

**SURGICAL TECHNOLOGY PROGRAM PROPOSAL**  
**Montana State University College of Technology-Great Falls**

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**GENERAL INFORMATION**

<b>Proposed Program Title:</b>	Surgical Technology
<b>Proposed Award:</b>	Certificate
<b>Credit Hours:</b>	51
<b>Implementation Date:</b>	Spring Semester 2001

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**PROGRAM DEVELOPMENT**

**Brief Description of the Proposal**

The proposed Surgical Technology Program prepares persons for employment as surgical technologists through a 51-credit program delivered in a manner to accommodate the working student who seeks a career change/upgrade. Students who successfully complete the program will be awarded a certificate of completion and encouraged to take the national examination to become certified for practice. Continued efforts in program development will focus on articulation of the Certificate Program to an Associate of Applied Science degree. The proposed program has

been developed in response to requests from health care providers to meet the need for surgical technologists in central and eastern Montana.

### **Relationship to the Mission of MSU College of Technology-Great Falls**

As a two-year public institution, Montana State University College of Technology-Great Falls has a dual mission:

- 1) Its traditional mission of providing technical education to prepare individuals for direct employment, and
- 2) Its modern mission of providing general education courses and degrees which may be transferred to a four-year degree program.

The proposed program is fully consistent with the College's traditional mission, preparing students for direct employment as surgical technologists. The program is particularly appropriate for Montana State University College of Technology-Great Falls because of the College's extensive programming in allied health fields. Finally, the College is committed to a high level of responsiveness in providing a quality workforce to meet regional labor market needs. It was in response to the urgent need for surgical technologists expressed by health care providers in and beyond Great Falls that the College developed this proposal.

### **Need for the Program**

In February 2000, two health care professionals from Benefis Healthcare in Great Falls approached the College to request that a surgical technology program be initiated in Great Falls. With their assistance, an advisory committee comprised of other health care professionals, primarily from Great Falls, was assembled. All members concurred that the need for surgical technologists in central and eastern Montana was significant. Wishing to document that need, they solicited letters of support for a program in Great Falls from other health care providers. For its part, the College engaged in a more formal needs assessment, surveying health care providers in the region. Responses indicate strong support and a significant need for a surgical technology program in Great Falls.

### **Students Served by the Program**

In addition to responding to the needs of health care providers in the region, the proposed Surgical Technology Program has been designed to serve a population of students currently underserved by the College's programming. For instance, although Montana State University College of Technology-Great Falls offers ten programs through its Allied Health Department, only one of them is a certificate program. The others award Associate of Applied Science degrees, which require more course work than certificate programs, particularly prerequisite course work in general education. Pursuing the AAS degree requires a greater investment of time and finances than some students are able to make. This proposal for a certificate program in Surgical Technology serves those students who are unable to persist in the AAS programs.

Also, the curriculum of the proposed program will be delivered to accommodate the working student who seeks a career change or enhancement. The first 20 credits of course work in the program will be offered in the evenings or through distance-delivery to allow students with full-time jobs the opportunity to take steps toward new employment without immediately abandoning their current employment. The success of the College's other evening and distance-delivered offerings suggests a demand for an allied health program delivered in this manner.

### **Advisory Committee**

An advisory committee has been established to provide input on program development and implementation. Members of the Surgical Technology Advisory Committee include:

**David Kelso**, Director of Surgery, Benefis Healthcare (Great Falls)  
**Pat Whittier**, PeriOperative Education, Benefist Healthcare (Great Falls)  
**Kathleen Zandt**, Operating Room Director, St. Peter's Hospital (Helena)  
**Jack King**, Benefis Foundation (Great Falls)  
**Peggy Scheshy**, Surgery Center Manager, Great Falls Clinic (Great Falls)  
**Aida Buer**, Allied Health Department Chair, MSU College of Technology -Great Falls

### **Impact on MSU-Great Falls College of Technology**

If authorized, the Surgical Technology Program will be incorporated in the College's Allied Health Department, where it will join ten other allied health programs currently offered by the College. The incorporation of this new program will have no negative impact on the College's current programs and/or degrees. In fact, course work in the program will be offered primarily at night and on weekends to accommodate working adults, to maximize the efficient use of existing facilities and equipment, and to mitigate any potential competition for enrollment in existing allied health programs.

