Western Technical College

10512125 Intro to Surgical Technology

Course Outcome Summary

Course Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Provides the foundational knowledge of the occupational environment. Principles of sterilization and disinfection are learned. Surgical instruments are introduced. Preoperative patient care concepts are simulated. Lab practice is included.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Cluster</td>
<td>Health Science</td>
</tr>
<tr>
<td>Instructional Level</td>
<td>Associate Degree Courses</td>
</tr>
<tr>
<td>Total Credits</td>
<td>4</td>
</tr>
<tr>
<td>Total Hours</td>
<td>108</td>
</tr>
</tbody>
</table>

Textbooks


512-120 & 512-125 Intro to Surgical Technology Lab and Instrumentation Booklet. Western. Publisher: Western. Required.

Success Abilities

1. Cultivate Passion: Enhance Personal Connections
2. Cultivate Passion: Expand a Growth-Mindset
3. Cultivate Passion: Increase Self-Awareness
4. Live Responsibly: Develop Resilience
5. Live Responsibly: Embrace Sustainability
6. Live Responsibly: Foster Accountability
7. Refine Professionalism: Act Ethically
8. Refine Professionalism: Improve Critical Thinking
9. Refine Professionalism: Participate Collaboratively
10. Refine Professionalism: Practice Effective Communication

Program Outcomes
1. Apply healthcare and technological science principles to the perioperative environment
2. Maintain principles of sterile technique in the surgical environment
3. Provide a safe, efficient, and supportive environment for the patient
4. Prepare the patient, operating room, and surgical team for the preoperative phase
5. Perform postoperative case management
6. Function as an ethical, legal, and professional member of the healthcare team as determined by governing bodies

Course Competencies

1. **Explore the surgical technologist scope of practice.**

   **Assessment Strategies**
   1. in an oral, written, demonstrative, and/or graphic response
   1.2. by answering questions that require you to apply knowledge about this competency (Your instructor may require several written exams as part of this course. You will be notified in advance.)

   **Criteria**
   You will know you are successful when
   1.1. you provide a description of the profession.
   1.2. you provide components of a job description.
   1.3. you identify differing levels of Surgical Technologist training.
   1.4. you explore the responsibilities of the Surgical Technologist in the non-sterile role.
   1.5. you explore the responsibilities of the Surgical Technologist in the sterile role.
   1.6. you describe the relationship between a Surgical Technologist and other members of the healthcare team.
   1.7. you explore related career opportunities.

   **Learning Objectives**
   1.a. Identify the proper chain of command in the perioperative area.
   1.b. Compare hospital departments that relate to direct and indirect patient care in the surgical suite.

2. **Examine hospital organization and management.**

   **Assessment Strategies**
   2.1. in an oral, written, demonstrative, and/or graphic response
   2.2. by answering questions that require you to apply knowledge about this competency (Your instructor may require several written exams as part of this course. You will be notified in advance.)
   2.3. project/illustration or drawing

   **Criteria**
   You will know you are successful when
   2.1. you include an organizational chain of command.
2.2. you include surgical department chain of command.
2.3. you include the departments in the hospital.
2.4. you include the function and purpose of each department.
2.5. you include the relationship of each department to the others.
2.6. you include means for interdepartmental communication.
2.7. you include hospital departments that provide direct patient care.
2.8. you include hospital departments that provide indirect patient care.
2.9. you discuss various healthcare agencies.
2.10. you compare types of health insurance.
2.11. you indicate the function of prospective payment systems.

Learning Objectives
2.a. Identify the proper chain of command in the perioperative area.
2.b. Compare hospital departments that relate to direct and indirect patient care in the surgical suite.
2.c. Compare various roles in the surgical technology profession.
2.d. Demonstrate responsible and accountable behavior within the role of the surgical technologist.
2.e. Compare roles of team members in the operating room.

3. Outline the physical environment of the surgical suite within the healthcare facility.

Assessment Strategies
3.1. in an oral, written, demonstrative, and/or graphic response
3.2. by answering questions that require you to apply knowledge about this competency (Your instructor may require several written exams as part of this course. You will be notified in advance.)

