

**SOUTH DAKOTA BOARD OF TECHNICAL EDUCATION
ACADEMIC AFFAIRS
COMMITTEE RECOMMENDATION**

SUMMARY

Western Dakota Technical College
Substantive Program Application
Diploma
HVAC/Refrigeration Technology

COMMITTEE RECOMMENDATION

The Committee on Academic Affairs and Institutional Effectiveness (“Committee”) met on 4/23/2026 to consider the merits of the above application. After review, the Committee makes the following action recommendation to the Board of Technical Education:

- Approval
- Disapproval
- Deferral
- Other:

PROGRAM DESCRIPTION

Institution	Western Dakota Technical College
Program Identifier Code (If applicable)	W12023
Program Title	HVAC/Refrigeration Technology
Program Award Level: Check all that apply	<input type="checkbox"/> Short-Term Certificate <input type="checkbox"/> Long-Term Certificate <input checked="" type="checkbox"/> Diploma <input type="checkbox"/> Associate of Applied Science
CIP Code (6 Digit)	47.0201
Projected Implementation Date	8/24/2026
Location	<input checked="" type="checkbox"/> Main Campus <input type="checkbox"/> Other:

SUMMARY

Type of Substantive Change	<input type="checkbox"/> New Program (B.1.1) <input checked="" type="checkbox"/> Significant Curriculum Modification (B.1.2) <input type="checkbox"/> Other:
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Describe the change the institution is seeking approval of.

Western Dakota Technical College (WDTC) currently offers an Associate of Applied Science (AAS) degree in HVAC/Refrigeration Technology. Based on formal advisory board recommendations, employer feedback, and review of regional industry standards, WDTC is requesting approval for a significant curriculum modification to transition the program from a two-year AAS degree to a one-year diploma.

Industry partners have indicated that entry-level HVAC/Refrigeration technicians are primarily hired based on technical competencies, industry certifications, and hands-on experience rather than general education coursework. The revised one-year diploma model maintains the full scope of core technical training while accelerating student entry into the workforce.

The CIP code (47.0201) will remain unchanged and the revised program will remain a Build Dakota Scholarship program. The projected implementation date is August 24, 2026.

CRITERION 1: MISSION

The program aligns with the system's mission and strategic priorities.

1.1. The program aligns with the system's mission of preparing a technically skilled workforce prepared to serve the state of South Dakota and its regions.

1.2. The program aligns with the system's strategic priorities.

1.1. Describe how the proposed program aligns with the system's mission.

The proposed modification aligns directly with the system's mission of preparing a technically skilled workforce to serve South Dakota and its regions. The HVAC/Refrigeration industry continues to experience strong demand for skilled technicians in residential, commercial, and industrial sectors.

Transitioning to a one-year diploma model increases responsiveness to employer needs by reducing time-to-completion while preserving rigorous technical competencies. The revised structure enhances workforce pipeline efficiency, improves affordability for students, and strengthens WDTC's commitment to delivering industry-aligned, career-focused education.

CRITERION 2: DEMAND

The program leads to meaningful employment, adequate student enrollment, and/or fulfills needs not being met by existing education and training providers.

- 2.1. The program leads to high-wage occupations that have an average/mean wage greater than the median wage across all occupations.
- 2.2. The program leads to high-demand occupations that have project annual openings (a measure of demand for workers) greater than the average across all occupations or is shown as an economic and/or labor market emerging field for the state of South Dakota and its regions.
- 2.3. The program's student enrollment is adequate to justify program existence.
- 2.4. The program fulfills a demand not being met by existing education and training providers in the region and/or state.

2.1. Describe the wage projections for occupations associated with the proposed program by completing Appendix 2.A.

2.2. Describe the demand projections for occupations associated with the proposed program.

A. Complete Appendix 2.A.

B. If an emerging field for the state of South Dakota, describe the field. Letter(s) of support, detailing demand, should be attached as appendices.

N/A

2.3. Describe projected student enrollment for the proposed program by completing Appendix 2.B.

2.4. Describe how the proposed program fulfills a demand not being met by existing education and training providers in the region and/or state.

