



South Dakota Technical Institutes Program Proposal to the SD Board of Education November 2016

Program Proposal:	Technical Studies AAS Degree
Length of Program:	Approx. 12 months, depending on the student
Number of Students:	Limited numbers
Projected Start Date:	Fall 2017

Executive Summary

The four technical institutes in South Dakota request approval to offer a unique Associate of Applied Science (AAS) degree in Technical Studies. The degree is designed to be a flexible option for students seeking career advancement so they have the credentials required to take on managerial or leadership positions in their organizations. Students who may be interested in the program include past graduates of technical institute diploma or certificate programs and individuals in the workforce whose career objectives cannot be met through the completion of any single technical program offered at one of the four technical institutes. The Technical Studies AAS degree will provide students a practical, efficient pathway to a college degree and the upskilling required for career advancement.

The Technical Studies degree could be earned through completion of an existing technical institute diploma or certificate and by stacking on general education and technical credits in line with students' career goals. In other words, students would have the ability to customize the degree by choosing courses in business or management or additional technical courses that enhance their overall skills, certifications, and value in the workplace. At a minimum, students would be required to complete 25% of the degree at the technical institute where they wish to earn their AAS degree (or the institute's requirement, if higher).

Identification and Description of Program

The Technical Studies program could be offered by all four technical institutes in South Dakota to provide a convenient path to an associate's of applied science (AAS) degree. Combining a completed technical institute diploma or approved certificate, required general education courses, and a customized mix of general and technical coursework, the degree will lead to increased marketability, career advancement and, most likely, greater earnings for graduates. The length of the program will vary depending on students' previous educations and customized degree program requirements. A minimum of 60 credits will be required to earn the degree. Students can enter the program at any time: fall, spring, or summer semester.

Objectives and Purpose of the Program

The academic officers at each of the four technical institutes in the state have collaborated to develop the concept and framework of the Technical Studies AAS degree. They recognized a common need to create a degree pathway for graduates of non-degree programs to climb the career ladder and provide additional value to their employers, so designed a flexible model based on a similar degree currently offered in many other states – one that they believe fills a current need for advanced technical education.

The Technical Studies program will offer incumbent workers and past technical institute students and graduates a customized plan to an AAS degree. It will also enable a student to design an individualized program of study to fulfill a unique career goal that cannot be met through the completion of any single existing program offered at the technical institute.

Each applicant will build upon an existing approved diploma or approved certificate. This guarantees that each student will already meet proven outcomes for success in the workforce. In addition, each technical school has required core outcomes for all students and for general education that will be met through this program's design.

Below is a summary of the general education and core institutional outcomes as defined by each technical institute:

Communication Skills:

- Students will demonstrate knowledge of how to manage, access and process information.
- Students will develop the ability to communicate and interpret effectively in several forms – oral, written, nonverbal and interpersonal.

Problem Solving/Critical Thinking Skills:

- Students will select and use various approaches to solve a wide variety of problems – scientific, mathematical, social and personal.
- Students will evaluate information from a variety of perspectives, analyze data and make appropriate judgements.
- Students will develop analytical skills

- Students will recognize when information is needed and have the ability to locate, organize, critically evaluate, and effectively use information from a variety of sources with intellectual integrity

Social Skills:

- Students will apply human relationship skills to work successfully in a diverse society
- Students will apply selected social science concepts and theories to contemporary issues and demonstrate social values
- Students will identify and explain basic concepts, terminology and theories of the selected social disciplines from different spatial, temporal, cultural, and/or institutional contexts
- Students will identify and explain the social or aesthetic values of different cultures and understand associated behaviors and interactions

Technical Skills:

- Students will apply technical skills required of an entry-level technician in a chosen field
- Students will demonstrate skills in science and technology by applying technical competence including knowledge of technology and/or scientific principles as these apply to programs.

Work/Professional Skills

- Students will demonstrate professionalism by developing a strong work ethic, including responsible attendance; skill in teamwork and collaboration, as well as an ability to work with others, respecting diversity; ability to adapt to change; commitment to lifelong learning; adherence to professional standards; and positive self-esteem and integrity.
- Students will develop life skills
- Students will develop required employability skills
- Students will promote and advance essential knowledge, skills and values students need to succeed in an interdependent, diverse and changing world

Methods of Attaining the Objectives of the Program

Many individuals in South Dakota are underemployed due to a lack of formal credentials. The Technical Studies AAS degree program will provide the upskilling opportunity these workers need by offering a core of general education courses, a core of general technical courses, and credit for a diploma or certificate they have completed.

