

TRADES PROGRAMS AT SITTING BULL COLLEGE

Program Review Report

2022-2023

Prepared by:

Terry Brownotter

Guy Danielson

Bruce Greig

Arlin Haider

Submitted: April 28, 2023

Table of Contents

I. Program Description	3
A. Role of Program(s)	3
Building Trades Certificate	3
Commercial Driver’s License (CDL) Certificate	5
Certificate in Electrical	6
Certificate in Heavy Equipment Operator (HEO)	7
Certificate in Welding	8
B. Program Personnel	10
C. Program Productivity	11
D. Program Expenditures & Revenue	13
E. Program Advisory Committee	14
II. Program Self-Evaluation	15
A. Faculty	15
B. Curriculum Content, Design, and Delivery	15
Integration of Cultural Values and Courses	16
C. Assessment Findings and Analysis	16
D. Institutional Support	16
Importance to the College and other programs	18
E. Obstacles and Opportunities	18
III. Program Planning	18
A. Trends	18
B. Additional Resources	18
Appendix A.....	20

I. Program Description

A. Role of Program(s)

Sitting Bull College offers five Trades Programs under the Division of Construction Technology, which include the following:

- Certificate in Building Trades
- Certificate in Commercial Driver's License (CDL)
- Certificate in Electrical
- Certificate in Heavy Equipment Operator (HEO)
- Certificate in Welding

The Trades industry is fundamental for communities to sustain and accommodate housing, community infrastructure, transportation of goods and services, and economic development. Not only are Trades programs central for good living, but skilled workers are also needed to maintain and improve existing buildings, build and sustain safe roadways, manufacture & maintain parts, deliver goods, and keep the community's safety in mind. North Dakota has experienced a growing economy primarily due to the rapid changes within the energy sector and is the third-largest producer of crude oil in the United States as well as having substantial renewable energy resources (U.S. Energy Information Administration, 2022). As a result of the rapid expansion, employers in the state have an urgent need to find a qualified workforce to support the energy industry, especially in technical positions. At the same time, there are a number of unemployed and underemployed workers, especially on Standing Rock, who require more education and training to be prepared for the workforce. These positions can be high-wage, high-skill jobs in communities on Standing Rock, within Standing Rock Tribal organizations, in cities such as Bismarck-Mandan, in rural areas, and in energy and other related sectors in North and South Dakota.

The five certificate programs at Sitting Bull College provide students with opportunities to develop skills to enter the workforce in a short amount of time.

Building Trades Certificate

The Building Trades program was developed in 1997 with the idea that our Building Trades students would be provided with the opportunity to gain self-worth by learning a trade, by giving back to the community through construction projects, and by actively participating in the Sitting Bull College Building Trades program. The program had been an associate-level program but was scaled back in 2018 to a certificate program due to low retention numbers. Students in the certificate program completed faster and entered the workforce with the skills needed for entry-level positions.

SBC's Building Trades Program follows curriculum guidelines set forth by the Associated General Contractors of America and the National Center for Construction and Education and Research (NCEER).

Students who successfully complete the program leave with a solid foundation as entry-level carpenters. Jobs that await them are many as demand is high for motivated individuals here locally and elsewhere with building contractors, lumber yards and maintenance shops.

Building Trades Certificate Program Requirements

ENGL 100 Applied English or higher	3 cr.
HPER 210 First Aid/CPR/AED.....	2 cr.
SOC 099 Job Skills	2 cr.
Total General Education Requirements	7 credits

CORE REQUIREMENTS

CARP 102 Core Curriculum	2 cr.
CARP 105 Construction Math.....	3 cr.
CARP 120 Principles of Framing	3 cr.
CARP 125 Construction Practicum I.....	4 cr.
CARP 140 Principles of Interior Finish.....	2 cr.
CARP 145 Construction Practicum II.....	4 cr.
OSHA 100 Safety Course	1 cr.
Total Core Requirements	19 credits

TOTAL DEGREE REQUIREMENTS..... 26 CREDITS

STUDENT INSTITUTIONAL/CO-CURRICULAR OUTCOMES

1. Students will display technical and critical thinking skills through effective oral and written communication.
2. Students will display leadership skills that promote ethical, responsible, dependable, and respectful behavior.
3. Students will develop work ethics and skills to function independently and cooperatively within a diverse work environment.
4. Students will demonstrate knowledge of past, present, and future Native American cultures.

Student Learning Outcomes for the Certificate in Building Trades

1. The student will prepare the building site according to the building plan.
2. The student will demonstrate the proper use of hand and power tools.
3. The student can layout and construct exterior wall sections and roofing according to a building plan.
4. The student will be able to install interior walls and ceilings, doors and trim, cabinets and special built-ins according to the building plan.

