**SURGICAL TECHNOLOGY (ST)**

96.5 quarter credit units/ 1500 clock hours/ 70 weeks

45 weeks Theory/Lab (20 hours per week) + 25 weeks externship (24 hours per week)

Course Objective:

The Surgical Technology program is a 1500-hour Diploma comprehensive course of study that combines theory and clinical practice. The curriculum is designed to provide qualified individuals an opportunity to acquire the knowledge, attitudes and skills that will enable them to become safe and competent practitioners of Surgical Technology.

The program prepares students for entry-level positions in a number of health care facilities including hospitals, medical centers, and public and private surgical centers. The program includes a mandatory 600-hour Surgical Technology Externship that must be completed prior to graduation.

Upon successful completion of the program, graduates may obtain employment as:

- Surgical Technologist (CIP # 51.0909; O-NET # 29-2055.00)

<table>
<thead>
<tr>
<th>Term #</th>
<th>Module Title</th>
<th>Week #</th>
<th>Clock Hours</th>
<th>Quarter Credit Units*</th>
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**Total:** 1500 96.5

Note: one clock hour is defined as a 60-minute span of time in which 50 minutes is devoted to actual class instruction, with the remaining portion designated as a break.

For information on graduation rates, median debt of graduates completing this program or other important information, visit: [http://cbd.edu/surgical-technology.html](http://cbd.edu/surgical-technology.html)
## Course Syllabus:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Lecture</th>
<th>Lab</th>
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**TOTAL**       | 680        | 240  | 580        | 1500        |
ST Course Descriptions:

MODULE I  ST101 ANATOMY AND PHYSIOLOGY I

Prerequisites: Admission to the Surgical Technology Program. CPA at ACT Pre-Enrollment Exam with the following scores: Language Usage minimum Score 42, Reading minimum Score 43, Numerical Skills minimum Score 41.

Total clock hours: 90  Quarter Credit Units: 8.5*

This course is a study of the following topics and human systems: biochemistry, the cell, tissues, bone, muscle, and endocrine systems. The functions and interrelationship of these systems are studied. The course emphasizes the homeostatic nature of these systems with reference to human disease states.

MODULE IA  ST102 ANATOMY AND PHYSIOLOGY II

Prerequisites: Admission to the Surgical Technology Program. CPA at ACT Pre-Enrollment Exam with the following scores: Language Usage minimum Score 42, Reading minimum Score 43, Numerical Skills minimum Score 41.

Total clock hours: 90  Quarter Credit Units: 8.5*

This course is a study of the following topics and human systems: nervous system, lymphatic, endocrine, blood, cardiovascular, digestive, and respiratory systems. The functions and interrelationship of these systems are studied. The course emphasizes the homeostatic nature of these systems with reference to human disease states.

MODULE II  ST201 MEDICAL TERMINOLOGY

Prerequisites: Admission to the Surgical Technology Program. CPA at ACT Pre-Enrollment Exam with the following scores: Language Usage minimum Score 42, Reading minimum Score 43, Numerical Skills minimum Score 41.

Total clock hours: 30  Quarter Credit Units: 2.5*

This course includes an introduction to medical terminology based on anatomy and physiology. Emphasis is placed on medical word roots, combining forms, prefixes and suffixes, and body structure.

MODULE II  ST202 MEDICAL LAW & ETHICS

Prerequisites: Admission to the Surgical Technology Program. CPA at ACT Pre-Enrollment Exam with the following scores: Language Usage minimum Score 42, Reading minimum Score 43, Numerical Skills minimum Score 41.

Total clock hours: 30  Quarter Credit Units: 2.5*

This course presents an overview of the legalities and ethical behavior associated with medical practice/facility. The AMA and AAMA codes of ethics and OSHA regulations as they apply to the office environment are also studied.
MODULE II  ST203 PATIENT PSYCHOLOGY

**Prerequisites:** Admission to the Surgical Technology Program. CPAt ACT Pre-Enrollment Exam with the following scores: Language Usage minimum Score 42, Reading minimum Score 43, Numerical Skills minimum Score 41.

*Total clock hours: 30*  
*Quarter Credit Units: 2.5*

This course is an introduction to the principles and concepts basic to understanding human behavior. A general overview of the research methods and major research findings of psychology are presented, as well as a survey of current theories used to interpret these findings. Topics covered include methodology, physiology, learning, perception, and cognitive processes, development, motivation and emotion, personality, abnormal behavior, therapy, and social psychology.

