

## **SURGICAL TECHNOLOGY**

### **STS 1310, Surgical Techniques and Procedures Surgical Techniques and Procedures**

**5 hrs., 5 crs.,**

(Offered spring). Prerequisite: \*HSC1000. Corequisite: STS1310L. Course introduces the discipline of surgery, the surgical team, and the perioperative care of the patient (preoperative, intraoperative, and postoperative). Emphasis is placed on the duties of the surgical technologist in the assistant circulator, first scrub and second scrub roles. Topics include the physical environment, attire, legal/ethical responsibilities, aseptic technique, chart review, infection control, equipment, instrumentation, supplies, methods of disinfection and sterilization, sterile storage and distribution, hazards of the environment, principles of electricity and robotics, environmental sanitation, principles of wound healing and wound management, and the typical sequence of surgery. Skills include patient identification, positioning, skin prep, urinary catheterization, counts, draping, incisions, exposure, hemostasis, application of catheters, drains and dressings and specimen care. An introduction to patient assessment and the specialties of surgery is included.

### **STS 1310L, Surgical Techniques and Procedures Lab Surgical Techniques and Procedures Lab**

**7.333 hrs., 2 crs.,**

\$207.00 lab fee (Offered spring). Prerequisites: HSC1000L. Corequisite: STS1310. Course prepares students for the application of the roles of assistant circulator, second scrub and first scrub roles. Skills includes the principles of sterile technique, the preoperative preparation of the patient, the use and preparation of surgical instrumentation, use of surgical supplies, tissue replacement materials, preparation of suture, passing of instruments and the surgical setup. Skills include the application of sterile technique, transfer of patient, positioning, skin prep, preparation of sterile supplies, the identification and passing of instrumentation, specialty equipment usage, and universal case setup. Simulation lab exercises will include role rotation during common surgical procedures such as a breast biopsy, hernia repair and laparoscopic cholecystectomy.

### **STS 1340C, Pharmacology and Anesthesia Pharmacology and Anesthesia**

**4 hrs., 3 crs.,**

\$46.00 lab fee (Offered fall, spring, summer). This course is designed to introduce students to most commonly used pharmacological agents utilized for surgical patients in each phase of the perioperative experience and those utilized in the treatment of complications and emergencies. Emphasis is placed on preoperative medications, anesthetics and medications utilized within the sterile field stressing identification, preparation, measurements, management within the sterile field, handling/transfer, and usage. Other topics include pain management, airway and respiratory management, IV fluid and electrolyte replacement therapy, and a comparison of the types of anesthesia, physiological effects, complications and treatment. Includes 15 hours of hands on training.

### **STS 1940C, Introduction to Surgery Clinical Introduction to Surgery Clinical**

**11.332 hrs., 2 crs.,**

\$39.00 lab fee (Offered spring). Combined course provides orientation to the operating room environments and novice level assignments including case prep, room turnover, central sterile, observation, circulating, patient care sequencing assignments, and initial scrub experiences. Preconference preparation and assignments prepare the student for the clinical assignment.

### **STS 2323, Surgical Procedures I Surgical Procedures I**

**4 hrs., 4 crs.,**

(Offered summer). Prerequisite: STS1310, STS1310L. Course is designed to prepare students for surgical procedures including the review of surgical anatomy, physiology, pathophysiology, relevant equipment, supplies, and techniques regarding general surgery, endoscopic surgery, gynecological and obstetrical surgery, genitourinary surgery, orthopedic surgery, and otorhinolaryngological surgery (ear, nose and throat), diagnostic procedures and relevant equipment, supplies, and techniques. Depth of coverage will be determined by the Core Curriculum for Surgical Technologists published by the Association of Surgical Technologists.

### **STS 2323L, Surgical Simulation Lab I Surgical Simulation Lab I**

**3.666 hrs., 1 cr.,**

\$257.00 lab fee (Offered summer). Prerequisite: STS1310, STS1310L. Corequisite: STS2323. Course introduces student to instrumentation usage and identification, completion of core mock surgical procedures to facilitate the student's ability to anticipate the steps of the procedure and permits the evaluation of the student's performance regarding the critical elements of the surgical technologist's responsibilities.

**STS 2324, Surgical Procedures II Surgical Procedures II****3 hrs., 3 crs.,**

(Offered fall). Prerequisite: STS2323, STS2323L. Course is designed to prepare students for specialty surgical procedures including the review of surgical anatomy, physiology, pathophysiology, relevant equipment, supplies, and techniques regarding plastic and reconstructive surgery, maxillary/mandibular surgery, oral surgery, neurosurgery, cardio thoracic surgery, peripheral vascular surgery, trauma and surgery for all ages. Depth of coverage will be determined by the current edition of the Core Curriculum for Surgical Technologists published by the Association of Surgical Technologists.