### **Impact on Other Programs in Montana**

A Surgical Technology Program is currently offered at The University of Montana-Missoula College of Technology. However, as that College's catalog avers, demand for the program is so high that there are waiting lists for admission. Further, employers of surgical technologists report that graduates of The University of Montana-Missoula College of Technology program tend not to seek employment on the east side of the Continental Divide, resulting in the severe shortage of surgical technologists documented in the Montana State University College of Technology-Great Falls' recently conducted needs assessment.

To ensure coordination and cooperation within the Montana University System, the chief academic officer at MSU College of Technology-Great Falls has communicated with her counterparts in Missoula at various stages of program development. Those communications have been cordial and supportive. To facilitate the transferability of Great Falls course work to Missoula, in the event that a Great Falls student relocates to Missoula before program completion, common course numbering and a similar curriculum has been proposed. In the future, MSU College of Technology-Great Falls hopes to expand the Surgical Technology program to include an option for the Associate of Applied Science degree.

### **Accreditation**

The College will seek accreditation of the Surgical Technology Program by the Committee on Accreditation of Allied Health Education Programs. The program will also be subject to review by Northwest Association of Schools and Colleges and internal review as part of its program review cycle.

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## **RESOURCES FOR THE PROGRAM**

### **Implementation Plan**

If authorized to implement the Surgical Technology Program, MSU College of Technology-Great Falls will offer the first semester of course work beginning in Spring Semester, 2001. At that time, the College will also retain a part-time faculty member to direct the program through the accreditation process and to assist in program development and arrangements for clinical

experiences. By Fall Semester, 2001, the faculty position will become full-time as the program director takes on the instructional duties in the technical portion of the program. At the end of Spring Semester, 2002, the first certificates of completion in Surgical Technology will be awarded to graduates of the program.

## **Faculty**

Of the 51 credits required for the certificate in Surgical Technology, 20 credits of course work will be taught by current faculty at the College who already deliver instruction in these courses to students in other allied health programs. The remaining course work will be the instructional assignment of the program director, who will be retained as a full-time faculty member no later than Fall 2001. As the program grows, retaining additional adjunct faculty may be warranted.

## **Facilities/Support**

No additional expenditures will be required for space and capital structures. Because the program will feature evening and electronic delivery, existing facilities at the College will meet the facilities requirements for the didactic portion of the program. Benefis Healthcare in Great Falls has offered the use of its facilities and equipment for the laboratory and clinical experiences required by the program.

Academic and other support services - e.g., library, computer labs, tutoring, counseling - are already available at the College to support and promote learning in all the College's programs. No significant increase in expenditures in these areas will be necessary for the implementation of the Surgical Technology Program.

## **Enrollment Projections**

The College projects that 15 students will enroll in the first year of the program, and 20 will enroll in the ensuing years.

## **Resources**

Because the proposed Surgical Technology Program has been designed and will be delivered in ways that maximize the efficient use of the College's existing resources, the fiscal impact of adding this new program is minimal. The only major additional expense accrues from the addition of one part-time faculty position in Spring 2001, becoming full-time in Fall 2001.

The College will re-allocate existing fiscal resources to support the program.

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## **CURRICULUM**

### **Program Outcomes**

Surgical technologists serve as the sterile member of the surgical team, preparing the patient for surgery, placing equipment and supplies in the operating room, arranging instruments under the direction of a nurse, maintaining the specified supply of fluids for use during the operation, adjusting lights and equipment, handing instruments and supplies to the surgeon, counting materials and supplies used during the operation, and cleaning the operating room. The curriculum of the proposed Surgical Technology Program has been designed to ensure that graduates of the program can perform these tasks.



Students are prepared to safely administer medications. General principles of medication administration, terminology, drug regulation, standard references and legal responsibilities are included as well as major drug classifications and therapeutic implications.

