

Certified Registered Central Service Technician (CRCST) Exam Content Outline

Revised November 2023



The CRCST Exam Content Outline was created through the 2023 job task analysis and outlines the specific areas of knowledge necessary to perform the duties of a Central Service Technician. The Content Outline also details the percentage weight for each of the seven sections which comprise the CRCST Exam. The higher the percentage weight, the more heavily the questions in that area will affect your overall test score.

SECTION 1: **DEPARTMENTAL CONSIDERATIONS** (PERCENTAGE WEIGHT 15%)

I. **ENVIRONMENTAL CONSIDERATIONS**

- A. Work-area specific temperature, humidity and air flow requirements per ASHRAE guidelines (i.e., decontamination, preparation and packaging, sterilization, sterile storage)
- B. Corrective action processes when environmental elements fall outside of standard parameters
- C. Work-area specific cleaning protocols (i.e., decontamination, preparation and packaging, sterilization, sterile storage)
- D. Chemical safety and handling (e.g., interpret the Manufacturer's Instructions for Use [IFU] and safety data sheets [SDS], spill protocol, disposal, eyewash station)

II. **PERSONNEL CONSIDERATIONS**

- A. Dress code standards (e.g., hand hygiene, surgical attire, artificial nails, jewelry)
- B. Traffic control guidelines (e.g., one-way workflow, work area classifications)
- C. Ergonomics (e.g., work-flow, body mechanics)

III. **REGULATIONS AND STANDARDS**

- A. State and federal regulations (e.g., Food and Drug Administration [FDA], Centers for Medicare and Medicaid Services [CMS])
- B. Industry standards (e.g., American National Standards Institute/Association for the Advancement of Medical Instrumentation [ANSI/AAMI], Association of periOperative Registered Nurses [AORN])

IV. **DOCUMENTATION AND RECORD KEEPING**

- A. Record retention (e.g., policy and procedure, record location, quality test results, auditing)
- B. Types of records (e.g., accident/incident reports, orientation, education and training record requirements)
- C. Rationale for record retention (e.g., standards, legal document)

V. **QUALITY ASSURANCE**

- A. Quality assurance benchmarks (e.g., tray audits, Immediate Use Steam Sterilization [IUSS], instrument set turnaround times, surgical case cart accuracy, inventory fill rates)
- B. Quality assurance programs (e.g., total/continuous quality improvement, six sigma, LEAN)

SECTION 2: **CLEANING, DECONTAMINATION AND DISINFECTION** (PERCENTAGE WEIGHT 21%)

I. **AREA SPECIFIC SAFETY CONSIDERATIONS**

- A. OSHA/Blood Borne Pathogens
- B. Microbiology (e.g., cross contamination, microbial transmission, chain of infection, biofilm, Creutzfeldt-Jacob Disease [CJD])
- C. Area specific safety considerations (e.g., sharps, wet floors, chemicals, eyewash/shower station)
- D. Equipment operation (e.g., operator manuals)
- E. Safe transportation of soiled items into decontamination (e.g., inspecting for and reporting inadequate point of use cleaning)
- F. Personal Protective Equipment (PPE) usage (types of PPE, donning/doffing, frequency of changing, disposal)

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II. WORK AREA PREPARATION

- A. Cleaning tool selection (e.g., brushes, sponges, towels)
- B. Equipment operation (e.g., washer disinfectant, ultrasonic, cart washer, leak tester, how to check and replenish chemicals in equipment)
- C. Chemical identification and preparation following the Manufacturer's Instructions for Use (IFU) (e.g., dilution, equipment, expiration date, correct cleaning agent/chemicals)

III. QUALITY TESTS

- A. Efficacy testing process (e.g., washers/disinfectant, ultrasonic, Automated Endoscope Reprocessor [AER], cart washers)
- B. Frequency of efficacy tests (e.g., washers, ultrasonic, Automated Endoscope Reprocessor [AER], cart washers)
- C. Quality assurance testing (e.g., how to document and interpret efficacy test results)

IV. MAINTENANCE AND TROUBLESHOOTING OF EQUIPMENT

- A. Operator cleaning and maintenance of equipment (e.g., Manufacturer's Instructions for Use [IFU], strainers/drains, test spray arms, washer manifolds, baskets)
- B. Equipment malfunctions and/or alarms (e.g., how to identify, respond and report)
- C. Identification of outlets (e.g., on/off, regular, emergency)
- D. Chemical feed line functionality (e.g., identifying detergent dosage)