A. Identify closely related program(s) that currently exist at other public higher education institutions in the system or state. If none, write "None."

Southeast Technical College has a one-year diploma program in HVAC/R Technology. Mitchell Technical College has a one-year diploma and two-year AAS degree in Heating & Cooling Technology.

B. If applicable: Describe the ways in which the demand is not currently being met by the aforementioned program(s) and provide justification as to why the program should be approved by addressing the following conditions that warrant duplication ([BP 303.2](#)). Select all that apply.

- Unmet Demand (C.5.1.1)
 Industry Partnership (C.5.1.2)

- Increases Student Access (C.5.1.3)
 Other:

I. For each condition selected above, provide a brief justification.

Unmet Demand - The HVAC/Refrigeration field continues to demonstrate strong labor market demand across South Dakota. Employers report ongoing shortages of qualified technicians and emphasize the importance of technical competency and certification over degree level attainment for entry-level roles.

Increases Student Access - The shift to a one-year diploma aligns with regional hiring practices and reduces barriers to workforce entry, allowing graduates to enter high-demand occupations more quickly while maintaining program rigor.

CRITERION 3: DESIGN

The program's learning assessment strategy, program of study, and delivery methods are designed to provide students with the necessary competencies, as demonstrated through program learning outcomes.

- 3.1. The program is aligned to competencies, as demonstrated through program learning outcomes, that are developed with and continually validated by relevant stakeholders.
- 3.2. The program has a learning assessment strategy to validate student mastery of the program learning outcomes.
- 3.3. The program has an integrated program of study designed to develop and reinforce the program learning outcomes.
- 3.4. The program, when appropriate, includes a work-based learning component that develops and reinforces the program learning outcomes.
- 3.5. The program, when appropriate, offers flexible delivery methods to increase student access.

3.0. Describe the proposed program's alignment with the program award level requirements established in [BP 301.1](#).

A. Does the program align with the requirements?

- Yes
 No (Requesting Exemption)

B. If no: Provide a detailed rationale for program exemption. Specify which requirement(s) in BP 301.1 are not met; cite specific policy sections (e.g., B.3.4), when appropriate. If external organizations are involved (accreditation, regulatory, licensure, etc.), reference the organization name(s), specific requirements (including citations), and a justification for why the exemption should be approved.

3.1. Describe the program learning outcomes.

A. Provide a list of program learning outcomes for each proposed award level. Learning outcomes should be specific to the program.

HVAC/Refrigeration Technology Program Learning Outcomes

Critical Thinking - Apply diagnostic and analytical skills to evaluate HVAC and refrigeration systems, interpret schematics and technical documentation, and implement safe and effective repair solutions.

Technical Knowledge and Skills- Demonstrate competency in installation, maintenance, troubleshooting, and repair of residential and commercial HVAC and refrigeration systems while adhering to industry standards, safety protocols, and environmental regulations.

Communication - Employ professional communication skills to document service activities, interpret manufacturer specifications, collaborate with team members, and communicate technical information effectively with customers and supervisors.

Professionalism - Model professionalism by adhering to regulatory requirements (including EPA standards), demonstrating safe workplace practices, maintaining ethical conduct, and engaging in continuous professional development within the HVAC industry.

B. Describe the how the program learning outcomes were developed and validated.

Program Learning Outcomes are used to inform students, employers, and other constituents what the student should be able to perform when they have completed the program. The main stakeholder in Program Learning Outcomes is the program; however, outside constituents influence them based on industry trends. When

developing new Program Learning Outcomes, WDTC starts by utilizing O*Net Online which is a web resource that provides detailed job and industry information including key job skills and knowledge required for a specific career area. WDTC also researches the Program Learning Outcomes of other established programs to compare with information gathered on O*Net Online to draft preliminary Program Learning Outcomes. From there, the draft outcomes are vetted by industry professionals who are assisting with the development of the program.