Commercial Driver’s License (CDL) Certificate

The Commercial Driver’s License (CDL) program began in 2013. The CDL Curriculum provides students with a Commercial Driver’s License (CDL). This program provides education and hands on training including traffic laws, safety regulations, logbooks, driver vehicle inspection reports and other aspects of general education. Graduates of the program gain a working knowledge of a tractor and trailer through a combination of classroom and driver training. Career opportunities offer a wide array of employment potential from here on the Standing Rock Reservation and the surrounding areas. This supports the SBC Mission statement by reinforcing the college as a technical institution committed to improving the levels of education and training, economic and social development of the people it serves. This program will help our people become more marketable in the job field in order to create a better life for themselves and their families.

It should be noted that students entering the CDL program must follow SBC’s admissions requirements and may be required to complete a College Writing Preparation and/or College Math Preparation course before enrolling in certificate courses.

Prerequisites for entering the CDL Program include that the student must obtain or have the ability to obtain a valid driver’s license. In addition, students must be able to pass random drug testing.

Commercial Driver’s License (CDL) Certificate Program Requirements

CDL 100 CDL Permit.....	4 cr.
CDL 105 Novice CDL Training.....	5 cr.
CDL 107 Advanced CDL Training.....	3 cr.
CDL 109 Driver Endorsements	3 cr.
HPER 210 First Aid/CPR/AED.....	2 cr.
OSHA 100 Safety Course	1 cr.
SOC 099 Job Skills	2 cr.
TOTAL CERTIFICATE REQUIREMENTS	20 CREDITS

Student Learning Outcomes for the Commercial Driver’s License (CDL) Certificate

1. The students will demonstrate mastery of driving safety skills for chosen class of Commercial Driver’s License.
2. The students will demonstrate a working knowledge of standard safety practices set by the Occupational Safety and Health Administration.
3. The students will demonstrate knowledge of all North or South Dakota Department of Transportation Regulations.

Certificate in Electrical

The Electrical Construction curriculum provides students with an overview of skills in the area of residential, commercial and industrial wiring systems. This program provides education and hands on training in electrical theory, applied math, code study, wiring systems and other aspects of general education. Graduates are well prepared to meet the challenges of today's modern equipment and wiring system needs. Career opportunities offer a wide array of employment potential from Electrical Helpers, Electrical Apprentice, Electric System Dispatcher, Electric Technician and much more. This supports the SBC Mission statement by reinforcing the college as a technical institution committed to improving the levels of education and training, economic and social development of the people it serves. This program will help students become more marketable in the job field and provide a much needed service for the Standing Rock community.

SBC's electrical program follows guidelines set forth by the NCCER (National Center for Construction Education and Research as well as the rules of the NEC (National Electrical Code) and the NDSEB (North Dakota State Electrical Board).

Students who successfully complete the program leave with a solid foundation of the electrical field to start an apprenticeship in the residential, commercial or industrial field to become a licensed electrician. Students leave the program with the knowledge, hands on skills, a copy of the NEC (National Electrical Code), copy of the North Dakota rules and standards, and a set of tools needed to allow any graduate of the program to start their apprenticeship with an employer in the electrical field.

Electrical Certificate Program Requirements

ECAL 101 Electrical Fundamentals I.....	3 cr.
ECAL 102 Electrical Fundamentals II.....	3 cr.
ECAL 103 Electrical Code Study.....	3 cr.
ECAL 104 Electrical Trades Math	2 cr.
ECAL 106 Electrical Practicum I.....	4 cr.
ECAL 132 Commercial & Agricultural Wiring	3 cr.
ECAL 133 Residential Wiring	2 cr.
ECAL 206 Electrical Practicum II.....	4 cr.
HPER 210 First Aid/CPR/AED.....	2 cr.
OSHA 100 Safety Course	1 cr.
SOC 099 Job Skills	2 cr.
TOTAL CERTIFICATE REQUIREMENTS	29 CREDITS

Student Learning Outcomes for the Electrical Certificate

1. The student will be able to lay out the electrical system in new residential and light commercial installations according to the National Electrical Code Guidelines 159.
2. The student will be able to identify the materials needed to complete a project.
3. The student will be able to successfully complete the rough-in stage of residential wiring using romex cable, light commercial wiring and using conduit in accordance with the National Electrical Code Guidelines.
4. The student will be able to successfully complete the trim-out of new residential and light commercial projects including installing outlets, switches, light fixtures, smoke detectors, service panels, and meters.