V. ITEM PREPARATION

- A. Reusable vs. disposable items (e.g., sorting, laparoscopic tips, linens, drapes, third-party recycling vendors, sustainability)
- B. Sharps and disposable items (e.g., safe disposal, biohazards versus non-regulated trash, sharps container)
- C. Manual and/or mechanical cleaning procedures according to the Manufacturer's Instructions for Use (IFU) (e.g., loaned trays)
- D. Process for preparation of soiled instruments (e.g., disassembly, sorting, positioning)
- E. Manual cleaning process (e.g., sink usage, water temperature, dilution, prevention of aerosols, visual inspection, high-pressure gun, spray arms)
- F. Identification of water quality (e.g., critical, utility)
- G. Brushes (e.g., selection, size, care, single use vs. reusable)
- H. Utilization of mechanical cleaning equipment (e.g., load configuration, cycle selection, ultrasonic, cart washer)
- I. Methods for reducing the risk of Toxic Anterior Segment Syndrome (TASS)

VI. DISINFECTION

- A. Safety measures when using disinfectants (e.g., Personal Protective Equipment [PPE], spill kit, ventilation, disposal methods)
- B. Three levels of Spaulding Classification (e.g., non-critical, semi-critical, critical)
- C. Chemical disinfectant types (e.g., quats, halogens, aldehydes)
- D. Chemical disinfectant usage (e.g., exposure times, concentration, rinsing requirements)
- E. Documentation of chemical testing (e.g., temperature, minimum effective concentration [MEC])
- F. Corrective actions for failed quality tests (e.g., temperature, minimum effective concentration [MEC])
- G. Documentation after disinfection (e.g., technician information, patient information, exposure time and solution temperature, lot control number)
- H. Care, handling, storage and transport (e.g., drying, expiration date, closed container, clean labeling, prevent cross-contamination)

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SECTION 3: **PREPARATION AND PACKAGING** (PERCENTAGE WEIGHT 21%)

I. **AREA SPECIFIC SAFETY CONSIDERATIONS**

- A. Area specific safety considerations (e.g., hot carts/trays, wet floors, sharps)
- B. Equipment operation (e.g., heat sealers, insulation testers, scope inspectors)

II. **WORK AREA PREPARATION**

- A. Supplies needed (e.g., indicators/integrators, tip protectors, tray liners, tape)
- B. Work area requirements (e.g., cleaning, disinfection, lighting, magnification)

III. **ITEM INSPECTION**

- A. Visual inspection of items for cleanliness (e.g., organic matter, adhesive, cement, staining)
- B. Testing tools and process for checking functionality of items (e.g., sharpness and insulation testing)
- C. Identification and handling of broken and/or damaged instrumentation (e.g., dull, misaligned, documentation)
- D. Lubrication of items (e.g., according to the Manufacturer's Instructions for Use [IFU], when and how to lubricate)

IV. **PACKAGE ASSEMBLY**

- A. Count sheets (e.g., peel packs, trays)
- B. Item identification (e.g., catalogs, product number, computers, tape, etching, cross-referencing, measurements)
- C. Instrument protection devices (e.g., tip protectors, foam, mats, tray liners)
- D. Instrument placement (e.g., facilitate sterilization, protect instruments)
- E. Instrument organizers (e.g., stringers, racks)
- F. Class/type and use of chemical indicators/integrators (e.g., placement, intended cycle)
- G. Weight limits and weight distribution

V. **PACKAGING METHOD**

- A. Packaging types (e.g., high-temperature vs. low-temperature sterilization)
- B. Packaging selection (e.g., peel packs, wraps, rigid containers)
- C. Wrapping techniques (e.g., square fold, envelope)
- D. Closure methods and external indicators (e.g., tape, locks, heat seal, self-seal)
- E. Package inspection (e.g., wraps, rigid containers)

VI. **LABELING METHOD**

- A. Approved labeling methods (e.g., felt tip pen, electronic labeling)
- B. Placement of labeling and writing (e.g., write on plastic side of peel pouch, write on tape not wrapper)
- C. Label information (e.g., missing items, tray information, technician identification, storage destination)
- D. Special information identifiers (e.g., implant, loaned, sterilization methods/cycle)