**STS 2324L, Surgical Simulation Lab II Surgical Simulation Lab II****3.666 hrs., 1 cr.,**

\$263.00 lab fee (Offered fall). Prerequisite: STS2323, STS2323L. Corequisite: STS2324. Course prepares student for the completion of specialty mock surgical procedures to facilitate the student's ability to anticipate the steps of the procedure and permits the evaluation of the student's performance regarding the critical elements of the surgical technologist's responsibilities.

**STS 2330C, Principles of Surgical Assisting Principles of Surgical Assisting****4.333 hrs., 2 crs.,**

\$385.00 lab fee (Offered fall and spring). Prerequisite: STS2323 or nationally accredited certification as a surgical technologist (CST). Course provides an in-depth study of the SFA role including history, professional, legal, moral, and ethical responsibilities. Review of healthcare facility information, documentation, and risk management. Topics include: instrument usage, trocar/incisions, tissue handling, dissection, exposure, hemostasis, retraction, suturing, wound healing, tissue replacement materials, irrigation, specimen care, catheter/drain placement, surgical hazard management, IV fluid/auto-transfusion techniques, medication administration, and wound management. Patient care skills include: interview/history techniques, physical assessment, diagnostic exams, planning, patient education, patient monitoring, and perioperative patient care skills. Application of principles includes: the technological sciences, infection control, sterile technique, disinfection and sterilization and problem solving regarding the prevention and treatment of potential complications or emergencies. Includes on-site lab simulation.

**STS 2335, Advanced Integrated Surgical Sciences Advanced Integrated Surgical Sciences****2 hrs., 2 crs.,**

(Offered fall, spring, and summer). Prerequisite: Nationally accredited certification as a surgical technologist (CST). Corequisite: STS2336. Course prepares student for the advanced detail of surgical anatomy, physiology. Includes a review of the common function and structures of the human body including the surface anatomy. Other topics include relevant medical terminology, pathophysiology, etiology, disease, chemistry, microbiology, physics, and the technological sciences and congenital anomalies that are commonly encountered during surgical related interventions. In addition, pathology classification, cellular injury, types of necrosis, inflammation, types of injury, nutritional and metabolic pathologies, immunological disorders, neoplastic disorders, circulatory pathologies, hemodynamic management, and pain management will be included.

**STS 2336, Advanced Surgical Procedures for the Surgical Assistant Advanced Surgical Procedures for the Surgical Assistant****2 hrs., 2 crs.,**

(Offered fall, spring, and summer). Prerequisite: Nationally accredited certification as a surgical technologist (CST). Corequisite: STS2335. Prepares surgical technologist students with the additional core knowledge to assist with surgical procedures. Includes relevant preoperative diagnosis, common complications, surgical sequence, pharmacology, instrumentation, equipment, operative pathophysiology, and postoperative care for common surgical procedures that may require a surgical assistant. Core surgical specialties to be covered include the services of general, gynecologic and obstetric, otolaryngology, genitourinary, and orthopedic, ophthalmic, plastic and reconstructive, neurosurgery, vascular, and cardiothoracic.

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**STS 2361, The Art of Teamwork in Surgery The Art of Teamwork in Surgery****1 hr., 1 cr.,**

(Offered fall, spring, and summer). This course will introduce student to the principles of Human Factors science as applied to the system of care, teaching them about the skills needed to function effectively and safely in teams in a modern surgical environment. The course will cover the background psychology of interpersonal interactions and the evidence from other industries on the barriers to safe and effective team communication and cooperation. Students will develop their teamwork and communication skills, explore the principles of hierarchy and power distance, personal styles and coping strategies, situational awareness, secure communications loops, use of checklists and standard operating procedures, how to deal with team dysfunction, leadership, followership, effective briefing and debriefing, models of risk and error in health care, and the principles of risk minimization in systems involving humans.

**STS 2365, Professional Skills for the OR Team Professional Skills for the OR Team****1 hr., 1 cr.,**

(Offered fall, spring, and summer). This course will introduce students to the principles of professionalism including such topics as how to work well with many different people/cultures, how to demonstrate respect for and place value on different perspectives, the importance of providing and responding to constructive criticism, mechanisms which can help the individual work well under pressure, discussions regarding the willingness to work hard, discussions regarding multi-tasking and safety procedures which can enhance the ability to complete a variety of tasks simultaneously, the importance of professional organizations, the credentialing process, and how to work within the committee process.