Certificate in Heavy Equipment Operator (HEO)

Heavy Equipment Operation Certificate I has a comprehensive classroom instruction (40 hours), as well as field time on the equipment (80 hours). The instruction is for three weeks and taught in 14 modules. These models include: 1). Introduction to Earthmoving; 2). Dump Trucks; 3). Rollers. 4). Scrapers; 5). Loaders; 6). Grades part 2; 7). Civil Blueprint Reading; 8). Bulldozers; 9). Backhoes; 10). Excavators; 11). Motor Graders; 12). Advanced Operational Techniques; 13). Finishing and Grading; and 14). Soils. In order to gauge the learned skills for each student, written tests will be utilized as well as field tasks for each module and/or machine. This will allow for documented standardized performance feedback as well as provide the candidates with National Center for Construction Education and Research (NCCER) certification.

Application requirements include:

1. Regular college admission requirements
2. Copy of Current North Dakota Driver License (no violations in 3 years; no DUI's in the past 7 years)
 - a. It is recommended to have the North Dakota CDL certification.
3. Physical requirements include being able to lift 50 lbs.to shoulder height, climb on to, and off, equipment unaided, and stand for long periods of time.
4. Must be able to visually read blueprint and must be able to hear a backup warning alarm.

Student's must follow SBC's admissions requirements and may be required to complete a College Writing Preparation and College Math Preparation course(s) before enrolling in certificate courses.

CERTIFICATE – HEAVY EQUIPMENT OPERATION I

CERTIFICATE REQUIREMENTS

HEO 101 Heavy Equipment Operation Training I.....	8 cr.
HPER 210 First Aid/CPR/AED.....	2 cr.
MATH 100 Applied Math	3 cr.
OSHA 100 Safety Course	1 cr.
SOC 099 Job Skills	2 cr.
TOTAL CERTIFICATE REQUIREMENTS	16 CREDITS

CERTIFICATE – HEAVY EQUIPMENT OPERATION II

CERTIFICATE REQUIREMENTS

HEO 102 Heavy Equipment Operation Training II.....	8 cr.
HEO 103 Excavator Certification	2 cr.
HEO 105 Heavy Equipment GPS	3 cr.
HEO 107 Project Layout	3 cr.
TOTAL CERTIFICATE REQUIREMENTS	16 CREDITS

Student Learning Outcomes for the Heavy Equipment Operator Certificate

1. The student will demonstrate the basic operational techniques for the various equipment.
2. The student safely operates heavy equipment such as dump trucks, loaders, excavators, backhoes, and skid steers.
3. The student will demonstrate and engage in grading and safe earthmoving practices.
4. The student will use critical thinking to describe basic mechanical operations and implement maintenance procedures and to demonstrate knowledge of laws, regulations, and safety requirements.
5. Students will demonstrate familiarity with the realities of employment in the heavy equipment industry.

Certificate in Welding

The Certificate in Welding focuses on skills so that students will be able to handle themselves around most welders. Students will learn critical thinking skills and time management skills. The instructor for this program is relatively new to SBC, so be looking for great things in the future. Welders are always needed in the fields of mining, oil rigs, power plants, machine shops, agriculture, and even auto body shops. Your local farmer would even like to have one on hand.

This program provides education and hands-on training in common welding processes, operations, inspection, pipe and plate welding and other aspects of general education. We are working on improving our shop and equipment to be able to stay in line with the updates of the industry. The college has a AWS (American Welding Society) membership and we are seeing what best fits for our program. This supports the SBC Mission statement by reinforcing the college as a technical institution committed to improving the levels of education and training, economic and social development of the people it serves. This program will help our people become more marketable in the job field to create a better life for themselves and their families.

Prerequisites for the Welding Program include that students be able to lift 50 lbs, they must wear pants (without frays or holes) for safety. Shoes or boots must be made of non-flammable materials. Students must have their OSHA 10-hour course finished before they can handle any equipment in the welding area.

Welding Certificate Program Requirements

WELD 100 Orientation & Safety.....	1 cr.
WELD 103 GMA Welding	2 cr.
WELD 104 SMA Welding	2 cr.
WELD 153 Welding Practicum	4 cr.
HPER 210 First Aid/CPR/AED.....	2 cr.
OSHA 100 Safety Course	1 cr.
SOC 099 Job Skills	2 cr.
WELDING ELECTIVES - (SELECT A TOTAL OF 3 CREDIT HOURS)	
WELD 105 Stainless Steel/Pipe TIG Welding	3 cr.
WELD 107 Introduction to Pipe Welding	3 cr.
TOTAL CERTIFICATE REQUIREMENTS	17 CREDITS

Student Learning Outcomes for the Welding Certificate

1. The student will demonstrate good safety measures of all equipment.
2. The student will demonstrate knowledge of OSHA standards for welding safety practices.
3. The student will demonstrate their ability to perform welds utilizing the SMAW, FCAW, GMAW processes, and know how to perform GTAW welding on stainless plate steel and other small applications.
4. The student will perform proper welds in the following G plate positions: 1G-Flat, 2G-Horizaontal, and 3G-Vertical, with and with-out backing plate.

