Course Catalog

2024-2025

800 Mickelson
Rapid City, SD 57703

(605) 718-2400
(800) 544-8765

www.WDT.edu

- This publication and any addenda should not be considered a contract between Western Dakota Technical College (WDTC) and any prospective student. As much as possible, program and course offerings will be offered as listed. However, WDTC reserves the right to modify course offerings according to current conditions. WDTC also retains the right to make changes in programs, policies, and graduation requirements without notice.

- Further, WDTC reserves the right to modify requirements and curricula offerings and to add, alter, or delete courses and programs through appropriate procedures. While reasonable efforts are made to publicize such changes, a student is encouraged to seek current information from appropriate offices. WDTC also reserves the right to make changes in tuition, fees, refunds, admission requirements, and regulations without notice or obligation. The official program curricula are those contained in the master curricula file maintained in the Vice President for Teaching and Learning's Office. For complete information, students need to refer to WDTC policies, WDTC Student Handbook, and WDTC Course Catalog.

- The information contained in this catalog is the most accurate available at the time of publication, but changes may become effective before the next catalog is printed. It is ultimately the student's responsibility to stay abreast of current regulations, curricula, and the status of specific program offerings. Each student is responsible for compliance with the information appearing in the catalog, the current WDTC Student Handbook, and any published addenda. The official catalog includes this catalog plus any published addenda.

- Students who begin their academic program in the spring or summer semester may be placed in the next year's academic catalog to best meet the program's technical and general education requirements. Students who sit out for a spring or fall semester or longer will return under a new catalog and may be required to repeat courses or successfully complete new or revised skills or competency assessments. Before readmittance, the program may need to determine if a student is eligible to continue in technical courses. Program sequencing and cohort size may prevent enrollment in technical courses.

- The WDTC Student Handbook details the policies and contains beneficial information that can help students achieve their educational goals. It is designed to serve as a ready reference for student rights and responsibilities, academic procedures, graduation requirements, and other useful information. The WDTC Student Handbook is available online at http://www.wdt.edu/current-students/student-handbook/.

- If you are or have been convicted, pleaded guilty or no contest to, or received a suspended imposition of sentence for a felony or certain misdemeanors, you are advised that you may not be able to complete all course requirements for your chosen program, you may be prevented from taking required certification/licensure examinations in your chosen program field, and you may be prevented from gaining employment in your program field.

- Notice of Non-Discrimination**:** WDTC will not tolerate racism, discrimination, harassment, exploitation or victimization of students, school employees, non-employees, or any person who is an invitee of WDTC for any reason, including but not limited to race, color, ethnic background, national origin, pregnancy, marital status, religion, creed, age, sex, citizenship, political affiliation, mental and/or physical challenge, disability, sexual orientation, genetic information, gender identity, gender expression, status as a veteran, or any other status protected under applicable federal, state or local law. WDTC is committed to providing an environment free from harassment and other forms of discrimination for students, employees, non-employees and its invitees. The following person has been designated to handle inquiries or complaints regarding the non-discrimination policies: VP for Institutional Effectiveness and Student Success who serves as the Title IX Coordinator.

- The academic calendar is subject to modification or interruption due to occurrences such as fire, flood, labor disputes, illness, accident, or death of an instructor, interruption of utility services, acts of God, pandemic, civil disorder, and war. In event of such occurrences, WDTC will make every attempt to accommodate its students. It does not, however, guarantee that courses of instruction, extra-curricular activities, or other WDTC programs or events will be completed or rescheduled. Should such a condition occur, refunds will be made to eligible students as determined by the President in accordance with WDTC policy.

- In the event of a WDTC campus closure, the institution will follow policy FDCR.B.10.010 from the Higher Learning Commission. WDTC will provide equitable treatment of students by ensuring they are able to complete the educational program in which they are enrolled within a reasonable period of time. WDTC will also provide prompt notification of additional changes to students, if any. In the event of the closure of WDTC, the Board of Technical Education will ensure all permanent records of current and former students will be maintained and available. The Board may be contacted at 800 Governors Drive, Pierre, South Dakota 57501.

- Each continuing program at WDTC is subject to an annual internal review to gauge its performance over the prior three years in the areas of enrollment, retention, and placement plus any other areas deemed important to the program by the college. The South Dakota Board of Technical Education (BOTE) will conduct a risk analysis of all programs in the areas of enrollment, retention, and placement. Standards and performance levels used to determine at risk programs will be established by BOTE and WDTC. A program deemed as high risk may be required to move to a teach out status.

- In the event of a program teach out status, the Program Director will notify any programmatic accreditor within 30 days of the occurrence. WDTC will also notify the BOTE and the Higher Learning Commission. WDTC will provide written notification to students currently enrolled of the program's closure. WDTC will provide equitable treatment of students by ensuring they are able to complete the educational program within a reasonable period of time. This will include working with the Program Director, academic advisor, and Registrar's Office to finalize degree plans for completion of the program. WDTC will also provide prompt notification of additional changes to students, if any.

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Welcome

Western Dakota Technical College is the only technical college that serves the western South Dakota region. WDTC offers a wide variety of certificate, diploma, and associate of applied science degree programs including Business and Computers, Construction and Manufacturing, Energy and Environmental Technologies, Health Sciences, Public Services, and Transportation Technologies. In addition, a wide variety of non-credit classes, workshops, professional programs, and seminars are available through the Corporate Education Center.

WDTC faculty, staff, and administration focus their efforts on helping students gain the skills and experiences they need to succeed. Through hands-on active learning, internships, and industry partnerships, WDTC students graduate ready to make real and immediate contributions to their employers and their communities.

Mission

Western Dakota Technical College prepares students to be highly-skilled professionals through accessible, career-focused programs to improve their lives, while adapting to community workforce needs and positively impacting our economy.

Vision Statement

As an integral community partner, Western Dakota Technical College leads the region by providing innovative education and advocating technical excellence to drive career development and economic growth.

Values

Excellence

- Aspiring to achieve quality.
- Seeking opportunities to grow professional skills and encouraging others to do the same.
- Moving beyond compliance.
- Valuing employer insight and including them in our planning processes.
- Believing in the ability of our students to learn, meet thr high standards we set for them, and fill employer needs.

Assessment

- Analyzing programs, services, policies, and procedures and making adjustments as needed to best serve our students, employees, and community.

Transparency

- Being honest.
- Separating personal and institutional interests.
- Utilizing shared governance to improve communication and dissemination of information.

Accountability

- Understanding the power and effect our words have on students, colleagues, and members of the community when speaking about Western Dakota Technical College and striving to use them in the best interest of the College.
- Knowing and upholding Western Dakota Technical College's policies, procedures, and objectives.
- Behaving legally and ethically in all endeavors and encouraging others to do the same.
- Providing the facilities, equipment, and services students and employees need to be successful.
- Offering education with high potential for positive student, employer, and community outcomes.

Dignity

- Respecting ourselves and others.
- Providing fair and just treatment to all.
- Understanding and celebrating the dignity in all forms of work, both internally and externally.

Compassion

- Believing we are a solution to poverty, workforce shortages, unemployment, and other challenges in our community.
- Empathizing with students, colleagues, and other individuals in their experiences and realities.

Inclusion

- Utilizing shared governance to ensure participation in decision-making and provide channels for various groups to voice opinions.
- Respecting and embracing varying cultures, views, and opinions.

WDTC's Diversity, Equity, Inclusion, and Belonging

Western Dakota Technical College (WDTC) respects the uniqueness of every individual who works at, attends, or visits WDTC and is committed to diversity, equity, inclusion, and belonging. We know and acknowledge all of us have different strengths and backgrounds that contribute to the success of us as individuals and WDTC as a whole. We believe everyone should have equitable access to technical education and the professional career pathways it provides. Thus, WDTC strives to provide a supportive and inclusive environment for all employees and students, regardless of areas of difference, so individuals can find both personal and professional success at WDTC.

Accreditation

Western Dakota Technical College is accredited by the Higher Learning Commission (HLC), at 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604. The HLC has accredited Western Dakota Technical College as a certificate-granting institution since 1983 and as an associate degree-granting institution since 1990. To obtain more information about Western Dakota Technical College's accreditation, contact the Vice President for Institutional Effectiveness and Student Success, Kelly Oehlerking at Kelly.Oehlerking@wdt.edu or 605-718-2931.

Program Accreditations and Approvals

Various professional organizations accredit or approve all or part of the following academic programs:

- Automotive Technology - Automotive Service Excellence Education Foundation (ASE)
- Computer Science - Information Technology Specialist - National Security Agency Center of Academic Excellence in Cyber Defense (NSA CAE-CD)
- Dental Assisting - South Dakota Board of Dentistry and Commission on Dental Accreditation (CODA)
- Diesel Technology - Automotive Service Excellence Education Foundation (ASE) and Associated Equipment Distributors (AED)
- Medical Assisting - South Dakota Board of Medical and Osteopathic Examiners (SDBMOE)
- Medical Laboratory Technician - National Accrediting Agency of Clinical Laboratory Sciences (NAACLS)
- Paramedic - Commission on Accreditation of Allied Health Educational Programs (CAAHEP)
- Phlebotomy- National Accrediting Agency of Clinical Laboratory Sciences (NAACLS) - Serious Application Status for Initial Accreditation
- Practical Nursing - South Dakota Board of Nursing and Accreditation Commission for Education in Nursing (ACEN) (Rapid City Campus, Off-site Whitewood Campus, Off-site Philip Campus, and Off-site Hot Springs Campus)
- Registered Nursing - South Dakota Board of Nursing and Accreditation Commission for Education in Nursing (ACEN)
- Surgical Technology - Commission on Accreditation of Allied Health Educational Programs (CAAHEP)

Advisory Committees

Each WDTC academic program has an Advisory Committee with varying business and industry representation. Committees meet at least twice a year with program faculty to discuss current industry trends, skilled workforce needs and student performance. As industry professionals, committee members are the most direct and up-to-date resources for current trends in their respective industry. The strong partnership between WDTC and industry professionals ensures the continual improvement of our academic programs who strive to meet growing skilled workforce needs.

Program and Course Information

Course descriptions in the catalog are only summaries of the actual course content. Western Dakota Technical College reserves the right to alter course content and curricula without notice. WDTC also reserves the right to cancel any scheduled class and to combine class sections due to insufficient enrollment. In the event of a class cancellation, refunds will be issued in accordance with WDTC's refund policy. WDTC reserves the right to make changes in courses and regulations published in this catalog and other publications without obligation or prior notice.

Special Program Requirements

Please see Enrollment Services for special program requirement information for the following programs.

- Advanced Emergency Medical Technician
- Architectural and Engineering - Architectural
- Architectural and Engineering - Mechanical
- Dental Assisting
- Electrical Trades
- Law Enforcement Technology
- Medical Assisting
- Medical Laboratory Technician
- Paramedic
- Phlebotomy/Laboratory Assistant
- Practical Nursing
- Radiologic Technology
- Registered Nursing
- Surgical Technology

Licensure and Certification

Professional licensure and certification requirements often vary from state to state. WDTC will not initially enroll students in an academic program leading to professional licensure or certification unless the College has confirmed the program meets all educational requirements of the state where the student is located, per WDTC's Student Location policy, or intends to work after graduation. If WDTC has not determined whether the program curriculum meets educational requirements for licensure or certification in the state you are located in or intend to work in after graduation, please contact the Vice President for Teaching and Learning for assistance by emailing Tiffany.Howe@wdt.edu or calling 605-718-2905. Additional information on specific programs that require licensure or certification can be found at https://www.wdt.edu/about/student-consumer-information/professional-licensure-and-certification/.

Student Handbook

Students need to refer to the WDTC Student Handbook which details the policies and contains beneficial information that can help students achieve their educational goals. It is designed to serve as a ready reference for student rights and responsibilities, academic procedures, financial aid application process, graduation requirements, and other useful information. The handbook is available online at http://www.wdt.edu/current-students/student-handbook/.

General Education Philosophy

General Education at Western Dakota Technical College provides a foundation for study in the academic programs imparting broad knowledge and intellectual concepts to students and developing skills and attitudes that Western Dakota Technical College believes every college-educated person should possess. Students gain knowledge in the areas of social sciences, natural sciences, mathematics, communications, computers, as well as arts and humanities. Courses support the institutional learning outcomes of critical thinking, technical knowledge and skills, communication, and professionalism.

Institutional Learning Outcomes

Institutional Learning Outcomes are essential employability characteristics that are comprised of transferable skills, attitudes, and abilities expected to be mastered by all WDTC graduates. They are integrated throughout the learning experience through courses, lessons, and co-curricular activities.

The following Institutional Learning Outcomes are derived from the objectives of WDTC:

Critical Thinking- able to deliberately and systematically process information for better understanding and/or to determine sound decisions.

Technical Knowledge and Skills- able to apply technical knowledge, demonstrate technical skills, and use technology.
Communication- able to communicate effectively in both oral and written forms.
Professionalism- able to conduct oneself in a professional manner.

Program Requirements

Diploma Program Requirements: Students pursing a diploma program are required to complete a minimum of 6*general credits from a minimum of 2 of the following subject areas.

AAS Degree Program Requirements: Students pursuing the associate of applied science degree program are required to complete a minimum of 15* general education credits from a minimum of 4 of the following subject areas.

Arts and Humanities			**3 Credits Required***
HUM	100	Introduction to Humanities	3
Communications			**3 Credits Required***
CMST	101	Foundations of Communication	3
ENGL	101	Composition I	3
ENGL	201	Composition II	3
ENGL	106	Workplace Communications I	3
ENGL	108	Workplace Communications II	3
Computers			**3 Credits Required***
CSC	105	Microcomputer Software Applications I	3
Mathematics			**3 Credits Required***
MATH	100	Elementary Algebra	3
MATH	101	Intermediate Algebra	3
MATH	104	Technical Mathematics	3
MATH	105	Mathematical Reasoning	3
MATH	112	Business Mathematics	3
MATH	114	College Algebra	3
MATH	120	Trigonometry	3
Natural Sciences			**4 Credits Required***
BIOL	101/101L	Biology Survey I / Biology Survey I Lab	4
CHEM	106/106L	Chemistry Survey / Chemistry Survey Lab	4
MICR	231/231L	General Microbiology / General Microbiology Lab	4
Social Sciences			**3 Credits Required***
CJUS	201	Introduction to Criminal Justice	3
ECON	202	Principles of Macroeconomics	3
PSYC	101	General Psychology	3
PSYC	103	Human Relations in the Workplace	3
SOC	100	Introduction to Sociology	3

ACCOUNTING

Associate of Applied Science, 62 Credit Hours, 18-Month Program

The Accounting Program will prepare students for entry-level positions in accounting-related employment opportunities by providing them with technical and social skills.

Because accountants and bookkeepers are an organization's financial record-keepers and assistants to management, graduation from this two-year program with an AAS degree can lead to a number of good-paying employment opportunities. Students will learn the principles of accounting and the concepts behind the principles. Students receive up-to-date training on some of the latest software available. Payroll accounting, taxes, and managerial accounting are included in this program. With the general education and business courses required to obtain this degree, graduates are well-equipped to compete for employment.

Course	No.	Course Title	Credits
		General Education Requirements	
CMST	101	FOUNDATIONS OF COMMUNICATION	3
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ECON	202	PRINCIPLES OF MACROECONOMICS ***online***	3
MATH	112	BUSINESS MATHEMATICS**	3
PSYC	101	GENERAL PSYCHOLOGY	3
		Total	**15**
		Technical Requirements	
ACCT	120	PRINCIPLES OF ACCOUNTING I	3
ACCT	121	PRINCIPLES OF ACCOUNTING II ***online***	3
ACCT	212	INTERMEDIATE ACCOUNTING I ***online***	4
ACCT	213	INTERMEDIATE ACCOUNTING II ***online***	4
ACCT	215	PAYROLL ACCOUNTING ***online***	3
ACCT	218	TAX ACCOUNTING I ***online***	3
ACCT	223	MANAGERIAL ACCOUNTING ***online***	3
ACCT	227	EXCEL FOR ACCOUNTING ***online***	3
ACCT	228	QUICKBOOKS ACCOUNTING	3
ACCT	230	TOPICS AND ISSUES IN ACCOUNTING ***online***	3
BUS	228	PERSONAL INVESTMENTS ***or***	3
ACCT	290	INTERNSHIP	
BUS	140	BUSINESS LAW	3
BUS	141	WRITTEN COMMUNICATIONS FOR BUSINESS*	3
BUS	210	SUPERVISORY MANAGEMENT	3
BUS	224	PERSONAL FINANCE	3
		Total	**47**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

Semester breakdown on next page

Semester Breakdown AAS

First Semester		CR
ACCT 120	Principles of Accounting I	3
BUS 224	Personal Finance	3
CMST 101	Foundations of Communication	3
CSC 105	Microcomputer Software Applications I	3
MATH 112	Business Mathematics	3
	Total Credit Hours	**15**

Second Semester		CR
ACCT 121	Principles of Accounting II ***online***	3
ACCT 215	Payroll Accounting ***online***	3
ACCT 228	QuickBooks Accounting	3
BUS 141	Written Communications for Business	3
PSYC 101	General Psychology	3
	Total Credit Hours	**15**

Third Semester		CR
ACCT 212	Intermediate Accounting I ***online***	4
ACCT 218	Tax Accounting I ***online***	3
ACCT 227	Excel for Accounting ***online***	3
BUS 210	Supervisory Management	3
ECON 202	Principles of Macroeconomics ***online***	3
	Total Credit Hours	**16**

Fourth Semester		CR
ACCT 213	Intermediate Accounting II ***online***	4
ACCT 223	Managerial Accounting ***online***	3
ACCT 230	Topics and Issues in Accounting ***online***	3
BUS 228	Personal Investment ***or***	3
ACCT 290	Internship	
BUS 140	Business Law	3
	Total Credit Hours	**16**

If you are or have been convicted, pleaded guilty or no contest to, or received a suspended imposition of sentence for a felony or certain misdemeanors, you are advised that you may not be able to complete all course requirements for your chosen program, you may be prevented from taking required certification/licensure examinations in your chosen program field, and you may be prevented from gaining employment in your program field.

