

MONTANA BOARD OF REGENTS
NEW ACADEMIC PROGRAM PROPOSAL SUMMARY

Item No.: 134-2852-R307	Institution: Montana State University-Great Falls COT
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1. How does this program advance the campus' academic mission and fit priorities?

MSU-Great Falls College of Technology has a dual-pronged mission, with one prong committing the College to providing programs that prepare students for direct entry into high-demand, high-skilled occupations. The Montana Board of Regents approved the College's proposal to establish a Certificate program in Surgical Technology in September 2000. Since then a Certificate program accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and endorsed by the Accreditation Review Committee on education in Surgical Technology (ARC-ST) has been offered through the College to serve Great Falls and other healthcare providers in Central and Eastern Montana.

The program was initiated in response to direct requests by healthcare providers in the Great Falls region and in Central and Eastern Montana for personnel who are specially trained to function as the sterile member of the surgical team, providing patient care before, during, and after surgery. There continues to be strong support for a program in Great Falls, specifically from Benefis Healthcare, and they along with other providers report that the shortage of surgical technologists that they are experiencing will continue to be an issue in providing high-quality, affordable health care to the area's residents.

2. How does this program fit the Board of Regents' goals and objectives?

The College's Surgical Technology program has, since its inception, provided an educational opportunity for Great Falls and Montana residents to attain a valuable credential in postsecondary education. The College prides itself on having a diverse and responsive healthcare program portfolio, and the Surgical Technology program is one component of that. The program provides a gateway for students, both traditional and non-traditional, to obtain high-demand, high-wage jobs currently available in Great Falls and the state. Through the program's accreditation efforts and active advisory board, as well as the interaction with and commitment from the healthcare community in Great Falls, the program provides a high-quality offering for students seeking a career in the field of Surgical Technology. The completion of the program not only awards an Associate of Applied Science Degree, but also prepares graduates to earn their certification as a Certified Surgical Technologist, a credential highly sought by employers looking to hire individuals for work in this field.

In addition, the AAS in Surgical Technology responds directly to the changing marketplace and workforce needs of the healthcare community. The Certificate program was established in response to requests from Benefis Healthcare, the state's largest, and arguably most diverse, hospital and healthcare provider. Along with other providers, Benefis continues to invest in the program as active partners in what they see as an excellent partnership to ensure that workforce needs in the thriving healthcare sector of the regional economy are met.

3. How does this program support or advance Montana's needs and interests?

In Montana, healthcare is one of the fastest-growing industries, contributing significantly to the economy. In the rural communities the College serves, healthcare is often the major employer, with the best opportunities for high-wage jobs for residents. Coupled with the aging population of the state and expanding technology in the field of Surgical Technology, workers with advanced preparation and certification will be in higher and higher demand. According to the US Department of Labor, employment for Surgical Technologists is expected to grow much faster than the average for all occupations through the year 2014. Hospitals will continue to be the primary

employer, although much faster employment growth is expected in offices of physicians and in outpatient care centers, including ambulatory surgical centers.

Presently there are nearly 300 Surgical Technologists employed in Montana and according to the Montana Department of Labor and Industry this number will increase by nearly 100 over the next seven years. The Department also reports that out of the state's 20 top employers, six are hospitals, and the largest of those six is Benefis Healthcare located in Great Falls. According to the Department's Occupational Employment Statistics (OES) in 2005 Surgical Technologists earned a median hourly wage of \$17 per hour or an annual salary of approximately \$36,211.

4. How will this program contribute to economic development in Montana? (Note projected annual economic impact both regionally and statewide.)

Providing workforce opportunities to Great Falls and Montana residents where they earn a salary in the established range contributes directly to the economic development of the state and region. Of the 28 graduates in the Certificate program for Surgical Technology who have reported on placement surveys, 89% (25) are currently employed as Surgical Technologists in Montana, with the remaining three either working in another field, seeking further education, or not currently seeking employment. The economic impact of these graduates since 2002, considering wages only and using the average annual salary data provided by the Montana Department of Labor & Industry has been, cumulatively, over \$3.3 Million. This does not take into account the increased surgical capacity Montana hospitals and health care providers have been able to accommodate because of these graduates, with the resulting additional healthcare dollars brought into the economy. Continuation of this program as an Associate of Applied Science Degree should ensure a continued, if not increased, trend of economic impact along these lines.