If successful, the students will have their own bend test coupon to present in their future job interview.

B. Program Personnel

The program personnel for the Trades Programs have educational certifications and extensive backgrounds within the industry. The program faculty are interested in engaging students with real-life, hands-on opportunities while promoting workplace safety and professionalism. Below are the faculty credentials who teach within the Trades Program.

Terry Brownotter, Building Trades Instructor, Full-Time

Terry holds an Associate of Science in Building Trades from Sitting Bull College and has been teaching at the college for 9 years with 23 years of experience in construction. In addition, Terry was also a supervisor for 5 years for the Sitting Bull College Construction Company prior to his teaching career. He has expertise in building houses for all 8 Standing Rock Reservation communities and remodeling houses for enrolled and elder members. He has completed the Teacher Certificate Program and the CTE Licenses in Building Trades. In addition, Terry aligns his teaching practices by being NCCER Certified and completing the Construction Inspection Certificate from the Falmouth Institute. Terry also teaches at Standing Rock Community Grant School, which helps dual-credit students attain college credit. Terry teaches with all of the examples on being on a job site what to look for in critical and team thinking to see a broadband of problem-solving. The Building Trades Program focuses on what we can do to help the Standing Rock community and surrounding areas with the involvement of our programs. He is a member of the SBC Activities Committee and coach's varsity basketball for the Standing Rock Warriors. Terry is an enrolled member of the Standing Rock Sioux Tribe.

Guy Danielson, Welding Certificate Faculty, Full-Time

Guy has been teaching at the college for 2 years and has been welding for 23 years on various types of metals and methods. He is CTE certified and Work Based Learning certified. He started welding pipe, then stainless tig, all kinds of framing for structural steel, but always pipe. He was a mechanical pipe welder/fitter for a company out of Mandan for 16 years, where he ran crews and helped redesigned mechanical rooms for engineers. He learned how to read mechanical blueprints and was able to get certified in both structural steel and carbon steel pipe. Guy has taught hundreds of people how to weld over his 23-year span and never tires of the skill. Guy teaches students at SBC that have no experience in welding, as long as they have the desire to learn.

Guy instructs in Forman mode, so students will learn what it feels like to be on the job, cheers students on as they get welders glow in their eyes when he/she makes a great bead! He plays out lots of examples of being on the job site, and working around other companies. Guy teaches with examples and gives feedback to students, so they hear it from an instructor, rather than a boss sending them home. Guy focuses on helping the Standing Rock community by doing some welding on-site for an apartment building in Fort Yates, and various people have come down to the college and ask for small favors.

Bruce Greig, Electrical Faculty, Full-Time

Bruce is a licensed Journeyman Electrician and has been teaching at the college for 7 years. He has completed the Teacher Certificate Program and the CTE Licenses in Electrical. He has also been teaching an electrical class at Standing Rock Grant School (High School) for the past 3 years. Bruce worked for the previous instructor for 8 years as an electrician before coming to work for the college. During that time and continuing on after starting work for the college he has done electrical work in the Fort Yates and surrounding areas. Since working for the college Bruce has included his class in doing electrical work for residents in the area including repairing an A/C unit for a community elder in Ft Yates, repairing electrical issues for a veteran in McLaughlin, updating lighting in a farm building for a faculty member, as well as many other small projects both on and off campus only charging for materials, but offering free labor to use his students to help the residents and use the experience as a learning opportunity for the students.

Arlin Haider, Heavy Equipment & CDL Instructor, Full-Time

Arlin has worked at Sitting Bull College for three years. Previous to that time Arlin taught at UTTC for several years. Arlin holds an Associate's degree from Bismarck State College and Valley City State, where he focused on completing his CTE Training. Arlin has 30 years in the industry, including civil engineering projects throughout the country. He volunteers in the community including working with the State of North Dakota Veteran's History Project and various shelters in the area. Arlin owns his own business, Rocky Boys Excavating, and frequently hires graduates for his projects. Arlin frequently works with Standing Rock Sioux Tribal Roads Department to improve roads, especially in the spring and summer.