**AH 145 INTRODUCTION TO MEDICAL TERMINOLOGY Credits: 1**

This course, offered via the Internet, promotes knowledge of the elements of medical terminology for professional and personal development. Exercises in each unit will stress definitions, spelling, and pronunciation of medical words. The course is designed to build an understanding of the logical method used to form medical terms, including word analysis and word building.

**AH 194 BASIC PHARMACEUTICALS Credits: 1**

This course provides basic knowledge of the most commonly prescribed pharmaceuticals needed to analyze health care information for various allied health support functions. Emphasis is on classification, indications, therapeutic effects, side effects, interactions, and contradictions of new, current, and newly introduced applications of existing medications.

**BIO 105N FUNDAMENTALS OF HUMAN BIOLOGY Credits: 3**

This course introduces students to the structure and function of the human body. Topics such as the fundamental principles in organic and inorganic chemistry, cellular metabolism, cellular anatomy, cellular biology and histology will be covered and subsequently applied to the physiology of the body as a whole. Systems to be covered in this course include integumentary, digestive, circulatory, lymphatic, respiratory, urinary, nervous, sensory, musculoskeletal, endocrine, and reproductive. This course is designed for non-science majors.

**BIO 106N FUNDAMENTALS OF HUMAN BIOLOGY LAB Credits: 1**

Laboratory experience for BIO 105 including experimentation, microscope work, observations, and dissection.

**COMM 135 INTERPERSONAL COMMUNICATIONS Credits: 3**

This course is designed to show some of the difficulties presented by language and understanding. The course is concerned with better understanding of ourselves and our semantic and interpersonal environments. It attempts to develop meaningful, effective, and sensitive means of relating to others. Varied group experiences and oral presentations provide students the opportunity to explore current topics.

**CS 110 INTRODUCTION TO COMPUTERS Credits: 3**

This course introduces students to the concepts and terminology of computer systems and related technology and their impact on individuals and society through lecture and lab format. Hands-on overview using popular microcomputer software provides experience with computers.

**MATH 161 MATH FOR HEALTH SCIENCE Credits: 4**

Prerequisite: A grade of "B" or better in MATH 101 or qualifying admission assessment score within the past 12 months

This course prepares allied health students for the mathematics required in their profession. Topics investigated include: inductive reasoning; logic; mathematical number systems; linear, quadratic, exponential, and logarithmic functions; graphing; probability; statistics; English, apothecary and metric systems and conversions; dosage calculations; and dimensional analysis. Utilizing these areas, the course also provides students with clinical applications.

**SURG 102 SAFE PATIENT CARE & OPERATING ROOM TECHNIQUES Credits: 5**

Co-requisite: SURG 104

This course prepares students for the scrub and circulator roles of surgical technology, emphasizing the competencies involved, as well as the responsibilities of the surgical technologist.

**SURG 104 SURGICAL TECHNOLOGY LAB Credits: 3**

An introduction to the physical organization of the surgical suite, including observation of surgical procedures and demonstrations of operating room techniques.

**SURG 105 MINOR SURGICAL PROCEDURES Credits: 4**

This course familiarizes students with the surgical technologist's role during minor surgical procedures in the pre-operative, intra-operative, and post-operative stages.

**SURG 106 MAJOR SURGICAL PROCEDURES Credits: 5**

This course familiarizes students with the surgical technologist's role during major surgical procedures in the pre-operative, intra-operative, and post-operative stages.

**SURG 192 SURGICAL TECHNOLOGY LAB PRACTICUM I Credits: 4**

Prerequisite: SURG 102, SURG 104

Co-requisite: SUR 105

A supervised clinical experience in surgical settings providing scrub experience on minor surgical procedures.

**SURG 193 SURGICAL TECHNOLOGY LAB PRACTICUM II Credits: 5**

Prerequisite: SURG 192

Co-requisite: SUR 106

A supervised clinical experience in surgical settings providing scrub experience on major surgical procedures.

**SURG 194 INTERNSHIP Credits: 5**

The internship develops the students' competencies as first scrub on minor and major procedures and acquaints them with the professional expectations of surgical technologists as a capstone experience preparing them for initial employment.