Once students are enrolled in a program, assessment of student learning results may influence changes to Program Learning Outcomes, as learning targets assigned to Program Learning Outcomes are continuously met or not met. If a change is to be implemented, it should be completed by the program through the official curriculum change process which includes review by the program's advisory board and WDTC's Assessment Committee. New Program Learning Outcomes are then submitted to the Curriculum Committee for tracking purposes.

3.2. Describe the program's learning assessment strategy.

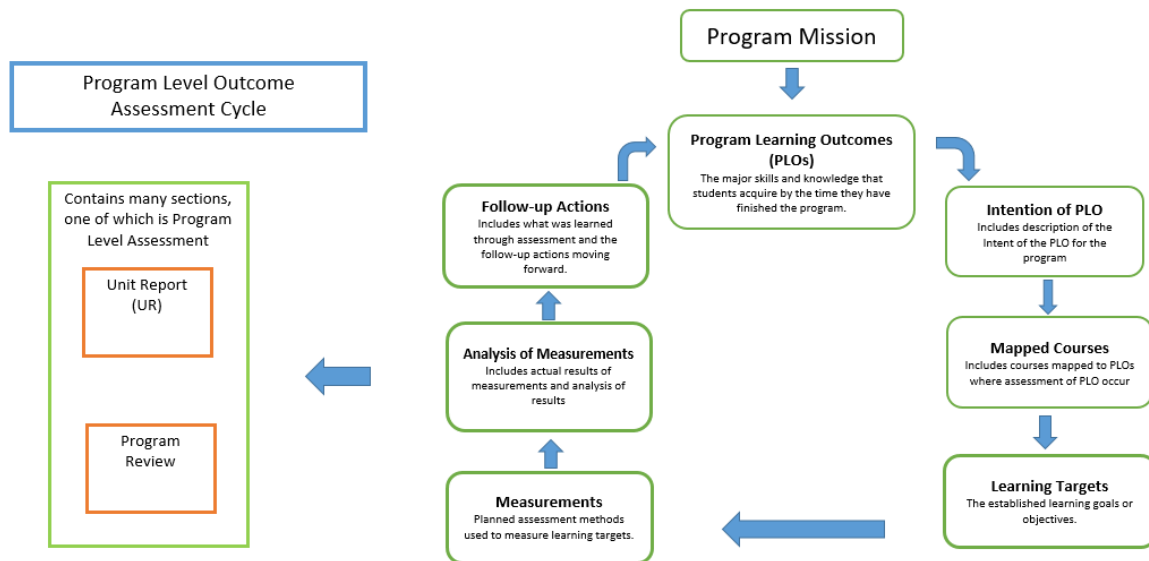
- A. Describe how students will demonstrate mastery of the program learning outcomes. Description should be specific to the program's learning assessment plan vs. the institutional assessment plan.

Assessment of student learning is conducted on an annual basis. Program faculty develop an assessment plan at the beginning of the academic year that focuses on one Institutional Learning Outcome (ILO) and one Program Learning Outcome (PLO). Assessment activities are conducted, and data is collected throughout the year. All assessment planning and results are documented in WDTC's online planning and assessment program, Strategic Planning Online (SPOL). At the end of the assessment year, program faculty submit an Annual Assessment Report that includes data results, analysis, and follow-up plans. Results of annual assessments guide necessary program changes that strengthen the program and ensure that graduates have learned what they need for success in their career.

Program Directors work with WDTC's two Assessment Coordinators to further define the Program Learning Outcomes (PLOs) and establish the following two assessment documents: 1) Course Map, which shows how the PLOs are developed throughout the curriculum with Introductory, Developed, and Mastered curriculum and 2) Program Competencies linked to PLOs, which documents how competencies link to the PLOs.

