Surgical Technology
Associate in Applied Science Degree
(A.A.S.)

Course Requirements

MAJOR COURSES

HEA200 Medical Terminology I

Provides a solid foundation and understanding of the medical language used by healthcare professionals. This is accomplished through the introduction, reinforcement, and combining of medical word parts including prefixes, suffixes, and combining forms. Emphases are on word building, analysis of parts of the word, abbreviations, spelling, and correct pronunciation of various body systems including the musculoskeletal, digestive, nervous, and integumentary, as well as the senses.

HEA201 Medical Terminology II

Students continue to develop their understanding of the medical terms that are used regarding various body systems. There is an emphasis on combining word parts (prefixes, suffixes, and combining forms) to create full medical terms including the cardiovascular, respiratory, urinary, endocrine, lymphatic, and reproductive systems.

Prerequisite: HEA200

SUR100 Fundamentals of Surgical Technology

Students are introduced to the role and responsibilities of the surgical technologist, the healthcare team, and the clinical environment. Topics include environment and workplace safety, patient care and safety, age-extreme patients, and patients with special needs. Students learn the basic techniques for scrubbing, gowning, and gloving. An on-campus operating room laboratory provides students with such hands-on experience as vital signs, patient transporting, and positioning.
SUR110 Surgical Instrumentation

Focuses on the identification, classification, care, and handling of surgical instrumentation. Various methods of sterilization are included.

Prerequisite: SUR100

SUR112 Surgical Techniques

Provides an in-depth study of the principles of aseptic techniques. Topics include wound healing, specimen care, safe use of surgical equipment, surgical counts, and prepping and draping the patient. Various types of sutures, needles, stapling devices, sponges, dressings, packings, drains, and catheters are presented. Students are introduced to robotics, physics, and electricity.

Prerequisite: SUR100

SUR115 Surgical Techniques Laboratory

Students practice the principles of aseptic techniques. Emphasis is placed on setting up the instrument table, Mayo stand, and prepping and draping the patient.

Prerequisite: SUR100
Prerequisites or Corequisites: SUR110, SUR112

SUR120 Surgical Procedures I

Focuses on diagnostic procedures; general obstetrics and gynecology; ophthalmology; ear, nose, and throat; and oral and maxillofacial.

Prerequisites: SUR110, SUR112, SUR115

SUR125 Surgical Procedures Laboratory I

Students develop an operative routine as they set up for mock surgical procedures and role play the members of the perioperative team.

Prerequisite or Corequisite: SUR120

SUR220 Surgical Procedures II

Focuses on organ and tissue recovery and the following
surgical specialties: ophthalmology, plastic, neurology, thoracic, cardiothoracic, peripheral vascular, cardiovascular, genitourinary, orthopedic, and pediatric.

Prerequisites: SUR120, SUR125

**SUR251 Pharmacology and Anesthesiology**

The rationale for use of specific drugs, their therapeutic effects, major side effects on the surgical patient, and how these drugs may alter or influence surgical intervention are defined. Emphasis is on the role and responsibilities of the surgical technologist regarding pharmaceuticals in the operating room.

**SUR280 Clinical Practicum I**

Students apply the didactic and laboratory skills learned throughout the program to the clinical setting, gain clinical work experience in surgical procedures and operating room practices, and also have the opportunity to scrub on surgical cases in various surgical specialties.

Prerequisites: Completion of first four quarters and departmental approval
Prerequisite or Corequisite: SUR220

**SUR281 Clinical Seminar I**

Students focus on integrating the skills learned throughout the program with the work experience. Research assignments required.

Prerequisite: Basic Cardiac Life Support/Automated External Defibrillation Certification
Corequisite: SUR280

**SUR290 Clinical Practicum II**

Continuation of clinical work experience in surgical procedures and operating room practices.

Prerequisites: SUR280 and departmental approval

**SUR291 Clinical Seminar II**

Students continue to focus on integrating the skills learned throughout the program with the work experience. Oral presentations required.
SUR292 Surgical Technologist Capstone

Designed to elicit reflection and application to the whole of the Surgical Technology program. The course requires the student to apply the knowledge, skills, and techniques attained throughout the Surgical Technology program. The capstone course provides an opportunity for the assessment of surgical technologist critical thinking skills and teamwork skills through case studies reflecting experiences often encountered in the Surgical Technologist's workplace. Finally, the capstone course is developed to reinforce the knowledge and skills needed to sit for the national credentialing exam.

Corequisites: BUS226 and departmental approval

BUSINESS COURSES

BUS226 Career Management Seminar

Explores career development opportunities and strategies. Stresses entry-level job requirements and upward career paths. Covers resume writing skills, interviewing techniques, and the importance of professionalism. Continues the student's orientation to Berkeley College's computer framework, which includes content collection and compiling a professional ePortfolio.

LIBERAL ARTS COURSES

ENG105 Expository Writing

An introduction to expository writing through a comprehensive survey of forms of composition. Students are taught to use words with precision, and strengthen their understanding and application of grammatical and rhetorical principles. Students are encouraged to appreciate and incorporate the principles of academic and professional writing.

ENG106 Writing Through Literature

Strengthens the writing, reading, and interpretive abilities introduced in ENG105. Encourages students to develop an appreciation and understanding of various works of literature, and utilize literature to enhance critical thinking and writing.