MODULE IIA  ST204 DISEASE PROCESS & PATHOPHYSIOLOGY

**Prerequisites:** Admission to the Surgical Technology Program. CPAt ACT Pre-Enrollment Exam with the following scores: Language Usage minimum Score 42, Reading minimum Score 43, Numerical Skills minimum Score 41.

*Total clock hours: 30*  
*Quarter Credit Units: 2.5*

This course is an introduction to the causes of disease and pathological conditions of the body and the body’s response mechanisms, both adequate and inadequate. Common diagnostic and treatment modalities also will be discussed.

MODULE IIA  ST205 MICROBIOLOGY

**Prerequisites:** Admission to the Surgical Technology Program. CPAt ACT Pre-Enrollment Exam with the following scores: Language Usage minimum Score 42, Reading minimum Score 43, Numerical Skills minimum Score 41.

*Total clock hours: 30*  
*Quarter Credit Units: 2.5*

This course is a study of basic microbiology, infection control, and disease processes to include the body’s defense mechanisms to those diseases, and wound healing. Additionally, vital signs and blood borne pathogens will be included.

MODULE IIA  ST206 PHARMACOLOGY AND ANESTHESIA

**Prerequisites:** Admission to the Surgical Technology Program. CPAt ACT Pre-Enrollment Exam with the following scores: Language Usage minimum Score 42, Reading minimum Score 43, Numerical Skills minimum Score 41.

*Total clock hours: 30*  
*Quarter Credit Units: 2.5*

This course is the study of drugs with emphasis on concepts related to steps in the drug cycles and side effects. Students will learn major classifications of drugs and usual drug choices for selected diseases and pathological conditions. They will learn appropriate terms, abbreviations, equivalents, and math concepts in calculations of dosages. Different modes of anesthesia will be discussed.

MODULE III  ST301 INTRODUCTION TO SURGICAL TECHNOLOGY & ASEPSIS

**Prerequisite:** ST101-ST206

*Total clock hours: 30*  
*Quarter Credit Units: 2.5*

This course is designed to orient the student to surgical technology and provide a comprehensive knowledge of patient care concepts, as well as personal and professional relationships in surgical technology. This course also introduces aseptic technique.
MODULE III  ST302 STERILIZATION

**Prerequisite:** ST101-ST301

*Total clock hours: 30*  
*Quarter Credit Units: 2.5*

An overview of the disease process, infection control with emphasis on hand washing techniques, methods of sterilization, instrumentation classification and first aid procedures will be presented. Universal precautions as well as draping and positioning patients are emphasized.

MODULE III  ST303 SURGICAL INSTRUMENTATION

**Prerequisite:** ST101-ST302

*Total clock hours: 30*  
*Quarter Credit Units: 2.5*

This course introduces the student to the relationship between instrumentation, equipment, and supplies and quality patient care in the OR; items that require sterilization prior to use in the sterile field; basic instruments by type, function, and name; proper care, handling, and assembly of instruments; types of special equipment utilized in the OR; practice and demonstration of proper care; handling techniques, safety precautions, functions of accessory equipment and demonstration of proper care; handling, and assembly; relationship between instruments, equipment, and supplies; and the OR environment as related to safety.

MODULE IIIA  ST304 BIOMEDICAL SCIENCE

**Prerequisite:** ST101-ST303

*Total clock hours: 30*  
*Quarter Credit Units: 2.5*

This course introduces the student to computer hardware and software programs. Emphasis is placed on the development of word processing skills, which include techniques for creating, editing, saving, and printing documents. Also includes the safety factors regarding biophysical practices in the OR. Electricity, mechanical robotics, sterilization, chemical, heat, gases, and sounds and vibrations are some of the concerns discussed for patient safety.

MODULE IIIA  ST305 SUTURES AND WOUND HEALING

**Prerequisite:** ST101-ST304

*Total clock hours: 30*  
*Quarter Credit Units: 2.5*

This course introduces wound healing, possible complications of wound healing, classifications of surgical wounds, factors that influence healing and the manner in which they affect the healing process, and common suture terms. Suture materials and stapling devices and their usage, as well as types, characteristics, and uses of natural and synthetic absorbable suture materials.

MODULE IIIA  ST306 DRAINS AND CATHETERS

**Prerequisite:** ST101-ST305

*Total clock hours: 30*  
*Quarter Credit Units: 2.5*

This course introduces various types and usage of the drainage system, catheters, and tubes used in the surgical procedures.
MODULE IV  ST401 GENERAL AND PEDIATRIC PROCEDURES

**Prerequisite:** ST101-ST306

Total clock hours: 30  
Quarter Credit Units: 3.0*

This course is designed to provide comprehensive knowledge and skills for specific surgical procedures in diagnostic, general, and pediatric procedures.

