

SURGICAL TECHNOLOGY

TECHNICAL LIMITED ENROLLMENT

CONTACT PERSONS: Jean Hinton • Allied Health Campus 261 224-5722 • Jean.Hinton@bsc.nodak.edu

Trudy Riehl • Allied Health Campus 265 • 224-5756

Trudy.Riehl@bsc.nodak.edu

Surgical technologists are allied health professionals who are an integral part of the team of medical practitioners providing surgical care to patients in a variety of settings. The surgical technologist works under medical supervision to facilitate the safe and effective conduct of invasive surgical procedures. This individual works to ensure that the operating room environment is safe, that equipment functions properly, and that the procedure is conducted under conditions that maximize patient safety. A surgical technologist possesses expertise in the theory and application of sterile and aseptic technique and combines the knowledge of human anatomy, surgical procedures, and implementation of tools and technologies to facilitate a physician's performance of invasive therapeutic and diagnostic procedures.

Surgical technologists are in demand throughout the nation in hospitals, ambulatory surgery centers, and clinics. A strong science background is recommended for success in this program. This includes completion of high school units in biological sciences, especially anatomy and physiology. Successful students are those who are able to perform under pressure in stressful and emergency situations, have a strong sense of responsibility, patience, and a concern for order. Manual dexterity and physical stamina are vital.

Completion of the program prepares students for employment and for eligibility to take the surgical technologist certifying examination which is offered at the end of their sophomore year. **The program is accredited by the Commission on the Accreditation of Allied Health Education Programs.** Bismarck State College developed the Surgical Technology program in cooperation with local medical facilities and health care providers. Students receive both theoretical instruction and clinical internship study. Those who complete the requirements earn an Associate in Applied Science in Surgical Technology degree. This is a degree program, no certificate is offered.

The Surgical Technology program is a limited enrollment program, which means there is a process for admittance. Students must first designate Surgical Technology as their intended field of study. Next, they must complete one full time semester of college (minimum 12 credit hour load) with a minimum overall 2.0 (C) grade point average. The grade point requirement includes successful completion of Human Anatomy and Physiology I (BIOL 220), Human Anatomy and Physiology I Laboratory (BIOL 220L) with a 2.0 grade point average. **Note: Admittance to Human Anatomy and Physiology has placement criteria. For information regarding these criteria, contact the department chair of biology or the individual instructors.** The final step of this process is to fill out an application to the program and participate in an interview. Program applications are available in the Allied Health Campus Classroom 268 or from a member of the Surgical Technology faculty. They are due by **Nov. 15** of the fall semester, prior to the spring semester in which the student wants to begin the introductory surgical technology classes. Students may only register for introductory program courses after being officially notified by mail of admittance to the program by the faculty. These notifications occur during the Holiday Break and after all transcripts have been checked.

Provisional admittance into the entry-level surgical technology classes is possible for students who have met all general education requirements, with the exception of the sciences (BIOL 220, 220L, BIOL 221, BIOL 221L, and MICR 202 and 202L). Enrollment under the Provisional Acceptance Policy requires concurrent enrollment in BIOL 220 and 220L and completion of BIOL 221 and 221L prior to enrollment in the upper level surgical technology courses. Provisional admittance is granted by the faculty after reviewing the student's transcripts. Re-admittance into the program requires repeating all SRGT lab courses and may require repeating some or all of the didactic courses. Re-admittance policy is discussed in detail in the Surgical Technology Student Handbook.

Students are required to provide documentation of current vaccinations, including Hepatitis B vaccination, Tetanus Toxoid booster within ten years of enrollment, chicken pox vaccination (or a statement confirming the student has had chicken pox), and, immediately prior to the clinical internship, a two step Tuberculosis Mantoux skin testing. Also, students accepted to the BSC Surgical Technology Program will be required to have a medical examination at their own expense (after all other requirements have been met).

A minimum 2.0 GPA must be earned in all (*) courses and an overall cumulative 2.0 GPA must be maintained in order to continue in the program. A student handbook will be issued to each student during the introductory surgical technology courses that describes specific program requirements. A clinical internship handbook of policies and procedures will be issued prior to the clinical internship course. Among the requirements is performance of a criminal background check **at the student's expense** prior to the start of the OR Clinical Internship course.

The credit load for the program may be taken over three years as opposed to two. This does not impact the delivery of the surgical technology courses. They must be taken as described and are the same classes in the two-year or three-year cycle.

