UTAH SYSTEM OF HIGHER EDUCATION

Utah System of Higher Education
Surgical Technology
FY2025 / 18 Credits (660 Clock-Hours)

Foundational Courses

TESU 1040 Principles and Practices of Surgical Technology — 3 Credits / 90 Clock-Hours

The Principles and Practices of Surgical Technology course will introduce students to wound management, and healing. They will be familiar with perioperative care and the principles of asepsis, and attain stills for patient positioning, prepping, and draping.

Objectives:
- Explain hemostasis, wound healing, and tissue closure.
- Outline perioperative case management.
- Demonstrate the principles of asepsis.
- Analyze patient prepping and positioning.
- Differentiate stapling and closure devices.

TESU 1051 Surgical Procedures I — 2 Credits / 60 Clock-Hours

The Surgical Procedures I course will review surgical specialties and differentiate anatomy, physiology, and instrumentation pertaining to the specialty. They will demonstrate several procedures set ups throughout the specialties.

Objectives:
- Discuss select instrumentation, equipment, supplies, and drugs used for the relevant specialties.
- Analyze relevant body systems and related pathophysiology leading to surgeries.
- Review relevant medical terminology.
- Demonstrate surgical case set ups.
- Assess perioperative care and complications.

TESU 1061 Surgical Procedures II — 2 Credits / 60 Clock-Hours

The Surgical Procedures II course will review surgical specialties and differentiate anatomy, physiology, and instrumentation pertaining to the specialty. They will demonstrate several procedures set ups throughout the specialties.

Objectives:
- Discuss select instrumentation, equipment, supplies, and drugs used for the relevant specialties.
- Analyze relevant body systems and related pathophysiology leading to surgeries.
- Review relevant medical terminology.
- Demonstrate surgical case set ups.
- Assess perioperative care and complications.

TESU 1070 Surgical Procedures III **3 Credits / 90 Clock-Hours**

The Surgical Procedures III course will review surgical specialties and differentiate anatomy, physiology, and instrumentation pertaining to the specialty. They will demonstrate several procedures set ups throughout the specialties.

Objectives:
• Discuss select instrumentation, equipment, supplies, and drugs used for the relevant specialties.
• Analyze relevant body systems and related pathophysiology leading to surgeries.
• Review relevant medical terminology.
• Demonstrate surgical case set ups.
• Assess perioperative care and complications.

TESU 2900 Surgical Technology Clinical Externship I **4 Credits / 180 Clock-Hours**

The Surgical Technology Clinical Externship I course will extend the educational experience in the surgical field under the supervision of experienced medical professionals in a clinical setting.

Objectives:
• Practice decontamination standards and procedures for both sterile and non-sterile instrumentation and equipment.
• Demonstrate spatial relations within a surgical field.
• Implement infection control procedures, hazard communication, and health and safety procedures.
• Demonstrate skills for scrubbing, gowning, gloving, and draping.
• Integrate employability skills.
• Assist with patient care.
• Facilitate case preparation.

TESU 2910 Surgical Technology Clinical Externship II **4 Credits / 180 Clock-Hours**

The Surgical Technology Clinical Externship II course will extend the educational experience in the surgical field under the supervision of experienced medical professionals in a clinical setting.

Objectives:
• Practice decontamination standards and procedures for both sterile and non-sterile instrumentation and equipment.
• Demonstrate spatial relations within a surgical field.
• Implement infection control procedures, hazard communication, and health and safety procedures.
• Demonstrate skills for scrubbing, gowning, gloving, and draping.
• Integrate employability skills.
• Assist with patient care.
• Facilitate case preparation.

Supplemental Courses Varies by Institution

Davis

TESU 1000 Medical Terminology for Surgical Technology **1 Credit / 30 Clock-Hours**

This course provides the student with the necessary skills to interpret and define medical terminology, to be successful in the pursuit of health occupation careers. This is accomplished by utilizing a method of study that not only instructs the students in building medical terms but also gives the student immediate application in using the medical term.

Objectives:
• Recognize common abbreviations used in each body system and specialty area.
• Build, analyze, and define medical terms using word parts.
• Describe:
• The origin of medical terms.
• Organizational components of the body, directional terms, anatomic planes, regions, and quadrants.
• Identify:
• The major body system structures and their related word parts.
• Plural endings for medical terms.
• Define:
• Medical terms related to diseases and disorders.
• Diagnostic terms for each body system.
• Surgical terms related to each body system.
• Medical terms commonly used in obstetrics and neonatology.
• Medical terms used in oncology.
• The four-word parts and the combining vowel.