ADVANCED EMERGENCY MEDICAL TECHNICIAN

Certificate, 18 Credit Hours, 9-Month Program

The Advanced Emergency Medical Technician certificate student will experience over four hundred hours of training that entails didactic experience and a vigorous and stringent clinical program that will produce a pre-hospital caregiver that will meet the demands of society.

Course	No.	Course Title	Credits
		Technical Requirements	
EMS	101	Emergency Medical Technician	6
EMS	160	Advanced Emergency Medical Technician	6
HC	114	Medical Terminology	3
HC	213	Anatomy & Physiology for the Health Professions	3
		Total	**18**

*Students must successfully complete the certificate requirements to sit for the National Registry Exam to become a Licensed Advanced Emergency Medical Technician.

Clinicals may include, but are not limited to, differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. This may require travel outside the Rapid City area.

Semester Breakdown Certificate

First Semester		CR	Second Semester		CR
EMS 101	Emergency Medical Technician	6	EMS 160	Advanced Emergency Medical Technician	6
HC 213	Medical Terminology I	3	HC 114	Anatomy & Physiology for the Health Professions	3
Total Credit Hours		**9**	**Total Credit Hours**		**9**

If you are or have been convicted, pleaded guilty or no contest to, or received a suspended imposition of sentence for a felony or certain misdemeanors, you are advised that you may not be able to complete all course requirements for your chosen program, you may be prevented from taking required certification/licensure examinations in your chosen program field, and you may be prevented from gaining employment in your program field.

Professional licensure and certification requirements often vary from state to state. Educational requirements by state for this program can be found at https://www.wdt.edu/degree-programs/advanced-emergency-medical-technician/.

Required steps to obtain the credential for the Advanced Emergency Medical Technician program. (PDF)

ALLIED HEALTH

Associate of Applied Science, 60-62 Credit Hours, 18-21 Month Program

The Allied Health Associate of Applied Science degree provides students with an enhancement of health care and general education competencies and may allow for future educational and workplace advancement.

Course	No.	Course Title	Credits
		General Education Requirements	
CHEM	106	CHEMISTRY SURVEY	3
CHEM	106L	CHEMISTRY SURVEY LAB	1
ENGL	101	COMPOSITION I*	3
MATH	101	INTERMEDIATE ALGEBRA** ***or higher***	3
PSYC	101	GENERAL PSYCHOLOGY	3
SOC	100	INTRODUCTION TO SOCIOLOGY	3
		Total General Education Requirements	**16**
		Technical Requirements	
HC	114	ANATOMY & PHYSIOLOGY FOR THE HEALTH PROFESSIONS	3
HC	135	MEDICAL LAW AND ETHICS ***online***	2
HC	200	PHARMACOLOGY FOR HEALTHCARE ***online***	3
HC	205	PROFESSIONALISM IN HEALTHCARE ***online***	1
HC	213	MEDICAL TERMINOLOGY I	3
HC	225	PATHOPHYSIOLOGY ***online***	3
MDS	130	MEDICAL COMPUTERIZED APPLICATIONS	3
MICR	231	GENERAL MICROBIOLOGY	3
MICR	231L	GENERAL MICROBIOLOGY LAB	1
		Total	**22**
		Electives (22-24 credits required)	
ACCT	120	PRINCIPLES OF ACCOUNTING I	3
ACCT	228	QUICKBOOKS ACCOUNTING	3
BUS	162	PROJECT MANAGEMENT	3
BUS	210	SUPERVISORY MANAGEMENT	3
CMST	101	FOUNDATIONS OF COMMUNICATION	3
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ECON	202	PRINCIPLES OF MACROECONOMICS ***online***	3
EMS	101	EMERGENCY MEDICAL TECHNICIAN	6
HC	116	ANATOMY & PHYSIOLOGY FOR THE HEALTH PROFESSIONS LAB	1
HC	124	INTRODUCTION TO PATIENT CARE ***online***	1
HC	126	INTRODUCTION TO PATIENT CARE LAB AND CLINICAL	2
MATH	114	COLLEGE ALGEBRA***	3
MATH	120	TRIGONOMETRY	3
MDS	175	RECORDS MANAGEMENT	3
		Total Requirements for AAS (minimum)	**60-62**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Elementary Algebra.
*** Prerequisite: Acceptable ACCUPLACER score or Intermediate Algebra.

Semester breakdown on next page

Semester Breakdown

First Semester[1]		CR	Second Semester		CR
ENGL 101	Composition I	3	HC 205	Professionalism in Healthcare ***online***	1
HC 114	Anatomy & Physiology for the Health Professions	3	SOC 100	Introduction to Sociology	3
				Elective (see list)	10-12
HC 213	Medical Terminology I	3			
MATH 101	Intermediate Algebra ***or higher***	3			
PSYC 101	General Psychology	3			
	Total Credit Hours	**15**		**Total Credit Hours**	**14-16**
Third Semester		**CR**	**Fourth Semester**		**CR**
HC 135	Medical Law and Ethics ***online***	2	CHEM 106	Chemistry Survey	3
MDS 130	Medical Computerized Applications	3	CHEM106L	Chemistry Survey Lab	1
			HC 200	Pharmacology for Healthcare ***online***	3
MICR 231	General Microbiology	3	HC 225	Pathophysiology ***online***	3
MICR 231L	General Microbiology Lab	1		Elective (see list)	6
	Elective (see list)	6			
	Total Credit Hours	**15**		**Total Credit Hours**	**16**

[1] Note: All first semester classes, as well as HC 124 and HC 126 or proof of current CNA certification are prerequisite requirements needed to apply to the LPN Program. All courses must be completed with a C or higher.

NOTE: CHEM 106, CHEM 106L, CMST 101, MATH 114, MICR 231/231L, and SOC 100 are General Education requirements for the RN Program and must be completed with a C or higher (see Registered Nursing catalog page)

ALLIED HEALTH - WITH EMPHASIS OPTION

Students entering or who have completed healthcare diploma programs such as Dental Assisting, Medical Assisting, Phlebotomy/Laboratory Assistant, or Practical Nursing also have the option of pursuing an Associate of Applied Science in Allied Health. Diploma program requirements must be met, along with Allied Health General Education Requirements and Emphasis Option Electives to meet a minimum of 60 credit hours.[3]

Course	No.	Course Title	Credits
		Emphasis Option Electives	
CMST	101	FOUNDATIONS OF COMMUNICATION	3
HC	114	ANATOMY & PHYSIOLOGY FOR THE HEALTH PROFESSIONS	3
HC	124	INTRODUCTION TO PATIENT CARE ***online***	1
HC	126	INTRODUCTION TO PATIENT CARE LAB AND CLINICAL	2
HC	135	MEDICAL LAW AND ETHICS ***online***	2
HC	200	PHARMACOLOGY FOR HEALTHCARE ***online***	3
HC	213	MEDICAL TERMINOLOGY I	3
HC	225	PATHOPHYSIOLOGY ***online***	3
MATH	114	COLLEGE ALGEBRA***	3
MDS	130	MEDICAL COMPUTERIZED APPLICATIONS	3
		OTHER REGISTRAR APPROVED ELECTIVES	#
		Total Requirements for AAS (minimum)	**60**

[3]Note: See the Registrar's Office to determine the appropriate plan of study.

*** Prerequisite: Acceptable ACCUPLACER score or Intermediate Algebra.

For information on Diploma program requirements, see:

DENTAL ASSISTING
MEDICAL ASSISTING
PHLEBOTOMY/ LABORATORY ASSISTANT
PRACTICAL NURSING

ARCHITECTURAL AND ENGINEERING TECHNOLOGY

Associate of Applied Science, 68 Credit Hours, 18-Month Program

The Architectural and Engineering Technology program at WDTC equips students with the skills and knowledge necessary to work side-by-side with Architects and Engineers as they develop solutions for the Manufacturing and Construction industries.

Graduates of the program become experts in the full range of software and design concepts needed to succeed as an Architectural or Engineering Technician. This degree is widely accepted as the industry standard in qualifying for an entry-level position in the architectural, civil, and mechanical design fields.

Architectural Design Technicians work with architects to create 3D building models, technical plans, and details showing the dimensions, construction materials, and processes used for residential and commercial building projects. Mechanical Design Technicians also develop 3D models which are then used to create detail and assembly drawings of a wide variety of machinery and mechanical devices, indicating dimensions, fastening methods, and other requirements. Civil Design Technicians create drawings that detail construction related to land, roads, bridges, and other infrastructure. The Architectural and Engineering program at WDTC provides students with a solid base of knowledge in all three of these fields, maximizing their versatility when entering the job market.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	101	COMPOSITION I* ***or***	3
ENGL	106	WORKPLACE COMMUNICATIONS I *	
MATH	101	INTERMEDIATE ALGEBRA** ***or***	3
MATH	114	COLLEGE ALGEBRA***	
MATH	120	TRIGONOMETRY****	3
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
		Total	**15**
		Technical Requirements	
AE	101	DRAFTING FUNDAMENTALS	3
AE	111	ARCHITECTURAL DRAFTING I	3
AE	135	ARCHITECTURAL CONSTRUCTION THEORY I	3
AE	139	2D CAD	3
AE	141	ARCHITECTURAL 3D CAD	3
AE	142	MECHANICAL 3D CAD	3
AE	150	ARCHITECTURAL PRINT READING	1
AE	202	MECHANICAL DRAFTING	3
AE	203	PRINCIPLES OF COMMERCIAL THEORY I	3
AE	214	INTRODUCTION TO CIVIL DRAFTING	3
AE	232	MECHANICAL PRINCIPLES	3
AE	234	MECHANICAL PRINT READING	2
AE	237	ARCHITECTURAL DRAFTING II	3
AE	250	INTRODUCTION TO MAPPING/GPS	2
AE	252	INTRODUCTION TO SURVEYING	3
		ELECTIVES	12
		Total	**53**
		Technical Electives-Choose minimum 12 credits	
AE	240	3D ARCHITECTURAL DESIGN	3
AE	244	3D ENGINEERING DESIGN	3
AE	247	COMPUTER AUTOMATED MANUFACTURING	3
AE	249	INTRODUCTION TO MEP DESIGN	3
AE	297	INTERNSHIP	3

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Elementary Algebra.
***Prerequisite: Acceptable ACCUPLACER score or Intermediate Algebra.
****Prerequisite: Acceptable ACCUPLACER score, Intermediate Algebra, or College Algebra.

Semester Breakdown AAS

First Semester		CR
AE 101	Drafting Fundamentals	3
AE 135	Architectural Construction Theory I	3
AE 139	2D CAD	3
AE 250	Introduction to Mapping/GPS	2
CSC 105	Microcomputer Software Applications I	3
MATH 101 MATH 114	Intermediate Algebra ***or*** College Algebra	3
	Total Credit Hours	**17**

Second Semester		CR
AE 111	Architectural Drafting I	3
AE 141	Architectural 3D CAD	3
AE 142	Mechanical 3D CAD	3
AE 150	Architectural Print Reading	1
AE 232	Mechanical Principles	3
AE 234	Mechanical Print Reading	2
MATH 120	Trigonometry	3
	Total Credit Hours	**18**

Third Semester		CR
AE 202	Mechanical Drafting	3
AE 203	Principles of Commercial Theory I	3
AE 214	Introduction to Civil Drafting ***online***	3
AE 237	Architectural Drafting II	3
AE 252	Introduction to Surveying	3
ENGL 101 ENGL 106	Composition I ***or*** Workplace Communications I	3
	Total Credit Hours	**18**

Fourth Semester		CR
PSYC 101 PSYC 103	General Psychology ***or*** Human Relations in the Workplace	3
	Technical Electives	12
	Total Credit Hours	**15**

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ARCHITECTURAL AND ENGINEERING TECHNOLOGY - ARCHITECTURAL

Certificate, 19 Credit Hours, 18-Month Program

The Architectural and Engineering Technology program at WDTC equips students with the skills and knowledge necessary to produce accurate technical drawings using industry-standard design software.

Graduates of this certificate receive training in only the technical architectural courses. It is designed for students who already have a related degree but wish to specialize in architectural design.

Course	No.	Course Title	Credits
AE	111	ARCHITECTURAL DRAFTING I	3
AE	135	ARCHITECTURAL CONSTRUCTION THEORY I	3
AE	139	2D CAD	3
AE	141	ARCHITECTURAL 3D CAD	3
AE	150	ARCHITECTURAL PRINT READING	1
AE	237	ARCHITECTURAL DRAFTING II	3
AE	240	3D ARCHITECTURAL DESIGN	3
		Total	**19**

Some courses are offered only in certain semesters.
Completion of the full certificate is not possible in two consecutive semesters.
See Program Director for enrollment approval.

Semester Breakdown Certificate

First Semester		CR	Second Semester		CR
AE 135	Architectural Construction Theory I	3	AE 111	Architectural Drafting I	3
AE 139	2D CAD	3	AE 141	Architectural 3D CAD	3
			AE 150	Architectural Print Reading	1
	Total Credit Hours	**6**		**Total Credit Hours**	**7**

Third Semester		CR	Fourth Semester		CR
AE 237	Architectural Drafting II	3	AE 240	3D Architectural Design	3
	Total Credit Hours	**3**		**Total Credit Hours**	**3**

ARCHITECTURAL AND ENGINEERING TECHNOLOGY - MECHANICAL

Certificate, 20 Credit Hours, 9-Month Program

The Architectural and Engineering Technology program at WDTC equips students with the skills and knowledge necessary to produce accurate technical drawings using industry-standard design software.

Graduates of this certificate receive training in only the technical mechanical courses. It is designed for students who already have a related degree but wish to specialize in mechanical design.

Course	No.	Course Title	Credits
AE	101	DRAFTING FUNDAMENTALS	3
AE	139	2D CAD	3
AE	142	MECHANICAL 3D CAD	3
AE	232	MECHANICAL PRINCIPLES	3
AE	234	MECHANICAL PRINT READING	2
AE	244	3D ENGINEERING DESIGN	3
AE	247	COMPUTER AUTOMATED MANUFACTURING	3
		Total	**20**

Some courses are offered only in certain semesters.
See Program Director for enrollment approval.

Semester Breakdown Certificate

First Semester		CR
AE 101	Drafting Fundamentals	3
AE 139	2D CAD	3
AE 142	Mechanical 3D CAD	3
	Total Credit Hours	**9**

Second Semester		CR
AE 232	Mechanical Principles	3
AE 234	Mechanical Print Reading	2
AE 244	3D Engineering Design	3
AE 247	Computer Automated Manufacturing	3
	Total Credit Hours	**11**

AUTOMOTIVE TECHNOLOGY

Associate of Applied Science, 65.5-68.5 Credit Hours, 18-Month Program

The Automotive Technology program will provide education in most types of vehicles.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	3
MATH	100	ELEMENTARY ALGEBRA** ***or higher***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	3
SOC	100	INTRODUCTION TO SOCIOLOGY	3
		Total	**15**
		Technical Requirements	
AT	100	INTRODUCTION TO AUTOMOTIVE TECHNOLOGY***	.5
AT	111	HEATING, VENTILATION, AND AIR CONDITIONING	3
AT	132	HYBRID AND ELECTRIC VEHICLE SYSTEMS	2
AT	135	AUTOMOTIVE DRIVETRAINS	9
AT	140	BRAKES/STEERING AND SUSPENSION	8
AT	205	ELECTRICITY AND ELECTRONIC SYSTEMS	9
AT	225	ENGINE PERFORMANCE	9
AT	240	ENGINE OVERHAUL	4
AT	245	ENGINE CONSTRUCTION AND OPERATION	3
AT	250	SHOP AND PARTS MANAGEMENT	1
AT	299	INTERNSHIP (OPTIONAL)	3
WDM	100	WELDING AND FABRICATION FOR GENERAL APPLICATIONS	2
		Total	**50.5-53.5**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.

**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

*** AT 100 is to be taken in the first semester of enrollment in the Automotive Technology Program.

Semester breakdown on next page

Semester Breakdown AAS

First Semester		CR
AT 100	Introduction to Automotive Technology (first 10 days)	.5
AT 111	Heating, Ventilation, and Air Conditioning (first 4 weeks)	3
AT 140	Brakes/Steering and Suspension (last 12 weeks)	8
CSC 105	Microcomputer Software Applications I	3
PSYC 103	Human Relations in the Workplace	3
	Total Credit Hours	**17- 17.5**

Second Semester		CR
AT 100	Introduction to Automotive Technology (first 10 days)	.5
AT 132	Hybrid and Electric Vehicle Systems	2
AT 135	Automotive Drivetrains	9
MATH 100	Elementary Algebra ***or higher***	3
WDM 100	Welding and Fabrication for General Applications	2
	Total Credit Hours	**16-16.5**

Third Semester		CR
AT 205	Electricity and Electronic Systems (first 12 weeks)	9
AT 245	Engine Construction and Operation (last 4 weeks)	3
AT 250	Shop and Parts Management	1
ENGL 106	Workplace Communications	3
	Total Credit Hours	**16**

Fourth Semester		CR
AT 225	Engine Performance (last 12 weeks)	9
AT 240	Engine Overhaul (first 4 weeks)	4
AT 299	Internship ***optional***	3
SOC 100	Introduction to Sociology	3
	Total Credit Hours	**16-19**

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BOOKKEEPING

Diploma, 30 Credit Hours, 9-Month Program

The Bookkeeping program will provide students with technical understanding and skills development by integrating theory with practical experience. Through the program, students will develop skills in accounting principles, finance, payroll accounting, QuickBooks, and more. Students will learn how to complete the typical duties of someone working in the bookkeeping field.