New faculty become immersed in the program curriculum and teaching their first two semesters at WDTC. Assessment of Course Learning Outcomes (CLOs) and PLOs begin during a new faculty member's 3rd semester. Faculty begin with completing the online course: ED 115 – Introduction to Program Assessment. This course instructs all new faculty on the foundations of assessment at WDTC and guides them through the assessment cycle. Then, during the 4th semester, faculty work one-on-one with Assessment Coordinators to plan and implement their first PLO and CLO assessment activities. After the 4th semester, they are then ready to complete all assessment activities on schedule with experienced faculty. This onboarding process to assessment allows new faculty to attain curriculum experience first, which gives them the foundation for better assessment success.

Assessment Cycle



B. Is the program preparation for a professional licensure and/or certification examination?

- Yes (Detail in Appendix 4: Section 3)
 No

3.3. Describe the program of study by completing Appendix 3.

3.4. Describe the program's work-based learning component.

A. Does the program have a work-based learning component? If so, select all that apply.

- None Clinical
 Apprenticeship Capstone
 Internship or Externship Other:

B. If none, describe why.

The summer internship of the AAS program will not be a part of the 1-year diploma program. Graduates will be able to enter the workforce immediately after graduation and not be required to do any summer internship hours.

3.5. Describe the program's delivery methods.

A. Select the program's primary delivery method(s)¹. Select all that apply.

- On Campus Apprenticeship
 Online Other:
 Blended

¹ **In Person:** 100 percent of courses are available in-person. **Online:** 100 percent of courses are available via distance learning. Delivery is only via the Internet. **Blended:** Delivery includes a required combination of both in-person and online courses. If a student has the option to take courses online, but is not required to do so, the program is not necessarily considered blended.

B. Describe how flexible delivery methods are being leveraged to increase student access.

The core technical courses within the HVAC/R diploma program will be delivered through face-to-face didactic instruction and hands-on laboratory experiences. To support student access, WDTC will utilize flexible scheduling models, including block scheduling where appropriate. General education courses may be completed either in person or online, providing students with additional flexibility while maintaining the integrity of the technical curriculum.

CRITERION 4: ALIGNMENT

The program is vertically aligned to an education and training pathway.

- 4.1. The program is vertically aligned to an education and training pathway, reflecting efficient articulation of:
 - 4.1.1. Non-degree credential/industry certification
 - 4.1.2. Certificate to diploma
 - 4.1.3. Diploma to associate of applied science
 - 4.1.4. Associate of applied science to baccalaureate

4.1. Describe the alignment of the proposed program along an education and training pathway.

A. Complete Appendix 4.

B. Describe the projected alignment between the proposed program and existing academic programs within the technical college system.

Students may transition to a different trades program at WDTC and transfer credits from the HVAC/Refrigeration Technology program if other admissions criteria are met. The HVAC/Refrigeration Technology program aligns with various programs at WDTC to meet our region's industry needs and enhance graduate's versatility in employment.

The HVAC/Refrigeration Technology program aligns with WDTC's current programs including:

- AAS Degree in Technical Studies program – 33 credits align
- Diploma in Plumbing Technology – 6 credits align
- Diploma in Construction Technology – 12 credits align

C. As applicable: Insert any additional comments here.

Students complete the EPA 608 certification and the AL2 Refrigerant Training as part of the HVAC/R program.

CRITERION 5: CAPACITY

The institution demonstrates the internal and external resources necessary to develop, implement, and sustain the program.

- 5.1. The institution demonstrates the financial resources necessary to develop, implement, and sustain the program.
- 5.2. The institution demonstrates appropriately certified and qualified faculty are in place with expertise in content, pedagogy, and related industry to develop and validate the program learning outcomes.
- 5.3. The institution's physical facilities (e.g., classrooms, laboratories) reflect current industry and/or occupational standards necessary to develop and validate the program learning outcomes.
- 5.4. The institution's equipment and technology resources reflect current industry and/or occupational standards necessary to develop and validate the program learning outcomes.
- 5.5. The institution demonstrates the ability of the program to meet institutional and programmatic accreditation standards, as applicable.

5.1. Describe the institution's financial capacity to develop, implement, and sustain the proposed program.

A. Complete Appendix 5.

B. Describe the proposed program's anticipated local fee structure. Description of fee structure should be specific to the program.