TESU 1005 Anatomy and Physiology I **2 Credits / 60 Clock-Hours**

Anatomy and Physiology I will introduce the basic structure and function of the human body. During this course, students will examine cells, tissues, organs, the integumentary, and skeletal systems. Students also will be introduced to the pathophysiological changes that can disrupt normal homeostasis. These concepts are crucial to the understanding of the necessity and processes of medical and surgical intervention and the effect this intervention has on the body.

Objectives:
• Identify the basic organizational structures of the human body, including body planes, general organization, and terms of reference.
• Analyze the basic structure of cells and relate cellular components to integrated cell function.
• Explain the types of tissue that make up organs and the characteristics of each.
• Analyze the relationship between cell pathology and disease.
• Contrast and compare different organs of the body.
• Recognize the contributions of organs and systems to the maintenance of homeostasis.
• Identify the anatomy and physiology of the human skeletal system.

TESU 1006 Anatomy and Physiology II **3 Credits / 90 Clock-Hours**

Anatomy and Physiology II will continue to introduce the basic structure and function of the human body. During this course, you will examine blood, the muscular system, the nervous system, the endocrine system, the cardiovascular system, the lymphatic circulatory system, nutrition and the digestive system, the respiratory system, the urinary system, and the reproductive system. You also will be introduced to the pathophysiological changes that can disrupt normal homeostasis. These concepts are crucial to the understanding of the necessity and processes of medical and surgical intervention and the effect this intervention has on the body.

Objectives:
• Identify and describe the locations of the major organs of each system by using anatomical terminology.
• Analyze the different body systems for composition and function.
• Describe the structure and functions of blood and blood vessels, the heart, the digestive, muscular and nervous systems.
• Explain the workings of the male and female reproductive systems.
• Identify pathophysiology for muscular, nervous, endocrine, cardiovascular, lymphatic, digestive, respiratory, urinary, and reproductive body systems that may require medical or surgical intervention.
• Recognize the process of how homeostasis is maintained in human body systems.

TESU 1010 Introduction to Surgical Technology **3 Credits / 90 Clock-Hours**

The Introduction to Surgical Technology course will introduce students to the surgical technology profession and will develop the fundamental concepts and principles necessary to successfully participate as a member of the surgical team.

Objectives:
• Analyze relevant medical terminology.
• Describe the development of the Surgical Technology profession.
• Analyze operating room environment and identify commonly used equipment and instrumentation.
• Evaluate Preoperative, Intraoperative, and Postoperative case preparation.
• Assess surgical consents and patient identification.
• Explain healthcare organization and describe team member roles and communication.
• Discuss medical law and ethics, surgical conscience, and surgical documentation.
• Identify and demonstrate the use of surgical attire throughout the perioperative setting.

TESU 1121 Skills Lab I **3 Credits / 90 Clock-Hours**

The Skills Lab I course introduces students to the basic "hands-on" skills that will be performed during the clinical/externship portion of this program. You will practice each skill set until you are safe, comfortable, and competent. The skillset will then be signed off by the lab instructor.

Objectives:
• Demonstrate the following skills:
o Open gloving.
o Surgical hand scrub.
o Gowning and gloving (self and others).
o Opening sterile supplies.
o Creating and maintaining a sterile field.
o Dispensing, handling, and labeling medications and solutions.
o Performing surgical counts.
o Draping the surgical site.
o Basic instrumentation and instrument passing.
o Proper handling and labeling of surgical specimens.
o Moving around a sterile field.
o Critical thinking skills.
o Safety in a sterile surgical setting.
o Skills pass off.

TESU 1125 Skills Lab II **2 Credits / 60 Clock-Hours**

The Skills Lab II course will task the student with combining the basic skills that were learned in the previous lab component with more advanced skills. Students are now in the final preparation phase for entry into the clinical/externship portion of the program and must become competent and efficient with setting up for and anticipating the flow of activities that occur during a surgical procedure.
In order to successfully complete this lab component and be scheduled to begin a clinical externship, students are expected to perform all steps of the final lab skill assessment.

Objectives:
• Demonstrate the following skills:
o Preoperative case selection and preparation.
o Specialty surgery case set-up.
o Specialty instrumentation.
o Draping for various surgical specialties.
o Intraoperative practice in various surgical specialties.
o Intraoperative case management.
o Postoperative case management and environmental sanitation.
o Advanced sterile technique exercises.
o Critical thinking scenarios.
o Timed final skills checklist pass-off.

TESU 1221 Surgical Technology Seminar **1 Credit / 30 Clock-Hours**

The Surgical Technology Seminar course will discuss factors associated with making career decisions that can enhance a surgical technologist's professional growth and success. This course will also review competencies learned throughout the program in order to sit for the national certification exam.