Course	No.	Course Title	Credits
		General Education Requirements	
CMST	101	FOUNDATIONS OF COMMUNICATION	3
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
MATH	112	BUSINESS MATHEMATICS*	3
PSYC	101	GENERAL PSYCHOLOGY	3
		Total	**12**
		Technical Requirements	
ACCT	120	PRINCIPLES OF ACCOUNTING I	3
ACCT	121	PRINCIPLES OF ACCOUNTING II ***online***	3
ACCT	215	PAYROLL ACCOUNTING ***online***	3
ACCT	228	QUICKBOOKS ACCOUNTING	3
BUS	141	WRITTEN COMMUNICATIONS FOR BUSINESS**	3
BUS	224	PERSONAL FINANCE	3
		Total	**18**

*Prerequisite: Acceptable ACCUPLACER score or Basic Math.
**Prerequisite: Acceptable ACCUPLACER score or Basic Writing

Semester Breakdown Diploma

First Semester		CR	Second Semester		CR
ACCT 120	Principles of Accounting I	3	ACCT 121	Principles of Accounting II ***online***	3
BUS 224	Personal Finance	3	ACCT 215	Payroll Accounting ***online***	3
CMST 101	Foundations of Communication	3	ACCT 228	QuickBooks Accounting	3
CSC 105	Microcomputer Software Applications I	3	BUS 141	Written Communications for Business	3
MATH 112	Business Mathematics	3	PSYC 101	General Psychology	3
	Total Credit Hours	**15**		**Total Credit Hours**	**15**

BUSINESS - BUSINESS AND TECHNOLOGY

Associate of Applied Science, 63 Credit Hours, 18-Month Program

The Business and Technology program exposes students to key business disciplines with an innovative technology focus. Disciplines include industry-leading creative software, social media marketing, accounting, and entrepreneurship.

Course	No.	Course Title	Credits
		General Education Requirements	
CMST	101	FOUNDATIONS OF COMMUNICATION	3
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ECON	202	PRINCIPLES OF MACROECONOMICS ***online***	3
MATH	112	BUSINESS MATHEMATICS*	3
PSYC	101	GENERAL PSYCHOLOGY	3
		Total	**15**
		Technical Requirements	
ACCT	120	PRINCIPLES OF ACCOUNTING I	3
ACCT	228	QUICKBOOKS ACCOUNTING	3
BUS	120	PRINCIPLES OF MARKETING	3
BUS	140	BUSINESS LAW	3
BUS	141	WRITTEN COMMUNICATIONS FOR BUSINESS**	3
BUS	158	WEB DESIGN FOR BUSINESS	3
BUS	162	PROJECT MANAGEMENT	3
BUS	166	DIGITAL IMAGE DESIGN FOR BUSINESS	3
BUS	205	SOCIAL MEDIA MARKETING	3
BUS	210	SUPERVISORY MANAGEMENT	3
BUS	215	SEARCH ENGINE MARKETING	3
BUS	218	DESIGN ESSENTIALS	3
BUS	224	PERSONAL FINANCE	3
BUS	233	SMALL BUSINESS ENTREPRENEURSHIP	3
BUS	241	ADVANCED COMPUTER APPLICATIONS FOR BUSINESS	3
BUS	291	INTERNSHIP ***or***	3
BUS	228	PERSONAL INVESTMENTS	
		Total	**48**

*Prerequisite: Acceptable ACCUPLACER score or Basic Math.
**Prerequisite: Acceptable ACCUPLACER score or Basic Writing

Semester breakdown on next page

Semester Breakdown AAS – Fall Starts

First Semester (Fall only)		CR
ACCT 120	Principles of Accounting I	3
BUS 210	Supervisory Management	3
BUS 224	Personal Finance	3
CSC 105	Microcomputer Software Applications I	3
MATH 112	Business Mathematics	3
	Total Credit Hours	**15**

Second Semester (Spring only)		CR
ACCT 228	QuickBooks Accounting	3
BUS 141	Written Communication for Business	3
BUS 162	Project Management	3
BUS 241	Advanced Computer Applications for Business	3
PSYC 101	General Psychology	3
	Total Credit Hours	**15**

Third Semester (Fall only)		CR
BUS 120	Principles of Marketing***	3
BUS 140	Business Law	3
BUS 205	Social Media Marketing	3
BUS 218	Design Essentials	3
ECON 202	Principles of Macroeconomics ***online***	3
	Total Credit Hours	**15**

Fourth Semester (Spring only)		CR
BUS 158	Web Design for Business	3
BUS 166	Digital Image Design for Business	3
BUS 215	Search Engine Marketing	3
BUS 233	Small Business Entrepreneurship	3
BUS 228	Personal Investments ***or***	3
BUS 291	Internship***	
CMST 101	Foundations of Communication	3
	Total Credit Hours	**18**

Semester Breakdown AAS – Spring Starts

First Semester (Spring only)		CR
BUS 141	Written Communication for Business	3
BUS 162	Project Management	3
BUS 166	Digital Image Design for Business	3
CMST 101	Foundations of Communication	3
CSC 105	Microcomputer Software Applications I	3
	Total Credit Hours	**15**

Second Semester (Fall only)		CR
ACCT 120	Principles of Accounting I	3
BUS 120	Principles of Marketing***	3
BUS 210	Supervisory Management	3
BUS 224	Personal Finance	3
MATH 112	Business Mathematics	3
	Total Credit Hours	**15**

Third Semester (Spring only)		CR
ACCT 228	QuickBooks Accounting	3
BUS 158	Web Design for Business	3
BUS 215	Search Engine Marketing	3
BUS 233	Small Business Entrepreneurship	3
BUS 241	Advanced Computer Applications for Business	3
BUS 228	Personal Investments ***or***	3
BUS 291	Internship***	
	Total Credit Hours	**18**

Fourth Semester (Fall only)		CR
BUS 140	Business Law	3
BUS 205	Social Media Marketing	3
BUS 218	Design Essentials	3
ECON 202	Principles of Macroeconomics ***online***	3
PSYC 101	General Psychology	3
	Total Credit Hours	**15**

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***Students who have completed the Social Media Marketing certificate and later decide to return for the Business and Technology AAS will have BUS 227 sub for BUS 120 and BUS 250 sub for BUS 228 or BUS 291.

BUSINESS - ENTREPRENEURSHIP

Certificate, 18 Credit Hours, 9-Month Program

An Entrepreneurship Certificate will prepare students who want to start and operate a successful business. Students will prepare a comprehensive business plan while also learning technical and professional skills through a variety of courses including accounting, project management, supervisory management, and small business entrepreneurship.

Course	No.	Course Title	Credits
		Technical Requirements	
ACCT	120	PRINCIPLES OF ACCOUNTING I	3
ACCT	228	QUICKBOOKS ACCOUNTING	3
BUS	120	PRINCIPLES OF MARKETING	3
BUS	162	PROJECT MANAGEMENT	3
BUS	210	SUPERVISORY MANAGEMENT	3
BUS	233	SMALL BUSINESS ENTREPRENEURSHIP	3
		Total	**18**

Semester Breakdown Certificate

First Semester		CR	Second Semester		CR
ACCT 120	Principles of Accounting I	3	ACCT 228	QuickBooks Accounting	3
BUS 120	Principles of Marketing	3	BUS 162	Project Management	3
BUS 210	Supervisory Management	3	BUS 233	Small Business Entrepreneurship	3
	Total Credit Hours	**9**		**Total Credit Hours**	**9**

BUSINESS - HOSPITALITY

Diploma, 39 Credit Hours, 11-Month Program

The Hospitality program will provide students with technical understanding and skills development in the hospitality field by integrating theory with practical experience. Through the program, students will develop skills in hospitality management principles, finance, and more. Students will learn about varying duties of someone working in the hospitality field and will complete a minimum of 240 internship hours.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
MATH	112	BUSINESS MATHEMATICS*	3
PSYC	101	GENERAL PSYCHOLOGY	3
		Total	**9**
		Technical Requirements	
ACCT	120	PRINCIPLES OF ACCOUNTING I	3
BUS	120	PRINCIPLES OF MARKETING	3
BUS	141	WRITTEN COMMUNICATION FOR BUSINESS**	3
BUS	205	SOCIAL MEDIA MARKETING	3
BUS	210	SUPERVISORY MANAGEMENT	3
BUS	215	SEARCH ENGINE MARKETING	3
BUS	233	SMALL BUSINESS ENTREPRENEURSHIP	3
HOS	110	HOSPITALITY PRINCIPLES ***online***	3
HOS	120	HOTEL & LODGING OPERATIONS INTERNSHIP	3
HOS	125	FOOD & BEVERAGE OPERATIONS INTERNSHIP	3
		Total	**30**

*Prerequisite: Acceptable ACCUPLACER score or Basic Math.
**Prerequisite: Acceptable AACUPLACER score or Basic Writing.
**BUS 141 meets the diploma program requirement for 3 credits in communications.

Students who complete this diploma and later decide to return for the Business and Technology AAS will have HOS 110 sub for BUS 140, HOS 120 sub for BUS 162, and HOS 125 sub for BUS 228 or BUS 291.

Semester Breakdown

First Semester (Fall Only)		CR
ACCT 120	Principles of Accounting I	3
BUS 120	Principles of Marketing	3
BUS 205	Social Media Marketing	3
BUS 210	Supervisory Management	3
HOS 110	Hospitality Principles ***online***	3
MATH 112	Business Mathematics	3
	Total Credit Hours	**18**

Second Semester (Spring Only)		CR
BUS 141	Written Communication for Business	3
BUS 215	Search Engine Marketing	3
BUS 233	Small Business Entrepreneurship	3
CSC 105	Microcomputer Software Applications I	3
HOS 120	Hotel & Lodging Operations Internship	3
	Total Credit Hours	**15**

Third Semester (Summer Only)		CR
HOS 125	Food & Beverage Operations Internship	3
PSYC 101	General Psychology	3
	Total Credit Hours	**6**

Clinicals, practicums, and internships may include, but are not limited to, differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. This may require travel outside the Rapid City area.

BUSINESS - OFFICE PROFESSIONAL

Diploma, 30 Credit Hours, 9-Month Program

An Office Professional Diploma will prepare students for a career as an office manager or an executive assistant. Students will learn technical and professional skills through a variety of courses including written and oral communications, customer service, professional development, and project management. Students will also obtain computer skills with the latest software.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
MATH	112	BUSINESS MATHEMATICS*	3
PSYC	101	GENERAL PSYCHOLOGY	3
		Total	**9**
		Technical Requirements	
ACCT	120	PRINCIPLES OF ACCOUNTING I	3
ACCT	228	QUICKBOOKS ACCOUNTING	3
BUS	141	WRITTEN COMMUNICATIONS FOR BUSINESS**	3
BUS	162	PROJECT MANAGEMENT	3
BUS	210	SUPERVISORY MANAGEMENT	3
BUS	224	PERSONAL FINANCE	3
BUS	241	ADVANCED COMPUTER APPLICATIONS FOR BUSINESS	3
		Total	**21**

*Prerequisite: Acceptable ACCUPLACER score or Basic Math.
**Prerequisite: Acceptable AACUPLACER score or Basic Writing.
**BUS 141 meets the diploma program requirement for 3 credits in communications.

Semester Breakdown Diploma

First Semester		CR
ACCT 120	Principles of Accounting I	3
BUS 210	Supervisory Management	3
BUS 224	Personal Finance	3
CSC 105	Microcomputer Software Applications I	3
MATH 112	Business Mathematics	3
	Total Credit Hours	**15**

Second Semester		CR
ACCT 228	QuickBooks Accounting	3
BUS 141	Written Communications for Business	3
BUS 162	Project Management	3
BUS 241	Advanced Computer Applications for Business	3
PSYC 101	General Psychology	3
	Total Credit Hours	**15**

BUSINESS - SOCIAL MEDIA MARKETING

Certificate, 18 Credit Hours, 9-Month Program

A certificate in Social Media Marketing will prepare students for this specialized field to meet the needs of businesses who want to reach customers where they are by utilizing the most current social media platforms.

Course	No.	Course Title	Credits
		Technical Requirements	
BUS	158	WEB DESIGN FOR BUSINESS	3
BUS	166	DIGITAL IMAGE DESIGN FOR BUSINESS	3
BUS	205	SOCIAL MEDIA MARKETING	3
BUS	215	SEARCH ENGINE MARKETING	3
BUS	227	WRITING FOR SOCIAL MEDIA MARKETING* ***online***	3
BUS	250	SOCIAL MEDIA MARKETING CAMPAIGN* ***online***	3
		Total	**18**

Semester Breakdown Certificate

First Semester		CR	Second Semester		CR
BUS 205	Social Media Marketing	3	BUS 158	Web Design for Business	3
BUS 227	Writing for Social Media Marketing ***online***	3	BUS 166	Digital Image Design for Business	3
			BUS 215	Search Engine Marketing	3
			BUS 250	Social Media Marketing Campaign ***online***	3
	Total Credit Hours	**6**		**Total Credit Hours**	**12**

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*Students who complete this certificate and later decide to return for the Business and Technology AAS will have BUS227 sub for BUS 120 and BUS 250 sub for BUS 228 or BUS 291.

COMPUTER SCIENCE – INFORMATION TECHNOLOGY SPECIALIST

Associate of Applied Science, 66 Credit Hours, 18-Month Program

The Computer Science - Information Technology Specialist program at WDTC offers an in-depth curriculum that spans 18 months, providing students with a comprehensive education in the field of information technology (IT). This program balances theory and practical application, ensuring that graduates are not only well-prepared for their initial IT roles but also primed for continued growth within the industry.

In the first nine months, students establish a solid foundation in essential computer skills and fundamental networking concepts. The subsequent nine months delve deeper into advanced networking concepts, including cybersecurity, ethical hacking, complex networks, and programming proficiency. Our program emphasizes preparing students for industry-certified exams, enhancing their marketability, and opening doors to various IT roles.

Graduates of our 18-month associate degree program are equipped to pursue a wide range of IT positions, including Network Administrator, Cybersecurity Analyst, and other roles that demand strong troubleshooting and communication skills. They can apply their expertise to shape an organization's business strategy, tactics, and goals. Upon completing this associate degree program, students are not only poised for immediate entry into the workforce but also positioned for ongoing career advancement within the field of IT.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	101	COMPOSITION I*	3
ENGL	108	WORKPLACE COMMUNICATIONS II	3
MATH	114	COLLEGE ALGEBRA**	3
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
		Total	**15**
		Technical Requirements	
CIS	123	INFORMATION TECHNOLOGY HARDWARE/SOFTWARE	3
CIS	129	WINDOWS OPERATING SYSTEMS	3
CIS	131	NETWORKING TECHNOLOGIES I	3
CIS	132	NETWORKING TECHNOLOGIES II	3
CIS	133	NETWORKING TECHNOLOGIES III	3
CIS	134	NETWORKING TECHNOLOGIES IV	3
CIS	136	CLOUD FUNDAMENTALS	3
CIS	201	LINUX TECHNOLOGIES	3
CIS	213	NETWORKING USING WINDOWS SERVER	3
CIS	215	NETWORK DESIGN AND VIRTUALIZATION	3
CIS	216	INTRODUCTION TO PROGRAMMING	3
CIS	219	ADVANCED SERVER TECHNOLOGIES	3
CIS	220	NETWORK SECURITY I	3
CIS	225	DATABASES	3
CIS	230	COMPUTER FORENSICS	3
CIS	235	NETWORK SECURITY II	3
CIS	299	INTERNSHIP	3
		Total	**51**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Intermediate Algebra.

Semester breakdown on next page

Semester Breakdown AAS

First Semester		CR
CIS 123	Information Technology Hardware/Software	3
CIS 129	Windows Operating Systems	3
CIS 131	Networking Technologies I	3
CIS 216	Introduction to Programming	3
MATH 114	College Algebra	3
	Total Credit Hours	**15**

Second Semester		CR
CIS 132	Networking Technologies II	3
CIS 136	Cloud Fundamentals	3
CIS 201	Linux Technologies	3
CIS 213	Networking Using Windows Server	3
CIS 225	Databases	3
ENGL 101	Composition I	3
	Total Credit Hours	**18**

Third Semester		CR
CIS 133	Networking Technologies III	3
CIS 219	Advanced Server Technologies	3
CIS 220	Network Security I	3
CSC 105	Microcomputer Software Application	3
PSYC 101 PSYC 103	General Psychology ***or*** Human Relations in the Workplace	3
	Total Credit Hours	**15**

Fourth Semester		CR
CIS 134	Networking Technologies IV	3
CIS 215	Network Design & Virtualization	3
CIS 230	Computer Forensics	3
CIS 235	Network Security II	3
ENGL 108	Workplace Communications II	3
	Total Credit Hours	**15**

Summer Semester		CR
CIS 299	Internship	3
	Total Credit Hours	**3**

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COMPUTER SCIENCE – INFORMATION TECHNOLOGY SPECIALIST DIPLOMA

Diploma, 33 Credit Hours, 9-Month Program

The Computer Science - Information Technology Specialist diploma program at WDTC is a focused and intensive program designed to provide students with the essential skills needed to jumpstart their careers in the field of information technology (IT). This program prioritizes hands-on experience in real-world networking and cybersecurity environments, ensuring students' immediate readiness for entry-level IT positions.

In this program, students acquire fundamental computer skills and networking concepts during their nine months of study. They are equipped with the knowledge and practical skills required for roles such as IT Technician, Help Desk Technician, and Systems Support Specialist. Graduates of this program are well-prepared to excel in office environments, collaborate with colleagues, and assist users with system challenges. Troubleshooting, mathematical aptitude, and strong communication skills are essential components of this program. Students learn to configure networks, perform routine maintenance tasks, and address network issues efficiently. Upon completing this diploma program, students are positioned to enter the workforce promptly, making a valuable contribution to organizations in need of skilled IT professionals.