MODULE IV  ST402 OBGYN AND UROLOGIC PROCEDURES

**Prerequisite:** ST101-ST401

Total clock hours: 30  
Quarter Credit Units: 3.0*

This course is designed to provide comprehensive knowledge and skills for specific OBGYN and urologic procedures.

MODULE IV  ST403 ORTHOPEDIC PROCEDURES

**Prerequisite:** ST101-ST402

Total clock hours: 30  
Quarter Credit Units: 3.0*

This course is designed to provide comprehensive knowledge and skills for specific orthopedic procedures.

MODULE IVA  ST404 NEUROLOGICAL PROCEDURES

**Prerequisite:** ST101-ST403

Total clock hours: 30  
Quarter Credit Units: 3.0*

This course is designed to provide comprehensive knowledge and skills for specific neurological procedures.

MODULE IVA  ST405 PLASTIC AND H&N PROCEDURES

**Prerequisite:** ST101-ST404

Total clock hours: 30  
Quarter Credit Units: 3.0*

This course is designed to provide comprehensive knowledge and skills for specific surgical procedures in plastic and H&N procedures.

MODULE IVA  ST406 VASCULAR AND CARDIOTHORACIC PROCEDURES

**Prerequisite:** ST101-ST405

Total clock hours: 30  
Quarter Credit Units: 3.0*

This course is designed to provide comprehensive knowledge and skills for specific vascular and cardiothoracic procedures.

MODULE V  ST501 MOCK SURGERY I

**Prerequisite:** ST101-ST406

Total clock hours: 50  
Quarter Credit Units: 3.0*

This course is designed to provide comprehensive knowledge and skills for specific surgical procedures in diagnostic, general surgery, orthopedic, neurological, plastic and reconstructive, peripheral vascular, obstetric/gynecology, ophthalmic, otorhinolaryngologic, and oral/maxillofacial surgical procedures for the surgical technologist.
MODULE V  ST502 MOCK SURGERY II

**Prerequisite:** ST101-ST501

*Total clock hours: 50*  
*Quarter Credit Units: 3.0*  
This course is designed to provide comprehensive knowledge and skills for specific surgical procedures in plastic and reconstructive surgery, genitourinary surgery, orthopedic surgery, cardiothoracic surgery, and peripheral vascular surgery procedures for the surgical technologist.

MODULE V  ST503 MOCK SURGERY III

**Prerequisite:** ST101-ST502

*Total clock hours: 50*  
*Quarter Credit Units: 3.0*  
This course is designed to evaluate the student in his/her knowledge and skills in basic surgical preparation and procedures. Students will recall the preparations for anesthesia and pharmaceuticals used, instrumental set-ups, and circulating methods, and will understand the use of different needles and sutures.

MODULE V  ST504 CPR

**Prerequisite:** ST101-ST503

*Total clock hours: 10*  
*Quarter Credit Units: 0.5*  
This course is designed to introduce surgical technology candidates to basic clinical skills, CPR, HIV/AIDS, and OSHA. Emphasis is placed on measurement and recording of temperature, pulse, respiration, blood pressure, height, and weight. Included is a CPR session taught by a certified instructor.

MODULE V  ST505 CAREER DEVELOPMENT

**Prerequisite:** ST101-ST504

*Total clock hours: 10*  
*Quarter Credit Units: 0.5*  
Career development emphasizes assessing personal strengths, understanding career expectations, developing job search techniques, and preparing an effective resume.

MODULE V  ST506 MOCK CLEARANCE

**Prerequisite:** ST101-ST505

*Total clock hours: 10*  
*Quarter Credit Units: 0.5*  
Emphasis is placed on the scrub and circulating roles of the surgical technologist including aseptic technique and basic care presentation for selected surgical procedures.

MODULE VI  ST601 EXTERNSHIP

**Prerequisite:** ST101-ST506 with a grade B or better

*Total clock hours: 600*  
*Quarter Credit Units: 21.0*  
This course is conducted in a surgical facility and provides students a clinical experience with a variety of preoperative assignments. Emphasis is placed on the scrub and circulating roles of the surgical technologist including aseptic technique and basic care presentation for selected surgical procedures. Students will observe and take part in surgical procedures and work as members of the surgical team.

*A quarter credit is defined as one credit for every ten (10) hours of lecture, one credit for every twenty (20) hours of lab, and one credit for every thirty (30) hours of externship (or internship).*