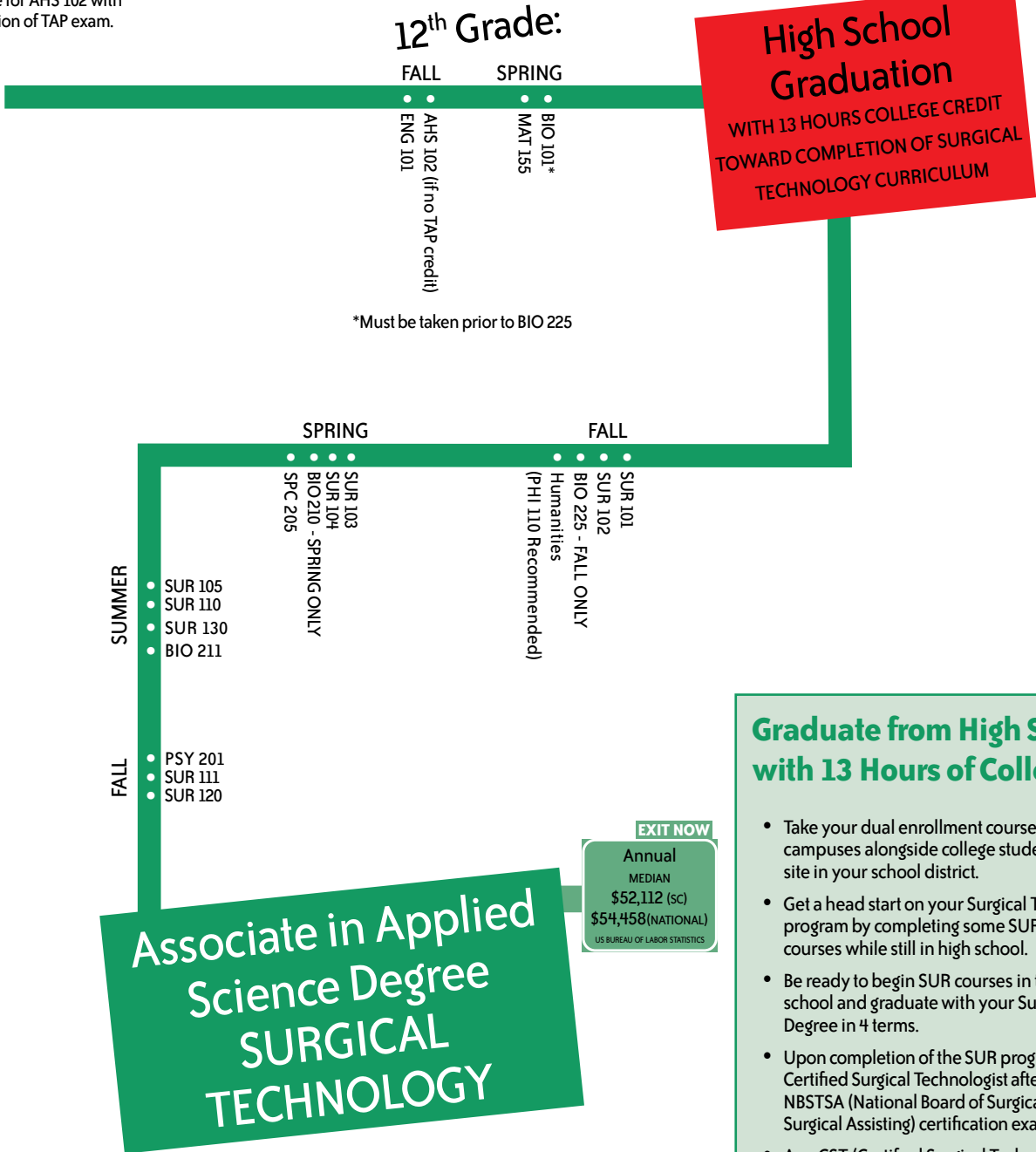




# CAREER PATHWAYS FOR SUCCESS

A DUAL ENROLLMENT CAREER PATHWAY FOR SURGICAL TECHNOLOGY

For Health Science Technology students:  
TAP credit available for AHS 102 with successful completion of TAP exam.



## Graduate from High School with 13 Hours of College Credit

- Take your dual enrollment courses at one of TCTC's campuses alongside college students or at a college site in your school district.
- Get a head start on your Surgical Technology (SUR) program by completing some SUR general education courses while still in high school.
- Be ready to begin SUR courses in the fall after high school and graduate with your Surgical Technology Degree in 4 terms.
- Upon completion of the SUR program, become a Certified Surgical Technologist after passing the NBSTSA (National Board of Surgical Technology and Surgical Assisting) certification exam.
- As a CST (Certified Surgical Technologist), qualify for employment with hospitals, physician offices, or outpatient surgery centers.
- The Bureau of Labor Statistics estimates the number of Surgical Technologists is expected to increase by 9% through 2028.

TRI-COUNTY TECHNICAL COLLEGE CONTACT:  
Marla Cobb - mcobb9@tctc.edu

# COURSE DESCRIPTIONS

The Surgical Technology program prepares students to perform various duties during surgery, by assisting in the maintenance of an aseptic environment through a system of specific techniques and practices. The technologist contributes to overall patient care as part of the surgical team by passing equipment and instruments to the surgeon, assisting the surgeon, selecting instruments for surgical cases, setting up cases, and assisting the circulatory personnel intraoperatively. Surgical Technologists may find employment in hospitals, clinics, or physicians' offices. Hospital employment areas include operating and emergency rooms, labor and delivery, endoscopy units, central sterile processing areas, and ambulatory surgery centers.