For example, a current medical lab technician may have a diploma in a health program but is unable to advance to supervise the shift at the laboratory where he works because of a requirement for supervisors to have a college degree. Once accepted into the Technical Studies degree program, an academic advisor would work with the student to identify his career goals and develop a custom plan to complete the program. The student's plan of study would include required general education courses not yet taken and

a selection of management or other relevant technical courses that would complement and enhance the student's employability and technical skillsets.

The Technical Studies program would also meet the need of individuals in South Dakota who work at small companies that require the individual to be a master in several trades. For example, a small town business might want someone with a combination of plumbing, construction, and HVAC skills. The Technical Studies program would allow individuals to tailor their program with elements of various disciplines in a meaningful and logical sequence without the need to complete multiple technical programs. The student would need to complete one diploma or certificate program as part of the requirement for the AAS Degree to verify workforce outcomes.

In addition, with the support of all four technical institutes and the availability of high-quality online courses, students in the Technical Studies program at one technical institute could take relevant distance courses from other technical institutes, if applicable.

Because the degree will be completed through existing general education and technical courses, it is not anticipated that additional instructors, equipment, or other resource materials will be needed to provide the program. All courses will be taught by current, appropriately-credentialed instructors.

All four technical institutes provide the assurance that they possess the resource and staff necessary to:

- Enroll students who are qualified and a good fit for the program as proposed
- Recruit (if necessary) and supervise qualified staff
- Assess the abilities of students to develop an individualized plan of study
- Develop and administer budgets
- Make available textbooks and other instructional resources
- Evaluate programs and staff
- Secure input from industry through an advisory committee
- Maintain membership in professional organizations and provide time and fiscal resources for professional development
- Provide financial aid and scholarships
- Provide services to disabled and nontraditional students
- Provide a variety of general education courses
- Provide a typical two-year technical institute climate
- Assist students with housing

Description of the Needs Based on Labor Market Demands

Graduates of the Technical Studies degree will be employable across the spectrum of occupations. While the specific knowledge and skills possessed by each graduate of the program will be unique to that individual, all graduates will be able to demonstrate to employers an additional set of desirable qualities and skills at the AAS degree level.

A recent trend in the U.S. is called "upcredentialing," or requiring higher credentials for jobs that historically required lower credentials. Burning Glass Technologies analyzed online job postings from more than 40,000 websites and compared that to the education levels of workers currently employed in occupations. They found that employers are seeking employees with college degrees for jobs that in the past did not require such degrees. This degree inflation was due, in some cases, to jobs becoming more complex. But in many cases the higher education requirements were simply due to employers becoming more selective and using degrees as a filter to recruit higher quality workers ("Moving the Goalposts," September 2014, Burning Glass Technologies).

There is wide consensus that job opportunities increase with the level of education that individuals attain. In the U.S., the unemployment rate for those with an associate's degree was 3.8% compared to 5.0% for those without that degree.

Education attained	Unemployment rate in 2015
Associate's degree	3.8
Some college, no degree	5.0
High school diploma	5.4
Less than a high school diploma	8.0

Note: Data are for persons age 25 and over.

Source: Current Population Survey, U.S. Department of Labor, U.S. Bureau of Labor Statistics

Population Served

The program will serve individuals who are currently employed or underemployed who wish to earn a degree to enhance their prospects for career advancement and increased pay. The program will also serve individuals who have completed non-degree programs at one of the four technical institutes who later wish to go on to earn an associate's or applied science degree. Many students, but not all, will be of non-traditional age with past employment and/or technical education.

Projected Three-Year Budget

The Technical Studies program will have a minimal impact on the technical institutes' budgets. The program will not require new curriculum or equipment, nor is it anticipated that the program will require additional instructional staff. Students will fill seats in existing courses which will be a positive boost to each institution's fiscal operations. Informational materials and additional instructional supplies are the

only anticipated costs for the program. Figures shown below are the amounts expected for each individual technical institute who offers the program option.

	2017-2018	2018-2019	2019-2020
Salaries/Benefits	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Supplies	\$500	\$500	\$500
Travel	\$0	\$0	\$0
Informational Materials	\$750	\$750	\$750
TOTAL	\$1,250	\$1,250	\$1,250

Program Competencies and Entry and Exit Points

Admission will be granted to any student who meets the individual technical institute's admission requirements, has attained a certificate or diploma credential, and has not previously earned a post-secondary degree. Applicants must be high school graduates or have completed a GED program.