SUGGESTED CURRICULUM FOR ASSOCIATE IN APPLIED SCIENCE: TWO-YEAR CYCLE

SEMESTER 1

CREDITS

*Anatomy & Physiology I (BIOL 220)	3
*Anatomy & Physiology I Lab (BIOL 220L).....	1
*Medical Terminology for Surgical Technology (SRGT 105)	3
College Composition I (ENGL 110)	3
Introduction to Psychology (PSYC 111).....	3
Introduction to Computers (CSCI 101).....	3
*General Pathology (BIOL 213).....	2
Total credits.....	18

**Students may choose to attend a summer session to complete some of the requirements for this program.

SEMESTER 2

CREDITS

*Anatomy & Physiology II (BIOL 221)	3
*Anatomy & Physiology II Lab (BIOL 221L)	1
*Introduction to Surgical Technology (SRGT 110).....	3
*Introduction to Operating Room Procedures (SRGT 120)	3
*Introduction to Operating Room Procedures and Materials Lab (SRGT 125L).....	2
*Introduction to Operating Room Materials (SRGT 130).....	3
College Composition II (ENGL 120), Intro to Professional Writing (ENGL 125), or Fundamentals of Public Speaking (COMM 110) ...	3
Total credits.....	18

SEMESTER 3

CREDITS

*Introductory Microbiology (MICR 202).....	3
*Introductory Microbiology Lab (MICR 202L)	1
*Introduction to Pharmacology for Surgical Technology (SRGT 215).....	3
*Specialty Surgical Procedures (SRGT 240).....	5
*Surgical Procedures Lab (SRGT 250)	2
*Professional Skills for the Surgical Technologist (SRGT 260) .	3
Total credits.....	17

SEMESTER 4

CREDITS

Operating Room Clinical Internship (SRGT 280)	1
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THREE-YEAR CYCLE

SEMESTER 1

CREDITS

*Human Biology (BIOL 126)	3
*Human Biology Lab (BIOL 126L)	1
*Medical Terminology for Surgical Technology (SRGT 105)	3
College Composition I (ENGL 110)	3
Introduction to Computers (CSCI 101).....	3
Total credits.....	13

*Students may choose to attend a summer session to complete some of the requirements for this program

SEMESTER 2

CREDITS

*Anatomy & Physiology I (BIOL 220)	3
*Anatomy & Physiology I Lab (BIOL 220L).....	1
Introduction to Psychology (PSYC 111).....	3
College Composition II (ENGL 120), Intro to Prof. Writing (Computers) (ENGL 125), or Fundamentals of Public Speaking (COMM 110)	3
Total credits.....	10

SEMESTER 3

CREDITS

*General Pathology (BIOL 213).....	2
*Anatomy & Physiology II (BIOL 221)	3
*Anatomy & Physiology II Lab (BIOL 221L)	1
*Introductory Microbiology (MICR 202).....	3
*Introductory Microbiology Lab (MICR 202L)	1
Total credits.....	10

SEMESTER 4

CREDITS

*Introduction to Surgical Technology (SRGT 110).....	3
*Introduction to Operating Room Procedures (SRGT 120)	3
*Introduction to Operating Room Procedures and Materials Lab	

(SRGT 125L).....	2
*Introduction to Operating Room Materials (SRGT 130).....	3
Total credits.....	11

SEMESTER 5	CREDITS
*Introduction to Pharmacology for Surgical Technology (SRGT 215).....	3
*Specialty Surgical Procedures (SRGT 240).....	5
*Surgical Procedures Lab (SRGT 250)	2
*Professional Skills for Surgical Technology (SRGT 260)	3
Total credits.....	13

SEMESTER 6	CREDITS
*Operating Room Clinical Internship (SRGT 280)	12

SURGICAL TECHNOLOGY (SRGT)

SRGT 105	Medical Terminology for Surgical Technology	Fall	3 credits
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Three semester credit hours of lecture per week. This course will cover the basic knowledge of medical terminology that the surgical technologist needs to function effectively in the health care setting. The student will learn correct pronunciation and spelling of medical terms. The 12 body systems are reviewed with emphasis on the terminology of anatomy, pathology, diagnosis, and treatment for each system. Symbols and abbreviations used in medical terminology are identified throughout the course. This is an open enrollment course for any interested student. It does not require admission to the Surgical Technology program, nor does enrollment in this course guarantee admission to the Surgical Technology program.

SRGT 110	Introduction to Surgical Technology	Spring	3 credits
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SRGT 110 will cover the fundamentals of working as a surgical technologist. Included will be discussions of the surgical technologist and the field of surgical technology, professional credentialing, and the disciplines of other surgical team members. The organizational structure of health care facilities and their financing, hospital departments and interdepartmental communication will continue the semester. Surgical suite design, individual operating room design, safety considerations and communication skills for the surgical technologist will complete the semester. Prerequisites: BIOL 220, 220L. Corequisites: SRGT 120, SRGT 130, SRGT 125L

SRGT 120	Introduction to Operating Room Procedures	Spring	3 credits
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This course is the introduction to patient care concepts. Introduction to the principles of asepsis, the surgical conscience, and disinfection and antisepsis begin the semester. Included will be discussion of preoperative routines, positioning and prepping the patient, and care of surgical specimens. Prerequisites: BIOL 220, 220L. Corequisite: SRGT 110, SRGT 125L, SRGT 130.