5. What is the program's planned capacity?

• Break-even point?	20 FTE students
• Enrollments / year?	20 FTE
• Graduates / year?	10
• MT jobs / year?	10

6. Resource Allocation:

• Total program budget?	\$ 90,700
• Faculty FTE?	1.5
• Staff FTE?	0

7. Does this program require new resources? Yes No

If yes, what is the amount? \$ _____

8. How will the campus fund the program?

The campus is currently funding the program and its 1.5 FTE in faculty/staff. Funding for faculty, equipment, and supplies is through a combination of tuition, state allocation, health care community donations, industry partnerships, and student program fees.

9. If internal reallocation is necessary, name the sources.

N/A

Associate of Applied Science in Surgical Technology

PROGRAM DESCRIPTION

- 1. Briefly describe the proposed new program. Please indicate if it is (a) an expansion of an existing program or a new program; (b) a cooperative effort with another institution, business, or industry; or (c) an on-campus or off-campus program. Attach any formal agreements established for cooperative efforts.**

MSU-Great Falls College of Technology currently has a Certificate program in Surgical Technology. This proposal seeks to transition that program to an Associate of Applied Science degree for four primary reasons:

- (1) The trend in the field of Surgical Technology is moving away from certificate-level and toward associate degree-level educational preparation.
- (2) The current certificate program has too many credits to comply with Board of Regents Policy 301.12, for Certificate of Applied Science programs, and course work cannot be reduced without jeopardizing accreditation.
- (3) Converting the program to an AAS degree will align its curriculum and degree more closely with other Surgical Technology programs in Montana.
- (4) Providing students with the added value of an AAS degree, as opposed to a Certificate of Applied Science, can be done within the current academic offerings of MSU – Great Falls.

Like the Certificate program, the AAS in Surgical Technology will be delivered in Great Falls, although some coursework within the program may be accessed through online or mixed-mode (hybrid) classes.

Please see the attached comparison of the current Certificate program and the proposed Associate of Applied Science Degree program curricula.

- 2. Summarize the needs assessment conducted to justify the proposal.**

From the inception of the Certificate program, the need for qualified Surgical Technologists has been evident. In February 2000, 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 indicated strong support and a significant need for a surgical technology program in Great Falls.

In 2004 the program lost its program director and the College struggled to find a qualified replacement. Benefis Healthcare again approached the College to stress the

need for this program and Surgical Technologists in Great Falls and Montana. To demonstrate their commitment, they contributed financial and in-kind support to the program to ensure its continuance.

When considering options for the program as we considered the three reasons for justification for this proposal noted above, the College has consulted with US Department of Labor and Montana Department of Labor & Industry to evaluate the occupational outlook for this profession. In Montana, health care is one of the fastest-growing industries contributing significantly to the economy and society. Coupled with the aging population of the state and expanding technology in the field of Surgical Technology, workers with advanced preparation and certification will be in higher and higher demand. According to the US Department of Labor employment for Surgical Technologists is expected to grow much faster than the average for all occupations through the year 2014.

Presently there are nearly 300 Surgical Technologists employed in Montana and according to the Montana Department of Labor & Industry, this number will increase by nearly 100 over the next seven years. The Department also reports that out of the state's 20 top employers, six are hospitals, and the largest of those six is Benefis Healthcare located in Great Falls. The recent introduction of a surgical hospital in Great Falls increases the demand for surgical technologists in the community.

3. Explain how the program relates to Role and Scope of the institution as established by the Board of Regents.

Within the Montana University System, colleges of technology are charged by the Board of Regents to provide access to higher education programs that prepare students to obtain and succeed in technical, high-skill, and high-demand occupations. This is typically done through one- and two-year programs (Certificates and Associates of Applied Science) specifically aligned with a recognized occupation in the workforce. Surgical technology is a recognized occupation with high demand, and the proposed curriculum aligns with the trend in the field.