Students may enter the program at any time: fall, spring, or summer semester. An individualized plan of study will be developed for each student, and time to completion will vary depending upon the prior education the student possesses at the time of entry.

Graduates of the program must earn a minimum of 60 credits, including an approved diploma or approved certificate, to complete the degree. They will also maintain an overall 2.0 grade point average in order to graduate from the Technical Studies program. Graduates will demonstrate the following program competencies:

- Communicate effectively through both oral and written means
- Demonstrate a professional attitude and work ethic
- Apply reasoning and critical thinking to solve problems and seek information
- Work cooperatively in a team environment
- Use computer technology
- Apply technical skills within a chosen field

Statement of Non-duplication

With approval, the Technical Studies AAS degree program could be offered at all four technical institutes. However, unlike the typical programs offered at these schools, the degree program is intentionally duplicated and by design will allow collaboration between schools so that a student's path to completion is as efficient as possible. By developing this program together and agreeing to give credit for coursework completed at other technical institutes, there will be a cost-effective and streamlined means for South Dakotans working in health, energy, business, agriculture, technology, or other industries to pursue and obtain a two-year college degree.

Proposed Curriculum Design

The curriculum will be custom-designed based on each individual student's career goals and past education and work experiences. The overall structure of the program will include 1) an existing approved diploma or certificate from an accredited school, and 2) the remaining credits for technical and general education courses. The degree is comprised of a minimum of 60 credits.

Technical Courses

30 credit hours minimum

Technical credits, as part of a required, earned certificate or diploma from an accredited institution, may be earned by a combination of technical courses and/or work experience demonstrated through documented and demonstrated assessments.

General Education Courses

15 – 18 credit hours

Students must meet the general education requirements for AAS degrees at the technical institute where they enroll in the Technical Studies program. Each Technical Institute may have different course requirements, depending on the students' individualized plan of study.

Communications	3
Mathematics	3
Social sciences	3
Behavioral sciences	3
Computer literacy	3

Elective Courses

12 - 15 credit hours

The degree requires a minimum of 60 credits. Individualized plans of study will include the required 30 technical credits and 15- 18 general education credits, and at least 12 -15 additional credits – technical or general electives – to meet the students' career objectives.

Program Curriculum

The Technical Studies curriculum will differ for each student. Individualized plans of study will be developed to meet the students' career goals and approved by an advisor at the Technical Institute. As one example, a student who plans to open their own computer repair business would work with an advisor to create a plan of study that would include coursework in computer technology, business, accounting, and general education. The exact mix of courses will vary from student to student, as long as the minimum credit hour requirements are met and the courses counted toward the degree assist the student in meeting his or her career goals.

No new curriculum will be developed to offer the Technical Studies AAS degree.

National Wage Factor

There is wide consensus that earnings and job opportunities increase with the level of education that individuals attain. In the U.S., the unemployment rate for those with an associate's degree was significantly lower than for those without a degree. Their earnings were also significantly higher than those with only a high school diploma (18% more) and those with some college but no degree (8% more).

Earnings and unemployment rates by educational attainment, 2015		
Education attained	Unemployment rate in 2015	Median weekly earnings in 2015
Associate's degree	3.8%	\$798
Some college, no degree	5.0%	\$738
High school diploma	5.4%	\$678
Less than a high school diploma	8.0%	\$493

Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.
Source: Current Population Survey, U.S. Department of Labor, U.S. Bureau of Labor Statistics

A San Diego Community College District study in 2014 on the economic impact of community colleges showed that graduates with associate degrees earn \$421,000 more during their career than someone with only a high school diploma. The report also showed that 45 percent of students who earn associate degrees earn more than \$54,000 annually after five years even if they never transferred to a four-year university

The San Diego Union-Tribune, March 30, 2015, "District: Associate Degrees Worthwhile" by Gary Warth

South Dakota Wage Factor

The South Dakota Department of Labor and Regulation (www.sdjobs.org) publishes a booklet called *CareerWise* for South Dakotans looking for career decision-making and job seeking information. Among the booklet's advice for those seeking to advance in their jobs is this statement:

College, graduate school, seminars and technical courses will help advance your career, broaden your background and keep you informed of the latest technology. Perhaps most importantly, it will show your employer your desire to keep learning.