C. Program Productivity

The Trades Programs at Sitting Bull College have undergone changes to the number of students enrolled in each program primarily due to the COVID-19 Pandemic. When most programs at Sitting Bull College abruptly went 'virtual' for instruction in March of 2020, the Trades programs needed to pivot and adjust so that students could complete their certifications, but most of the learning simply needed to be done in person. To keep all students safe, enrollment caps were developed for consecutive semesters, limiting the student/faculty ratio to six students for every faculty member. The Trades Programs will continue to communicate about capping courses for safety yet allow students to enroll who are interested. For instance, the Welding program only has room for 7 stations, so student enrollment is limited to so that students have appropriate materials for their certificate.

Below is the student enrollment for the Trades Programs for the past five years. *Please note that the instructor for Heavy Equipment and CDL are the same, so these programs cannot be offered at the same time. In addition, the welding instructor did not begin at SBC until FA-21.*

Trades Enrollment		Fa 2018	Sp 2019	Fa 2019	Sp 2020	Fa 2020	Sp 2021	Fa 2021	Sp 2022	Fa 2022	Sp 2023
Degree Program	Number of Enrollees	Number of Enrollees	Number of Enrollees	Number of Enrollees	Number of Enrollees	Number of Enrollees	Number of Enrollees	Number of Enrollees	Number of Enrollees	Number of Enrollees	Number of Enrollees
Building Trades	7	4	10	10	4	4	3	2	7	4	
CDL	6	0	0	0	6	0	8	6	6	6	
Electrical	6	9	8	6	4	2	6	5	6	6	
Heavy Equipment Operations	0	0	0	0	0	6	0	3	0	0	
Welding	9	0	0	0	0	0	4	5	3	6	
Total Trades	28	13	18	16	14	12	21	21	22	22	
Total SBC	284	270	300	272	263	210	268	273	265	253	
Percentage	10%	5%	6%	6%	5%	6%	8%	8%	8%	9%	

Source: SBC Jenzabar

Welding was furloughed from lack of instructor during spring 2019-Spring 2021. Heavy equipment program shares the same instructor as CDL, so only one program can be offered at a time. It should be noted that meeting the goal of six students per degree program has been obtainable most semesters, and sometimes special requests have been made to include one or two more students either due to previous stop out or other circumstances.

Below are the number of graduates for the Trades Programs in the past five years. Although the Trades Programs have a lower percentage of student enrollment, we have a higher graduation percentage due to the shorter course time and practical workforce skills developed.

Trades Graduates					22-23
Degree Program	18-19	19-20	20-21	21-22	Anticipated
Building Trades Certificate	2	6	3	2	4
CDL Certificate	1	0	2	8	6
Electrical Certificate	3	4	2	5	6
Heavy Equipment Operation I	0	0	3	7	0
Heavy Equipment Operation I	0	0	3	2	0
Welding Certificate	9	0	0	7	10
Total Trades	15	10	13	31	26
Total SBC	72	70	50	64	67
Percentage of Graduates	21%	14%	26%	48%	39%

Graduation Placement Data

Although graduation placement data is primarily based on personal connections and/or community information, the list below indicates what students are doing after graduating with a Trades Certificate. It should be noted that sometimes students continue with another certificate or enter SBC for an associate's degree within another major.

Workforce Placement Positions of SBC Trades Students:

Building Trades Program:

- Standing Rock Housing Authority
- Standing Rock Community Grant School
- Prairie Knights Casino
- Standing Rock Sioux Tribe
- Sitting Bull College
- Tribal Roads Department
- Wakpala School District
- McLaughlin School District

D. Program Expenditures & Revenue

Below is the five-year expenditure report for the Trades Programs. It should be noted that two of the salaries are 100% funded through the Native American Career and Tech Grant (NACTEP) which not only supports two faculty members, but also provides some program supplies, and tuition, books, and fees for students in the CDL and Welding programs. In addition, Sitting Bull College receives some funding through the North Dakota State Career & Technical Education (CTE) program for Building Trades, which includes 25% of another faculty salary.