## **AHS 102 - Medical Terminology**

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This course covers medical terms, including roots, prefixes and suffixes, with emphasis on spelling, definition, and pronunciation.

## **BIO 101 - Biological Science I**

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This course is a study of the scientific method, basic biochemistry, cell structure and function, cell physiology, cell reproduction and development, Mendelian genetics, population genetics, natural selection, evolution, and ecology. Laboratory requirement supplements lecture.

Prerequisites: Satisfactory placement test scores for ENG 101 or completion of ENG 101, ENG 103, ENG 155 or ENG 100 and RDG 100. Satisfactory placement test scores for MAT 101 or completion of MAT 101 or MAT 032. Completion of BIO 105 and CHM 105 replaces MAT and ENG prerequisites. All prerequisite courses require a grade of C or better.

Note: Credit may not be earned for both BIO 101 and BIO 105 or BIO 113.

## **BIO 210 - Anatomy and Physiology I**

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This is the first in a sequence of courses, including an intensive coverage of the body as an integrated whole. All body systems are studied. Topics include terminology, biological chemistry, cells, tissues, and the following systems: integumentary, skeletal, muscular, nervous, special senses. Laboratory requirement supplements lecture.

Prerequisites: Completion of BIO 101 or BIO 113 with a grade of C or better.

Note: Credit may not be earned for both BIO 210 and BIO 112.

## **BIO 211 - Anatomy and Physiology II**

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This is a continuation of a sequence of courses, including intensive coverage of the body as an integrated whole. All body systems are studied. A continuation of BIO 210, the following systems are studied: endocrine, circulatory, lymphatic, respiratory, digestive, urinary, fluids and electrolytes, reproductive. Laboratory requirement supplements lecture.

Prerequisites: Completion of BIO 210 with a grade of C or better.

## **BIO 225 - Microbiology**

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This is a detailed study of microbiology as it relates to infection and the disease processes of the body. Topics include immunity, epidemiology, medically important microorganisms, and diagnostic procedures for identification. Laboratory requirement supplements lecture.

Prerequisites: Completion of BIO 101 or BIO 113 with a grade of C or better.

Note: Credit may not be earned for both BIO 225 and BIO 115.

## **ENG 101 - English Composition I**

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This is a (college transfer) course in which the following topics are presented: a study of composition in conjunction with appropriate literary selections, with frequent theme assignments to reinforce effective writing. A review of standard usage and the basic techniques of research are also presented.

Prerequisites: Satisfactory Writing placement score or a grade of C or higher in ENG 100 or in ENG 155 and satisfactory Reading placement score or a grade of C or higher in RDG 100.

## **MAT 155 - Contemporary Mathematics**

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This course includes techniques and applications of the following topics: elementary number theory; algebra; geometry; measurement; graph sketching and interpretations, and descriptive statistics.

Prerequisites: Satisfactory math placement score or MAT 032 with a grade of "C" or higher.

Note: This course cannot be used for an AA or AS degree.

## **PHI 110 - Ethics**

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This course is a study of the moral principles of conduct emphasizing ethical problems and modes of ethical reasoning.

## **PSY 103 - Human Relations**

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This course is a study of human relations, including the dynamics of behavior, interrelationships, and personality as applied in everyday life.

## **PSY 201 - General Psychology**

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology.

Prerequisites: Reading and writing placement scores for ENG 101 or completion of ENG 100, ENG 101, or ENG 155 with a grade of C or higher. BIO 101 strongly recommended.

## **SPC 205 - Public Speaking**

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This course is an introduction to principles of public speaking with application of speaking skills.

Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 or in ENG 155 or in ENG 156.

## **SUR 101 - Introduction to Surgical Technology**

Class Hours: 4 Lab Hours: 3 Credit Hours: 5

This course includes a study of the surgical environment, team concepts, aseptic technique, hospital organization, basic instrumentation and supplies, sterilization, principles of infection control, and wound healing.

Prerequisites: A grade of C or above in BIO 112, BIO 115, and AHS 102.

## **SUR 102 - Applied Surgical Technology**

Class Hours: 4 Lab Hours: 3 Credit Hours: 5

This course covers the principles and application of aseptic technique, the perioperative role, and medical/legal aspects.

## **SUR 103 - Surgical Procedures I**

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This course is a study of a system to system approach to surgical procedures and relates regional anatomy, pathology, specialty equipment, and team responsibility. Patient safety, medical/legal aspects, and drugs used in surgery are emphasized.

Corequisite: SUR 104.

## **SUR 104 - Surgical Procedures II**

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This course is a study of the various specialties of surgical procedures.

Corequisite: SUR 103.

## **SUR 105 - Surgical Procedures III**

Credit Hours: 4

This course is a study of advanced specialties of surgical procedures.

## **SUR 110 - Introduction to Surgical Practicum**

Class Hours: 0 Lab Hours: 15 Credit Hours: 5

This course is an introduction to the application to surgical techniques by assisting in the perioperative roles in various clinical affiliations.

## **SUR 111 - Basic Surgical Practicum**

Class Hours: 2 Lab Hours: 15 Credit Hours: 7

This course includes the application of theory under supervision in the perioperative role in various clinical affiliations.

## **SUR 120 - Surgical Seminar**

Class Hours: 2 Lab Hours: 0 Credit Hours: 2

This course includes the comprehensive correlation of theory and practice in the perioperative role.

Prerequisites: SUR 104

## **SUR 130 - Biomedical Science for the Surgical Technologist**

Credit Hours: 1

This course includes basic principles of electricity, physics, and robotics as they relate to safe patient practices in the operating room.