Labor market information in South Dakota shows that the average annual wage of occupations which typically require an associate degree for entry is \$62,485. This is a 73% jump in wages over the average starting wage for occupations which typically require some postsecondary education but no degree.

2014		
	Average Annual Wage	Average Hourly Wage
Less than high school	\$21,927	\$10.54
High school diploma or equivalent	\$33,769	\$16.23
Some postsecondary education (no degree)	\$36,063	\$17.34
Associate degree	\$62,485	\$30.04
Bachelor's degree	\$57,769	\$27.77
Master's degree	\$55,195	\$26.54
Doctoral or professional degree	\$98,542	\$47.38
Total, all occupations of all education levels	\$35,032	\$16.84

Source: South Dakota Department of Labor and Regulation, Labor Market Information Center, September 2014 using May 2013 wage data aged through second quarter 2014.

CIP Code

30.0000 Multi-/Interdisciplinary Studies, General

A program that derives from two or more distinct programs and that is integrated around a unifying theme or topic that cannot be subsumed under a single discipline or occupational field.

APPENDICES

June 17, 2016

President Jeff Holcomb
Southeast Technical Institute
2320 N Career Place
Sioux Falls, SD 57107

RE: Letter of Support for Approval of Technical Studies A.A.S. Degree

Dear President Holcomb:

On behalf of Sanford Health, I am writing this letter for Southeast Technical Institute in support of your request for approval to offer an Associate of Applied Science Degree in Technical Studies. Sanford Health is the largest, rural, not-for-profit health care system in the nation with 43 medical centers, 243 clinic locations and over 27,000 employees. Sanford Health is the largest employer in North and South Dakota.

As the Senior Executive Director of Academic Affairs for Sanford Health, our team is actively involved in development of our workforce strategies throughout the organization. Academic Affairs oversees academic partner relationships, student placements and training, as well as the continuing professional development of our current workforce. Our workforce is highly diverse in their education and skill set; from entry-level technical roles to physicians and PhD scientists. Our organization relies heavily upon the technical graduates that Southeast Tech and our other state technical schools produce to support a variety of health care roles.

Supporting and retaining our healthcare workforce is vital for our future growth and sustainability. One of our important strategies for the future is to ensure that our employees have clear pathways for advancement opportunities and support for their career aspirations within healthcare. Given the diversity of our healthcare workforce, we understand that there needs to be multiple pathways available for individuals to build upon their existing education. Our employees also need flexibility and recognition of their past experience and skills obtained on the job. We enthusiastically offer our support to Southeast Technical Institute and our other SD technical schools to offer the Technical Studies A.A.S. Degree as a new option for employees to achieve their career advancement goals.

Thank you for the opportunity to offer this letter of support. We value our academic partnership with Southeast Technical Institute and the quality of their education programs and graduates. We look forward to this new degree option being available in the future.

Best regards,



Diana Vander Woude, RN, MS
Senior Executive Director, Academic Affairs

June 15, 2016

Ms. Tiffany Sanderson
Director, Division of Career & Technical Education
South Dakota Department of Education
800 Governors Drive
Pierre, SD 57501

Re: Letter of Support for Technical Studies Degree

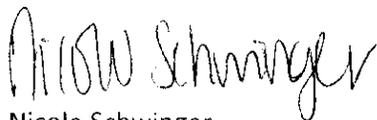
Dear Ms. Sanderson:

I am writing to express support on behalf of the Absolute Image Salon for the proposed Technical Studies degree. Our Salon is located at 1017 6th Ave SE in Watertown SD. Our company partners with Lake Area Technical Institute by serving on the advisory board, employing students, and collaboratively offering continuing professional education opportunities.

The Associates of Applied Science (AAS) in Technical Studies degree will benefit past and future Cosmetology graduates by providing a pathway to an AAS degree. Currently, the Cosmetology program at Lake Area Technical Institute is a diploma only program. The degree is particularly valuable to Cosmetology graduates because many are entrepreneurs who open salons in communities across South Dakota. The additional instruction in general education and business will increase their probability of success as a small business owner.

I would encourage the South Dakota Board of Education to approve the Associate of Applied Science degree in Technical Studies to help students gain the skills necessary to build the small business community integral to the South Dakota economy.

