

Course Code: SUR 273

Course Title: Clinical Theory II

Department: Allied Health

Effective Date: Summer 2026

PCS Code: 1.2 - Occupational/Technical Instruction

CIP Code: 51.9998

Repeatability: 0

Credit Hours

Catalog Notation: 2-0-2

Credit Hour Distribution:

Lecture: 2

Lab: 0

Clinical: 0

Total: 2

General Course Information

Catalog Description

Advanced clinical practices; employability skills, interventional radiology, robotics, surgical navigation, management and leadership; capstone project and national certification exam preparation.

General Course Objectives

1. Explain the principles of minimally invasive surgery and apply knowledge to the surgical environment.
2. Describe the use of robotics in surgical procedures.
3. Demonstrate the oral and written communication skills necessary to apply for and secure employment as a surgical technologist.
4. Evaluate employability qualities and develop a strategy to exhibit those characteristics.
5. Identify and describe the use of interventional radiology in surgical intervention and explain procedures performed in this area.
6. Describe the application of navigation in surgical procedures.
7. Integrate knowledge and critical thinking skills from general education courses and surgical technology practice in the development of the capstone project.
8. Utilize effective written communication skills and technology in preparation of the manuscript and presentation.
9. Identify and describe leadership and management roles and responsibilities in advanced surgical technology practice.

Minimum Placement Levels

English	Reading	Math
Credit in ENG 102 with a grade of C or higher	Placement out of CCS 099	Placement out of MAT 060

Prerequisites

Credit in SUR 210, SUR 231, and SUR 232

Concurrent enrollment in SUR 254 and SUR 274

Admission into the Surgical Technology program

Methods of Evaluation

Development of a resume, mock interview, 1-2 exams, group project, 8-10 worksheet assignments, and a capstone project and oral report.

Instructional Materials and Additional Supplies

Surgical Technology Principles and Practice, Fuller, Elsevier, current edition

Pharmacology for the Surgical Technologist, Howe and Burton, Elsevier, current edition

Alexander's Surgical Procedures, Rothrock and Alexander, Elsevier, current edition

Surgical Technology Exam Review, Pearson, current edition

Pearson Test Prep Access Card, Pearson

Course Content

General Learning Outcomes (GLOs)

- Communication: Students will demonstrate the ability to read, write, listen, and speak effectively.
- Creativity and Innovative Thinking: Students will design, present, and interpret materials, information, and ideas in innovative ways.
- Critical Thinking and Information Literacy: Students will demonstrate the ability to evaluate perspectives, evidence, and implications, and to locate, assess, and use information effectively.
- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Capstone Project	1. Apply information and concepts from different aspects of surgical technology and information literacy. 2. Utilize effective communication skills in preparation of the manuscript. 3. Demonstrate the skills necessary to plan and execute the completion of the capstone project in the field of surgical technology while maintaining high ethical principles. 4. Integrate knowledge and critical thinking skills related to general education, anatomy and physiology, microbiology, and surgical technology practice. 5. Exhibit the organizational and time management skills necessary in the design and development of the capstone project. 6. Demonstrate oral communication skills in the presentation of the capstone project. 7. Define research critique. 8. Discuss the purpose of research critique. 9. Organize research information logically. 10. Use external text and web sources effectively and without plagiarism. 11. Critically evaluate sources of information. 12. Cite research materials correctly. 13. Use appropriate English syntax, grammar, and vocabulary in the capstone project. 14. Prepare and use visual aids that promote clarity of research within the capstone project. 15. Use presentation software to effectively develop visual aids that enhance and support a verbal presentation. 16. Use computer technology to assess, retrieve, process, and communicate information. 17. Demonstrate basic computer functions, including word processing, graphic importation, and saving computer information.	6	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Robotics	1. Describe the principles of robotic surgery. 2. Discuss the concept of Cartesian geometry as it applies to robotic design. 3. Define and describe robotic classifications and movements. 4. List the three main components of robotic surgery and describe their function. 5. Describe the roles of surgical team members during robotic assisted surgery. 6. Define terminology related to robotic assisted surgery. 7. Describe the surgical applications of robotic assisted surgery. 8. Describe the movements of the robotic system manipulators. 9. Explain the principles of robotic assisted surgery as it applies to patient safety. 10. Compare and contrast the advantages and disadvantages of robotic assisted surgery. 11. Describe the room setup for robotic assisted surgery. 12. Explain the sequence of preparing the robot components for a surgical procedure. 13. Discuss the risks of robotic surgery.	4	0	0
Surgical Navigation	1. Discuss the types of navigation systems. 2. Discuss the components of each type of navigation system. 3. Discuss the applications of each type of navigation system. 4. Discuss the advantages of surgical navigation systems. 5. Discuss the risks associated with the use of surgical navigation.	2	0	0
Interventional Radiology	1. Describe the design of an interventional radiology room. 2. Identify the medications utilized in interventional radiology and their uses. 3. Describe the procedures performed in interventional radiology. 4. Identify the equipment utilized in the interventional radiology suite. 5. Discuss the safety precautions necessary when working in interventional radiology. 6. Define terminology related to interventional radiology. 7. Describe the surgical instruments and supplies needed to perform an interventional radiology procedure. 8. Explain the position and surgical skin preparation of the patient for interventional radiology procedures. 9. Explain postoperative considerations for patients following an interventional radiology procedure. 10. Explain the reasoning for strict aseptic technique in interventional radiology. 11. Describe the purpose of interventional radiology. 12. Describe imaging systems used in interventional radiology. 13. Evaluate the role of the surgical technologist in interventional radiology.	4	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Employability Skills	1. Develop a professional resume. 2. Describe techniques and components of a successful employment interview. 3. Practice the interview process. 4. Discuss behaviors that could lead to dismissal from a job. 5. Define successful work practices. 6. Develop a plan to secure employment in the operating room. 7. Discuss various types of employment and application correspondence. 8. Evaluate personal employability qualities and develop an employment strategy that includes positive characteristics. 9. Assess current trends and employment opportunities for the surgical technologist.	4	0	0
Management and Leadership	1. Identify and exemplify the characteristics of a successful leader. 2. Discuss the roles and functions of leadership. 3. Differentiate between diverse styles of management theory. 4. Explore pathways to advance in management roles.	2	0	0
Certification Exam Preparation/Review	1. Review the Core Curriculum content in preparation for the national certification exam for surgical technologists.	8	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	0	0