TRADES EXPENDITURES					
	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Salary	\$ 126,540.00	\$ 89,360.00	\$ 131,540.00	\$ 176,720.00	\$ 206,320.00
Fringe Benefits	\$ 31,635.00	\$ 22,340.00	\$ 32,885.00	\$ 44,180.00	\$ 61,896.00
Overload	\$ 6,000.00	\$ 8,400.00	\$ 10,800.00	\$ 20,400.00	\$ -
Fringe Benefits Overloads	\$ 765.00	\$ 1,071.00	\$ 1,377.00	\$ 2,601.00	\$ -
Adjunct	\$ 12,600.00	\$ 9,000.00	\$ 12,000.00	\$ 6,000.00	\$ -
Fringe Benefits Overloads	\$ 1,606.50	\$ 1,147.50	\$ 1,530.00	\$ 765.00	\$ -
Tool/Supplies		\$ 5,396.00	\$ 140,512.00	\$ 17,794.00	\$ 2,650.00
Ipads/Computers				\$ 3,600.00	
Total	\$ 179,146.50	\$ 136,714.50	\$ 330,644.00	\$ 272,060.00	\$ 270,866.00

The revenue table below includes the semester enrollment Indian Student Count (ISC) and tuition for the full year.

Trades Five Year Revenue					
	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Fall ISC	\$ 84,000.00	\$ 58,500.00	\$ 49,000.00	\$ 78,750.00	\$ 88,000.00
Spring ISC	\$ 39,000.00	\$ 52,000.00	\$ 42,000.00	\$ 78,750.00	\$ 88,000.00
Tuition	\$ 73,800.00	\$ 61,200.00	\$ 46,800.00	\$ 75,600.00	\$ 79,200.00
Total	\$ 196,800.00	\$ 171,700.00	\$ 137,800.00	\$ 233,100.00	\$ 255,200.00

Trades Profit/Loss					
	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Profit (Loss)	\$ 17,653.50	\$ 34,985.50	\$(192,844.00)	\$ (38,960.00)	\$ (15,666.00)

As the above profit/loss chart shows, the Trades program shows a loss, but it should be noted that supplies, tools, and other instructional materials for this program have skyrocketed since the pandemic. Another point is that some of these line items were paid through grants, so these losses were not absorbed by SBC General Fund.

E. Program Advisory Committee

The Trades Programs have an advisory board made up primarily of local contractors and educators who give input concerning our curriculum, community involvement, and the Trades Programs overall. Meetings are held twice a year: one during the fall and one during the spring. The main focus of the meetings has been to review the curriculum and discuss student enrollment, skills learned, and job placement.

Two full-time faculty for the Trades Program are also teaching at Standing Rock Community Grant School, which keeps our program recruitment high and allows for the programs to advertise programs through word of mouth.

The following people are on the Trades Program Advisory Board:

Dave Luger	Contractor
Steve Yellow	SBC Facilities Dir.
Mark Froelich	Heating/Air Contractor
Tom Fischer	Plumber/Contractor
Russ Sayler	Electrician
Tony Vetter	Contractor
Katie Anderson	Knife River Corp

Steve Snider
Jim Small

Sioux Country Roads
MMI Excavating

II. Program Self-Evaluation

A. Faculty

The Trades Programs have four faculty members committed to student learning at Sitting Bull College. All four faculty have extensive experience within the industry to prepare students for the workforce.

All classroom and practicum classes are taught using new and improved techniques for the classroom and hands-on training. One of the classrooms has a Promethium Board to further help learning in the classroom. The instructors are currently completing or have completed North Dakota Department of Career and Technical Education (CTE) coursework that helps instructors plan objectives and learning activities for students. This training also allows students to apply for funding through ND CTE.

Student Relations

Faculty in the program far exceeds the required number of office hours required to ensure that students have reasonable access to them daily. The faculty are here Monday through Friday at 8:00 am until at least 4:40 pm. An open-door policy extends to evenings and weekends as well.

Courses are delivered to ensure that all students with a variety of learning styles are given the opportunity to succeed. The programs' indirect student surveys show that students feel comfortable performing tasks after completion of our course work. Course instruction is provided through lectures, lab activities for proficiency tasks and informal discussions on related topics.

Most students stay in close contact with faculty for technical advice on problems related to course content and life in general. As students work on their practicum, less formal interaction allows various discussions.

B. Curriculum Content, Design, and Delivery

Trades programs and their courses follow curriculum guidelines set forth by the National Center for Construction and Education and Research (NCCER) and other industry standards to prepare students for employment in the field. Faculty of record have the expert knowledge to select appropriate textbooks and learning materials for students. Curriculum changes are made as industry standards change, and all changes are approved by the SBC Curriculum Committee.

Students are block scheduled into the Trades programs so that courses can be completed in a timely manner, yet students can use SBC Transit bus schedule to help with their transportation needs. Beginning in the 2017-2018 academic year SBC students could ride SBC Transit for free, which helped with student attendance and coursework participation. Faculty communicate to ensure that enough time is available for students to work on practicum projects.

