



Surgical Technology AAS Program

Expansion of Existing Program State Submission

Mark Wilson, President
January 2014



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SURGICAL TECHNOLOGY AAS PROGRAM

EXECUTIVE SUMMARY

Western Dakota Technical Institute is seeking approval to transition from offering a diploma in Surgical Technology to offering an Associate of Applied Science degree in the program.

Labor market information for the state indicates that the demand for surgical technologists is strong now and in the future. Through 2020, the number of surgical technologists is expected to grow by 22.1 percent, according to the South Dakota Labor Market Information Center (LMIC).

Graduates of this program will be able to seek employment in hospitals, surgical centers, and other healthcare operations that perform surgeries.

Western Dakota Technical Institute will market this program as Surgical Technology. The degree is a 18-month or four-semester curriculum.

IDENTIFICATION AND DESCRIPTION OF THE PROGRAM

This proposal is for an expansion of the Surgical Technology program. WDT requests permission to create an Associate of Applied Science degree option in the program. WDT currently offers a nine-month diploma option that would be discontinued if this proposal is approved.

Adding the AAS option will help meet the needs of the increased requirement of 120 surgery cases from 80 cases. It will also allow for more A&P coursework, increased time in technical labs, and the addition of courses such as pathophysiology and medical law and ethics.

The expanded program is necessary to meet the trends in industry. Employers and the Association of Surgical Technologists are encouraging Surgical Technology programs to transition to associate degree programs. This proposed change at WDT would meet industry expectations.

In January 2013, the Association of Surgical Technologists adopted the Associate Degree Concept Resolution that reads, in part: "... the Association of Surgical Technologists, Inc., declares the associate degree in surgical technology to be the preferred educational level for entry-level practice." The full resolution can be found at http://www.ast.org/pdf/Standards_of_Practice/Resolution_Associate_Degree_12.20.pdf

OBJECTIVES AND PURPOSE OF THE PROGRAM

The primary objective of the Surgical Technology program is to prepare students with the necessary skills to be successful in the field. Students will take coursework in microbiology, pathophysiology, surgical procedures, and more. This program also will provide education and training in soft skills such as communication and professionalism.

According to the Occupational Outlook Handbook, surgical technologists typically do the following:

- Prepare operating rooms for surgery
- Sterilize equipment and make sure that there are adequate supplies for surgery
- Prepare patients for surgery, such as washing and disinfecting incision sites
- Help surgeons and nurses during surgery by passing instruments and other sterile supplies

Surgical technologists work as members of a healthcare team alongside physicians and surgeons, registered nurses, and other healthcare workers.

Before an operation, surgical technologists prepare the operating room by setting up surgical instruments and equipment. They also prepare patients for surgery by washing and disinfecting incision sites, positioning patients on the operating table, and covering patients with sterile drapes. Surgical technologists prepare sterile solutions used in surgery and check that all surgical equipment is working properly. They help the surgical team put on sterile gowns and gloves.

During an operation, surgical technologists pass instruments and supplies to surgeons and first assistants. Technologists also may prepare, care for, and dispose of specimens taken for laboratory analysis. In addition, they apply dressings. After an operation, surgical technologists may help transfer patients to recovery rooms and may clean and restock operating rooms.

The program will articulate appropriate high school credits whenever possible, and there could be dual enrollment possibilities for high school students.

PROGRAM OUTCOMES

After successful completion of all program requirements, the graduate will:

- Demonstrate punctuality, accountability for behavior and performance, and a willingness to learn and improve.
- Demonstrate appropriate analytical abilities as they pertain to the perioperative environment.
- Utilize written and verbal communication techniques appropriate to the perioperative environment.
- Demonstrate competency with instrumentation, equipment, and supplies utilized in the perioperative environment.
- Demonstrate abilities necessary to be a productive member of a surgical team.
- Demonstrate a surgical conscience.
- Demonstrate behaviors and skills essential to earn employment as a surgical technologist.

METHODS OF OBTAINING THE OBJECTIVES OF THE PROGRAM

The Surgical Technology program provides students with skill-based development in classroom and lab settings on the WDT campus before students enter clinical sites in the community.

As with all WDT programs, a variety of services and support are available to students in the Surgical Technology program. This includes expanded tutoring and office hours provided by full-time program faculty and at WDT's Academic Success Center. Access to current medical reference materials and resources is available via WDT library services.

Need- and merit-based scholarships, emergency assistance, and other financial aid assistance are also available to students.

The Surgical Technology program will continue to work closely with an industry advisory board composed of representatives who are from industry. The Advisory Board will approve the curriculum, discuss and recommend equipment purchases, and assist in forming partnerships to help WDT with innovative curriculum, internships, and presentations.

The program's Advisory Board is supportive of this change to an Associate of Applied Science degree because industry is demanding surgical technicians with additional and more advanced skills. In addition, the program's accrediting agency is pushing a move to the Associate's Degree.