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SECTION 4: **STERILIZATION PROCESS** (PERCENTAGE WEIGHT 21%)

I. **AREA SPECIFIC SAFETY CONSIDERATIONS**

- A. Area specific safety considerations (e.g., burns, environmental/personnel exposure monitoring)
- B. Equipment operation (e.g., high and low temperature sterilizers, incubators)

II. **WORK AREA PREPARATION**

- A. Supplies needed (e.g., printer supplies, test packs, label/load sticker gun supplies)
- B. Sterilizer maintenance (e.g., according to the Manufacturer's Instructions for Use [IFU], drains, chamber)
- C. Equipment functionality (e.g., error codes, printer, incubators)

III. **STERILIZER QUALITY TESTS**

- A. Test types (e.g., leak, Dynamic Air Removal Test [DART]/Bowie Dick, biological, biological control)
- B. Equipment testing (e.g., repair, construction, malfunction, routine)

IV. **STERILIZATION METHODS AND CYCLES**

- A. High temperature sterilization (e.g., steam, dry heat)
- B. Low temperature sterilization (e.g., gas plasma, vaporized, liquid chemical, ethylene oxide [EO])
- C. Anatomy of sterilizers (e.g., jacket, door gasket, drain)
- D. Phases of sterilizer cycles (e.g., conditioning, exposure, exhaust)
- E. Different types of cycles (e.g., gravity, dynamic, standard, advanced, Immediate Use Steam Sterilization [IUSS])

V. **STERILIZER LOADING**

- A. Package integrity (e.g., holes, filters, broken locks and seals, item handling, external indicator)
- B. Item prioritization (e.g., rapid turn-around)
- C. Load configuration (e.g., metal, wrapped, rigid container, peel pouch)
- D. Sterilization method verification (e.g., how to identify high vs. low temperature)
- E. Biological tests/process challenge devices (e.g., selection, placement, lot number verification)

VI. **STERILIZER OPERATION AND MONITORING**

- A. Sterilizer component checks (e.g., according to Manufacturer's Instructions for Use [IFU], door gaskets, drains, carts, incubator temperature verification)
- B. Verification testing after major repair
- C. Cycle selection for high and low temperature sterilizers (e.g., exposure, dry, temperature)
- D. Cartridges /tanks /cassettes handling (e.g., replace, dispose)

VII. **POST-STERILIZATION PROCESSES**

- A. Physical monitor verification (e.g., temperature, time and pressure exposure, cycle type)
- B. Verification procedures to ensure accountability (e.g., initialing the printout)
- C. Sterility maintenance (e.g., cooling time, temperature, handling, equipment failure, moisture)
- D. Staging (e.g., cooling cart/rack placement)
- E. Handling and incubation of biological tests/process challenge devices (e.g., required Personal Protective Equipment [PPE])

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- F. Load quarantine (e.g., implants, early release)
- G. Test results (e.g., interpretation, documentation)

VIII. POTENTIAL PROCESS FAILURES

- A. Process failure identification (e.g., biological failure, wet packs, failure to meet sterilization parameters)
- B. Procedure for follow-up after process failure (e.g., recall, documentation, contact)

IX. DOCUMENTATION OF STERILIZATION LOAD CONTENTS

- A. Required information for a load control (lot) (e.g., date of sterilization/date of expiration number)
- B. Item tracking and recording method (e.g., computer, manual)
- C. Rationale for documentation (e.g., recall, traceability, record retention)

SECTION 5: **STERILE STORAGE, TRANSPORT AND INVENTORY MANAGEMENT** **(PERCENTAGE WEIGHT 9%)**

I. AREA SPECIFIC SAFETY CONSIDERATIONS

- A. Area specific safety considerations (e.g., work flow, ergonomics, fire hazards, environmental awareness, sterile storage standards)

II. SUPPLY CHAIN MANAGEMENT

- A. Inventory replenishment and distribution systems (e.g., periodic automated replenishment [PAR], exchange cart system, requisition system)
- B. Ordering processes (e.g., computerized vs. manual, unit of measure - each, box, case)
- C. Product identification (e.g., catalog numbers, item numbers, descriptions, symbols)
- D. Inventory deficiencies (e.g., outages, substitutes, communication)
- E. Break-out area protocol (e.g., corrugated cardboards, external shipping containers, order reconciliation)
- F. Package inspection (e.g., integrity, expiration, manufacturing dates)