Course	No.	Course Title	Credits
		General Education Requirements	
ENGL	101	COMPOSITION I*	3
MATH	114	COLLEGE ALGEBRA**	3
		Total	**6**
		Technical Requirements	
CIS	123	INFORMATION TECHNOLOGY HARDWARE/SOFTWARE	3
CIS	129	WINDOWS OPERATING SYSTEMS	3
CIS	131	NETWORKING TECHNOLOGIES I	3
CIS	132	NETWORKING TECHNOLOGIES II	3
CIS	136	CLOUD FUNDAMENTALS	3
CIS	201	LINUX TECHNOLOGIES	3
CIS	213	NETWORKING USING WINDOWS SERVER	3
CIS	216	INTRODUCTION TO PROGRAMMING	3
CIS	225	DATABASES	3
		Total	**27**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Intermediate Algebra.

Semester Breakdown Diploma

First Semester		CR	Second Semester		CR
CIS 123	Information Technology Hardware/Software	3	CIS 132	Networking Technologies II	3
CIS 129	Windows Operating Systems	3	CIS 136	Cloud Fundamentals	3
CIS 131	Networking Technologies I	3	CIS 201	Linux Technologies	3
CIS 216	Introduction to Programming	3	CIS 213	Networking Using Windows Server	3
MATH 114	College Algebra	3	CIS 225	Databases	3
			ENGL 101	Composition I	3
	Total Credit Hours	**15**		**Total Credit Hours**	**18**

CONSTRUCTION TECHNOLOGY

Diploma, 36 Credit Hours, 12-Month Program

The Construction Technology program will prepare students who plan to enter the growing construction field. This program will include classroom theory, hands-on experience, and internship experiences that allow students to practice what they learn in the classroom. The program will prepare students for a challenging field that is full of opportunities.

Students in the Construction Technology program will acquire the skills necessary for employment in the areas of residential, commercial, industrial, and public works projects. Students will gain basic experience in the areas of framing, cabinet making, concrete and masonry work, steel frame construction, modular construction, architectural print reading, and welding. Students will also complete an internship to gain additional hands-on industry experience.

Students may be employed by residential contractors, building materials dealers, and commercial contractors. Possibilities for self-employment or business ownership may also exist.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	3
MATH	104	TECHNICAL MATHEMATICS**	3
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
		Total	**12**
		Technical Requirements	
AE	150	ARCHITECTURAL PRINT READING	1
CT	117	CARPENTRY & CONSTRUCTION SAFETY	6
CT	120	CONCRETE & MASONRY WORK	3
CT	125	STEEL FRAME CONSTRUCTION	3
CT	130	COMMERCIAL MODULAR CONSTRUCTION	3
CT	199	CONSTRUCTION INTERNSHIP I	6
WDM	100	WELDING AND FABRICATION FOR GENERAL APPLICATIONS	2
		Total	**24**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

Semester Breakdown Diploma

First Semester		CR	Second Semester		CR
CT 117	Carpentry & Construction Safety	6	AE 150	Architectural Print Reading	1
CT 120	Concrete & Masonry Work	3	CT 125	Steel Frame Construction	3
MATH 104	Technical Mathematics	3	CT 130	Commercial Modular Construction	3
WDM 100	Welding and Fabrication for General Applications	2	CT 199	Construction Internship I	6
			PSYC 101	General Psychology ***or***	3
			PSYC 103	Human Relations in the Workplace	
	Total Credit Hours	**14**		**Total Credit Hours**	**16**

Third Semester		CR
CSC 105	Microcomputer Software Applications I	3
ENGL 106	Workplace Communications I	3
	Total Credit Hours	**6**

CRIMINAL JUSTICE

Associate of Applied Science, 63 Credit Hours, 18-Month Program

As the population grows, so does the need for trained workers in a variety of criminal justice fields. This program will graduate skilled technicians who are able to bring value to the criminal justice field in multiple ways because they will have a broad understanding of the criminal justice system and will be skilled to fill a variety of roles.

This program has been designed to be broad in nature and to include coursework in a wide variety of criminal justice topics. Students will complete classes in criminal justice, corrections, juvenile justice, criminal law, criminal investigation, ethics in criminal justice, forensics and crime scene investigation, probation and parole, security, terrorism and counterterrorism, domestic violence, and more.

Course	No.	Course Title	Credit
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	101	COMPOSITION I*	3
ENGL	201	COMPOSITION II***	3
MATH	105	MATHEMATICAL REASONING**** ***or***	3
MATH	101	INTERMEDIATE ALGEBRA** ***or higher***	
PSYC	101	GENERAL PSYCHOLOGY	3
SOC	100	INTRODUCTION TO SOCIOLOGY	3
		Total	**18**
		Technical Requirements	
CJUS	119	CRIMINAL LAW AND PROCEDURES	3
CJUS	123	CRIMINAL INVESTIGATIONS	3
CJUS	124	JUVENILE METHODS	3
CJUS	200	COMMUNITY CORRECTIONS	3
CJUS	201	INTRODUCTION TO CRIMINAL JUSTICE	3
CJUS	205	CRIMINAL JUSTICE FORENSICS	3
CJUS	210	CONTEMPORARY SECURITY PRACTICES	3
CJUS	215	ETHICS IN CRIMINAL JUSTICE	3
CJUS	225	DOMESTIC VIOLENCE	3
CJUS	229	CORRECTIONS	3
CJUS	230	AGENCY ORGANIZATION AND MANAGEMENT	3
CJUS	235	CRIMINOLOGY	3
CJUS	240	COURT SYSTEMS AND PRACTICES	3
CJUS	245	LAW ENFORCEMENT OPERATIONS AND PROCEDURES ***or***	3
CJUS	299	INTERNSHIP	
CJUS	250	CONSTITUTIONAL LAW	3
		Total	**45**

***** Prerequisite: Acceptable ACCUPLACER score or Basic Writing

**Prerequisite: Acceptable ACCUPLACER score or Elementary Algebra

***Prerequisite: Composition I

****Prerequisite: ACCUPLACER score or Basic Mathematics

Clinicals, practicums, and internships may include, but are not limited to, differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. This may require travel outside the Rapid City area.

Semester breakdown on next page

Semester Breakdown AAS

First Semester		CR
CJUS 200	Community Corrections	3
CJUS 201	Introduction to Criminal Justice	3
CSC 105	Microcomputer Software Applications I	3
PSYC 101	General Psychology	3
SOC 100	Introduction to Sociology	3
	Total Credit Hours	**15**

Second Semester		CR
CJUS 123	Criminal Investigations	3
CJUS 124	Juvenile Methods	3
CJUS 210	Contemporary Security Practices	3
ENGL 101	Composition I	3
MATH 105	Mathematical Reasoning *or*	3
MATH 101	Intermediate Algebra *or higher*	
	Total Credit Hours	**15**

Third Semester		CR
CJUS 119	Criminal Law and Procedures	3
CJUS 205	Criminal Justice Forensics	3
CJUS 215	Ethics in Criminal Justice	3
CJUS 225	Domestic Violence	3
CJUS 250	Constitutional Law	3
ENGL 201	Composition II	3
	Total Credit Hours	**18**

Fourth Semester		CR
CJUS 229	Corrections	3
CJUS 230	Agency Organization and Management	3
CJUS 235	Criminology	3
CJUS 240	Court Systems and Practices	3
CJUS 245	Law Enforcement Operations and Procedures ***or***	3
CJUS 299	Internship	
	Total Credit Hours	**15**

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DENTAL ASSISTING

Diploma, 41 Credit Hours, 11-Month Program

The dental assistant is an integral, valued member of the dental team. Graduates of the diploma program will be highly trained dental assisting candidates who have the skills required to be competent members of a dental healthcare team, deliver quality dental healthcare to the public, and have the knowledge necessary to become a Registered Dental Assistant (RDA) in the state of South Dakota. Dental assisting tasks include providing direct patient care, assisting during a variety of dental procedures, obtaining medical/dental histories, vital signs, dental radiographs, and impressions for dental models, teaching patients appropriate oral hygiene strategies, applying preventive agents, placing pit and fissure sealants, developing, coordinating, and serving as an infection control officer, and performing office management tasks. The dental assistant may work in a private or group practice setting specializing in general dentistry, oral surgery, orthodontics, endodontics, periodontics, prosthodontics, or pedodontics. Dental sales and marketing of products is another career opportunity for the dental assistant. Dental assistants must have strong communication skills, a desire to work with their hands, and a passion for a challenging career with responsibilities that increase the efficiency and quality of oral health care delivery.

Course	No.	Course Title	Credits
		General Education Requirements	
ENGL	101	COMPOSITION I* ***or***	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	
MATH	105	MATHEMATICAL REASONING** ***or higher***	3
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
		Total	**9**
		Technical Requirements	
DEN	105	DENTAL SCIENCES AND ORAL HEALTH	3
DEN	108	CHAIRSIDE DENTAL ASSISTING LAB I	5
DEN	112	DENTAL PRACTICE MANAGEMENT	2
DEN	113	PHARMACOLOGY AND MEDICAL EMERGENCIES	3
DEN	122	DENTAL MATERIALS	3
DEN	134	DENTAL RADIOLOGY	3
DEN	148	CHAIRSIDE DENTAL ASSISTING LAB II	5
DEN	175	DENTAL CLINICAL PRACTICES	8
		Total	**32**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

Clinicals, practicums, and internships may include, but are not limited to, differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. This may require travel outside the Rapid City area.

Professional licensure and certification requirements often vary from state to state. Educational requirements by state for this program can be found https://www.wdt.edu/degree-programs/dental-assistant/.

Required steps to obtain the credential for the Dental Assisting Program. (PDF)

Semester breakdown on next page

Semester Breakdown Diploma

First Semester		CR
DEN 105	Dental Sciences and Oral Health	3
DEN 108	Chairside Dental Assisting Lab I	5
DEN 113	Pharmacology and Medical Emergencies	3
DEN 122	Dental Materials	3
MATH 105	Mathematical Reasoning ***or higher***	3
Total Credit Hours		**17**

Second Semester		CR
DEN 112	Dental Practice Management	2
DEN 134	Dental Radiology	3
DEN 148	Chairside Dental Assisting Lab II	5
ENGL 101	Composition I ***or***	3
ENGL 106	Workplace Communications I	
PSYC 101	General Psychology ***or***	3
PSYC 103	Human Relations in the Workplace	
Total Credit Hours		**16**

Third Semester (Summer)		CR
DEN 175	Dental Clinical Practices	8
Total Credit Hours		**8**

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DIESEL TECHNOLOGY

Associate of Applied Science, 66 Credit Hours, 18-Month Program

The Diesel Technology program will provide education in most types of land transportation, vehicles, and construction equipment to include trucks, tractors, construction equipment, and mining equipment. Students will be competent in the service and repair of diesel engines, hydraulic systems, fuel systems, electrical systems, manual and automatic transmissions, brake systems, and steering and suspension systems. Graduates will be student ASE certified and complete the United States Clean Air Act Section 609 Refrigerant Recycling and Recovery Certification Program. Students will be able to work safely and efficiently in a field or shop environment in accordance with OSHA and MSHA regulations.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	3
MATH	100	ELEMENTARY ALGEBRA** ***or higher***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	3
SOC	100	INTRODUCTION TO SOCIOLOGY	3
		Total	**15**
		Technical Requirements	
DT	100	INTRODUCTION TO DIESEL TECHNOLOGY	3
DT	115	PREVENTATIVE MAINTENANCE	3
DT	122	VEHICLE ELECTRICITY AND ELECTRONIC SYSTEMS	6
DT	135	UNDER-TRUCK DIAGNOSTICS	8
DT	150	HYDRAULICS I	3
DT	155	DIESEL ENGINES I	5
DT	205	DIESEL TECHNOLOGY HVAC	3
DT	230	SHOP MANAGEMENT	3
DT	235	HEAVY DUTY POWERTRAINS	4
DT	250	HYDRAULICS II	3
DT	255	DIESEL ENGINES II	8
WDM	100	WELDING AND FABRICATION FOR GENERAL APPLICATIONS	2
		Total	**51**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

Semester breakdown on next page

Semester Breakdown AAS

First Semester		CR
CSC 105	Microcomputer Software Applications I	3
DT 100	Introduction to Diesel Technology	3
DT 115	Preventative Maintenance	3
DT 122	Vehicle Electricity & Electronic Systems	6
DT 150	Hydraulics I	3
	Total Credit Hours	**18**

Second Semester		CR
DT 135	Under-Truck Diagnostics	8
DT 155	Diesel Engines I	5
ENGL 106	Workplace Communications I	3
WDM 100	Welding and Fabrication for General Applications	2
	Total Credit Hours	**18**

Third Semester		CR
DT 205	Diesel Technology HVAC	3
DT 230	Shop Management	3
DT 235	Heavy Duty Powertrains	4
MATH 100	Elementary Algebra ***or higher***	3
PSYC 103	Human Relations in the Workplace	3
	Total Credit Hours	**16**

Fourth Semester		CR
DT 250	Hydraulics II	3
DT 255	Diesel Engines II	8
SOC 100	Introduction to Sociology	3
	Total Credit Hours	**14**

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DRAFTING AND MACHINING TECHNOLOGY

Associate of Applied Science, 68 Credit Hours, 18-Month Program

This program will graduate skilled technicians who are able to bring value to those employers in multiple ways because they will be skilled enough to participate in multiple areas of the business. These workers will be flexible and will be seen as a valuable asset by any of these employers.

In the drafting area, graduates will be able to meet the growing demand from industry for skilled technicians who can demonstrate skill and knowledge in 2D and 3D computer-aided drafting. In addition, graduates will leave the program prepared to apply the basic fundamentals of drafting and blueprint reading.

In the machining area, graduates will be able to set up and operate a variety of machine tools to produce precision metal parts, instruments, and tools. Machinists use machine tools that are either conventionally controlled or computer numerically controlled, such as lathes, milling machines, and grinders, to produce precision metal parts. Although they may produce large quantities of one part, precision machinists often produce small batches or one-of-a-kind items. The parts that machinists make range from simple bolts of steel or brass to titanium bone screws for orthopedic implants. Hydraulic parts, anti-lock brakes and automobile pistons are other widely known products that machinists make.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	3
MATH	100	ELEMENTARY ALGEBRA** ***or higher***	3
MATH	101	INTERMEDIATE ALGEBRA*** ***or higher***	3
MATH	120	TRIGONOMETRY****	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	3
		Total	**18**
		Technical Requirements	
AE	101	DRAFTING FUNDAMENTALS	3
AE	139	2D CAD	3
AE	142	MECHANICAL 3D CAD	3
AE	232	MECHANICAL PRINCIPLES	3
AE	234	MECHANICAL PRINT READING	2
AE	244	3D ENGINEERING DESIGN	3
AE	247	COMPUTER AUTOMATED MANUFACTURING	3
MACH	110	MACHINE SHOP OPERATIONS	3
MACH	113	TURNING THEORY AND OPERATIONS	3
MACH	123	MILLING THEORY AND OPERATIONS	3
MACH	125	MECHANICAL BLUEPRINT READING	3
MACH	130	MATERIALS APPLICATIONS	3
MACH	136	TURNING THEORY AND CNC OPERATIONS	3
MACH	141	MILLING THEORY AND CNC OPERATIONS	3
MACH	146	APPLIED COMPUTER AIDED DRAFTING FUNDAMENTALS	3
MACH	199	INTERNSHIP	6
		Total	**50**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.
***Prerequisite: Acceptable ACCUPLACER score or Elementary Algebra.
****Prerequisite: Acceptable ACCUPLACER score, Intermediate Algebra, or College Algebra.

Semester breakdown on next page

Semester Breakdown AAS

First Semester		CR
CSC 105	Microcomputer Software Applications I	3
MACH 110	Machine Shop Operations	3
MACH 113	Turning Theory & Operations	3
MACH 123	Milling Theory & Operations	3
MACH 125	Mechanical Blueprint Reading	3
MATH 100	Elementary Algebra ***or higher***	3
	Total Credit Hours	**18**

Second Semester		CR
ENGL 106	Workplace Communications I	3
MACH 130	Materials Applications	3
MACH 136	Turning Theory & CNC Operations	3
MACH 141	Milling Theory & CNC Operations	3
MACH 146	Applied Computer Aided Drafting Fundamentals	3
PSYC 103	Human Relations in the Workplace	3
	Total Credit Hours	**18**

Third Semester (summer)		CR
MACH 199	Internship	6

Fourth Semester		CR
AE 101	Drafting Fundamentals	3
AE 139	2D CAD	3
AE 142	Mechanical 3D CAD	3
MATH 101	Intermediate Algebra ***or higher***	3
	Total Credit Hours	**12**

Fifth Semester		CR
AE 232	Mechanical Principles	3
AE 234	Mechanical Print Reading	2
AE 244	3D Engineering Design	3
AE 247	Computer Automated Manufacturing	3
MATH 120	Trigonometry	3
	Total Credit Hours	**14**

ELECTRICAL TRADES

Associate of Applied Science, 71-77 Credit Hours, 18-Month Program

This program provides in-depth instruction in the theories and principles of electricity and electrical construction. Strong math skills are a requirement. Principles of operation for electrical devices/equipment and correct/safe operation of tools are covered. A typical job description for an electrician may include typically working 40 hours per week. However, some jobs may require working evenings or weekends. Electricians must be physically capable of climbing and working at heights and outside. Other physical work may be required.

Students will study and learn to interpret and apply the requirements of the National Electrical Code. A solid background in the theory and technology of the electrical field will give the knowledge and ability to install, maintain, troubleshoot, and repair electrical circuits and equipment. The training gives students the flexibility to pursue different areas of employment as entry-level electricians. Most of our lab experience mimics outside work sites and allows students to have first-hand experience in a controlled environment. The Electrical Trades program prepares students for employment as an apprentice electrician in the construction, mining, and industrial manufacturing sectors of the Electrical Industry.