Objectives:
• Review for the national certifying exam.
• Prepare students for employment.

TESU 2920 Surgical Technology Clinical Externship III **3 Credits / 135 Clock-Hours**

The Surgical Technology Clinical Externship III course will extend the educational experience in the surgical field under the supervision of experienced medical professionals in a clinical setting.

Objectives:
• Practice decontamination standards and procedures for both sterile and non-sterile instrumentation and equipment.
• Demonstrate spatial relations within a surgical field.
• Implement infection control procedures, hazard communication, and health and safety procedures.
• Demonstrate skills for scrubbing, gowning, gloving, and draping.
• Integrate employability skills.
• Assist with patient care.
• Facilitate case preparation.

Mountainland

TESU 1015 Introduction to Surgical Technology **2 Credits / 60 Clock-Hours**

The Introduction to Surgical Technology course will introduce students to the surgical technology profession and will develop the fundamental concepts and principles necessary to successfully participate as a member of the surgical team.

Objectives:
• Analyze relevant medical terminology.
• Describe the development of the Surgical Technology profession.
• Analyze operating room environment and identify commonly used equipment and instrumentation.
• Evaluate Preoperative, Intraoperative, and Postoperative case preparation.
• Assess surgical consents and patient identification.
• Explain healthcare organization and describe team member roles and communication.
• Discuss medical law and ethics, surgical conscience, and surgical documentation.
• Identify and demonstrate the use of surgical attire throughout the perioperative setting.

TESU 1022 Microbiology and Infection Control **2 Credits / 60 Clock-Hours**

The Microbiology and Infection Control course will introduce students to microbiology, infection control, and aseptic principles.

Objectives:
• Correlate infection control in relation to microbiology, the diseases they cause, and procedures used to treat infections.
• Analyze anatomy and physiology of microorganisms and the immune system.
• Summarize disinfection and decontamination practices.
• Identify biopsychosocial needs of the patient and the process of death and dying.
• Discuss the history and pioneers of microbiology.

TESU 1130 Technology in Surgery **2 Credits / 60 Clock-Hours**

This course will introduce students to medications used in surgery and anesthesia care. It will also explore the integration and application of cutting-edge technologies in the field of surgery. With advancements in technology in surgery rapidly shaping the field of surgical practices, this course aims to equip students with the knowledge and skills needed to leverage these innovations for improved patient outcomes.

Objectives:
• Differentiate medications and types of anesthesia in surgery.
• Assess fluid and blood loss during surgery.
• Prepare and manage medication on the field.
• Demonstrate ability to make surgical counts.
• Identify emergency situations and anesthesia complications.
• Analyze all hazards and disaster preparation.
• Discuss and examine the benefits and challenges of robotic surgery.
• Summarize components of laparoscopic and endoscopic procedures.
• Identify minimally invasive techniques, instruments and supplies.
• Identify intraoperative imaging tools.
• Assess ethical challenges associated with the use of technology in surgery.

TESU 1225 Surgical Technology Exams and Seminar **2 Credits / 60 Clock-Hours**

This course will discuss factors associate with making career decisions that can enhance a surgical technologist's professional growth and success. It will also review competencies learned throughout the program in order to sit for the national certification exam. It is designed to provide the students with the ability to perform skills learned in the lab in professional medical facilities operating rooms.

Objectives:
• Review for the national certifying exam.
• Prepare students for employment.
• Demonstrate successfully performance as an operating room team member.
• Explain the process to enter the clinical externship surgical rotation.
• Perform surgical technology principles of aseptic and surgical technique in the professional medical facility operating rooms.

TESU 2922 Surgical Technology Clinical Externship III **1 Credit / 45 Clock-Hours**

The Surgical Technology Clinical Externship III course will extend the educational experience in the surgical field under the supervision of experienced medical professionals in a clinical setting.

Objectives:
• Practice decontamination standards and procedures for both sterile and non-sterile instrumentation and equipment.
• Demonstrate spatial relations within a surgical field.
• Implement infection control procedures, hazard communication, and health and safety procedures.
• Demonstrate skills for scrubbing, gowning, gloving, and draping.
• Integrate employability skills.
• Assist with patient care.
• Facilitate case preparation.

Southwest

TESU 1010 Introduction to Surgical Technology **3 Credits / 90 Clock-Hours**

The Introduction to Surgical Technology course will introduce students to the surgical technology profession and will develop the fundamental concepts and principles necessary to successfully participate as a member of the surgical team.