III. INVENTORY STOCK ROTATION

- A. Item locator system (e.g., shelf/cart location, sterile supplies, unique device identifier)
- B. Shelf life policy (e.g., expiration, event-related)
- C. Process for rotating inventory (e.g., First In First Out [FIFO])
- D. Storage requirements (e.g., height, weight, distance from wall/floor, shelving)

IV. STERILE AND NON-STERILE ITEM DISTRIBUTION

- A. Distribution systems (e.g., just in time, exchange cart, case cart)
- B. Item handling (e.g., maintain sterility, hand carry, cart transport)
- C. Transport guidelines (e.g., closed carts, bins, dust covers, off-site transport)

V. INVENTORY CONTROL

- A. Specialty carts (e.g., code carts, emergency carts, c-section)
- B. Critical items (e.g., special order, non-stock items, doctor specials, patient specific items)
- C. Vendor-owned items (e.g., loaned, consignment, implants)
- D. Organization and tracking of inventory (e.g., manual, Radio Frequency Identification [RFID], computerized)
- E. Manufacturer product recalls
- F. Causes of waste and loss (e.g., damaged, expired, and obsolete items)

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SECTION 6: **PATIENT CARE EQUIPMENT AND DISTRIBUTION** (PERCENTAGE WEIGHT 5%)

I. **AREA SPECIFIC SAFETY CONSIDERATIONS**

A. Area specific safety considerations (e.g., OSHA/Blood Borne Pathogens, Personal Protective Equipment [PPE], electrical safety)

II. **WORK AREA PREPARATION**

A. Supplies needed (e.g., operator manual, Sequential Compression Device [SCD] sleeves, pads, equipment covers, clean labels/stickers)
B. Work area requirements (e.g., cleaning requirements, charging stations, plugs, one way flow)

III. **EQUIPMENT TRACKING AND DOCUMENTATION**

A. Systems used (e.g., manual, computer, Radio Frequency Identification [RFID], hybrid)
B. Processes for tracking equipment (e.g., rental, loaned, receipt and distribution)

IV. **CARE AND HANDLING**

A. Patient care equipment (e.g., removal of consumables, cleaning, identification, preventative maintenance [PM] tag)
B. Equipment inspection (e.g., cleanliness, frayed cords, damage)
C. Corrective action plan for equipment out of compliance (e.g., missing/expired preventative maintenance [PM] label, Biomedical Engineering)

V. **EQUIPMENT DISTRIBUTION**

A. Equipment assembly for distribution (e.g., disposable components, specialty carts, Manufacturer's Instructions for Use [IFU])
B. Equipment testing (e.g., per Manufacturer's Instructions for Use [IFU])
C. Location and storage of equipment (e.g., dry, clean, secure, equipment charging, battery replacement)
D. Transport guidelines to end user departments (e.g., OR, ED, Labor and Delivery)

SECTION 7: **PROFESSIONAL DEVELOPMENT AND HUMAN RELATION SKILLS** (PERCENTAGE WEIGHT 8%)

I. **COMMUNICATION**

A. Professional communication (e.g., telephone and technology etiquette, formal and informal communication, service recovery skills, Diversity, Equity and Inclusion [DEI])
B. Decision-making skills (e.g., prioritizing, critical thinking, anticipating customer needs) communication, service recovery skills, Diversity, Equity and Inclusion [DEI], Health Insurance Portability and Accountability Act [HIPAA])
C. Medical terminology (e.g., anatomy and physiology, surgical terminology, instrumentation)

II. **TEAM AND WORK GROUPS**

A. Types of work groups (e.g., quality, task, cross-functional) communication, service recovery skills, Diversity, Equity and Inclusion [DEI])
B. Team decision making and accountability (e.g., identify roles and responsibilities, task prioritization)

III. **PERSONAL AND PROFESSIONAL DEVELOPMENT**

A. Career development opportunities (e.g., interview process, resume building, in-service training)
B. Continuing education initiatives (e.g., certification, conferences, skill building, keeping current with industry practices/changes)