Criteria
You will know you are successful when
3.1. you describe the rationale for the design of the department.
3.2. you note traffic patterns.
3.3. you include principles of surgical attire.
3.4. you include the equipment and furniture in the operating room (i.e. mayo stand, back table).
3.5. you note location of supplies and waste receptacles in the operating room.
3.6. you include piped in systems and electrical outlets in the operating room.
3.7. you include lights and air ventilation systems in the operating room.

Learning Objectives
3.a. Employ principles involved in donning surgical attire.
3.b. Recognize appropriate surgical attire and PPE.
3.c. Analyze the rationale for the design of the perioperative area.
3.d. Illustrate the function of the physical components of the operative suite.
3.e. Identify the use, handling, and assembly of various supplies and furniture in the operative environment.

4. Incorporate methods of infection control in the surgical environment.

Assessment Strategies
4.1. in an oral, written, demonstrative, and/or graphic response
4.2. by answering questions that require you to apply knowledge about this competency (Your instructor may require several written exams as part of this course. You will be notified in advance.)

Criteria
You will know you are successful when
4.1. you describe types of nosocomial infections.
4.2. you apply standard precautions.
4.3. you evaluate potential causes and methods of transmitting infection (e.g., contact, airborne, common vehicle, vector-borne).
4.4. you confine, contain, or reduce/eliminate the hazard.
4.5. you prevent cross-contamination.
4.6. you perform the medical handwash.

Learning Objectives
4.a. Demonstrate decontamination of the operating room environment and equipment.
4.b. Define terms related to asepsis and sterile technique.
4.c. Identify sources of contamination.
4.d. Demonstrate principles of standard precautions.

5. **Apply principles of disinfection.**

*Assessment Strategies*

5.1. in an oral, written, demonstrative, and/or graphic response
5.2. by answering questions that require you to apply knowledge about this competency [Your instructor may require several written exams as a part of this course. You will be notified in advance.]

*Criteria*

*You will know you are successful when*

5.1. you explain the purpose of disinfection.
5.2. you choose a disinfection method.
5.3. you explain why the disinfection method was appropriate.
5.4. you select the correct equipment, agent, and supplies.
5.5. you don personal protective equipment.
5.6. you identify safety procedures.
5.7. you provide an explanation of the process.

*Learning Objectives*

5.a. Classify the factors and variables of disinfection agents.
5.b. Classify the types of disinfectant agents.
5.c. Identify goals and methods of decontamination.
5.d. Identify concepts and categories of disinfection agents.

6. **Apply principles of sterilization.**

*Assessment Strategies*

6.1. in an oral, written, demonstrative, and/or graphic response
6.2. by answering questions that require you to apply knowledge about this competency [Your instructor may require several written exams as a part of this course. You will be notified in advance.]

*Criteria*

*You will know you are successful when*

6.1. you explain the purpose of sterilization.
6.2. you choose a sterilization method.
6.3. you explain why the sterilization method is appropriate.
6.4. you select the correct sterilization equipment and supplies.
6.5. you explain the sterilization parameters.
6.6. you describe various process monitors.
6.7. you identify safety procedures.
6.8. you provide an explanation of the process.
6.9. you describe sterile storage conditions and distribution of sterile items.

*Learning Objectives*

6.a. Define terms related to sterilization and disinfection.
6.b. Identify the methods of processing items during terminal sterilization/disinfection and sterilization.
6.c. Identify the concepts, variables, and materials for microbial barriers and packaging.
6.d. List the methods for preparing items for sterilization.
6.e. Compare methods of sterilization.
6.f. Identify process monitoring devices and methods.
6.g. Demonstrate handling and storage and distribution of sterile supplies.

7. **Measure vital signs.**

*Assessment Strategies*

7.1. in an oral, written, demonstrative, and/or graphic response

*Criteria*

*You will know you are successful when*

7.1. you perform temperature, pulse, respirations, and blood pressure.
7.2. you record vital signs.
7.3. you state the normal range of temperature, pulse, respirations, and blood pressure for the adult.
7.4. you note variants in range in children and geriatric patients.

