STERILE PROCESSING BASIC TRAINING: SPD BOOT CAMP®

Module #12 Part A:
Final Independent Research Project/Self-Study Instruction Set

by

The Central Sterile Processing Initiative

Sterile Processing Basic Training: SPD Boot Camp

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Note: This e-Book is optimized for viewing on a computer screen, but it is organized such that one can print it out and assemble it as a print textbook. Since the text is optimized for screen viewing, the text is larger than that found in usual print books.

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Message From The Central Sterile Processing Initiative Director

Thank you for purchasing this e-course, an introductory and review survey of the basics of sterile processing, *Sterile Processing Basic Training: SPD Boot Camp.* Thank you, enjoy the program, and I am always just an e-mail away if you have questions or need my assistance during the course of your studies. Sincerely, Our Sterile Processing Team	www.centralsterileprocessing.net

Preface

This e-course is neither the traditional textbook nor the typical student workbook. It is, rather, a combination of the best and most relevant of information related to the basics of sterile processing education and training presented much like a series of lecture notes with multimedia elements included for a more complete and well rounded educational experience for both sterile processing "newbies" and seasoned veterans simply seeking a comprehensive review alike.

The content is structured as a classroom lecture/text with all relevant points discussed and references provided for further information and investigation.

In this text one will be presented with material contained within the industry standard texts, current field relevant articles, and as well have workspace much like contained within the likewise standard workbooks. Herein, however, the student will find no superfluous material to bog one down unnecessarily. Covered within is only that which one needs to know as a sterile processing tech at the level 1 stage—the ESSENTIALS of sterile processing, that which every tech need know—the prerequisites of the field. References will be cited throughout the course, however, to point students in the right direction should they choose (and we are trusting that they will!) to pursue additional knowledge, training, and advancement in the field of sterile processing.

The course consists of multiple individual modules (at least 15 at the time of this printing). Please read through each module from beginning to end at least once before attempting to complete the assignments and then work your way back through the text completing the required coursework specified in the assignment directions at the end of the module (see contents).

Module 12: Self-Study Module, Instructions (Part A)

Instructions

Module 12 will consist of two components: *Part A*, a preliminary, independent research project and self-study module, *Part B*. Part B will be e-mailed out to those who complete Part B, upon successfully scoring 80% overall or better.

The rationale for this module is two-fold: 1) The bulk of the material on your final exam, as well as any professional certification exam, will be centered upon and around sterilization methodologies and technology—this is, after all, the core of the sterile processing profession. As such, a preliminary self-study module will allow for the student to, on his or her own, become familiar with this vast and most important (and yet, perhaps, more difficult than previously covered topics) technical subject area in a more intimate manner. 2) This module component (Part A) will provide for a depth of knowledge (due to the research required) that a simple educational module and regurgitation of material cannot provide.

This module Part A will require both research and formal writing. Take your time.

The student will be graded on quality and accuracy of information provided—not quantity. There will be only one opportunity to retry the module Part A in the event of a score below 80%.

Specific Instructions for Part A, Module 12

** Essay Questions (Answer each question fully, in your own words, in essay form, **minimum** of 1 full paragraph)...*

1) Define *sterilization*.

2) Look up SAL *(sterility assurance level)* on the Web or in another resource. Define it (essay) and tell how it relates to the field of sterile processing. Does the SAL provide a 100% guarantee of

sterility? Can a 100% guarantee of sterility *ever* be provided?

3) Two ways in which particular sterilization procedures nullify, or render inert, pathogenic bacteria are: *alkylation* and *denaturation*. Research, define, provide examples of bacteria and commensurate sterilization technology.

4) Bacteriological spore encapsulation poses a challenges to sterilization. How is this? Why is this? And how can the sterilization professional overcome this challenge to sterilization in the field? (Hint: one primary sterilization methodology is the key.)

5) Some SPD instructors and nurses refer to POU (or *point of use sterilization*). What is this? And can there *ever* truly be such a thing as "point of use" sterility?

**Sterilization Methodologies...*
There are three primary sterilization methodologies utilized in the modern healthcare setting. Via a web search, find, list, and describe as many of these as you can. Note where they are used, why they are used, and for what item types they are used. Also, take care to note any special considerations, e.g., environmental or personal health issues related to the specific methodology.

**Research Paper: Choose one of the following topics and, via either web or traditional research method, prepare an informative 2-3 page paper on topic. Must utilize (and cite) a minimum of 3 independent, quality sources and provide bibliography and/or web links. Plagiarism will not be tolerated and will result in IMMEDIATE dismissal from the course with no option of refund.*

Special considerations: historical background, safety and environmental concerns, costs of operation, usage, training requirements, types of instruments/equipment accommodated, etc.

Topic 1: *Modern Alternatives to Ethylene Oxide (EtO or EO) Sterilization*

Topic 2: *Current Trends in High Temp Steam Sterilization*

Topic 3: *Hydrogen Peroxide Plasma Sterilization (E.g. Sterad)*

Topic 4: *The Steris System One and the FDA: What Went Wrong?*

Topic 5: *Class 6 Emulators vs Class 5 Integrators*

Topic 6: *The Future of Healthcare Sterilization Technology (new technologies, etc.)*

Topic 7: *Biological Indicators in Sterilization Validation*

**Pose a question (related to either sterilization or microbiological concerns) not previously discussed in the course at any depth and answer. 1) Question must be relevant to course; 2) Answer must be something that the student research to obtain; 3) Must be a quality question/answer (will be reviewed by instructor for acceptance). A minimum of 2-3 paragraphs.*

Example question...
What happens to the cell wall of a prokaryotic cell during high-temp steam sterilization compared with the cell membrane of a eukaryotic cell during the same process?

END MODULE 12, PART A. GOOD LUCK!!!!

END MODULE 12
PART A