Prerequisite: ENG105
**ENG115 Public Speaking**

Designed to help students improve oral communication skills. Emphasis is placed on identifying good and poor speech habits, techniques for improving speech, oral interpretation, effective speech planning and delivery, and interpersonal communication.

Prerequisite: ENG106

**SCI223 Anatomy and Physiology I**

Study of the structure, function, and pathology (disease) of the human body. Students are introduced to various body systems, including the musculoskeletal, digestive, nervous, and integumentary, as well as the senses.

**SCI224 Anatomy and Physiology II**

Students continue to develop their understanding of the anatomy, physiology, and pathology (diseases) of the human body. Topics covered include the cardiovascular, respiratory, urinary, endocrine, lymphatic, and reproductive systems.

Prerequisite: SCI223

**SCI225 Anatomy and Physiology Laboratory I**

An introduction to the basic principles of human anatomy and physiology as explored through laboratory sessions. Laboratory activities coincide with lectures to enhance understanding of each topic by providing visual and hands-on experiments for the concepts learned in the lecture. Laboratory sessions include microscopy, dissections, and elementary physiological experiments. Among the topics considered are various body systems, including the musculoskeletal, digestive, nervous, and integumentary, as well as the senses.

Corequisite: SCI223

**SCI226 Anatomy and Physiology Laboratory II**

Continues the study of human anatomy and physiology through laboratory exploration. Laboratory activities coincide with lectures to enhance understanding of each topic by providing visual and hands-on experiments for the concepts learned in the lecture. Laboratory sessions include
microscopy, dissections, and elementary physiological experiments. Among the topics covered are the cardiovascular, respiratory, urinary, endocrine, lymphatic, and reproductive systems.

Prerequisite: SCI225
Corequisite: SCI224

**SCI228 Microbiology**

The morphology and function of microorganisms, especially viruses and bacteria, are studied. The characteristics of microorganisms, the disease process, and the immune response are discussed.

**SCI234 Pathophysiology**

Students are introduced to disease and its abnormal physiological pathways through each body system. Treatments, both surgical and medicinal, are discussed.

Prerequisites: SCI224, SCI226

**SCI242 Bioethics and Medical Law**

This course provides an understanding of the legal, moral, and ethical issues involved in the healthcare environment, including laws and standards that protect both the healthcare professional and patient. In addition, the bioethics component of the course focuses on the study of the ethical controversies involved in the practice of medicine, including euthanasia, abortion, doctor-patient confidentiality, human and animal experimentation, genetic engineering, stem-cell research, cloning, and access to healthcare.

**SOC225 Introduction to Psychology**

Examines the basic principles of psychology and their direct application to the understanding of human behavior. Topics include human development, learning, memory, thinking, intelligence, creativity, motivation, emotion, adjustment, perception, abnormal behavior, and therapy.

Liberal Arts and Sciences Electives

90 QUARTER CREDIT HOURS REQUIRED FOR GRADUATION

In the final quarter most on-site courses will be offered only during the late afternoon and early evening so as not to interfere with clinical rotations.
The minimum passing grade required for a surgical technology (SUR) course is a C+. Surgical Technology students who receive a grade of C or below in any SUR course may repeat that course. If the student receives a grade of C or below for the repeated course, the student will be dismissed from the Surgical Technology program.

In addition, the minimum passing grade required for Anatomy and Physiology I (SCI223), Anatomy and Physiology II (SCI224), Anatomy and Physiology I Lab (SCI1225), Anatomy and Physiology II Lab (SCI226), Microbiology (SCI228), and Pathophysiology (SCI234) is a C+. Surgical Technology students who receive a grade of C or below in any of these courses may repeat the course. A minimum grade of C+ on the repeated course is required to pass the course.

Governing regulations may disqualify individuals from obtaining professional certification in this field based upon health or criminal records. Therefore, in addition to meeting the **immunization requirements** of Berkeley College and the State of New Jersey, students applying to the Surgical Technology program must provide authorization for a criminal background check prior to registration and submit a physical assessment by a licensed medical professional prior to participating in clinical rotations. Hepatitis B vaccination and a tetanus shot are also recommended for part-time students enrolled in the Surgical Technology program.

Extensive criminal background checks may be repeated after admission at the request of clinical facilities; and positive findings may prevent students from completing the clinical portion of the program, graduating, and participating in the national certification exam. Health requirements required for clinical courses include 12-panel drug screen, flu vaccine, skin testing for tuberculosis, and various serum laboratory tests. The cost of these health requirements are borne by the students and may total several hundred dollars.

To qualify for employment as a Surgical Technologist in the State of New Jersey, a person must either complete a nationally or regionally accredited Surgical Technology program or meet other specified criteria. Requirements may vary by state. Berkeley College’s Surgical Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP); therefore students who complete this program are eligible to sit for the Certified Surgical Technologist (CST) exam. The CST designation is a national credential indicating that the Surgical Technologist meets certain standards of competence.

To qualify for graduation, students must pass all SUR courses, as well as Anatomy and Physiology I and II, Anatomy and Physiology I and II Lab, Microbiology, and Pathophysiology, with a minimum grade of C+, as well as participate in the CST National Certification Exam administered by the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

**SAMPLE PROGRAM SEQUENCE**

**A.A.S., Surgical Technology Program Statistics**