Learning Objectives
7.a. State common pathological states that alter vital signs.
7.b. Select the homeostatic parameters monitored in the operating room setting.
7.c. Demonstrate basic monitoring of patient homeostatic parameters.
7.d. Compare the varying intravascular catheters utilized within the operating room.

8. **Evaluate common sources of documentation utilized in the operating room.**

Assessment Strategies
8.1. in an oral, written, demonstrative, and/or graphic response
8.2. by answering questions that require you to apply knowledge about this competency (Your instructor may require several written exams as part of this course. You will be notified in advance.)

Criteria
You will know you are successful when
8.1. you include a list of the required documentation.
8.2. you include the purpose and normal values of lab work.
8.3. you include the purpose of other diagnostic tests and interventions.
8.4. you include the purpose of the history and physical.
8.5. you include the purpose, types, contents, and legal guidelines of the surgical consent.
8.6. you include the purpose of incident reports.
8.7. you include the legal elements of proper documentation.

Learning Objectives
8.a. Assess the common sources of documentation utilized in the operating room.
8.b. Analyze the importance and impact of proper documentation.
8.c. Analyze the recommended practices and legal elements of proper documentation.
8.d. Identify the contents and procedure for obtaining an informed surgical consent.

9. **Summarize preoperative preparation of the surgical patient.**

Assessment Strategies
9.1. in an oral, written, demonstrative, and/or graphic response
9.2. by answering questions that require you to apply knowledge about this competency (Your instructor may require several written exams as part of this course. You will be notified in advance.)

Criteria
You will know you are successful when
9.1. you chose the correct modes of patient transfer and transportation.
9.2. you review patient chart.
9.3. you identify items on the preoperative checklist.
9.4. you follow the procedure for informed consent and site verification.
9.5. you review patient lab and diagnostic routine.
9.6. you introduce yourself to the patient.
9.7. you compare patient ID band/patient chart with surgery schedule.
9.8. you request patient to verbally state name and pertinent information.
9.9. you report discrepancies.

Learning Objectives
9.a. Explain the physical preparation and care that the surgical patient may receive prior to the surgical procedure.
9.b. Demonstrate the physical preparation and care that the surgical patient may receive prior to the surgical procedure.
9.c. Examine the items on the pre-operative patient checklist.
9.d. Identify the purposes of proper patient identification.
9.e. Demonstrate the identification process for a surgical patient admitted to the perioperative area.
9.f. Review patients chart for completeness of diagnostic tests and interventions as they relate to the perioperative patients diagnosis.
10. **Demonstrate principles of safe patient transport/transfer.**

Assessment Strategies

10.1. in an oral, written, demonstrative, and/or graphic response

Criteria

*You will know you are successful when*

10.1. you discuss various methods of patient transportation.
10.2. you discuss the various methods of patient transfer and devices utilized.
10.3. you demonstrate self-transfer.
10.4. you demonstrate assisted two-person transfer.
10.5. you demonstrate assisted four-person transfer.
10.6. you apply body mechanics.
10.7. you maintain patient safety.
10.8. you protect patient dignity.

Learning Objectives

10.a. Demonstrate the varying methods of safe patient transfer/transport and the related equipment needed.
10.b. Demonstrate the principles of body mechanics when transferring/transporting surgical patients within the perioperative area.
10.c. Access special considerations related to family members during the transfer and transportation of the patient within the perioperative area.

11. **Assist the surgical team members with basic patient positioning.**

Assessment Strategies

11.1. in an oral, written, demonstrative, and/or graphic response
11.2. by answering questions that require you to apply knowledge about this competency (Your instructor may require several written exams as part of this course. You will be notified in advance.)

Criteria

*You will know you are successful when*

11.1. you discuss factors that affect positioning.
11.2. you demonstrate supine positioning and modifications.
11.3. you demonstrate lateral positioning and modifications.
11.4. you demonstrate prone positioning and modifications.
11.5. you apply positioning and protective devices.
11.6. you apply body mechanics.
11.7. you protect patient dignity.
11.8. you maintain patient safety.