The South Dakota Electrical Commission requires successful completion of First Aid/CPR training to graduate from an electrical trades program.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ECON	202	PRINCIPLES OF MACROECONOMICS ***online or***	3
SOC	100	INTRODUCTION TO SOCIOLOGY	
ENGL	106	WORKPLACE COMMUNICATIONS I*	3
MATH	104	TECHNICAL MATHEMATICS**	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	3
		Total	**15**
		Technical Requirements* **	
IEL	102	ELECTRICAL FUNDAMENTALS I	9
IEL	103	ELECTRICAL FUNDAMENTALS II	3
IEL	122	ELECTRICAL CODE STUDY I	3
IEL	123	INDUSTRIAL DATA COMMUNICATION	2
IEL	131	INTRODUCTION TO ELECTRICAL WIRING	3
IEL	135	BASIC ELECTRICAL MATERIALS AND DEVICES	1
IEL	211	ELECTRICAL MOTOR CONTROL	3
IEL	213	ELECTRICAL HEATING AND APPLIANCES	2
IEL	214	ELECTRICAL CODE STUDY II	2
IEL	216	ELECTRICAL MOTOR CONTROL LAB	2
IEL	217	SPECIAL SYSTEMS	4
IEL	218	WIRING LAB I	3
IEL	220	WIRING LAB II	3
IEL	221	PROGRAMMABLE LOGIC CONTROLLERS	2
IEL	222	PROGRAMMABLE LOGIC CONTROLLERS LAB	3
IEL	223	ELECTRICAL MOTOR LAB	1
IEL	224	POWER DISTRIBUTION	2
IEL	226	ELECTRICAL MOTOR FUNDAMENTALS AND MAINTENANCE	2
IEL	231	ELECTRICAL DRAWINGS AND SCHEMATICS	2
IEL	232	DIGITAL DRAWINGS AND ESTIMATING	2
IEL	299	ELECTRICIAN INTERNSHIP/CO-OP (OPTIONAL)	6
WDM	100	WELDING AND FABRICATION FOR GENERAL APPLICATIONS	2
		Total	**56-62**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.
***CPR/First Aid must be completed before graduation.**

Semester breakdown on next page

Semester Breakdown AAS

First Semester		CR
CSC 105	Microcomputer Software Applications I	3
IEL 102	Electrical Fundamentals I	9
IEL 131	Introduction to Electrical Wiring	3
MATH 104	Technical Mathematics	3
	Total Credit Hours	**18**

Second Semester		CR
ENGL 106	Workplace Communications I	3
IEL 103	Electrical Fundamentals II	3
IEL 135	Basic Electrical Materials & Devices	1
IEL 217	Special Systems	4
IEL 223	Electrical Motor Lab	1
IEL 226	Electrical Motor Fundamentals and Maintenance	2
IEL 231	Electrical Drawings & Schematics	2
WDM 100	Welding & Fabrication for General Applications	2
	Total Credit Hours	**18**

Third Semester		CR
ECON 202	Principles of Macroeconomics	3
	online or	
SOC 100	Introduction to Sociology	
IEL 122	Electrical Code Study I	3
IEL 123	Industrial Data Communication	2
IEL 211	Electrical Motor Control	3
IEL 216	Motor Control Lab	2
IEL 218	Wiring Lab I	3
IEL 232	Digital Drawings and Estimating	2
	Total Credit Hours	**18**

Fourth Semester		CR
IEL 213	Electrical Heating & Appliances	2
IEL 214	Electrical Code Study II	2
IEL 220	Wiring Lab II	3
IEL 221	Programmable Logic Controllers	2
IEL 222	PLC Lab	3
IEL 224	Power Distribution	2
PSYC 103	Human Relations in the Workplace	3
	Total Credit Hours	**17**

Optional Summer Semester		CR
IEL 299	Electrician Internship/CO-OP	6
	Total Credit Hours	**6**

ELECTRICAL TRADES – AUTONOMOUS EQUIPMENT TECHNICIAN

Certificate, 23-29 Credit Hours, 9-Month Program

The Electrical Trades – Autonomous Equipment Technician certificate program provides in-depth instruction in the skills required to install, commission, and maintain electrical and mechanical systems. The Autonomous Equipment Technician will bridge the gap between basic mechanical systems and advanced IT systems. Principles of electricity, networking, welding, and mechanical skills will provide a foundation for various autonomous systems.

Course	No.	Course Title	Credits
		Technical Requirements	
CIS	131	NETWORKING TECHNOLOGIES I	3
IEL	105	INTRODUCTION TO INDUSTRIAL ELECTRONICS	4
MEC	105	FUNDAMENTALS OF AUTONOMOUS EQUIPMENT APPLICATION	3
MEC	130	MECHANICAL BASICS	3
MEC	140	MSHA NEW MINER TRAINING	2
MEC	150	AUTONOMOUS TECHNOLOGY	6
MEC	199	INTERNSHIP (OPTIONAL)	6
WDM	100	WELDING AND FABRICATION FOR GENERAL APPLICATIONS	2
		Total	**23-29**

*Graduation Requirement: OSHA 10 General Industry Certificate

Semester Breakdown Certificate

First Semester		CR	Second Semester		CR
CIS 131	Networking Technologies I	3	MEC 140	MSHA New Miner Training (1st week)	2
IEL 105	Introduction to Industrial Electronics	4	MEC 150	Autonomous Technology (1st 8 weeks)	6
MEC 105	Fundamentals of Autonomous Equipment Application	3	MEC 199	Internship (2nd 8 weeks) ***optional***	6
MEC 130	Mechanical Basics	3			
WDM 100	Welding and Fabrication for General Applications	2			
	Total Credit Hours	**15**		**Total Credit Hours**	**8-14**

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ENVIRONMENTAL ENGINEERING TECHNICIAN

Associate of Applied Science, 67 Credit Hours, 18-Month Program

The Environmental Engineering Technician program is designed to prepare students for work in an exciting and growing field. As our population grows, society puts an ever-increasing demand on our natural resources. Program graduates primarily work outdoors in the field, collecting information used to assess how increased demand affects the quality and quantity of our nation's natural resources. Program graduates work in a broad range of jobs such as collecting and analyzing water and soil samples, measuring stream flow and groundwater levels, and conducting soils testing. The work can be physically demanding, requiring technicians to climb or hike long distances, carrying equipment to remote locations. Field work often entails working under varying climatic conditions such as hot summers or cold winters. Technicians may be required to drive off-road vehicles such as 4-wheelers and snowmobiles, or even ride on horses, boats or helicopters, to access some remote sampling sites.

Upon graduation, students can be employed with federal, state, county, and city environmental departments; water treatment facilities; or with private businesses such as consulting engineers, mining companies, and testing labs.

Students will gain experience in environmental sampling and monitoring throughout the program. Field Engineering courses provide students with an excellent balance of theory and hands-on experience that will enable them, upon graduation, to conduct environmental investigations under the supervision of professional Geologists, Engineers, or Hydrologists.

Course	No.	Course Title	Credits
		General Education Requirements	
BIOL	101	BIOLOGY SURVEY I	3
BIOL	101L	BIOLOGY SURVEY I LAB	1
CHEM	106	CHEMISTRY SURVEY	3
CHEM	106L	CHEMISTRY SURVEY LAB	1
ENGL	101	COMPOSITION I* ***or***	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	
MATH	114	COLLEGE ALGEBRA **	3
MICR	231	GENERAL MICROBIOLOGY	3
MICR	231L	GENERAL MICROBIOLOGY LAB	1
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	3
		Total	**21**
		Technical Requirements	
AE	250	INTRODUCTION TO MAPPING/GPS	2
AE	251	INTRODUCTION TO GIS	3
AE	252	INTRODUCTION TO SURVEYING	3
AG	110	FUNDAMENTALS IN SOIL SCIENCE	2
EET	102	INTRODUCTION TO ENVIRONMENTAL SCIENCES	4
EET	140	LABORATORY METHODS IN ENVIRONMENTAL SCIENCE	3
EET	202	WATER QUALITY	3
EET	210	ENVIRONMENTAL REGULATIONS & HAZMAT AWARENESS	2
EET	215	HYDROLOGY & STREAM FIELD METHODS	4
EET	220	WATER TREATMENT AND DISTRIBUTION	3
EET	225	AIR QUALITY	2
EET	235	CONSTRUCTION MATERIALS SAMPLING & TESTING	3
EET	251	ENVIRONMENTAL GEOLOGY	3
EET	260	WASTEWATER COLLECTION & TREATMENT	3
EET	299	FIELD INTERNSHIP ***or***	3
INT	202	GLOBAL ACADEMIC EXPERIENCE	
INT	201	GAE/INTERNSHIP PREP	3
		Total	**46**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Intermediate Algebra.

Fall start semester breakdown on next page

Semester Breakdown AAS- Fall Start

First Semester		CR
AE 250	Introduction to Mapping/GPS	2
BIOL 101	Biology Survey I	3
BIOL 101L	Biology Survey I Lab	1
CHEM 106	Chemistry Survey	3
CHEM 106L	Chemistry Survey Lab	1
EET 102	Introduction to Environmental Sciences	4
MATH 114	College Algebra	3
Total Credit Hours		**17**

Second Semester		CR
EET 140	Laboratory Methods in Environmental Science	3
EET 225	Air Quality	2
EET 251	Environmental Geology	3
ENGL 101	Composition I ***or***	3
ENGL 106	Workplace Communication	
PSYC 103	Human Relations in the Workplace	3
Total Credit Hours		**14**

Third Semester (summer)		CR
INT 201	GAE/ Internship Prep (first 2 weeks)	3
INT 202	Global Academic Experience ***or***	3
EET 299	Field Internship (last 6 weeks)	
Total Credit Hours		**6**

Fourth Semester		CR
AE 252	Introduction to Surveying	3
AG 110	Fundamentals in Soil Science	2
EET 215	Hydrology & Stream Field Methods	4
EET 220	Water Treatment and Distribution	3
MICR 231	General Microbiology	3
MICR 231L	General Microbiology Lab	1
Total Credit Hours		**16**

Fifth Semester		CR
AE 251	Introduction to GIS	3
EET 210	Environmental Regulations & Hazmat Awareness	2
EET 202	Water Quality	3
EET 235	Construction Materials Sampling & Testing	3
EET 260	Wastewater Collection and Treatment	3
Total Credit Hours		**14**

Spring start semester breakdown on next page

Semester Breakdown AAS- Spring Start

First Semester		CR
CHEM 106	Chemistry Survey	3
CHEM 106L	Chemistry Survey Lab	1
EET 140	Laboratory Methods in Environmental Science	3
EET 225	Air Quality	2
EET 251	Environmental Geology	3
PSYC 103	Human Relations in the Workplace	3
	Total Credit Hours	**15**

Second Semester		CR
AE 250	Introduction to Mapping/GPS	2
BIOL 101	Biology Survey I	3
BIOL 101L	Biology Survey I Lab	1
EET 102	Introduction to Environmental Sciences	4
ENGL 101	Composition I ***or***	3
ENGL 106	Workplace Communications I	
MATH 114	College Algebra	3
	Total Credit Hours	**16**

Third Semester		CR
AE 251	Introduction to GIS	3
EET 210	Environmental Regulations & Hazmat Awareness	2
EET 202	Water Quality	3
EET 235	Construction Materials Sampling & Testing	3
EET 260	Wastewater Collection and Treatment	3
	Total Credit Hours	**14**

Fourth Semester (Summer)		CR
INT 201	GAE/Internship Prep (first 2 weeks)	3
INT 202	Global Academic Experience ***or***	3
EET 299	Field Internship (last 6 weeks)	
	Total Credit Hours	**6**

Fifth Semester		CR
AE 252	Introduction to Surveying	3
AG 110	Fundamentals in Soil Science	2
EET 215	Hydrology & Stream Field Methods	4
EET 220	Water Treatment and Distribution	3
MICR 231	General Microbiology	3
MICR 231L	General Microbiology Lab	1
	Total Credit Hours	**16**

If you are or have been convicted, pleaded guilty or no contest to, or received a suspended imposition of sentence for a felony or certain misdemeanors, you are advised that you may not be able to complete all course requirements for your chosen program, you may be prevented from taking required certification/licensure examinations in your chosen program field, and you may be prevented from gaining employment in your program field.

ENVIRONMENTAL ENGINEERING TECHNICIAN - CEA

Associate of Applied Science, 66 Credit Hours, 18-Month Program

The Environmental Engineering Technician – Controlled Environment Agriculture (CEA) program is designed to prepare students for work in the exciting and growing field of controlled environment agriculture. Successful completion of this Associate of Applied Science Degree prepares students to become greenhouse professionals with skills that can be applied to home, farm, or commercial scale operations. With the expanded interest in farm-to-table, there are increased opportunities to apply the skills learned in this program in a variety of settings.

Course	No.	Course Title	Credits
		General Education Requirements	
BIOL	101	BIOLOGY SURVEY I	3
BIOL	101L	BIOLOGY SURVEY I LAB	1
CHEM	106	CHEMISTRY SURVEY	3
CHEM	106L	CHEMISTRY SURVEY LAB	1
ENGL	101	COMPOSITION I* ***or***	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	
MATH	114	COLLEGE ALGEBRA **	3
MICR	231	GENERAL MICROBIOLOGY	3
MICR	231L	GENERAL MICROBIOLOGY LAB	1
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	3
		Total	**21**
		Technical Requirements	
AE	150	ARCHITECTURAL PRINT READING	1
AG	115	INTRODUCTION TO AGRONOMY & PLANT SCIENCE	3
BUS	233	BUSINESS ENTREPRENEURSHIP	3
CEA	150	AQUAPONICS/INDOOR GROWING	3
CEA	205	HORTICULTURE	3
CEA	250	AQUACULTURE	3
CEA	255	CEA DESIGN	3
CEA	280	TOPICS IN CONTROLLED ENVIRONMENT AGRICULTURE	1
EET	102	INTRODUCTION TO ENVIRONMENTAL SCIENCES	4
EET	140	LABORATORY METHODS IN ENVIRONMENTAL SCIENCE	3
EET	260	WASTEWATER COLLECTION & TREATMENT	3
EET	299	FIELD INTERNSHIP ***or***	3
INT	202	GLOBAL ACADEMIC EXPERIENCE	
IEL	105	INTRODUCTION TO INDUSTRIAL ELECTRONICS	4
IEL	221	PROGRAMMABLE LOGIC CONTROLLERS	2
IEL	222	PROGRAMMABLE LOGIC CONTROLLERS LAB	3
INT	201	GAE/INTERNSHIP PREP	3
		Total	**45**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Intermediate Algebra.

The Controlled Environment Agriculture program is on hiatus and not enrolling students for the 2024-25 academic year.

Fall start semester breakdown on next page

Semester Breakdown AAS Fall Start

First Semester		CR
BIOL 101	Biology Survey I	3
BIOL 101L	Biology Survey Lab 1	1
CHEM 106	Chemistry Survey	3
CHEM 106L	Chemistry Survey Lab	1
EET 102	Introduction to Environmental Sciences	4
IEL 105	Introduction to Industrial Electronics	4
	Total Credit Hours	**16**

Second Semester		CR
AE 150	Architectural Print Reading	1
CEA 150	Aquaponics/Indoor Growing	3
EET 140	Laboratory Methods in Environmental Science	3
IEL 221	Programmable Logic Controllers	2
IEL 222	Programmable Logic Controllers Lab	3
MATH 114	College Algebra	3
	Total Credit Hours	**15**

Third Semester (Summer)		CR
INT 201	GAE/Internship Prep (first 2 weeks)	3
INT 202	Global Academic Experience (last 6 weeks) ***or***	3
EET 299	Field Internship	
	Total Credit Hours	**6**

Fourth Semester		CR
AG 115	Introduction to Agronomy & Plant Science	3
CEA 205	Horticulture	3
CEA 250	Aquaculture	3
ENGL 101	Composition I ***or***	3
ENGL 106	Workplace Communications I	
MICR 231	General Microbiology	3
MICR 231L	General Microbiology Lab	1
	Total Credit Hours	**16**

Fifth Semester		CR
BUS 233	Business Entrepreneurship	3
CEA 255	CEA Design	3
CEA 280	Topics in Controlled Environment Agriculture	1
EET 260	Wastewater Collection and Treatment	3
PSYC 103	Human Relations in the Workplace	3
	Total Credit Hours	**13**

Spring start semester breakdown on the next page

Semester Breakdown – AAS Spring Start

First Semester		CR
AE 150	Agriculture Print Reading	1
CEA 150	Aquaponics/Indoor Growing	3
CEA 280	Topics in Controlled Environmental Agriculture	1
CHEM 106	Chemistry Survey	3
CHEM 106L	Chemistry Survey Lab	1
EET 140	Laboratory Methods in Environmental Science	3
MATH 114	College Algebra	3
Total Credit Hours		**15**

Second Semester		CR
BIOL 101	Biology Survey I	3
BIOL 101L	Biology Survey I Lab	1
EET 102	Introduction to Environmental Sciences	4
ENGL 101	Composition *or*	3
ENGL 106	Workplace Communications	
IEL 105	Introduction to Industrial Electronics	4
Total Credit Hours		**15**

Third Semester		CR
BUS 233	Business Entrepreneurship	3
CEA 255	CEA Design	3
EET 260	Wastewater Collection and Treatment	3
IEL 221	Programmable Logic Controllers	2
IEL 222	Programmable Logic Controllers Lab	3
Total Credit Hours		**14**

Fourth Semester (summer)		CR
EET 299	Field Internship ***or***	3
INT 202	Global Academic Experience (last 6 weeks)	
INT 201	GAE/Internship Prep (first 2 weeks)	3
Total Credit Hours		**6**

Fifth Semester		CR
AG 115	Introduction to Agronomy	3
CEA 205	Horticulture	3
CEA 250	Aquaculture	3
MICR 231	General Microbiology	3
MICR 231L	General Microbiology Lab	1
PSYC 103	Human Relations in the Workplace	3
Total Credit Hours		**16**