The anticipated fee structure for the HVAC/Refrigeration Technology Program would align with WDTC's current fee structure including institutional fees of \$89 per credit and program fees of \$31 per credit.

C. What is the proposed program weight factor (funding formula)?

- Standard Cost (1)
- High Cost (3)
- High Cost, Low Density (5)

I. Provide rationale related to the selection of proposed program weight factor.

The proposed diploma program aligns with the state-level guidance for the standard cost program weight factor due to the requirement of specialized lab space, HVAC training units, refrigeration systems, and industry-grade equipment.

D. Describe the contingency plans in case anticipated enrollments, income, or resources do not materialize.

Because this program is currently operational, the modification reduces overall cost per student by shortening program length. If enrollment fluctuates, WDTC will adjust cohort size and scheduling while maintaining program sustainability.

5.2. Describe how the institution will ensure the appropriate certified and qualified faculty are in place with the expertise in content, pedagogy, and the related industry to develop and validate the program learning outcomes.

A. Describe the necessary qualifications of faculty who will be involved in the program.

WDTC is committed to hiring expert faculty members to deliver academic excellence within all programs and follows the requirements of the Higher Learning Commission and the state of South Dakota as outlined in the SD

Postsecondary Technical College Instructor Credential Policy. Meeting these requirements are applicable to all full-time, adjunct, and off-site faculty members. Upon hire of faculty members, official transcripts are documented, current credentials are verified, and reference and background checks are completed.

Faculty positions are posted on the college website. Applications are submitted online through our secure NEOGOV system and are reviewed and scored by a hiring committee. Based on scores, the top 3-4 applicants are interviewed by the same committee who then makes a recommendation for hire.

New faculty members receive one week of orientation from the VP for Teaching and Learning and the Director of Instructional Design & Professional Development. This orientation also includes trainings by Human Resources, IT, Registrar's Office, and the Student Success Center. New faculty members then enter a one-year mentorship program facilitated by the VP for Teaching and Learning, the Director of Instructional Design & Professional Development, and Team Leaders. As part of the mentorship, new faculty members also complete two teaching methodology courses: ED 211 Methods of Lesson Planning and Instruction (2 credits) and ED 215 Methods of Instructional Design (2 credits). As part of these two courses, new faculty members are introduced to student-centered learning methods, lesson planning, assessment tools, adult learning theories, classroom management strategies, and ADA guidelines to assist with student accommodations. Upon completion of the mentorship and methodology courses, new faculty members receive their 5-year SD Post-Secondary Teaching Credential.

Continued support is provided for faculty members by the VP for Teaching and Learning, the Director of Instructional Design & Professional Development, Assessment Coordinators, and Team Leaders. WDTC schedules 15 faculty development days within the academic calendar for various trainings. Faculty members are also able to submit requests for professional development within their respective professions.

Faculty specifically for the HVAC/Refrigeration Technology Program must possess a minimum of three years professional HVAC experience and industry certifications (where applicable).

5.3. Describe the existing and/or new physical facilities that will be utilized or needed to reflect current industry and/or occupational standards. Outline short- and long-term investments in physical facilities.

The HVAC/Refrigeration Technology program will continue to utilize the existing instructional facilities located at WDTC's main campus. Because the program is transitioning from a two-year Associate of Applied Science degree to a one-year diploma, no changes to the current physical facilities are required.

The program's existing laboratory spaces are designed to reflect current industry and occupational standards and include training areas for residential and commercial HVAC systems, refrigeration equipment, electrical diagnostics, and system installation and troubleshooting. These facilities support hands-on instruction and allow students to develop the technical competencies required for entry-level HVAC/Refrigeration technicians.

At this time, WDTC does not anticipate any short-term or long-term capital investments in physical facilities related to this program modification. The current instructional labs, classroom spaces, and support infrastructure are sufficient to deliver the revised curriculum and continue meeting industry expectations for workforce preparation.

5.4. Describe the existing and/or new equipment and technology resources that will be utilized or needed to reflect current industry and/or occupational standards. Outline short- and long-term investments in equipment and technology resources.