Respectfully submitted,



Nicole Schwinger
Owner/Cosmetologist
Absolute Image Salon
Watertown SD 57201
(605) 878-1999



BX Civil & Construction
PO BOX 187
24663 475th Ave
Dell Rapids, SD 57022
605-428-5483
www.bx-cc.com

Tuesday, June 21, 2016

Mark Wilson
Mitchell Technical Institute
1800 East Spruce St.
Mitchell, SD 57301

RE: Support of the Associate of Applied Science-Technical Studies

Dear Mr. Wilson,

I am writing this letter to support the proposed Technical Studies degree being considered at Mitchell Technical Institute. I believe this degree would support our employees who have work experience and some education. This degree would allow them to pursue a customized degree that will open doors for their career advancement.

Because the Associate degree is attractive to many workers, employees will be able to apply a variety of current skill-sets to this specialized degree option. Our employees will benefit from the general education as well as the technical training. This proposed degree will offer our employees a variety of options to continue building their credentials.

As President of BX Civil & Construction, Inc, I believe this program has value in helping incumbent workers reach goals and pursue dreams. I pledge my support of this program. Please let me know how I can help in any way.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kari J Karst', written in a cursive style.

Kari J Karst, President
BX Civil & Construction, Inc.
Dell Rapids, SD

June 15, 2016



Ms. Tiffany Sanderson
Director, Division of Career & Technical Education
South Dakota Department of Education
800 Governors Drive
Pierre, SD 57501

Re: Letter of Support for Technical Studies Degree

Dear Ms. Sanderson:

This letter is to express Persona's support for the proposed Technical Studies degree. Persona is a sign manufacturer established in 1980 that provides beginning to end project management services to the hotel, restaurant, and retail industries. The company produces an annual average of 7,000 signs for more than 150 national brands including McDonalds, Marriott, Choice, and Wyndham. Persona is located in two South Dakota communities: Watertown and Madison. Persona is an active industry partner of Lake Area Technical Institute. Our company hosts internships, employs students and graduates, provides scholarships, and encourages employees to serve on the foundation and program advisory boards.

The Associates of Applied Science Technical Studies will benefit current and future employees by providing an additional pathway to degree attainment and career promotion. For example, an employee with a diploma in Custom Paint and Fabrication working as an industrial painter will have an opportunity for career advancement by improving business management and interpersonal skills in the Technical Studies program. The business and general education courses are often offered in alternative formats, such as online, to allow the employee to continue to work while pursuing a degree.

I would encourage the South Dakota Board of Education to approve the Associate of Applied Science degree in Technical Studies to support the advancement of the South Dakota workforce.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Amber Dahl". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Amber Dahl
Human Resources Manager
Persona, Inc.
<http://www.personasigns.com>



CITY OF RAPID CITY

RAPID CITY, SOUTH DAKOTA 57701

Department of Fire and Emergency Services

10 Main Street

605-394-4180

Fax: 605-394-6754

June 2, 2016

Dr. Ann Bolman, President
Western Dakota Tech
800 Mickelson Drive
Rapid City, SD 57703

RE: Technical Studies A.A.S. Degree Proposal

Dear Dr. Bolman:

I am writing in support of the proposed program that would offer an Associate of Applied Science degree in Technical Studies. As Fire Chief of the Rapid City Fire Department, member of the Advisory Committees to Western Dakota Tech's Fire Science and Paramedic Programs, and an employer of dozens of graduates of South Dakota Technical Institutes, I feel qualified to provide support and encouragement for such a program.

With 146 employees, they come to the Department either with our without formal postsecondary education. To promote to the upper level management positions within the Department, you must have obtained three phases of professional development to qualify: higher education, job related experience and the necessary training and certificates for the desired position. Those without higher education often struggle once employed to obtain that degree. Challenges of life can get in the way with financial limitations, beginning families, working sometimes two jobs, and generally not enough time. One thing they are gaining is work experience and the training and certificates that the Department is providing for their position. This combination of experience and skills gained should be able to be translated to postsecondary credits. Another possibility for this program would be the employee that has a previous technical institute diploma or certificate of completion like a Paramedic. This individual should be able to translate that certificate and experience into credits, as well.

I am confident that if this proposed program is approved, it will provide members within my organization and many residents in South Dakota the opportunity to pursue and achieve a college degree that otherwise might not be able to. As stated, higher education is a process that may open doors to further professional advancements. I would strongly encourage Western Dakota Tech to exhaust all efforts in bringing this program to fruition.

Mike Maltaverne-Fire Chief