FARM AND RANCH MANAGEMENT

Associate of Applied Science, 64 Credit Hours, 18-Month Program

This four-semester Associate of Applied Science degree program will prepare students who plan to run family farms and ranches and those who wish to enter industries that support agriculture, including equipment sales and others. This program includes classroom theory and hands-on experience that allows students to practice what they learn in the classroom. Students will visit farm and ranch operations and support businesses to apply what they learn.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ECON	202	PRINCIPLES OF MACROECONOMICS ***online***	3
ENGL	101	COMPOSITION I* ***or***	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	
MATH	100	ELEMENTARY ALGEBRA** ***or higher***	3
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
		Total	**15**
		Technical Requirements	
ACCT	120	PRINCIPLES OF ACCOUNTING I	3
AG	110	FUNDAMENTALS IN SOIL SCIENCE	2
AG	115	INTRODUCTION TO AGRONOMY & PLANT SCIENCE	3
AG	130	INTRODUCTION TO ANIMAL SCIENCE	3
AG	132	FARM AND RANCH MANAGEMENT	3
AG	140	RANGE AND PASTURE MANAGEMENT	3
AG	220	BEEF CATTLE PRODUCTION	3
AG	222	CATTLE REPRODUCTION	3
AG	234	PRINCIPLES OF FEEDS AND FEEDING	3
AG	250	AGRICULTURAL LAW AND CONTRACTS	2
AG	255	AGRICULTURAL ECONOMICS	3
AG	299	INTERNSHIP	4
BUS	140	BUSINESS LAW	3
BUS	224	PERSONAL FINANCE	3
BUS	233	SMALL BUSINESS ENTREPRENEURSHIP	3
DT	115	PREVENTATIVE MAINTENANCE	3
WDM	100	WELDING & FABRICATION FOR GENERAL APPLICATIONS	2
		Total	**49**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

Semester breakdown on next page

Semester Breakdown AAS

First Semester		CR
ACCT 120	Principles of Accounting I	3
AG 110	Fundamentals in Soil Science	2
AG 115	Introduction to Agronomy & Plant Science	3
CSC 105	Microcomputer Software Applications I	3
ENGL101	Composition I ***or***	3
ENGL106	Workplace Communications I	
PSYC 101	General Psychology or	3
PSYC 103	Human Relations in the Workplace	
	Total Credit Hours	**17**

Second Semester		CR
AG 130	Introduction to Animal Science	3
AG 132	Farm and Ranch Management	3
AG 140	Range and Pasture Management	3
ECON 202	Principles of Macroeconomics ***online***	3
MATH100	Elementary Algebra ***or higher***	3
	Total Credit Hours	**15**

Third Semester		CR
AG 220	Beef Cattle Production	3
AG 222	Cattle Reproduction	3
BUS 140	Business Law	3
BUS 224	Personal Finance	3
DT 115	Preventative Maintenance	3
WDM 100	Welding & Fabrication for General Applications	2
	Total Credit Hours	**17**

Fourth Semester		CR
AG 234	Principles of Feeds and Feeding	3
AG 250	Agricultural Law and Contracts	2
AG 255	Agricultural Economics	3
AG 299	Internship	4
BUS 233	Small Business Entrepreneurship	3
	Total Credit Hours	**15**

HEALTH INFORMATION MANAGEMENT - CODING SPECIALTY

Associate of Applied Science, 60 Credit Hours, 18-Month Program

The primary objective of the Health Information Management program is to prepare students with the necessary skills to work in the medical field maintaining a patient's health information. Students in both the diploma option and the degree option will take coursework in anatomy & physiology, medical terminology, medical office software, records management, electronic health records, and billing/reimbursement. This program will also provide education and training in soft skills such as communication, teamwork, interpersonal skills, and attention to detail.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ECON	202	PRINCIPLES OF MACROECONOMICS ***online or***	3
SOC	100	INTRODUCTION TO SOCIOLOGY	
ENGL	101	COMPOSITION I *	3
MATH	100	ELEMENTARY ALGEBRA** ***or higher***	3
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
		Total	**15**
		Technical Requirements	
BUS	141	WRITTEN COMMUNICATIONS FOR BUSINESS	3
BUS	210	SUPERVISORY MANAGEMENT	3
BUS	241	ADVANCED COMPUTER APPLICATIONS FOR BUSINESS	3
HC	114	ANATOMY AND PHYSIOLOGY FOR THE HEALTH PROFESSIONS	3
HC	135	MEDICAL LAW AND ETHICS ***online***	2
HC	200	PHARMACOLOGY FOR HEALTHCARE ***online***	3
HC	205	PROFESSIONALISM IN HEALTHCARE ***online***	1
HC	213	MEDICAL TERMINOLOGY I	3
HC	225	PATHOPHYSIOLOGY ***online***	3
MDS	130	MEDICAL COMPUTERIZED APPLICATIONS	3
MDS	175	RECORDS MANAGEMENT ***online***	2
MDS	210	HEALTHCARE CODING I	4
MDS	211	HEALTHCARE CODING II	3
MDS	220	HEALTHCARE FUNDAMENTALS AND REIMBURSEMENT ***online***	2
MDS	260	ADVANCED CODING	4
MDS	299	INTERNSHIP or ELECTIVE	3
		Total	**45**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

Professional licensure and certification requirements often vary from state to state. Educational requirements by state for this program can be found https://www.wdt.edu/degree-programs/health-information-management/.

Required steps to obtain the credential for the HIM Program. (PDF)

Semester breakdown on next page

Semester Breakdown AAS

First Semester		CR
CSC 105	Microcomputer Software Applications I	3
HC 114	Anatomy and Physiology for the Health Professions	3
HC 135	Medical Law and Ethics ***online***	2
HC 213	Medical Terminology I	3
MATH100	Elementary Algebra ***or higher***	3
MDS 130	Medical Computerized Applications	3
	Total Credit Hours	**17**

Second Semester		CR
BUS 141	Written Communication for Business	3
MDS 175	Records Management ***online***	2
MDS 210	Healthcare Coding I	4
MDS 220	Healthcare Fundamentals and Reimbursement ***online***	2
PSYC 101	General Psychology ***or***	3
PSYC 103	Human Relations in the Workplace	
	Total Credit Hours	**14**

Third Semester		CR
BUS 210	Supervisory Management	3
ECON 202	Principles of Macroeconomics ***online***	3
	or	
SOC 100	Introduction to Sociology	
ENGL 101	Composition I	3
MDS 211	Healthcare Coding II	3
	Total Credit Hours	**12**

Fourth Semester		CR
BUS 241	Advanced Computer Applications for Business ***online***	3
HC 200	Pharmacology for Healthcare ***online***	3
HC 205	Professionalism in Healthcare ***online***	1
HC 225	Pathophysiology ***online***	3
MDS 260	Advanced Coding	4
MDS 299	Internship or Elective	3
	Total Credit Hours	**17**

HEALTH INFORMATION MANAGEMENT

Diploma, 31 Credit Hours, 9-Month Program

The primary objective of the Health Information Management program is to prepare students with the necessary skills to work in the medical field maintaining a patient's health information. Students in both the diploma option and the degree option will take coursework in anatomy & physiology, medical terminology, medical office software, records management, electronic health records, and billing/reimbursement. This program will also provide education and training in soft skills such as communication, teamwork, interpersonal skills, and attention to detail.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
MATH	100	ELEMENTARY ALGEBRA**[1] ***or***	3
MATH	112	BUSINESS MATHEMATICS**[2]	
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
		Total	**9**
		Technical Requirements	
BUS	141	WRITTEN COMMUNICATIONS FOR BUSINESS***	3
HC	114	ANATOMY AND PHYSIOLOGY FOR THE HEALTH PROFESSIONS	3
HC	135	MEDICAL LAW AND ETHICS	2
HC	213	MEDICAL TERMINOLOGY I	3
MDS	130	MEDICAL COMPUTERIZED APPLICATIONS	3
MDS	175	RECORDS MANAGEMENT	2
MDS	210	HEALTHCARE CODING I	4
MDS	220	HEALTHCARE FUNDAMENTALS AND REIMBURSEMENT ***online***	2
		Total	**22**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.
***BUS 141 meets the diploma program requirement for 3 credits in communications.
[1]Elementary Algebra recommended for students planning to complete the HIM AAS degree in the future.
[2]Business Mathematics recommended for student planning to complete the HIM diploma only.

Professional licensure and certification requirements often vary from state to state. Educational requirements by state for this program can be found https://www.wdt.edu/degree-programs/health-information-management/.

Required steps to obtain the credential for the HIM Program. (PDF)

Semester Breakdown Diploma

First Semester		CR	Second Semester		CR
CSC 105	Microcomputer Software Applications I	3	BUS 141	Written Communication for Business	3
HC 114	Anatomy and Physiology for the Health Professions	3	MDS 175	Records Management	2
			MDS 210	Healthcare Coding I	4
HC 135	Medical Law and Ethics	2	MDS 220	Healthcare Fundamentals and Reimbursement ***online***	2
HC 213	Medical Terminology I	3			
MATH100	Elementary Algebra ***or***	3	PSYC 101	General Psychology ***or***	3
MATH 112	Business Mathematics		PSYC 103	Human Relations in the Workplace	
MDS 130	Medical Computerized Applications	3			
	Total Credit Hours	**17**		**Total Credit Hours**	**14**

HVAC/REFRIGERATION TECHNOLOGY

Associate of Applied Science, 62 Credit Hours, 18-Month Program

The Heating, Ventilating, Air-Conditioning/Refrigeration (HVAC/R) program prepares students with the necessary skills to be successful in the career field. Students will take coursework in theory, HVAC electrical applications, installation practices, low, medium, and high temperature commercial refrigeration and other technical skills.

The HVAC graduate will be able to work on residential heating, air conditioning, heat pump, low, medium, and high temperature commercial refrigeration systems. Install, troubleshoot, and repair equipment using copper tubing, PVC, and other accepted materials. The graduate will install a wide range of gas and electric forced-air furnaces. Students will install, troubleshoot, test, and repair electrical components on heating, air conditioning, heat pump and refrigeration systems. Learn to troubleshoot and repair various types of commercial ice machines, water coolers and common domestic and commercial HVAC/R appliances. They will be introduced to commercial air conditioning, chilled water, hydronic heating, and numerous unique refrigeration systems found in the HVAC/R industry. Students will study indoor air quality, air distribution and balancing methods used in the field. In addition, basic Direct Digital Controls (DDC) and electronic control circuits will be explored. Many of the theory lessons will be applied in lab settings and scenarios commonly found in the HVAC/R field. This program also will provide education and training in soft skills such as communication and math.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	101	COMPOSITION I * ***or***	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	
MATH	100	ELEMENTARY ALGEBRA** ***or higher***	3
MATH	104	TECHNICAL MATHEMATICS** ***or higher***	3
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
		Total	**15**
		Technical Requirements	
HVAC	121	ELECTRICAL APPLICATIONS FOR HVAC I	4
HVAC	125	HVAC INSTALLATION I	3
HVAC	126	HVAC INSTALLATION I LAB	4
HVAC	135	ELECTRICAL APPLICATIONS FOR HVAC II	3
HVAC	145	HVAC INSTALLATION II	3
HVAC	146	HVAC INSTALLATION II LAB	4
HVAC	199	INTERNSHIP	6
HVAC	222	HVAC/R	3
HVAC	223	HVAC/R LAB	4
HVAC	225	ELECTRICAL APPLICATIONS FOR HVAC/R III	3
HVAC	232	REFRIGERATION	3
HVAC	233	REFRIGERATION LAB	4
HVAC	235	ELECTRICAL APPLICATIONS FOR HVAC/R IV	3
		Total	**47**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

Clinicals, practicums, and internships may include, but are not limited to, differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. This may require travel outside the Rapid City area.

Semester breakdown on next page

Semester Breakdown AAS

First Semester		CR
HVAC 121	Electrical Applications for HVAC I	4
HVAC 125	HVAC Installation I	3
HVAC 126	HVAC Installation I Lab	4
MATH 104	Technical Mathematics ***or higher***	3
	Total Credit Hours	**14**

Second Semester		CR
CSC 105	Microcomputer Software Applications I	3
HVAC 135	Electrical Applications for HVAC II	3
HVAC 145	HVAC Installation II	3
HVAC 146	HVAC Installation II Lab	4
MATH 100	Elementary Algebra ***or higher***	3
	Total Credit Hours	**16**

Third Semester		CR
HVAC 199	Internship	6
	Total Credit Hours	**6**

Fourth Semester		CR
ENGL 101	Composition I ***or***	3
ENGL 106	Workplace Communications I	
HVAC 222	HVAC/R	3
HVAC 223	HVAC/R Lab	4
HVAC 225	Electrical Applications for HVAC/R III	3
	Total Credit Hours	**1**3

Fifth Semester		CR
HVAC 232	Refrigeration	3
HVAC 233	Refrigeration Lab	4
HVAC 235	Electrical Applications for HVAC/R IV	3
PSYC 101	General Psychology ***or***	3
PSYC 103	Human Relations in the Workplace	
	Total Credit Hours	13

If you are or have been convicted, pleaded guilty or no contest to, or received a suspended imposition of sentence for a felony or certain misdemeanors, you are advised that you may not be able to complete all course requirements for your chosen program, you may be prevented from taking required certification/licensure examinations in your chosen program field, and you may be prevented from gaining employment in your program field.

LAW ENFORCEMENT TECHNOLOGY

Associate of Applied Science, 62 Credit Hours, 18-Month Program

The mission of the Law Enforcement Technology program is to prepare students with the knowledge and skills necessary for employment as entry-level law enforcement officers. This is not a strictly academic program. It has an extensive hands-on component to it.

A law enforcement officer is an official representative of the government who is entrusted with a wide variety of duties. Regardless of the type and size of the organization they work for, law enforcement officers are expected to perform in a professional manner. The highly competitive nature of obtaining most law enforcement positions requires applicants to be prepared academically, be physically fit, and have the hands-on skills necessary to do the job. Many entry-level applicants for law enforcement positions are encouraged or required to have completed at least two years of formal postsecondary education. The WDTC Law Enforcement Technology program will help prepare students with these requirements.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	101	COMPOSITION I*	3
MATH	105	MATHEMATICAL REASONING*** ***or***	3
MATH	101	INTERMEDIATE ALGEBRA** ***or higher***	
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
SOC	100	INTRODUCTION TO SOCIOLOGY	
		Total	**12**
		Technical Requirements	
CJUS	119	CRIMINAL LAW AND PROCEDURES	3
CJUS	123	CRIMINAL INVESTIGATIONS	3
CJUS	124	JUVENILE METHODS	3
CJUS	201	INTRODUCTION TO CRIMINAL JUSTICE****	3
CJUS	205	CRIMINAL JUSTICE FORENSICS	3
CJUS	215	ETHICS IN CRIMINAL JUSTICE	3
CJUS	225	DOMESTIC VIOLENCE	3
CJUS	245	LAW ENFORCEMENT OPERATIONS & PROCEDURES	3
CJUS	250	CONSTITUTIONAL LAW	3
LET	226	PHYSICAL TRAINING	1
LET	251	FIREARMS TRAINING	3
LET	255	EMERGENCY VEHICLE OPERATIONS	3
LET	275	BASIC LAW ENFORCEMENT TRAINING	14
LET	280	SD LAW ENFORCEMENT RECIPROCITY EXAM REVIEW	2
		Total	**50**

* Prerequisite: Acceptable ACCUPLACER score or Basic Writing
**Prerequisite: Acceptable ACCUPLACER score or Elementary Algebra
***Prerequisite: ACCUPLACER score or Basic Math
****CJUS 201 meets the AAS program requirements for 3 credits of Social Science

Clinicals, practicums, and internships may include, but are not limited to, differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. This may require travel outside the Rapid City area.

In accordance with South Dakota Codified Law, and the South Dakota Law Enforcement Officers Standards and Training Commission, all individuals serving in the capacity of law enforcement officers in the State of South Dakota must be at least 21 years of age prior to appointment.

Semester breakdown on next page

Semester Breakdown AAS

First Semester			Second Semester		
		CR			**CR**
CJUS 119	Criminal Law and Procedures	3	CJUS 123	Criminal Investigations	3
CJUS 201	Introduction to Criminal Justice	3	CJUS 124	Juvenile Methods	3
CJUS 250	Constitutional Law	3	CJUS 245	Law Enforcement Operations & Procedures	3
CSC 105	Microcomputer Software Applications I	3	ENGL 101	Composition I	3
PSYC 101	General Psychology ***or***	3	MATH 105	Mathematical Reasoning *or*	3
SOC 100	Introduction to Sociology		MATH 101	Intermediate Algebra *or higher*	
	Total Credit Hours	**15**		**Total Credit Hours**	**15**
Third Semester			**Fourth Semester**		
		CR			**CR**
CJUS 205	Criminal Justice Forensics	3	LET 275	Basic Law Enforcement Training	14
CJUS 215	Ethics in Criminal Justice	3	LET 280	SD Law Enforcement Reciprocity Exam Review	2
CJUS 225	Domestic Violence	3			
LET 226	Physical Training	1			
LET 251	Firearms Training	3			
LET 255	Emergency Vehicle Operations	3			
	Total Credit Hours	**16**		**Total Credit Hours**	**16**

If you are or have been convicted, pleaded guilty or no contest to, or received a suspended imposition of sentence for a felony or certain misdemeanors, you are advised that you may not be able to complete all course requirements for your chosen program, you may be prevented from taking required certification/licensure examinations in your chosen program field, and you may be prevented from gaining employment in your program field.

In accordance with South Dakota Codified Law, and the South Dakota Law Enforcement Officers Standards and Training Commission, all individuals serving in the capacity of law enforcement officers in the State of South Dakota must be at least 21 years of age prior to appointment.