Learning Objectives

11.a. Classify the basic positioning of surgical patients.
11.b. Explore the use, components and aides utilized to achieve various surgical positions within the perioperative area.
11.c. Classify the components and functions of the varying OR tables within the perioperative area.

12. **Classify basic surgical instrumentation.**

Assessment Strategies

12.1. by classifying basic surgical instruments by category by using pictures, instruments, and/or descriptions
12.2. by answering questions that require you to apply knowledge about this competency [Your instructor may require several written exams as a part of this course. You will be notified in advance.]

Criteria

*You will know you are successful when*

12.1. you identify instrumentation by classification.
12.2. you identify the parts of various instruments.
12.3. you differentiate between various materials used to make instruments.
12.4. you differentiate between the various types of instrument finishes.

Learning Objectives
12.a. Identify the classifications of basic surgical instrumentation.
12.b. Explore the relationship between instrument type and usage.
12.c. Identify the parts, materials, finishes of basic surgical instrumentation.
12.d. Identify the uses of basic surgical instrumentation.

13. **Perform basic instrument identification.**

**Assessment Strategies**
13.1. by identifying basic surgical instruments using pictures, instruments, and/or descriptions
13.2. by answering questions that require you to apply knowledge about this competency [Your instructor may require several written exams as a part of this course. You will be notified in advance.]

**Criteria**

*You will know you are successful when*
13.1. you identify the instruments by name.
13.2. you identify the instrument classification.
13.3. you identify the instrument function.
13.4. you handle instruments correctly.
13.5. you assemble selected instruments for use.

**Learning Objectives**
13.a. Apply knowledge of basic surgical instrumentation to specific surgical procedures.
13.b. Demonstrate proper handling of instruments.
13.c. Identify instruments by name, type, use and function.
13.d. Demonstrate assembly of basic surgical instruments for use.

14. **Adhere to the principles of sterile technique.**

**Assessment Strategies**
14.1. by applying the principles and skills in a role-play
14.2. in an oral, written, demonstrative or graphic response
14.3. by answering questions that require you to apply knowledge about this competency (Your instructor may require several written exams as part of this course. You will be notified in advance.)

**Criteria**

*You will know you are successful when*
14.1. you open up sterile packages.
14.2. you differentiate between contaminated and clean/sterile areas.
14.3. you maintain the sterile field.
14.4. you identify a break in the sterile field.
14.5. you initiate corrective action for breaks in sterile technique.
14.6. you utilize concepts of aseptic technique.

**Learning Objectives**
14.a. Apply principles of asepsis terms to the perioperative setting.
14.b. Identify sources of contamination within the intraoperative environment.
14.c. Demonstrate principles of sterile technique within the perioperative setting.

15. **Open sterile supplies.**

**Assessment Strategies**
15.1. by applying the principles and skills in a role-play
15.2. in an oral, written, demonstrative or graphic response
15.3. by answering questions that require you to apply knowledge about this competency [Your instructor may require several written exams as a part of this course. You will be notified in advance.]

**Criteria**

*You will know you are successful when*
15.1. you inspect the package for contents, sterility, and signs of integrity.
15.2. you demonstrate an understanding of surgical conscience.
15.3. you open back table cover/pack on the back table to create the sterile field.
15.4. you match items with the surgeon’s preference card.
15.5. you open instrument set[s], gown, gloves, and basins on appropriate surfaces.
15.6. you deliver the contents of other needed supplies/packages to the appropriate area of the sterile field.
15.7. you maintain sterility of supplies/packages.

Learning Objectives
15.a. Demonstrate aseptic technique when opening sterile supplies within the perioperative setting.
15.b. Demonstrate the opening of containerized pans.
15.c. Assemble equipment and supplies specific to each surgical procedure.
15.d. Demonstrate the cleaning process for OR furniture in preparation for surgical procedures.

16. Analyze inventory control and distribution methods.

Assessment Strategies
16.1. Written Objective Test
16.2. Demonstration

Criteria

You will know you are successful when
16.1. you explain the purpose of supply inventory.
16.2. you select correct modes of transportation.
16.3. you identify various storage types.