The HVAC/Refrigeration Technology program will continue to utilize the existing equipment and instructional technology currently in place at WDTC's main campus. Because the program is transitioning from a two-year Associate of Applied Science degree to a one-year diploma, the modification does not require additional equipment or technology investments.

Current program resources include industry-standard training systems and tools used for instruction in residential and commercial HVAC systems, refrigeration equipment, electrical diagnostics, system installation, and troubleshooting. Students receive hands-on experience using modern HVAC training units, refrigerant recovery and charging equipment, diagnostic instruments, and other tools commonly used in the field. These resources allow the program to effectively prepare students for entry-level technician roles and industry certification requirements.

WDTC will continue to maintain and periodically update equipment as part of its regular program review and capital replacement planning processes to ensure alignment with current industry and occupational standards. No significant short-term or long-term equipment investments are anticipated as a result of this curriculum modification.

5.5. Describe the institution's and proposed program's ability to meet institutional and programmatic accreditation standards, as applicable.

A. Specify Higher Learning Commission (HLC) requirements.

- Notification Only
- Approval Required
- None
- Other:

B. Is there an accrediting or professional organization that has established standards for the program?

- Yes
- No

C. If yes: Describe the ability of the proposed program to meet professional accreditation standards. If the program does not or cannot meet those standards, describe the area(s) in which it is deficient and indicate steps needed to qualify the program for accreditation. Provide the date by which the program would be expected to be fully accredited.

If the institution does not plan to seek specialized accreditation, provide a rationale for not seeking.

The HVAC/Refrigeration Technology program will continue to meet all institutional accreditation standards established by the Higher Learning Commission. While specialized programmatic accreditation is not required for HVAC programs, WDTC intends to pursue HVAC Excellence program accreditation in the future as part of its ongoing commitment to continuous program improvement and alignment with industry-recognized standards.

HVAC Excellence accreditation evaluates curriculum quality, instructional practices, industry alignment, and student preparation for careers in the HVAC and refrigeration field. The program's revised curriculum, facilities, and equipment are designed to align with these industry standards and will position the program well for future accreditation review.

WDTC anticipates pursuing HVAC Excellence accreditation after the revised diploma program has been implemented and at least one cohort of students has successfully completed the program. Based on this timeline, the program could be prepared to seek accreditation within approximately two to three years following implementation of the revised curriculum.

SOUTH DAKOTA BOARD OF TECHNICAL EDUCATION

Appendix 2.A: Labor Market Information

Western Dakota Technical College

Diploma in HVAC/R

SOUTH DAKOTA								
SOC* CODE	SOC* TITLE	AVERAGE ANNUAL OPENINGS	2018 EMPLOYMENT	2028 EMPLOYMENT	NUMERIC CHANGE: 2018-2028	PERCENT CHANGE: 2018-2028	MEDIAN: ANNUAL WAGE (2020)	AVERAGE: ANNUAL WAGE (2020)
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	124	1,168	1,360	192	16.44%	\$59,460	\$59,070

NATIONAL								
SOC* CODE	SOC* TITLE	AVERAGE ANNUAL OPENINGS	2019 EMPLOYMENT	2029 EMPLOYMENT	NUMERIC CHANGE: 2019-2029	PERCENT CHANGE: 2019-2029	MEDIAN: ANNUAL WAGE (2020)	AVERAGE: ANNUAL WAGE (2020)
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	40,100	425,200	459,700	34,500	8%	\$59,810	\$59,620

SOURCE: South Dakota Department of Labor and Regulation, Labor Market Information Center (LMIC) (<https://dir.sd.gov/lmic/>)
U.S. Bureau of Labor Statistics (US BLS) (<https://www.bls.gov/>)

DATE: 03/03/2026

NOTES:

SOUTH DAKOTA BOARD OF TECHNICAL EDUCATION

Appendix 2.B: Student Demand Projections

Western Dakota Technical College

Diploma in HVAC/R

	YEAR 1	YEAR 2	YEAR 3
Student Full-Time Equivalent (FTE)	15	20	20
Headcount: Full-Time	15	20	20
Headcount: Part-Time			
Headcount: Total	15	20	20
Total Program or Site Capacity	15	20	20

SOUTH DAKOTA BOARD OF TECHNICAL EDUCATION

Appendix 3: Program of Study

Western Dakota Technical College
Diploma in HVAC/R

MONTHS:	9
SEMESTERS:	2
TOTAL CREDITS:	36

PREFIX AND NUMBER	TITLE	CREDITS	DESCRIPTION	EXISTING COURSE
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I. GENERAL EDUCATION CORE

ENGL 101 or	Composition I	3	This course instructs students in reading critically and writing clearly, correctly, and persuasively. Students will study principles of grammar, rhetoric, and logic in order to analyze and compose text effectively. This includes work on personal, expository, and research essays.	Y
ENGL 106	Workplace Communications I	3	This course presents the basic principles and forms of written communication in the workplace. Instruction leads students through the planning tasks, identifying audiences, and gathering information. More emphasis is on reports.	Y
MATH 104	Technical Mathematics	3	This course includes real numbers and variable expressions, first-degree equations, polynomials, factoring, rational expressions, rational exponents and radicals, geometry, quadratic equations, and trigonometry. This course is designed for students who are preparing for technical careers. It stresses a working knowledge of applied mathematical concepts. The practice problems are applications from various technical fields but do not require prior knowledge of the technical applications. Problems are selected to help develop an understanding of where and how mathematics is used in the various fields of employment.	Y
PSYC 101 or	General Psychology	3	This course is an introduction survey of the field of psychology with consideration of the biological bases of behavior, sensory and perceptual processes, learning and memory, human growth and development, social behavior, and normal and abnormal behavior.	Y
PSYC 103	or Human Relations in the Workplace		Success in the world of work requires not only the ability to perform according to the requirements of the position, but also the ability to adjust and get along with others. The purpose of this course is to help students grasp the importance of human relations skills in both their personal and career lives. It will introduce students to the skills necessary to create and maintain positive relationships and interactions in the workplace.	Y
SUBTOTAL OF GENERAL EDUCATION CREDITS:		12	TOTAL NEW COURSES:	0

II. PROGRAM CORE

HVAC 101	Cooling	6	Students will explore the fundamentals of heat transfer, thermodynamic principles, pressure-temperature relationships, and refrigerant characteristics. They will develop competency in refrigerant recovery, system evacuation, and the calculation of superheat and subcooling. Upon completion, students will be able to explain the refrigeration cycle as it applies to high-temperature systems. The course also provides hands-on experience in installing, testing, troubleshooting, and repairing a range of residential air-conditioning equipment	N
HVAC 102	Heating	6	Students will study heat transfer principles as they apply to a wide range of residential heating equipment. They will learn to calculate BTU input and output, assess airflow volumes, and measure duct pressures. The course also provides hands-on instruction in installing, testing, troubleshooting, and repairing various types of residential heating systems.	N
HVAC 212	Light Commerical HVAC	6	Students will build on their foundation in heating and air conditioning to gain familiarity with light commercial systems, including boilers, air-to-air heat pumps, water-to-air heat pumps, and rooftop units. They will work with equipment that incorporates reverse-cycle refrigeration, economizer functions, geothermal heat transfer, and cooling tower technology. The course also provides hands-on training in testing, troubleshooting, and repairing a range of light commercial HVAC systems	N

SOUTH DAKOTA BOARD OF TECHNICAL EDUCATION

Appendix 3: Program of Study

Western Dakota Technical College

Diploma in HVAC/R

HVAC 234	Commercial Refrigeration	6	Students will expand their understanding of heat transfer, thermodynamics, pressure–temperature relationships, and refrigerant properties. They will learn to explain the refrigeration cycle as it applies to medium- and low-temperature systems. The course also provides hands-on experience in testing, troubleshooting, and repairing a variety of medium- and low-temperature refrigeration equipment.	N
SUBTOTAL OF PROGRAM CREDITS:		24	TOTAL NEW COURSES:	4