Integration of Cultural Values and Courses

The Trades Programs focus on delivery of services to our communities on Standing Rock as part of our cultural value. As mentioned, our mission is for students to learn and to provide services to those in need on Standing Rock. Sitting Bull College has ten Lakota values embedded throughout the Trades programs, but the Lakota value *Wówačhaŋtognake* (Generosity): *SBC family should assist others in need without expecting anything in return* is the one that is clearly demonstrated in a tangible way. For instance, the welding program worked on site for an apartment building in Fort Yates and collects scrap metal to make artwork to sell for fundraisers or give as gifts. Over the past 7 years, the electrical class has helped a disabled vet in McLaughlin that was having electrical issues. The class has helped an elder in town whose ceiling fan stopped working and she couldn't sleep. The class worked on BIA housing for law enforcement in Ft Yates, McLaughlin, Porcupine, Cannonball and Little Eagle with multiple electrical issues. Most recently, this year's class helped an elderly resident whose air conditioning stopped working in August. The classes were able to resolve all of these issues plus many more for many residents of Standing Rock. The Building Trades students assist with remodeling projects for our elders in Standing Rock Nation. The Heavy Equipment program helped repair roads on Standing Rock and within elderly housing. All of this work was done at no charge for labor and little to no charge for the material used to correct the issues.

C. Assessment Findings and Analysis

The Trades Programs prepare an annual report to the assessment committee that discusses the learning outcomes for each certificate and how the students demonstrate their learning. Each year the faculty for each certificate offers recommendations to help students learn the content better.

Over the past five years, there have been changes to the assessment plan that included changing outcomes that aligned with certifications, adjusting measurement tools so that the outcomes had more practical measurements, and adjusting teaching strategies to help students learn in a more effective way.

Most of the learning that does not happen in all the Trades programs usually is due to student absenteeism rates. Although we cannot control students, we have tried to remove transportation or daycare barriers by collaborating with other college resources. The Trades program also makes sure to provide equitable and inclusive teaching strategies so that students know their instructors very well and feel they are supported in their learning.

D. Institutional Support

The new Trades Center was opened in 2012, and although there have been minor changes with the addition of other certificate programs, the building serves the needs of the students. Classrooms and the teaching facilities adequately provide teaching and learning experiences. The tools and equipment used by the program are in line with the industry today, although the costs of these supplies continue to skyrocket in our economy. We do receive some State Vocational and Technology funds for tools and equipment.

The student services seem to be adequate, though because of practicum deadlines, we sometimes cannot participate in school activities. The library resources, tutors, and our own computer lab provide services if the student pursues the help being offered.

The college has been supportive of professional development activities for faculty members when requested.

The following table itemizes supplies that the college has provided in the past five years.

Supplies Trades Program Acquired in the Past 5 Years			
Building Trades	Welding	Electrical	Heavy Equipment/CDL
Air compressor	Plate steel (carbon steel, stainless steel) Angle Iron. Welding rod E6010, and E7018. 2 or 3 hundred pounds of each	Trencher	2016 Volvo Semi with fewer than 16,000 miles
Framing Guns	Pipe, for WELD107 2 1/2", 3"	electric conduit bender	Bus, 2018 International
Compound sliding saw	Fittings (5 or 6 of each 90's and 45's.	underground locator	
Wall braces	Wet and dry saw blades	Chevy pickup	
Scaffolding system set	gloves	hand benders (conduit)	
Cordless drills	safety glasses	PVC heater	
Batteries for drills	wire brushes	Promethean board	
Saw horses	welding coats	electric wire puller	
Circular saw with cord	welding hoods	rigid conduit threader	
Sawzall	5 Grinders	Battery-powered hand drills (2)	
Extension cords	\$300 filters for the 5 welding stations	angle-head drills	
Portable heaters x 2	hammers	scissor lift	
Wall levels	tape measures		
Transit level	grinding wheels ear plugs		
Ladders			
Air hoses			
Sledge hammers			
Spider box for plugs in for power			
Rafter braces			
Brad nailer			
Rafter jacks with scaffold			
Crown narrow nailer			
Angle trim gun			
Sliding compound trim saw			
Cabinet clamps			

Importance to the College and other programs

The Trades Programs are not only important to the Standing Rock community and economic development, but they are also an important part of Sitting Bull College and its mission and vision statements. It is not uncommon for Trades students to enter Sitting Bull College with the intent on receiving a certificate, but then continue on for a degree. First, our Trades students often develop friendships with faculty and other students that encourage them to continue on. In addition, Trades students take a Job Seeking Skills course with our Career Counselor who talks to the students about long-term goals. If students' ultimate goal is to own their own business, many will take business classes.