POPULATION SERVED BY THE PROGRAM

The Surgical Technology program will be available to all interested individuals who successfully meet the WDT admissions criteria established for the program. The program will be open to full-time and part-time students. All applicants must be high school graduates or have achieved a GED and take an admissions test to establish reading, writing, and math abilities. No restriction will be made regarding race, creed, gender or age. The program will draw students primarily from South Dakota. The opportunities for employment in the field will be primarily in South Dakota.

PROJECTED THREE-YEAR BUDGET

This program will be staffed by current instructors. Current institutional budgets for the diploma program will cover the needs of the new AAS option.

PROGRAM COMPETENCIES AND ENTRY AND EXIT POINTS

Entry point: Fall Semester

Exit point: Graduation with an Associate of Applied Science degree in Surgical Technology.

PROGRAM DUPLICATION

Western Dakota Tech is proposing this program to meet regional industry needs for surgical technologists. While there are other surgical technology programs in South Dakota, they are not meeting the needs of the healthcare industry in western South Dakota.

CURRICULUM DESIGN

See Appendix A for Curriculum Sequence.

WAGE FACTOR

Nationally, the median annual wage of surgical technologists was \$41,790 in May 2012. The median annual wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than \$29,710, and the top 10 percent earned more than \$60,240.

Most surgical technologists work full time. Surgical technologists employed in hospitals may work or be on call during nights, weekends, and holidays. They may be required to work shifts lasting longer than 8 hours.

South Dakota Wage Estimates for SD, Rapid City, and West					Percentile				
AREA	SOC CODE	Occupation	Workers	Avg. Wage	10 th	25 th	50 th	75 th	90 th
Statewide	29-2055	Surgical Technologists	440	18.02	13.34	15.56	17.94	20.86	22.98
Rapid City MSA	29-2055	Surgical Technologists	80	18.22	13.92	15.93	18.06	20.74	22.86
West	29-2055	Surgical Technologists	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Data derived from SD Department of Labor http://dlr.sd.gov/lmic/menu_occupational_wages.aspx

EMPLOYMENT OUTLOOK

South Dakota Occupational Projections 2010-2020

SOC	SOC Title	2010	2020	Growth	% Growth	Average Annual Demand
29-2055	Surgical Technologists	520	635	115	22.1	25

Data derived from SD Department of Labor http://dlr.sd.gov/lmic/occupation_projections.aspx

On a national level (retrieved from the Occupational Outlook Handbook):

Employment of surgical technologists is expected to increase 19 percent from 2010 to 2020, about as fast as the average for all occupations.

Advances in medical technology have made surgery safer, and more operations are being done to treat a variety of illnesses and injuries. The aging of the large number of baby boomers also is expected to increase the need for surgical technologists because older people usually require more operations, including joint replacements and heart-related procedures. Hospitals will

continue to be the primary employer of surgical technologists, reducing costs by employing technologists, instead of higher paid registered nurses, in operating rooms.

Job prospects should be best for surgical technologists who have completed an accredited education program and who maintain their professional certification.

Surgical Technologist CIP Code: 51.0909

APPENDIX A – Surgical Technology AAS Degree PROGRAM CURRICULUM

Course Sequence

First Semester		Credits
HC213	Medical Terminology I	3
ST102	Introduction to Surgical Technology	3
ST111	Introduction to Surgical Technology Lab	3
PHGY220	Human Anatomy & Physiology I w/Lab	4
CIS105	Microcomputer Software Applications	3
HC135	Medical Law and Ethics	2
	TOTAL CREDITS	18
Second Semester		Credits
STXXX	Surgical Procedures I	3
STXXX	Principles and Practice of Surgical Technology I	3
PHGY230	Human Anatomy and Physiology II w/ Lab	4
SOC100	Introduction to Sociology	3
MATH100	Elementary Algebra (or higher)	3
	TOTAL CREDITS	16
Third Semester		Credits
STXXX	Surgical Procedures II	3
ST128	Surgical Pharmacology	2
ST127	Science and Technologies for the Surgical Technologist	1
STXXX	Principles and Practices of the Surgical Technologist II	3
HC225	Pathophysiology	3
ENGL201	Technical Writing	3
PSYC103	Human Relations in the Workplace	3
	TOTAL CREDITS	18
Fourth Semester		Credits
STXXX	Surgical Technology Clinicals	13
	TOTAL CREDITS	13

APPENDIX B – LETTERS OF SUPPORT



SPEARFISH
REGIONAL SURGERY CENTER

1316 North 10th Street Spearfish, SD 57783 (605) 642-3113 FAX (605) 642-3117

February 4, 2013

Mr. Mark Wilson, President
Western Dakota Tech
800 Mickelson Drive
Rapid City, South Dakota 57703

RE: Western Dakota Tech Associates Degree Program

Mr. Wilson:

I am writing today in support of the plan to enhance the Surgical Technology Program at WDT by offering an Associate Degree. This opinion was developed after consultation within the ST Advisory Council and WDT administration representatives in 2011. I originally wrote this letter for presentation in Pierre and feel it is still relevant today.