SOUTH DAKOTA BOARD OF TECHNICAL EDUCATION

Appendix 5: Financial Projections

Western Dakota Technical College
 Diploma in HVAC/R

	YEAR 1	YEAR 2	YEAR 3
Student FTE	15	20	20

I. PROJECTED EXPENDITURES

A. ONE-TIME			
New/Renovated Facilities	\$ -	\$ -	\$ -
Equipment	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -
Sub-Total: One-time	\$ -	\$ -	\$ -

B. RECURRING			
B.1. PERSONNEL			
FTE (Faculty and Staff)	1	1	1
Salary & Benefits	\$ 85,000.00	\$ 86,500.00	\$ 88,000.00
B.2. OPERATING			
Rental / Lease	\$ -	\$ -	\$ -
Contractual Services	\$ -	\$ -	\$ -
Equipment	\$ -	\$ -	\$ -
Supplies	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00
Travel	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00
Other	\$ -	\$ -	\$ -
Sub-Total: Operating	\$ 8,000.00	\$ 8,000.00	\$ 8,000.00
Total: Recurring	\$ 93,000.00	\$ 94,500.00	\$ 96,000.00

TOTAL EXPENDITURES (A + B)	\$ 93,000.00	\$ 94,500.00	\$ 96,000.00
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II. PROJECTED REVENUE

Tuition	\$ 58,500.00	\$ 78,000.00	\$ 78,000.00
State Fees	\$ 19,800.00	\$ 26,400.00	\$ 26,400.00
Local Fees	\$ 103,500.00	\$ 138,000.00	\$ 138,000.00
Location-Based Fees	\$ -	\$ -	\$ -
State Sources	\$ -	\$ 94,860.60	\$ 126,480.80
Federal Sources	\$ -	\$ -	\$ -
Private Grants or Gifts	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -

TOTAL REVENUE	\$ 181,800.00	\$ 337,260.60	\$ 368,880.80
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REVENUE - EXPENDITURES	\$ 88,800.00	\$ 242,760.60	\$ 272,880.80
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**Projections are held constant based on current fiscal year. Inflation or rate changes are not factored.*



March 13, 2026

Johnstone Supply
Jason Carlson, VP of Training
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(605)679-0342

South Dakota Board of Technical Education
800 Governors Drive
Pierre, SD 575436

South Dakota Board of Technical Education Members:

My name is Jason Carlson. I have been in the HVAC industry for 29+ years. The last 12 years have been in HVAC education, from teaching at Southeast Technical Institute, training for a large national contractor based out of Council Bluffs, IA, to running a private HVAC training program for a large national HVAC wholesaler in the last 3 years. I have watched the evolution of our industry and the dire need for HVAC technicians' industry wide.

My experience has shown me that shorter training programs are much more effective in producing qualified technicians than longer programs. Equipment and technology have advanced so much that the true need in training technicians is to make them proficient in the very basics of HVAC, then the employer bears the responsibility of continuing education on specific products and skill sets. Equipment evolution has created a strong demand for specialized technicians. 2-year tech school programs seem to be a mile wide and an inch deep, meaning students are exposed to everything in our industry but not very good at any of it. A shorter training program puts more focus on mastery of the basics, or an inch wide and a mile deep. Once the basics are mastered, technicians can then turn their focus to more specific demands of the company they work for. Students with a diploma from a well done curriculum will be in extremely high demand in our industry for a long time.

While we are in wholesale HVAC at Johnstone Supply, we have a continuous demand for technical people across the nation that can help with technical support and training. I would describe the demand in the wholesale HVAC industry as nearly endless. I see the contractor side of our industry being in the exact same boat. I meet with thousands of contractors across the country; in the Midwest the wage range is around \$25/hr starting wage up to over \$100,000 salary potential for qualified candidates.

Sincerely,

Jason Carlson

Jason Carlson