**STS 2366C, Surgical Assistant Professional Skills Surgical Assistant Professional Skills****3 hrs., 2 crs.,**

\$154.00 lab fee (Offered spring). This course is designed to prepare the student to effectively function in the role of surgical first assistant. Assignments will explore job description, employment options and career opportunities. Didactic, clinical and/or simulation assignments will include advanced surgical first assistant technical skills, critical analysis such as diagnostic and assessment data analysis, selecting the correct option for patient care and wound management, professional skills including ethics, interprofessional skills, communication, conflict resolution, change management, leadership, followership, mentoring others, interviewing techniques, liability, risk management responsibilities, and effective documentation.

**STS 2367, Management in Healthcare Management in Healthcare****2 hrs., 2 crs.,**

(Offered fall, spring, and summer). Introduces the basics of management in the healthcare setting for the supervisor to middle management level includes interpersonal skills, budget management, inventory management, performance appraisal, and policy formation.

**STS 2370, Surgical Assisting Clinical I Surgical Assisting Clinical I****16 hrs., 2 crs.,**

\$42.00 lab fee (Offered fall, spring, and summer). Prerequisite: Nationally accredited certification as a surgical technologist (CST). SFA clinical internship which includes the evaluation of the student's performance regarding the critical elements of the surgical first assistant's responsibilities. The course is designed to prepare students for preoperative, intra-operative, and postoperative surgical procedure experiences.

**STS 2936, Surgical Certification Symposium Surgical Certification Symposium****1 hr., 1 cr.,**

(Offered fall, spring, and summer). Course provides instruction, guidance, and preparation for the surgical specialist to enter the surgical field as a professional.

**STS 2944C, Surgical Clinical I Surgical Clinical I****16.666 hrs., 3 crs.,**

\$21.00 lab fee (Offered summer). This is a combined clinical course designed to prepare students for preoperative, intraoperative, and postoperative surgical procedure experiences. Preconference and case preparation prepares students to gain experiences in the role of the scrub, assistant circulator, and second assistant. Performance evaluation includes surgical techniques, sterile technique, medication administration, prevention of wrong site surgery, prevention of foreign body retention, safe work practices, work attitudes, professional ethics, legal requirements, reporting, documentation, and efficiency in the work arena. Students gain hands-on experience in the application of surgical techniques under the supervision of their preceptor and surgeon for the case. Depth of coverage, role performance, and case completion requirements for graduation are determined by the current edition of the Core Curriculum for Surgical Technologists as published by the Association of Surgical Technologists.

**STS 2945C, Surgical Clinical II Surgical Clinical II****16.666 hrs., 3 crs.,**

\$341.00 lab fee (Offered fall). Prerequisite: STS2944C. This is a combined clinical course designed to prepare students for preoperative, intra-operative, and postoperative surgical procedure experiences. Preconference and case preparation prepares students to gain experiences in the role of the scrub, assistant circulator, and second assistant. Performance evaluation includes surgical techniques, sterile technique, medication administration, prevention of wrong site surgery, prevention of foreign body retention, safe work practices, work attitudes, professional ethics, legal requirements, reporting, documentation, and efficiency in the work arena. Students gain hands-on experience in the application of surgical techniques under the supervision of their preceptor and surgeon for the case. Depth of coverage, role performance, and case completion requirements for graduation are determined by the current edition of the Core Curriculum for Surgical Technologists as published by the Association of Surgical Technologists.

**STS 2953, Surgical Technologist Portfolio I Surgical Technologist Portfolio I****1 hr., 1 cr.,**

(Offered summer). Course is designed to prepare students for the surgical setting and employment by incorporating case preparation techniques into a final document describing their experiences and course work preparing them for a lifetime of continuing education. Activities will include the design of their own student portfolio which will document their accomplishments in the program, presentations, journals, papers, case preparation, and their experiences in the clinical setting.

**STS 2954, Surgical Technologist Portfolio II Surgical Technologist Portfolio II****1 hr., 1 cr.,**

(Offered fall, spring, and summer). Course is designed to prepare students for the surgical setting and employment by incorporating case preparation techniques into a final document describing their experiences and course work preparing them for a lifetime of continuing education. Activities will include the design of their own student portfolio which will document their accomplishments in the program, presentations, journals, papers, case preparation, and their experiences in the clinical setting.

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