MEAT PROCESSING

Associate of Applied Science, 63-Credit Hours, 18-Month Program

This 5-semester Associate of Applied Science program will prepare students who desire a career in the meat processing field. In this degree program, students will learn enhanced essential skills in proper meat processing, gain an understanding of the importance of food safety, and will be introduced to accounting, management, and marketing skills. This program includes classroom theory and hands-on experience that allows students to practice what they learn in the classroom. Students will visit local meat processing facilities and complete two internships throughout the degree program.

Course	No.	Course Title	Credits
		General Education Requirements	
BIOL	101	BIOLOGY SURVEY I	3
BIOL	101L	BIOLOGY SURVEY I LAB	1
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	101	COMPOSITION I* ***or***	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	
MATH	100	ELEMENTARY ALGEBRA** ***or higher***	3
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
		Total	**16**
		Technical Requirements	
ACCT	120	PRINCIPLES OF ACCOUNTING I	3
ACCT	228	QUICKBOOKS ACCOUNTING	3
AG	130	INTRODUCTION TO ANIMAL SCIENCE	3
AG	132	FARM AND RANCH MANAGEMENT	3
AG	220	BEEF CATTLE PRODUCTION	3
BUS	233	SMALL BUSINESS ENTREPRENEURSHIP	3
MP	101	INTRODUCTION TO MEAT SCIENCE	3
MP	110	MEAT PROCESSING I	4
MP	120	MEAT PROCESSING II	3
MP	150	FOOD SAFETY AND PROCESSING	4
MP	199	MEAT PROCESSING INTERNSHIP I	6
MP	240	SPECIALTY MEATS	3
MP	299	MEAT PROCESSING INTERNSHIP II	6
		Total	**47**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

The Meat Processing program is on hiatus and not enrolling students for the 2024-25 academic year.

Semester breakdown on next page

Semester Breakdown AAS

First Semester		CR
CSC 105	Microcomputer Software Applications I	3
MP 101	Introduction to Meat Sciences	3
MP 110	Meat Processing I	4
MP 150	Food Safety and Processing	4
Total Credit Hours		**14**

Second Semester		CR
AG 130	Introduction to Animal Science	3
ENGL 101	Composition I *or*	3
ENGL 106	Workplace Communications	
MATH 100	Elementary Algebra ***or higher***	3
MP 120	Meat Processing II	3
PSYC 101	General Psychology ***or***	3
PSYC 103	Human Relations in the Workplace	
Total Credit Hours		**15**

Third Semester (Summer)		CR
MP 199	Meat Processing Internship I	6
Total Credit Hours		**6**

Fourth Semester		CR
ACCT 120	Principles of Accounting I	3
AG 220	Beef Cattle Production	3
BIOL 101	Biology Survey I	3
BIOL 101L	Biology Survey I Lab	1
MP 240	Specialty Meats	3
Total Credit Hours		**13**

Fifth Semester		CR
ACCT 228	QuickBooks Accounting	3
AG 132	Farm and Ranch Management	3
BUS 233	Small Business Entrepreneurship	3
MP 299	Meat Processing Internship II	6
Total Credit Hours		**15**

MEAT PROCESSING DIPLOMA

Diploma, 35-Credit Hours, 11 Month Program

This 3-semester Diploma program will prepare students who desire a career in the meat processing field. Students will learn essential skills in proper meat processing and understanding the importance of food safety. This program includes classroom theory and hands-on experience that allows students to practice what they learn in the classroom. Students will visit local meat processing facilities and complete a 240-hour internship.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	101	COMPOSITION I* ***or***	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	
MATH	100	ELEMENTARY ALGEBRA** ***or higher***	3
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
		Total	**12**
		Technical Requirements	
AG	130	INTRODUCTION TO ANIMAL SCIENCE	3
MP	101	INTRODUCTION TO MEAT SCIENCE	3
MP	110	MEAT PROCESSING I	4
MP	120	MEAT PROCESSING II	3
MP	150	FOOD SAFETY AND PROCESSING	4
MP	199	MEAT PROCESSING INTERNSHIP I	6
		Total	**23**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

The Meat Processing program is on hiatus and not enrolling students for the 2024-25 academic year.

Semester Breakdown Diploma

First Semester		CR
CSC 105	Microcomputer Software Applications I	3
MP 101	Introduction to Meat Sciences	3
MP 110	Meat Processing I	4
MP 150	Food Safety and Processing	4
Total Credit Hours		**14**

Second Semester		CR
AG 130	Introduction to Animal Science	3
ENGL 101	Composition I ***or***	3
ENGL 106	Workplace Communication I	
MATH 100	Elementary Algebra ***or higher***	3
MP 120	Meat Processing II	3
PSYC 101	General Psychology ***or***	3
PSYC 103	Human Relations in the Workplace	
Total Credit Hours		**15**

Third Semester (Summer)		CR
MP 199	Meat Processing Internship I	6
Total Credit Hours		**6**

MEDICAL ASSISTING

Diploma, 39 Credit Hours, 12-Month Program

The Medical Assisting program prepares students for a variety of careers in the medical profession. A Medical Assistant is a professional, multi-skilled person who assists in all aspects of medical care and is primarily employed in a medical office setting. Medical Assistants help physicians with patient care management. They also execute administrative and clinical procedures and perform managerial functions.

Administrative duties may include using computer applications, answering telephones, greeting patients, updating and filing patient medical records, coding and filling out insurance forms, scheduling appointments, arranging for hospital admissions and laboratory services, and handling correspondence, billing, and bookkeeping in a medical office setting.

Clinical duties may include taking medical histories, taking vital signs, explaining treatment procedures to patients, preparing patient for examination, assisting the physician during the exam, collecting and preparing laboratory specimens, performing basic laboratory tests, instructing patients about medication and special diets, preparing and administering medications as directed by a physician, and taking electrocardiograms. Medical Assisting is a rapidly growing and expanding career.

The Medical Assisting diploma enhances the skills a student obtains in the Medical Assisting certificate. In addition to medical office skills and skills to assist physicians with patient care management, students will expand their knowledge in English, mathematics, and psychology. These additional courses promote, and advance essential knowledge, skills, and values students need to advance in a competitive workforce. Since the exact duties a Medical Assistant performs are unique to the setting in which she or he is employed, an enhanced skill set can only expand the possibilities for their career in the medical profession.

Age Requirement: ***You must be at least 18 years of age to be eligible to register as a Medical Assistant in South Dakota.***

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	101	COMPOSITION I* or	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	
MATH	100	ELEMENTARY ALGEBRA** ***or higher***	3
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
		Total	**12**
		Technical Requirements	
HC	114	ANATOMY AND PHYSIOLOGY FOR THE HEALTH PROFESSIONS	3
HC	135	MEDICAL LAW AND ETHICS ***online***	2
HC	200	PHARMACOLOGY FOR HEALTHCARE ***online***	3
HC	205	PROFESSIONALISM IN HEALTHCARE ***online***	1
HC	213	MEDICAL TERMINOLOGY I	3
HC	225	PATHOPHYSIOLOGY ***online***	3
MA	210	MEDICAL ASSISTING I ***online***	3
MA	214	MEDICAL ASSISTING I CLINICAL	1
MA	250	MEDICAL ASSISTING II ***online***	3
MA	253	MEDICAL ASSISTING II LAB & CLINICAL	5
		Total	**27**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

Clinicals, practicums, and internships may include, but are not limited to, differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. This may require travel outside the Rapid City area.

Professional licensure and certification requirements often vary from state to state. Educational requirements by state for this program can be found https://www.wdt.edu/degree-programs/medical-assisting/.

Required steps to obtain the credential for the Medical Assisting Program. (PDF)

The Medical Assisting program is on hiatus and not enrolling students for the 2024-25 academic year.

Semester Breakdown Diploma

First Semester		CR
CSC 105	Microcomputer Software Applications I	3
HC 114	Anatomy & Physiology for the Health Professions	3
HC 135	Medical Law and Ethics ***online***	2
HC 213	Medical Terminology I	3
MA 210	Medical Assisting I ***online***	3
MA 214	Medical Assisting I Clinical	1
	Total Credit Hours	**15**

Second Semester		CR
HC 200	Pharmacology for Healthcare ***online***	3
HC 205	Professionalism in Healthcare ***online***	1
HC 225	Pathophysiology ***online***	3
MA 250	Medical Assisting II ***online***	3
MA 253	Medical Assisting II Lab & Clinical	5
	Total Credit Hours	**15**

Third Semester		CR
ENGL 101	Composition I ***or***	3
ENGL 106	Workplace Communications I	
MATH 100	Elementary Algebra ***or higher***	3
PSYC 101	General Psychology ***or***	3
PSYC 103	Human Relations in the Workplace	
	Total Credit Hours	**9**

If you are or have been convicted, pleaded guilty or no contest to, or received a suspended imposition of sentence for a felony or certain misdemeanors, you are advised that you may not be able to complete all course requirements for your chosen program, you may be prevented from taking required certification/licensure examinations in your chosen program field, and you may be prevented from gaining employment in your program field.

MEDICAL LABORATORY TECHNICIAN

Associate of Applied Science, 69 Credit Hours, 18-Month Program

The goal of the Medical Laboratory Technician Program at Western Dakota Technical College is to educate and train students with a wide range of academic and clinical skills in order to gain employment as competent, entry-level Medical Laboratory Technicians. Students graduating from the MLT Program at WDTC will possess psychomotor, cognitive, and affective skills necessary to sustain professional employment in a variety of clinical settings.

Medical Laboratory Technicians collect, process, and analyze blood, biological specimens, and other substances for laboratory analysis. They perform low-and high-complexity analytical testing of cells and body fluids, perform and monitor quality control within predetermined limits, relate laboratory findings to common disease processes, recognize factors that affect procedures and results, apply basic scientific principles in learning new techniques, and perform preventative maintenance on equipment and instruments. Medical laboratory technicians adhere to principles of safety and infection control and maintain continuing education as a function of growth and development in their profession. They play a vital role in the healthcare system by recognizing the responsibilities of other laboratory and health care personnel.

Medical laboratory technicians are employed in hospitals, medical clinics, physician offices, medical and industrial laboratories, blood bank centers, and public health facilities. Upon successful completion of the MLT Program and clinical rotations, students will sit for the American Society of Clinical Pathologists (ASCP) Board of Certification exam. Students entering this profession will find excellent employment opportunities.

Course	No.	Course Title	Credits
		General Education Requirements	
CHEM	106	CHEMISTRY SURVEY	3
CHEM	106L	CHEMISTRY SURVEY LAB	1
ENGL	101	COMPOSITION I * ***or***	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	
MATH	101	INTERMEDIATE ALGEBRA** ***or higher***	3
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
SOC	100	INTRODUCTION TO SOCIOLOGY	3
		Total	**16**
		Technical Requirements	
HC	114	ANATOMY& PHYSIOLOGY FOR THE HEALTH PROFESSIONS	3
HC	213	MEDICAL TERMINOLOGY I	3
MLT	205	IMMUNOLOGY ***online***	3
MLT	210	CLINICAL CHEMISTRY	4
MLT	215	IMMUNOHEMATOLOGY	4
MLT	222	URINALYSIS/BODY FLUIDS	2
MLT	230	HEMATOLOGY/COAGULATION	4
MLT	250	PARASITOLOGY/MYCOLOGY	1
MLT	255	CLINICAL MICROBIOLOGY	4
MLT	275	MEDICAL LABORATORY TECHNICIAN CLINICAL	12
MLT	280	MEDICAL LABORATORY TECHNICIAN CERTIFICATION REVIEW ***online***	1
PH	114	PHLEBOTOMY PRINCIPLES AND PRACTICES	4
PH	115	INTRODUCTION TO LAB METHODS	3
PH	133	POINT OF CARE AND FUNDAMENTAL DIAGNOSTICS	3
PH	165	PHLEBOTOMY CLINICAL	2
		Total	**53**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Elementary Algebra or Mathematical Reasoning.
Prerequisite: Acceptable ACCUPLACER Reading score greater than 255.

NOTE: The MLT program requires applicants to meet minimum ACCUPLACER scores prior to being accepted into the program. Visit with Admissions to determine eligibility.

Clinicals, practicums, and internships may include, but are not limited to differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. Clinicals may occur during summer semester depending on program enrollments. This may require travel outside the Rapid City area.

Professional licensure and certification requirements often vary from state to state. Educational requirements by state for this program can be found https://www.wdt.edu/degree-programs/medical-laboratory-technician/.

Required steps to obtain the credential for the MLT Program. (PDF)

Semester Breakdown AAS

First Semester		CR
HC 114	Anatomy & Physiology for the Health Professions	3
HC 213	Medical Terminology I	3
MATH101	Intermediate Algebra ***or higher***	3
PH 114	Phlebotomy Principles and Practices	4
PH 133	Point of Care and Fundamental Diagnostics	3
PH 165	Phlebotomy Clinical	2
	Total Credit Hours	**18**

Second Semester		CR
CHEM 106	Chemistry Survey	3
CHEM 106L	Chemistry Survey Lab	1
MLT 205	Immunology ***online***	3
MLT 222	Urinalysis/Body Fluids	2
MLT 230	Hematology/Coagulation	4
MLT 250	Parasitology/Mycology	1
PH 115	Introductions to Lab Methods	3
	Total Credit Hours	**17**

Third Semester		CR
ENGL 101	Composition I ***or***	3
ENGL 106	Workplace Communications I	
MLT 210	Clinical Chemistry	4
MLT 215	Immunohematology	4
MLT 255	Clinical Microbiology	4
PSYC 101	General Psychology ***or***	3
PSYC 103	Human Relations in the Workplace	
	Total Credit Hours	**18**

Fourth Semester		CR
MLT 275	Medical Laboratory Technician Clinical	12
MLT 280	Medical Laboratory Technician Certification Review ***online***	1
SOC 100	Introduction to Sociology ***online***	3
	Total Credit Hours	**16**

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PARAMEDIC

Associate of Applied Science, 63 Credit Hours, 21-Month Program***

Extraordinary circumstances call for extraordinary people to take the first step to lead others to safety. The Paramedic program at Western Dakota Technical College produces this caliber of individual. The select few that answer the calling to help others will experience over one thousand hours of training here at Western Dakota Technical College, and that training entails didactic experience and a vigorous and stringent clinical program that will produce a pre-hospital caregiver that will meet the demands of society.

Delivering high caliber medical care is taught to our students by instructors with years of experience providing pre-hospital care. Beyond paramedicine, emphasis is also placed on critical thinking skills, written and oral communication, and basic concepts in biology, mathematics, psychology, and sociology.

At the end of the paramedic program the successful candidate will have the following: American Heart Association (AHA) – Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS); National Association of Emergency Medical Technicians (NAEMT) – Pre-Hospital Trauma Life Support (PHTLS) as well as Advanced Medical Life Support (AMLS). These courses aid in the successful candidate's approach to the national certification exam that will allow them to obtain the title of Paramedic.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	101	COMPOSITION I* ***or***	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	
MATH	105	MATHEMATICAL REASONING *** ***or***	3
MATH	101	INTERMEDIATE ALGEBRA** ***or higher***	
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
SOC	100	INTRODUCTION TO SOCIOLOGY	3
		Total	**15**
		Technical Requirements	
EMS	101	EMERGENCY MEDICAL TECHNICIAN ***or***	6
EMS	120	EMERGENCY MEDICAL RESPONDER ***and***	3
EMS	125	EMR TO EMT BRIDGE	3
EMS	235	PARAMEDIC I	4
EMS	240	PARAMEDIC II	4
EMS	244	PARAMEDIC III	4
EMS	250	PARAMEDIC CLINICAL I	2
EMS	252	PARAMEDIC IV	4
EMS	255	PARAMEDIC CLINICAL II	4
EMS	258	PARAMEDIC V	2
EMS	275	PARAMEDIC INTERNSHIP	10
EMS	280	NREMT PREP	2
HC	114	ANATOMY & PHYSIOLOGY FOR THE HEALTH PROFESSIONS	3
HC	213	MEDICAL TERMINOLOGY I	3
		Total	**48**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Elementary Algebra.
***Prerequisite: ACCUPLACER score or Basic Math
****Students must successfully complete the program to sit for the National Registry Exam to become a Licensed Paramedic.

Clinicals, practicums, and internships may include, but are not limited to, differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. This may require travel outside the Rapid City area.

Professional licensure and certification requirements often vary from state to state. Educational requirements by state for this program can be found https://www.wdt.edu/degree-programs/paramedic/.

Required steps to obtain the credential for the Paramedic Program. (PDF)

Semester Breakdown AAS

Option 1

First Semester		CR
CSC 105	Microcomputer Software Applications I	3
EMS 101	Emergency Medical Technician	6
ENGL 101	Composition I ***or***	3
ENGL 106	Workplace Communications I	
HC 213	Medical Terminology I	3
	Total Credit Hours	**15**

Second Semester		CR
HC 114	Anatomy & Physiology for the Health Professions	3
MATH 105	Mathematical Reasoning ***or***	3
MATH 101	Intermediate Algebra ***or higher***	
PSYC 101	General Psychology ***or***	3
PSYC 103	Human Relations in the Workplace	
SOC 100	Introduction to Sociology	3
	Total Credit Hours	**12**

Third Semester		CR
EMS 235	Paramedic I	4
EMS 240	Paramedic II	4
EMS 244	Paramedic III	4
	Total Credit Hours	**12**

Fourth Semester		CR
EMS 250	Paramedic Clinical I	2
EMS 252	Paramedic IV	4
EMS 255	Paramedic Clinical II	4
EMS 258	Paramedic V	2
	Total Credit Hours	**12**

Fifth Semester		CR
EMS 275	Paramedic Internship	10
EMS 280	NREMT Prep	2
	Total Credit Hours	**12**

Option 2

First Semester		CR
CSC 105	Microcomputer Software Applications I	3
EMS 120	Emergency Medical Responder	3
ENGL 101	Composition I ***or***	3
ENGL 106	Workplace Communications I	
HC 213	Medical Terminology I	3
	Total Credit Hours	**12**

Second Semester		CR
HC 114	Anatomy & Physiology for the Health Professions	3
EMS 125	EMR to EMT Bridge	3
MATH 105	Mathematical Reasoning ***or***	3
MATH 101	Intermediate Algebra ***or higher***	
PSYC 101	General Psychology ***or***	3
PSYC 103	Human Relations in the Workplace	
SOC 100	Introduction to Sociology	3
	Total Credit Hours	**15**

Third Semester		CR
EMS 235	Paramedic I	4
EMS 240	Paramedic II	4
EMS 244	Paramedic III	4
	Total Credit Hours	**12**

Fourth Semester		CR
EMS 250	Paramedic Clinical I	2
EMS 252	Paramedic IV	4
EMS 255	Paramedic Clinical II	4
EMS 258	Paramedic V	2
	Total Credit Hours	**12**

Fifth Semester		CR
EMS 275	Paramedic Internship	10
EMS 280	NREMT Prep	2
	Total Credit Hours	**12**

If you are or have been convicted, pleaded guilty or no contest to, or received a suspended imposition of sentence for a felony or certain misdemeanors, you are advised that you may not be able to complete all course requirements for your chosen program, you may be prevented from taking required certification/licensure examinations in your chosen program field, and you may be prevented from gaining employment in your program field.