After literature research and discussion within the group, we feel Surgical Technology is an expanding job market in our area and nationally. Because of the predicted future shortages in health care personnel, we feel the time is right for adding a degree status to the surgical technologist. By requiring additional education, the surgical technologist will have a broader range of skills in the peri-operative environment. This education would allow them to safely fill gaps in services formally provided by personnel who will also be affected by the predicted shortages.

Health care futurist are predicting in order to meet the personnel shortages, all providers will have to move their practice to the higher ranges of training, thereby leaving gaps. In order for the surgical technologist to legitimately fill more advanced roles in the peri-operative environment, they will need appropriate professional development skills currently absent in the one year diploma program.

By moving the surgical technology profession to the Associate Degree level, the technologist has a comparable education to those currently filling many of the peri-operative roles. The WDT Surgical Technology Advisory Council also recognizes the Associate Degree is the preferred entry level education for surgical technologists by the Association of Surgical Technologist. Moving the program to the Associates Degree brings WDT into line with the current national trends and goals in surgical technology education.

Regards,



Michael A. DeLano CST, CSFA
Director Spearfish Regional Surgery Center



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Mr. Mark Wilson, President

Western Dakota Tech

800 Michelson Drive

Rapid City, South Dakota 57703

November 11, 2013

RE: Western Dakota Tech Associates Degree Program

Mr. Wilson:

I am writing you today in support of WDT proposal to expand the Surgical Technology Program to an Associate Degree level. This opinion was developed after consultation by the ST Advisory Council and the WDT administration in 2011 and again in 2013.

Current trends in the healthcare arena and literature research along with discussions within these groups, we feel that the expansion of the Surgical Technology program to an Associates level would greatly enhance the future of the Surgical Technologist job market to an already expanding market of supply and demand. Demands in healthcare jobs are rapidly changing due to lack of trained support staff to fill the roles in the surgical arena; professional staffs currently are difficult at best to recruit and the need for the highly trained Surgical Technologists is needed to bridge that gap.

The time is right to add the degree status to this program. The Associate degree will make the Surgical Technologist more marketable; provide a broader range of skills in the peri-operative arena and build on a broader scope of education that is focused on healthcare standards.

Adding the additional courses that will meet the Associate degree requirements will build a stronger Surgical Technologist and prepare them for the competitiveness of healthcare in the future. The Associate degree will assist them in bridging the next level of education to continue with a professional advancement such as the Surgical First Assist by Association of Surgical Technology. Due to the predictions of healthcare strategists the demands on personnel shortages from all providers will move to more expanding roles of all providers to deal with personnel shortages. It would be prudent now to prepare our students for success in education and advancement.

By moving the Surgical Technology profession to the Associate Degree level, the technologist has a comparable education to those currently filling many peri-operative roles in healthcare. The Advisory Council at WDT recognizes the Associate Degree as the preferred entry level of education for the Surgical Technologist by the Association of Surgical Technology. Moving the program to this level will bring WDT into alignment with current national standards and goals for surgical technology education.

Respectfully,

Delphina "Dee" Gilson, BSN, RN

OR Manager, Sheridan Memorial Hospital

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to Heart



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October 20, 2013

Mr. Mark Wilson, President
Western Dakota Tech
800 Mickelson Drive
Rapid City, SD 57703

RE: Western Dakota Tech Associate Degree Program

Dear Mr. Wilson:

I am writing today in support of the plan to enhance the Surgical Technology Program at Western Dakota Technical (WDT) by offering an Associate Degree.

The opinion was developed after consultation within the American Surgical Technology (AST) Advisory Council and WDT administration representatives in 2011. I served on the AST Advisory Council for 3 terms.

I believe Surgical Technology is an expanding job market in our area as well as nationally. We have a predicted shortage in health care personnel, and believe that this would be the correct time for adding a degree status to the surgical technologist. By requiring a broader education, the surgical technologist will have more in depth range of skills in the peri-operative environment. This education would help to fill gaps in some services that may be affected by the predicted shortages.

Health care futurist are predicting that in order to meet the high personnel shortages all providers will have to move their practice to the higher ranges of training, creating gaps. In order for the surgical technologist to legitimately fill more advanced roles in the peri-operative environment, they will need the appropriate professional development skills currently absent in the one year diploma program. As a nurse in the peri-operative field for more than 25 years, the baseline knowledge, confidence, and critical thinking skills has been superior in the Associate's prepared candidate. The WDT Surgical Technology Advisor Council recognizes the Associate Degree as the preferred entry level education for surgical technologist by the Association of Surgical Technologist. By moving the program to the Associates Degree, it will bring WDT into line with the current national trends and goals in surgical technology education.

Sincerely,

Doris Fritts, RN, BSN, CNOR

Executive Director Same Day Surgery Center