4. State (a) what effect, if any, the proposed program will have on the administrative structure of the institution. Also indicate (b) the potential involvement of other departments, divisions, colleges, or schools.

The proposed transition of the Certificate in Surgical Technology to an Associate of Applied Science will have no impact on the administrative structure of the College. The curriculum differences between the two programs are primarily in the general education coursework, while the discrete coursework remains the same. The College currently offers all courses necessary to complete the Associate of Applied Science program and therefore the transition would have little or no impact on any other departments or divisions within the institution.

With two very similar AAS degree programs in the state, the potential for partnership certainly exists. Such partnerships have challenges when the partnering colleges have

existing programs with tenure-track faculty and established relationships with local healthcare providers. MSU - Great Falls will continue to seek partnership arrangements that work well for students, faculty, and the healthcare community.

5. Describe the extent to which similar programs are offered in Montana, the Pacific Northwest, and states bordering Montana. How similar are these programs to the one proposed?

In Montana, two other institutions of higher education offer an Associate of Applied Science Degree in Surgical Technology. They are The University of Montana-Missoula College of Technology and Flathead Valley Community College. Those programs and the proposed one at MSU-Great Falls are nearly identical, with the only variances occurring in some of the general education courses required within the program. Technical electives and discrete coursework are virtually the same. See the attached comparison of program curriculum.

Programs across the Pacific Northwest are also similar to the program being proposed. For all accredited Surgical Technology programs the required curricula content is fairly well set by the Accreditation Review Committee on education in Surgical Technology (ARC-ST). As an accredited program, the proposed program complies with these standards and thus is similar to other programs found in the Pacific Northwest and across the nation.

6. Please name any accrediting agency (ies) or learned society (ies) that would be concerned with particular program herein proposed. How has this program been developed in accordance with criteria developed by said accrediting body (ies) or learned society (ies)?

The current Certificate program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) with continued endorsement by the Accreditation Review Committee on education in Surgical Technology (ARC-ST). The accreditation for the Associate of Applied Science Degree will also fall within the accreditation purview of these two groups. All curriculum and coursework is in compliance with accreditation standards.

7. Prepare an outline of the proposed curriculum showing course titles and credits. Please include any plans for expansion of the program during its first three years.

Prerequisite Courses

Course No.	Title	Credits
AH 145	Introduction to Medical Terminology	1
BIO 107	Fundamentals of Human Bio/Lab	4
BIO 213	A&P I with lab	4
BIO 214	A&P II with lab	4
MATH 103	Introductory Algebra**	4
ENGL 119	Intro to Composition** OR	
ENGL 124	Business & Professional Communication	3

PSY 101	Introduction to Psychology	OR	
COMM 135	Interpersonal Communication		3
			Subtotal 23

Requirements after Formal Acceptance

Spring Semester

Course No.	Title	Credits	
PHIL 238	Ethics, Health Profession	3	
BIO 280	Microbiology with lab	4	
SURG 101	Introduction to Safe Patient Care+*	3	
SURG 109	Surgical Procedures Lab I+	3	
SURG 154	Surgical Pharmacology+*	3	
			Subtotal 16

Fall Semester

Course No.	Title	Credits	
SURG 200	Operating Room Techniques+*	5	
SURG 201T	Surgical Procedures I+*	4	
SURG 110	Surgical Procedures Lab II+	3	
SURG 192	Clinical Experience I+	4	
			Subtotal 16

Spring Semester

Course No.	Title	Credits	
SURG 205	Surgical Procedures II+*	5	
SURG 193	Clinical Experience II+	5	
SURG 194	Internship+	5	
			Subtotal 15

Total Program Credits – 70

+ A grade of “C” or above required for graduation | * Indicates prerequisites needed
| ** Placement in course(s) is determined by admissions assessment

FACULTY AND STAFF REQUIREMENTS

- 1. Please indicate, by name and rank, current faculty who will be involved with the program proposed herein.**

Sandra I. Ondler, RN, CNOR – 1.0 FTE Program Director/Faculty
Shon Hueth, Surgical Technologist – 0.5 FTE Adjunct Faculty

- 2. Please project the need and cost for new faculty over the first five years of the program. Include special qualifications or training. If present faculty is to conduct the new program, please explain how they will be relieved from present duties.**

One full-time faculty member and one half-time faculty member will be required for the program. All faculty members in the program must meet the Regents’ requirements for qualifications of faculty in two-year programs. In addition, Surgical Technology program faculty must hold or be working towards a Certified Surgical Technologist (CST) certification to instruct in an accredited program.

