOSA Competitive Events (High School)**

#### **Leadership Events**

- Interviewing Skills
  - Job-Seeking Skills
- 

## **Task Number 100**

### **Identify testing skills/strategies for a certification examination.**

#### **Definition**

The identification of testing skills and strategies should be undertaken by

- conducting an Internet research project
- reviewing materials from publishers
- interviewing certified instructors and/or industry-certified professionals.

#### **Process/Skill Questions**

- Where are practice exams found?
  - How do you determine the content used for exam questions?
- 

## **Task Number 101**



## **Demonstrate ability to successfully complete selected practice examinations (e.g., practice questions similar to those on certification exams).**

### **Definition**

Demonstration should include obtaining and successfully completing practice examinations for selected certifications related to the course obtained from vendor sites and/or materials from publishers.

### **Process/Skill Questions**

- Which practice exams are most applicable to the chosen certification exam?
  - What format is used for the practice exams?
- 

## **Task Number 102**

### **Successfully complete an industry certification examination representative of skills learned in this course (e.g., Certified Registered Central Service Technician exam).**

#### **Definition**

The successful completion of an industry certification examination will be achieved when the student applicant earns an examination score deemed “passing” by the testing organization. Qualifying examinations are those currently approved at the state level as representative of sterile processing technician skills. (These may be found in the Virginia Department of Education’s [Administrative Planning Guide](#).)

Students should be encouraged to attain industry certification as evidence of their computer application skill level and general employability.

#### **Process/Skill Questions**

- Where are credentials recorded?
  - How often are credentials renewed?
-

# SOL Correlation by Task

Describe the history of surgical instrumentation.	
Identify basic surgical instruments and equipment.	
Describe the history of decontamination and disinfection.	English: 11.5, 12.5  History and Social Science: VUS.10, WHIL.8
Identify best practices recommended by the Association for the Advancement of Medical Instrumentation (AAMI) and the Association of periOperative Registered Nurses (AORN).	
Describe the workflow in the sterile processing department.	
Explain the roles and responsibilities of the sterile processing technician.	English: 11.5, 12.5
Apply OSHA guidelines and safety procedures.	History and Social Science: GOVT.1, GOVT.9, GOVT.15
Comply with relevant safety standards and regulations.	History and Social Science: GOVT.1, GOVT.9, GOVT.15
Apply specific medical safety practices.	
Identify equipment used in the decontamination area.	
List the types of quality control tests and types of troubleshooting.	
Identify the three levels of the Spaulding Classification.	
Describe the differences between disposable and non-disposable items.	
Explain the process for the retrieval of soiled equipment and instruments from operating rooms and other areas.	
Describe the cleaning and decontamination of non-disposable items.	
Perform decontamination based on established standards by International Association of Healthcare Central Service Materiel Management (IAHCSMM).	
Disinfect instruments and equipment.	
Transfer disinfected items to preparation area.	
Describe the process of preparing the work area for packaging.	
Describe the process for receiving items for preparation.	
Inspect items for cleanliness and functionality.	
Demonstrate the selection of items for assembly.	
Assemble items for packaging.	
Select the packaging method.	
Describe the labeling of packages.	
Transfer items to the designated area.	
Describe standards for record maintenance.	

Describe the procedure for reporting a variance in temperature/humidity from acceptable ranges.	
Document quality test results on equipment.	
Describe the high-level disinfection process.	
Describe the documentation procedure for employee incident reports.	
Explain the preparation of the work area for sterilization.	
Perform sterilizer tests.	
Describe sterilization methods and cycles.	
Describe the operation of sterilization equipment.	
Interpret the cycle parameter report.	
Demonstrate the handling of items for sterilization.	
Demonstrate the loading of a sterilizer.	
Describe the method for obtaining a lot control number.	
Describe the method of documenting sterilization load contents.	
Unload the sterilizer.	
Evaluate post-sterilization package integrity.	
Describe the process for completing the biological indicator test.	
Describe potential sterilization process failures.	
Transfer sterilized items to storage and distribution areas.	
Prepare the work area for sterile storage.	
Perform inventory management.	
Describe the process for ordering inventory.	
Describe the process for receiving inventory.	
Describe the distribution of sterile and non-sterile items.	
Describe the process for monitoring item usage.	
Describe the process of tracking items distributed by the central sterile supply department.	
Describe the process for disposing of inventory.	
Prepare work area for distribution.	
Describe the process for receiving items for preparation.	
Describe the inspection of equipment for cleanliness and functionality.	
Describe the assembly of equipment for distribution.	
Describe the care and handling of equipment.	
Describe the distribution of equipment.	
Describe the process for tracking medical equipment.	
Describe the process and requirements for obtaining industry certifications related to the Sterile Processing Technician course.	English: 11.5, 12.5
Identify testing skills/strategies for a certification examination.	
Demonstrate ability to successfully complete selected practice examinations (e.g., practice questions similar to those on certification exams).	

Successfully complete an industry certification examination representative of skills learned in this course (e.g., Certified Registered Central Service Technician exam).	
---	--

# Appendix: Credentials, Course Sequences, and Career Cluster Information

## Industry Credentials: Only apply to 36-week courses

- Certified Registered Central Service Technician (CRCST) Examination
- College and Work Readiness Assessment (CWRA+)
- National Career Readiness Certificate Assessment
- Workplace Readiness Skills for the Commonwealth 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)

Career Cluster: Health Science	
Pathway	Occupation
Biotechnology Research and Development	Certified Registered Central Service Technician (CRCST)
Diagnostics Services	Certified Registered Central Service Technician (CRCST)
Therapeutic Services	Certified Registered Central Service Technician (CRCST)