SRGT 125L	Introduction to Operating Room Procedures and Materials Lab	Spring	2 credits
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This course will begin with the introduction to the principles of asepsis, surgical conscience, and disinfection and antisepsis. The instrumentation, equipment and other materials utilized by the surgical technologist in the practice setting will be introduced. Included will be the types and function of surgical instruments and equipment, and sterile disposable surgical supplies. The routine procedures for patient preparation and admission to the operating room are practiced. These procedures will include patient identification and transportation to the operating room. The semester will continue with positioning for surgery and surgical skin preparation, along with instruction in the use of suture and needles, sterile set up including opening and preparation of instruments and supplies for any operative procedure. The semester concludes with the care and handling of surgical specimens and instruction in the use of draping materials for any operative procedure. Corequisites: SRGT 110, SRGT 120, SRGT 130 .

SRGT 130	Introduction to Operating Room Materials	Spring	3 credits
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This course will cover the instrumentation, equipment and other materials utilized by the surgical technologist in the practice setting. Included will be the types and function of surgical instruments and equipment, and surgical supplies. Instruction in the use of suture, needles, and draping materials with the set up, opening and preparation of instruments and supplies for any operative procedure will complete the semester. Prerequisites: BIOL 220, 220L. Corequisites: SRGT 110, SRGT 120, SRGT 125L.

SRGT 215	Introduction to Pharmacology for Surgical Technology	Fall	3 credits
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This course will cover the basic knowledge of pharmacology that the surgical technologist is required to have for safe patient care. The student will identify the various systems of dosage and measurement utilized in standard pharmacology, convert equivalents from one system to another, and accurately identify, prepare and measure drugs for patient use. Definitions of general terminology associated with drug use and the procedures for the care and handling of drugs and solutions will follow. The classifications of drugs, the principles of drug use in the care of surgical patients, and a detailed discussion of anesthesia, including the preoperative drugs, intraoperative anesthetic agents, and complications of anesthesia, will conclude the semester. Prerequisites: BIOL 221 and 221L, SRGT 110, 120 and 130.

SRGT 240	Specialty Surgical Procedures	Fall	5 credits
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This course will cover surgical procedures in all surgical specialty areas. Included will be discussion of the preoperative diagnosis and types of incisions and wound closure. The surgical specialties of general and rectal surgery, peripheral vascular surgery, obstetric and gynecologic surgery, and genitourinary surgery will begin the semester. These will be followed by the specialties of ear, nose, and throat surgery, head and neck surgery, oral and maxillofacial surgery, plastic and hand surgery, and orthopedic surgery. Neurosurgery and thoracic/cardiac surgery will be the next surgical specialties to be covered. The semester will conclude with trauma surgery, transplant surgery, and organ procurement surgery. General pediatric and geriatric aspects of surgery, and endoscopy will be included in each area of surgical specialty. Prerequisites: BIOL 221 and 221L, SRGT 110, 120 and 130. Corequisite: SRGT 250.

SRGT 250 Surgical Procedures Lab**Fall****2 credits**

In this class, students will continue to learn about and practice the skills of gowning and gloving, table set-up, and the uses of suture, needles and draping. This lab will cover surgical procedures in all surgical specialty areas. The surgical specialties of general and rectal surgery, obstetric and gynecologic surgery, endoscopic surgery, and genitourinary surgery will begin the semester. These will be followed by ear, nose and throat surgery, head and neck surgery, oral and maxillofacial surgery, and ophthalmic surgery. Orthopedic surgery, neurosurgery, plastic surgery, and hand surgery will be the next surgical specialties to be covered. The semester will conclude with a review of thoracic and cardiac surgery, peripheral vascular surgery, trauma surgery, transplant surgery, and organ procurement surgery. General pediatric and geriatric aspects of surgery will be included in each area of surgical specialty. Prerequisites: BIOL 221 and 221L, SRGT 110, 120 and 130. Corequisite: SRGT 240.

SRGT 260 Professional Skills for the Surgical Technologist**Fall****3 credits**

This course will cover the patient's response to illness and hospitalization including the physical, spiritual, and psychological needs of the patient, and the patient's bill of rights. Advanced patient care skills of vital signs, managing emergency situations, and documentation will follow. The semester will continue with personal relations, professional relations, and legal aspects including consent for surgery, ethical and moral responsibilities of the surgical technologist. A discussion of health agencies, accrediting agencies, and job-seeking skills will conclude the semester. Prerequisites: BIOL 221 and 221L, SRGT 110, 120 and 130.

SRGT 280 Operating Room Clinical Internship**Spring****12 credits**

SRGT 280 will allow students to practice the skills, critical thinking, and professional behaviors that comprise competent entry-level surgical technology practice. This experience will take place in a patient care setting. The student performance will include 2nd and 1st scrubbing on minor and major cases, doing counts, basic setups, holding retractors, passing instruments, and in general, assisting operating room personnel. The students will also perform circulating duties, including pre-operative, intra-operative, and post-operative care, allowing the student to function in the role of a supervised circulating surgical technologist. Prerequisites: All other SRGT courses.