Surgical Technology program faculty are currently in place and instructing in the Certificate program, and general education faculty also currently in place will include Surgical Technology program students in related instruction courses offered to a broader population of students at the College. The projected impact of additional workforce development students in these courses is minimal, given the small number of students and the number of sections of general education courses available. Therefore, it is anticipated that little or no new costs for faculty and staff will be required by this proposal.

Total personnel costs FY08 = \$81,900

- 1.0 FTE faculty: Salary of 39,280 + benefits of 15,320 total cost = \$54,600

3. Please explain the need and cost for support personnel or other required personnel expenditures.

Support will be provided by existing clerical staff within the Health Sciences Department of the College, Clinical Site Instructors/Preceptors are provided by the Hospital/Clinical site.

Clerical Staff support -	No additional cost
Clinical Instructors/Preceptors -	No additional cost

CAPITAL OUTLAY, OPERATING EXPENSES AND PHYSICAL FACILITIES

1. Please summarize operating expenditure needs.

a. Contracted Services –	2,000	400
b. Supplies & Materials –	3,500	400
c. Communications –	2,000	605
d. Travel & Professional Development –	2,000	2,195
e. Repairs and Maintenance –	1,500	250
f. Other Expenses (e.g. Accreditation Fees) -	2,410	4,950
Total Operating Expenses FY08		\$5,700 8,800

2. Please evaluate library resources. Are they adequate for operation of the proposed program? If not, how will the library need to be strengthened during the next three years?

The College’s library resources are adequate for the proposed program. All materials required for the proposed Associate of Applied Science Degree are the same as those required for the coursework currently delivered in the Certificate program.

3. Please indicate special clinical, laboratory, and/or computer equipment that will be needed. List those pieces of equipment or computer hardware presently available in the department.

No additional equipment will be needed.

Equipment presently available:

Arthroscopy shaver	Linen hamper, OR
Backtable, stainless steel x2	Manikin
Camera, Stryker medical video	Mayo stand, surgical x4
Cautery machine	Mayo stand, nonsurgical x1
EKG, Hewitt Packard strip printer	Pressure bag, IV
Gurney, patient transport	Ringstands x2
IV poles x4	Screens, privacy, foldable x3
Instruments, surgical (wide variety of single instruments, including complete major tray)	Shelving, stainless steel six shelf
Instrument stands x2	Sink, stainless steel double scrub with eye sensor
Kickbucket x1	Stool, rolling medical
Laptop, Dell	Table, operating room, Amsco manual control
Light, operating room overhead x2	Table Accessories, operating room: clark sockets, stirrups
Lightsource, endoscopy	Video Tower
Light, exam, standing	

4. Please describe facilities and space required for the proposed program. Are current facilities adequate for the program? If not, how does the institution propose to provide new facilities?

The proposed Associate of Applied Science Degree program will utilize the same space currently in use by the Certificate program. The space on campus and at the clinical locations is both adequate for the proposed program. On campus there are two types of classroom spaces utilized by the program:

1. Traditional Lecture Classrooms
2. Surgical Technology Laboratory – Classroom designed to imitate a surgical setting for practical, hands-on student work aligned with didactic course materials.

Regular clinical locations and sites are Benefis Healthcare, Great Falls Clinic Surgery Center and Central Montana Hospital. These facilities are typically the operating rooms and surgical centers used by this institution. In the event the demand for the program surpasses the clinical locations available in Great Falls, regional locations include Northern Montana Hospital in Havre, St. Peter's Hospital in Helena, St. Vincent's Hospital in Billings, Deaconess Billings Clinic in Billings, and Marias Medical Center in Shelby.