E. Obstacles and Opportunities

One of the major obstacles that affect all of the trade programs is the skyrocketing prices of materials. The price of lumber, electrical wire, metal, and fuel have all increased dramatically. Due to the jump in prices, we as instructors have had to get creative by using and reusing different materials where we can.

III. Program Planning

A. Trends

As state and federal workforce trends change, there are sometimes industry changes to provide safe and equitable workforce. The U.S. Bureau of Labor Statistics (2022) reports that the skilled trades occupations will grow 4% in the next ten years, which is average for all occupations. City, state, and reservation infrastructures always need repair and updates, so the Trends Program at Sitting Bull College will be necessary to train the next generation of workforce in construction, electrical, heavy equipment, welding, and CDL transportation.

B. Additional Resources

Besides the additional supplies needed for the Trades program (listed below), there is a higher demand for CDL certificates across the state. This program could be offered more often if the college had another faculty member.

Below are the supplies suggested for updates from all four Trades programs. The faculty will itemize the lists to SBC Administration and provide ratings for necessity (low, medium, high) to help make decisions for future purchases.

Supply Needs in the Next 5 Years			
Building Trades	Welding	Electrical	Heavy Equipment/CDL
Cordless crown narrow stapler x 2	Trailers 2	Battery powered tool kits (hand drills, rot zip, circular saw, reciprocating saw)	GPS Navigation for equipment
Cordless brad nailer x 2	Sound Proofing classroom and office from the main welding area	consumables (wire, electrical boxes, electrical panels, conduit, wire nuts, etc)	Water truck to teach about soil stabilization
Cordless angle trim nailer x 2	Technician to come and evaluate the welding stations and air-compressor and all air lines that run to them	4 ft ladders	Scraper
Cordless framing gun x 2	Electrical revamp of the entire area	First aid kit for the electrical shop	An area for CDL students to back up and work on their driving
Cordless saw x 2	Proper GFI's put on every outlet and maybe a relocation of the breaker box		
Cordless charging system with 60 v cordless batteries x 8	Tri-Stand		
Cordless drywall saw x 4	A variety of metals and the welding supplies that go with them		
Cordless caulking guns x 2	A small Sheet metal Brake		
Cordless floor screw gun x 2	a Spot Welder		
Cordless hammer drill	The virtual (2) machines moved out of the classroom		
Boozuka taping gun			
New texture machine			
New painting machine			
Taping tools			
New generator			
New sheet rock lift			
New tack hammers x 5			
Cordless lights x 3			
Cordless oscillating saw x 2			
Cordless roto zip x 2			
Cordless roofing nailer x 2			

Appendix A
Faculty Satisfaction Survey

Building Trades Program Faculty N=4	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Applicable
1. I have the opportunity to participate in curriculum development and revision for this program.	1	3				
2. Faculty in this program are concerned about student success.	3	1				
3. The variety of faculty expertise is sufficient to provide effective instruction within this program.	3	1				
4. Faculty in this program are given the opportunity to participate in the program review process.	1	2	1			
5. The program review process is effective in evaluating the strengths and weaknesses of this program.	2	1	1			
6. Information gathered during the program review is integrated into the program's planning process.	2	1	1			
7. Communication among faculty in the program is frequent, interactive, and effective.	1	2	1			
8. I am satisfied with the quality of educational planning in this program.	2	1	1			
9. The required textbook(s) are selected by all faculty teaching a particular course in this program.	3		1			
10. Faculty in this program both assess and base grades and course credit on student achievement of learning outcomes.	3		1			
11. The faculty in this program are sufficient in number to provide effective instruction within the discipline.	3	1				
12. Faculty in this program stay current in their area of expertise.	3	1				
13. The faculty in this program are actively involved in staff development activities.		3	1			

14. The availability of classroom supplies is sufficient to maintain the effectiveness of this program's courses.	1	2		1		
15. Class schedules for this program conform to student's demand and educational needs.	2	1	1			
16. Faculty in this program distinguish between personal conviction and professionally accepted views in the discipline.	2	2				
17. Faculty in this program are committed to high standards of teaching.	4					
18. Adequate facilities and equipment are available to maintain the effectiveness of this program's courses.		3	1			
19. Tutoring and writing center facilities are adequate to maintain the effectiveness of this program's courses.	1	2	1			
20. Clerical support is available and adequate to maintain the effectiveness of this program's courses.		4				
21. I have been provided a copy of the SBC Policies and Procedures and the SBC Faculty Handbook.	2	2				