Objectives:
• Analyze relevant medical terminology.
• Describe the development of the Surgical Technology profession.
• Analyze operating room environment and identify commonly used equipment and instrumentation.
• Evaluate Preoperative, Intraoperative, and Postoperative case preparation.
• Assess surgical consents and patient identification.
• Explain healthcare organization and describe team member roles and communication.
• Discuss medical law and ethics, surgical conscience, and surgical documentation.
• Identify and demonstrate the use of surgical attire throughout the perioperative setting.

TESU 1022 Microbiology and Infection Control **2 Credits / 60 Clock-Hours**

The Microbiology and Infection Control course will introduce students to microbiology, infection control, and aseptic principles.

Objectives:
• Correlate infection control in relation to microbiology, the diseases they cause, and procedures used to treat infections.
• Analyze anatomy and physiology of microorganisms and the immune system.
• Summarize disinfection and decontamination practices.
• Identify biopsychosocial needs of the patient and the process of death and dying.
• Discuss the history and pioneers of microbiology.

TESU 1030 Surgical Pharmacology **2 Credits / 60 Clock-Hours**

The Surgical Pharmacology course will introduce students to medication used in surgery and anesthesia care.

Objectives:
- Analyze all hazards and disaster preparation.
- Differentiate medications and types of anesthesia used in surgery.
- Examine anesthesia preparation, administration, and monitoring for the patient.
- Calculate medication doses.
- Assess fluid and blood loss during surgery.
- Prepare and manage medication on the field.
- Demonstrate surgical counts.
- Identify emergency situations and anesthesia complications.

TESU 1221 Surgical Technology Seminar **1 Credit / 30 Clock-Hours**

The Surgical Technology Seminar course will discuss factors associated with making career decisions that can enhance a surgical technologist's professional growth and success. This course will also review competencies learned throughout the program in order to sit for the national certification exam.

Objectives:
- Review for the national certifying exam.
- Prepare students for employment.

Uintah Basin

TESU 1015 Introduction to Surgical Technology **2 Credits / 60 Clock-Hours**

The Introduction to Surgical Technology course will introduce students to the surgical technology profession and will develop the fundamental concepts and principles necessary to successfully participate as a member of the surgical team.

Objectives:
- Analyze relevant medical terminology.
- Describe the development of the Surgical Technology profession.
- Analyze operating room environment and identify commonly used equipment and instrumentation.
- Evaluate Preoperative, Intraoperative, and Postoperative case preparation.
- Assess surgical consents and patient identification.
- Explain healthcare organization and describe team member roles and communication.
- Discuss medical law and ethics, surgical conscience, and surgical documentation.
- Identify and demonstrate the use of surgical attire throughout the perioperative setting.

TESU 1021 Microbiology and Infection Control **1 Credit / 30 Clock-Hours**

The Microbiology and Infection Control course will introduce students to microbiology, infection control, and aseptic principles.

Objectives:
• Correlate infection control in relation to microbiology, the diseases they cause, and procedures used to treat infections.
• Analyze anatomy and physiology of microorganisms and the immune system.
• Summarize disinfection and decontamination practices.
• Identify biopsychosocial needs of the patient and the process of death and dying.
• Discuss the history and pioneers of microbiology.

TESU 1030 Surgical Pharmacology **2 Credits / 60 Clock-Hours**

The Surgical Pharmacology course will introduce students to medication used in surgery and anesthesia care.

Objectives:
• Analyze all hazards and disaster preparation.
• Differentiate medications and types of anesthesia used in surgery.
• Examine anesthesia preparation, administration, and monitoring for the patient.
• Calculate medication doses.
• Assess fluid and blood loss during surgery.
• Prepare and manage medication on the field.
• Demonstrate surgical counts.
• Identify emergency situations and anesthesia complications.

TESU 1221 Surgical Technology Seminar **1 Credit / 30 Clock-Hours**

The Surgical Technology Seminar course will discuss factors associated with making career decisions that can enhance a surgical technologist's professional growth and success. This course will also review competencies learned throughout the program in order to sit for the national certification exam.

Objectives:
• Review for the national certifying exam.
• Prepare students for employment.

TESU 2921 Surgical Technology Clinical Externship III **1 Credit / 60 Clock-Hours**

The Surgical Technology Clinical Externship III course will extend the educational experience in the surgical field under the supervision of experienced medical professionals in a clinical setting.

Objectives:
• Practice decontamination standards and procedures for both sterile and non-sterile instrumentation and equipment.
• Demonstrate spatial relations within a surgical field.
• Implement infection control procedures, hazard communication, and health and safety procedures.
• Demonstrate skills for scrubbing, gowning, gloving, and draping.
• Integrate employability skills.
• Assist with patient care.
• Facilitate case preparation.