Current Certificate and Proposed AAS Degree Curricula

Current Certificate*	Proposed AAS
<p style="text-align: center;">First Year</p> <p><u>Fall/Spring (Prerequisites)</u> AH 108 Disease Concepts AH 145 Intro to Med Terminology AH 194 Basic Pharmaceuticals BIO 107 Fund of Human Biology/Lab COMM 135 Interpersonal Communication ENGL 120 Intro to Composition OR ENGL 121 Composition I MATH 103 Introductory Algebra</p> <p style="text-align: right;">Total Credits 18</p> <p style="text-align: center;">Second Year</p> <p><u>Fall Semester</u> SURG 102 Safe Pat Care & Operating Room Tech SURG 104 Surgical Technology Lab SURG 105 Surgical Procedures I</p> <p style="text-align: right;">Total Credits 16</p> <p><u>Spring Semester</u> SURG 106 Surgical Procedures II SURG 192 Clinical Experience I SURG 193 Clinical Experience II SURG 194 Internship</p> <p style="text-align: right;">Total Credits 17</p> <p style="text-align: right;"><i>Total Program Credits – 51</i></p> <p><i>* NOTE: This program curriculum is currently out of compliance with Montana Board of Regents Policy 301.12 for total program credits and required length of time to degree.</i></p>	<p style="text-align: center;">First Year</p> <p><u>Summer Semester (Prerequisites)</u> BIO 107 Fundamentals of Human Bio BIO 213 Anatomy and Physiology I</p> <p style="text-align: right;">Total Credits 8</p> <p><u>Fall Semester (Prerequisites)</u> PSY 101 Intro to Psychology OR COMM 135 Interpersonal Communication AH145 Intro to Medical Terminology BIO 214 Anatomy and Physiology II MATH103 Introductory Algebra ENGL 119 Intro to Composition OR ENGL 124 Business & Professional Communication</p> <p style="text-align: right;">Total Credits 15</p> <p><u>Spring Semester</u> PHIL 238 Ethics, Health Profession BIO 280 Microbiology with lab SURG 101 Intro to Safe Patient Care SURG109 Surgical Procedures Lab I SURG 154 Surgical Pharmacology*</p> <p style="text-align: right;">Total Credits 16</p> <p style="text-align: center;">Second Year</p> <p><u>Fall Semester</u> SURG 200 Operating Room Techniques SURG 201 Surgical Procedures I SURG 110 Surgical Procedures Lab II SURG 192 Clinical Experience I</p> <p style="text-align: right;">Total Credits 16</p> <p><u>Spring Semester</u> SURG 205 Surgical Procedures II SURG 193 Clinical Experience II SURG 194 Internship</p> <p style="text-align: right;">Total Credits 15</p> <p style="text-align: right;"><i>Total Program Credits - 70</i></p>

Curriculum Comparison of Surgical Technology Programs in Montana

MSU-Great Falls	UM-Missoula COT	Flathead Valley CC
<p style="text-align: center;">First Year</p> <p><u>Summer Semester (Prerequisites)</u> BIO 107 Fundamentals of Human Bio BIO 213 Anatomy and Physiology I Total Credits 8</p> <p><u>Fall Semester (Prerequisites)</u> PSY 101 Intro to Psychology OR COMM 135 Interpersonal Comm AH145 Intro to Medical Terminology BIO 214 Anatomy and Physiology II MATH103 Introductory Algebra ENGL 119 Intro to Composition OR ENGL 124 Business & Professional Communication Total Credits 15</p> <p><u>Spring Semester</u> PHIL 238 Ethics, Health Profession BIO 280 Microbiology with lab SURG 101 Intro to Safe Patient Care SURG109 Surgical Procedures Lab I SURG 154 Surgical Pharmacology* Total Credits 16</p> <p style="text-align: center;">Second Year</p> <p><u>Fall Semester</u> SURG 200 Operating Room Techniques SURG 201 Surgical Procedures I SURG 110 Surgical Procedures Lab II SURG 192 Clinical Experience I Total Credits 16</p> <p><u>Spring Semester</u> SURG 205 Surgical Procedures II SURG 193 Clinical Experience II SURG 194 Internship Total Credits 15</p> <p style="text-align: center;">Total Program Credits - 70</p>	<p style="text-align: center;">First Year</p> <p><u>Prerequisites</u> COM 115 Technical Writing or COM 101 English Composition CRT 100 Computer Literacy or equivalent MAT 100 Intermediate Algebra or MAT 117 Probability and Linear Math MED 154 Beginning Medical Terminology PSY 100S Introduction to Psychology SCN 201N Anatomy and Physiology I Total Credits 18</p> <p><u>Spring Semester</u> BIOL 106 Elementary Medical Biology SCN 202N Anatomy and Physiology II SUR 101 Introduction to Safe Patient Care SUR 102 Surgical Procedures Lab I SUR 154T Surgical Pharmacology Total Credits 15</p> <p style="text-align: center;">Second Year</p> <p><u>Fall Semester</u> SUR 200T Operating Room Techniques SUR 201T Surgical Procedures I SUR 202T Surgical Procedures Lab II SUR 203T Surgical Lab Practicum I SUR 204 Ethical Dimensions in Health Professions Total Credits 18</p> <p><u>Spring Semester</u> SUR 205T Surgical Procedures II SUR 206T Surgical Lab Practicum II SUR 290T Surgical Internship Total Credits 15</p> <p style="text-align: center;">Total Program Credits - 66</p>	<p style="text-align: center;">First Year</p> <p><u>Fall Semester</u> BIOL 133 Medical Terminology BIOL 261 Anatomy & Physiology I ENGL 111 English Composition MATH 78 Introductory Algebra SURG 101 Intro to Surgical Technology Total Credits 17</p> <p><u>Spring Semester</u> BIOL 207 Microbiology of Infectious Diseases w/Lab BIOL 262 Anatomy & Physiology II CMPA 130 Integrated Software Apps PSY 110 Introduction to Psychology SURG 105 Surgical Techniques I Total Credits 19</p> <p style="text-align: center;">Second Year</p> <p><u>Fall Semester</u> BIOL 170 Disease Process/Pharmacology HS/SP 120 Interpersonal Relations/ Communication SURG 106 Surgical Techniques II SURG 110 Applied Surgical Technology Procedures SURG 120 Surgical Technology Clinical I Total Credits 19</p> <p><u>Spring Semester</u> SURG 107 Professional Development and Leadership SURG 130 Surgical Technology Clinical II Total Credits 13</p> <p style="text-align: center;">Total Program Credits - 68</p>

BUDGET ANALYSIS

Proposed Program:										
Program Name: Surgical Technology										
Campus: MONTANA STATE UNIVERSITY - GREAT FALLS COLLEGE OF TECHNOLOGY										
	Year 1		Year 2		Year 3		Year 4		Year 5	
	FY 08		FY 09		FY 10		FY 11		FY 12	
Estimated ENROLLMENT										
FTE Enrollment	20		20		20		20		20	
Estimated Incremental REVENUE										
Use of Current General Operating Funds										
State Funding for Enrollment Growth	37,760		37,760		37,760		37,760		37,760	
Tuition Revenue										
A. Gross Incremental Tuition Revenue	50,000		50,000		50,000		50,000		50,000	
B. Reductions to Incremental Tuition										
C. Net Tuition Revenue (A-B)	50,000		50,000		50,000		50,000		50,000	
Program/Course Fees (\$190/student)	3,800		3,800		3,800		3,800		3,800	
External Funds										
Other Funds (please specify)										
TOTAL Estimated Incremental Revenue	91,560		91,560		91,560		91,560		91,560	
Estimated Incremental EXPENDITURES										
Personal Services	FTE	Cost								
Faculty	1.5	81,900	1.5	84,357	1.5	86,888	1.5	86,888	1.5	86,888
Staff	0	-	0	-	0	-	0	-	0	-
Operating Expenses	8,800		9,064		9,336		9,616		9,904	
Equipment										
Start-up Expenditures										
TOTAL Estimated Incremental Expenditures	90,700		93,421		96,224		96,504		96,792	
Estimated Revenues Over/(Under) Expenditures	860		(1,861)		(4,664)		(4,944)		(5,232)	