PARAMEDIC- CERTIFICATE

Certificate, 42 Credit Hours, 18-Month Program*

The Paramedic certificate at Western Dakota Technical College is available to participants that are currently certified and/or licensed as Emergency Medical Technicians at the state or national level. The Paramedic certificate student will experience over one thousand hours of training that entails didactic experience and a vigorous and stringent clinical program that will produce a pre-hospital caregiver that will meet the demands of society.

At the end of the paramedic certificate training and education the successful candidate will have the following: American Heart Association (AHA) – Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS); National Association of Emergency Medical Technicians (NAEMT) – Pre-Hospital Trauma Life Support (PHTLS) as well as Advanced Medical Life Support (AMLS). These courses aid in the successful candidate's approach to the national certification exam that will allow them to obtain the title of Paramedic.

Course	No.	Course Title	Credits
		Technical Requirements	
EMS	235	PARAMEDIC I	4
EMS	240	PARAMEDIC II	4
EMS	244	PARAMEDIC III	4
EMS	250	PARAMEDIC CLINICAL I	2
EMS	252	PARAMEDIC IV	4
EMS	255	PARAMEDIC CLINICAL II	4
EMS	258	PARAMEDIC V	2
EMS	275	PARAMEDIC INTERNSHIP	10
EMS	280	NREMT PREP	2
HC	114	ANATOMY & PHYSIOLOGY FOR THE HEALTH PROFESSIONS**	3
HC	213	MEDICAL TERMINOLOGY I**	3
		Total	**42**

*Students must successfully complete the certificate requirements to sit for the National Registry Exam to become a Licensed Paramedic.

**Students must have an approved 3 credit Anatomy & Physiology and 3 credit Medical Terminology I course through an accredited post-secondary college before advancing into EMS courses.

Clinicals, practicums, and internships may include, but are not limited to, differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. This may require travel outside the Rapid City area.

Professional licensure and certification requirements often vary from state to state. Educational requirements by state for this program can be found https://www.wdt.edu/degree-programs/paramedic/.

Required steps to obtain the credential for the Paramedic Program. (PDF)

Semester breakdown on next page

Semester Breakdown Certificate

Students must have an approved Anatomy & Physiology and Medical Terminology courses through an accredited post-secondary college before advancing into EMS courses		CR
HC 114	Anatomy & Physiology for the Health Professions	3
HC 213	Medical Terminology I	3
	Total Credit Hours	**6**

First Semester		CR
EMS 235	Paramedic I	4
EMS 240	Paramedic II	4
EMS 244	Paramedic III	4
	Total Credit Hours	**12**

Second Semester		CR
EMS 250	Paramedic Clinical I	2
EMS 252	Paramedic IV	4
EMS 255	Paramedic Clinical II	4
EMS 258	Paramedic V	2
	Total Credit Hours	**12**

Third Semester		CR
EMS 275	Paramedic Internship	10
EMS 280	NREMT Prep	2
	Total Credit Hours	**12**

If you are or have been convicted, pleaded guilty or no contest to, or received a suspended imposition of sentence for a felony or certain misdemeanors, you are advised that you may not be able to complete all course requirements for your chosen program, you may be prevented from taking required certification/licensure examinations in your chosen program field, and you may be prevented from gaining employment in your program field.

PHLEBOTOMY

Certificate, 18 Credit Hours, 4-Month Program

The Phlebotomy program prepares students for employment as entry-level phlebotomy technicians.

Phlebotomists collect, transport, and process blood and other specimens for laboratory analysis. They identify and select equipment, supplies, and additives used in blood collection and understand factors that affect specimen collection procedures and test results. Recognizing the importance of specimen collection in the overall patient care system, phlebotomists adhere to infection control and safety policies and procedures. They monitor quality control within predetermined limits while demonstrating professional conduct, stress management, and communication skills with patients, peers, and other healthcare personnel as well as with the public.

Phlebotomists are employed in hospitals, physician offices and clinics, medical laboratories, and blood banks as blood procurement specialists.

Course	No.	Course Title	Credits
		General Education Requirements	
MATH	105	MATHEMATICAL REASONING* ***or higher***	3
		Total	**3**
		Technical Requirements	
HC	114	ANATOMY& PHYSIOLOGY FOR THE HEALTH PROFESSIONS	3
HC	213	MEDICAL TERMINOLOGY I	3
PH	114	PHLEBOTOMY PRINCIPLES AND PRACTICES	4
PH	133	POINT OF CARE AND FUNDAMENTAL DIAGNOSTICS	3
PH	165	PHLEBOTOMY CLINICAL	2
		Total	**15**

*Prerequisite: Acceptable ACCUPLACER score or Basic Math.

Clinicals, practicums, and internships may include, but are not limited to differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. This may require travel outside the Rapid City area.

Professional licensure and certification requirements often vary from state to state. Educational requirements by state for this program can be found https://www.wdt.edu/degree-programs/phlebotomy-laboratory-assistant/.

Required steps to obtain the credential for the Phlebotomy Program. (PDF)

Semester Breakdown Certificate

First Semester		CR
HC 114	Anatomy & Physiology for the Health Professions	3
HC 213	Medical Terminology I	3
MATH 105	Mathematical Reasoning ***or higher***	3
PH 114	Phlebotomy Principles and Practices	4
PH 133	Point of Care and Fundamental Diagnostics	3
PH 165	Phlebotomy Clinical	2
	Total Credit Hours	**18**

PHLEBOTOMY/LABORATORY ASSISTANT

Diploma, 30 Credit Hours, 9-10 Month Program

The Phlebotomy/Laboratory Assistant program prepares students for employment as entry-level phlebotomy technicians and clinical laboratory assistants.

Phlebotomists collect, transport, and process blood and other specimens for laboratory analysis. They identify and select equipment, supplies, and additives used in blood collection and understand factors that affect specimen collection procedures and test results. Recognizing the importance of specimen collection in the overall patient care system, phlebotomists adhere to infection control and safety policies and procedures. They monitor quality control within predetermined limits while demonstrating professional conduct, stress management, and communication skills with patients, peers, and other healthcare personnel as well as with the public.

Phlebotomists are employed in hospitals, physician offices and clinics, medical laboratories, and blood banks as blood procurement specialists.

Course	No.	Course Title	Credits
		General Education Requirements	
ENGL	101	COMPOSITION I* ***or***	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	
MATH	105	MATHEMATICAL REASONING** ***or higher***	3
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
		Total	**9**
		Technical Requirements	
HC	114	ANATOMY& PHYSIOLOGY FOR THE HEALTH PROFESSIONS	3
HC	213	MEDICAL TERMINOLOGY I	3
PH	114	PHLEBOTOMY PRINCIPLES AND PRACTICES	4
PH	115	INTRODUCTION TO LAB METHODS	3
PH	133	POINT OF CARE AND FUNDAMENTAL DIAGNOSTICS	3
PH	165	PHLEBOTOMY CLINICAL	2
PH	170	LAB ASSISTANT CAPSTONE	3
		Total	**21**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

Clinicals, practicums, and internships may include, but are not limited to differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. This may require travel outside the Rapid City area.

Professional licensure and certification requirements often vary from state to state. Educational requirements by state for this program can be found https://www.wdt.edu/degree-programs/phlebotomy-laboratory-assistant/.

Required steps to obtain the credential for the Phlebotomy Program. (PDF)

Semester Breakdown Diploma

First Semester		CR	Second Semester		CR
HC 114	Anatomy & Physiology for the Health Professions	3	ENGL 101	Composition I ***or***	3
HC 213	Medical Terminology I	3	ENGL 106	Workplace Communications I	
MATH 105	Mathematical Reasoning ***or higher***	3	PH 115	Introduction to Lab Methods	3
PH 114	Phlebotomy Principles and Practices	4	PH 170	Lab Assistant Capstone	3
PH 133	Point of Care and Fundamental Diagnostics	3	PSYC 101	General Psychology ***or***	3
PH 165	Phlebotomy Clinical	2	PSYC 103	Human Relations in the Workplace	
	Total Credit Hours	**18**		**Total Credit Hours**	**12**

If you are or have been convicted, pleaded guilty or no contest to, or received a suspended imposition of sentence for a felony or certain misdemeanors, you are advised that you may not be able to complete all course requirements for your chosen program, you may be prevented from taking required certification/licensure examinations in your chosen program field, and you may be prevented from gaining employment in your program field.

PLUMBING TECHNOLOGY

Diploma, 30 Credit Hours, 9-Month Program

The Plumbing Technology program prepares students to begin a career in plumbing. Coursework provides technical understanding and skills development and integrates theory with practical experience. Through the program, students develop skills in piping techniques and procedures, plumbing and piping systems, residential and commercial system installations, blueprint reading, and isometric interpretation. The successful graduate is eligible for one year's credit on his or her apprenticeship card and employment at an advanced apprenticeship level in a variety of businesses.

There are many career opportunities for graduates of the plumbing program. The plumbing trade offers challenging and interesting work in commercial and residential settings for those with the desire to work as designers, installers, and troubleshooters. Graduates may also choose to advance to master plumber status or start their own businesses.

The primary objective of the Plumbing Technology program is to prepare students to be successful in the plumbing field. Students will take coursework in plumbing theory, plumbing practices, plan and print reading, and other technical skills. Additionally, students will receive training in soft skills such as communication and math. The Plumbing program delivers a solid foundation in plumbing technology.

Course	No.	Course Title	Credits
		General Education Requirements	
MATH	104	TECHNICAL MATHEMATICS*	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	3
		Total	**6**
		Technical Requirements	
PLU	150	PLUMBING THEORY I	3
PLU	155	PLUMBING THEORY I LAB	4
PLU	160	PLUMBING CODE	3
PLU	165	PLUMBING PRINT READING & DRAFTING	2
PLU	170	PLUMBING THEORY II	3
PLU	175	PLUMBING THEORY II LAB	4
PLU	180	PLUMBING FIXTURES & REPAIR	2
PLU	185	PLUMBING FIXTURES & REPAIR LAB	3
		Total	**24**

Remedial coursework must be completed in the first semester.

*Prerequisite: Acceptable ACCUPLACER score or Basic Mathematics.

Semester Breakdown Diploma

First Semester		CR	Second Semester		CR
MATH 104	Technical Mathematics	3	PLU 170	Plumbing Theory II	3
PLU 150	Plumbing Theory I	3	PLU 175	Plumbing Theory II Lab	4
PLU 155	Plumbing Theory I Lab	4	PLU 180	Plumbing Fixtures & Repair	2
PLU 160	Plumbing Code	3	PLU 185	Plumbing Fixtures & Repair Lab	3
PLU 165	Plumbing Print Reading & Drafting	2	PSYC 103	Human Relations in the Workplace	3
	Total Credit Hours	**15**		**Total Credit Hours**	**15**

PRACTICAL NURSING

Diploma, 45 Credit Hours, 14-Month Program

The mission of the Practical Nursing program is to provide graduates with the knowledge, skills, attitude, and integrity to provide safe, prudent, and patient-centered care necessary to prepare them to successfully complete the National Council Licensure Examination for Practical Nursing (NCLEX-PN) and become employed as a Licensed Practical Nurse.

Licensed Practical Nurses (LPN's) are an important member of the healthcare team, and, in many settings, including long-term care, medical offices and transitional care, their role has expanded to include IV therapy and supervision. The Practical Nursing program stresses the importance of incorporating a variety of experiences including lecture, lab, and clinical hours to ensure graduates have the knowledge, skills, and experiences needed to be successful after graduation.

Students considering the Practical Nursing program are required to fulfill additional requirements before entering technical program courses. Please refer to the Practical Nursing Application Process or contact the Practical Nursing Program Director.

Course	No.	Course Title	Credits
		Prerequisite Requirements	
ENGL	101	COMPOSITION I*****	3
HC	114	ANATOMY & PHYSIOLOGY FOR THE HEALTH PROFESSIONS	3
HC	213	MEDICAL TERMINOLOGY I	3
MATH	101	INTERMEDIATE ALGEBRA** ***or higher***	3
PSYC	101	GENERAL PSYCHOLOGY	3
		Total	**15**
		Technical Requirements	
NRS	101	SKILLS LAB I & II	2
NRS	106	FOUNDATIONS IN PRACTICAL NURSING	3
NRS	111	INTRODUCTION TO PHARMACOLOGY & PATHOPHYSIOLOGY	2
NRS	122	ADULT HEALTH CLINICAL I	4
NRS	132	MENTAL HEALTH NURSING FOR THE PRACTICAL NURSE	3
NRS	201	SKILLS LAB III	1
NRS	206	MEDICAL-SURGICAL NURSING FOR THE PRACTICAL NURSE	3
NRS	211	PHARMACOLOGY FOR THE PRACTICAL NURSE	2
NRS	222	ADULT HEALTH CLINICAL II	4
NRS	232	MATERNAL-CHILD NURSING FOR THE PRACTICAL NURSE	3
NRS	236	PRACTICAL NURSING PRECEPTORSHIP	2
NRS	241	TRANSITION TO PRACTICAL NURSING	1
		Total	**30**

* Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
** Prerequisite: Acceptable ACCUPLACER score or Elementary Algebra.

Clinicals, practicums, and internships may include, but are not limited to, differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. This may require travel outside the Rapid City area.

Professional licensure and certification requirements often vary from state to state. Educational requirements by state for this program can be found https://www.wdt.edu/degree-programs/practical-nursing/.

Required steps to obtain the credential for the Practical Nursing Program. (PDF)

Semester breakdown on next page

Semester Breakdown for Diploma Option 1- Hot Springs, Rapid City, & Whitewood Campuses

Prerequisite Requirements must be completed with a C for better before enrolling in NRS Technical Courses.
Prerequisite required courses are offered in the Fall, Spring, and Summer Semesters.
Students must hold a current CNA certification or receive a C or better in HC 124 and HC 126 before entering NRS Technical Courses.

		CR
ENGL 101	Composition I	3
HC 114	Anatomy & Physiology for the Health Professions	3
HC 213	Medical Terminology I	3
MATH 101	Intermediate Algebra ***or higher***	3
PSYC 101	General Psychology	3
	Total Credit Hours	**15**

	Fall Semester	**CR**
NRS 101	Skills Lab I & II	2
NRS 106	Foundations of Practical Nursing	3
NRS 111	Introduction of Pharmacology & Pathophysiology	2
NRS 122	Adult Health Clinical I	4
NRS 132	Mental Health Nursing for the Practical Nurse	3
	Total Credit Hours	**14**

	Spring Semester	**CR**
NRS 201	Skills Lab III	1
NRS 206	Medical-Surgical Nursing for the Practical Nurse	3
NRS 211	Pharmacology for the Practical Nurse	2
NRS 222	Adult Health Clinical II	4
NRS 232	Maternal-Child Nursing for the Practical Nurse	3
NRS 236	Practical Nursing Preceptorship	2
NRS 241	Transition to Practical Nursing	1
	Total Credit Hours	**16**

Semester Breakdown for Diploma Option 2- Philip & Rapid City Campuses

Prerequisite Requirements must be completed with a C for better before enrolling in NRS Technical Courses.
Prerequisite required courses are offered in the Fall, Spring, and Summer Semesters.
Students must hold a current CNA certification or receive a C or better in HC 124 and HC 126 before entering NRS Technical Courses.

		CR
ENGL 101	Composition I	3
HC 114	Anatomy & Physiology for the Health Professions	3
HC 213	Medical Terminology I	3
MATH 101	Intermediate Algebra ***or higher***	3
PSYC 101	General Psychology	3
	Total Credit Hours	**15**

	Spring Semester	**CR**
NRS 101	Skills Lab I & II	2
NRS 106	Foundations of Practical Nursing	3
NRS 111	Introduction of Pharmacology & Pathophysiology	2
NRS 122	Adult Health Clinical I	4
NRS 132	Mental Health Nursing for the Practical Nurse	3
	Total Credit Hours	**14**

	Fall Semester	**CR**
NRS 201	Skills Lab III	1
NRS 206	Medical-Surgical Nursing for the Practical Nurse	3
NRS 211	Pharmacology for the Practical Nurse	2
NRS 222	Adult Health Clinical II	4
NRS 232	Maternal-Child Nursing for the Practical Nurse	3
NRS 236	Practical Nursing Preceptorship	2
NRS 241	Transition to Practical Nursing	1
	Total Credit Hours	**16**

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PRECISION MACHINING TECHNOLOGY

Diploma, 42 Credit Hours, 12-Month Program

The Precision Machining Technology graduate will be able to set up and operate a variety of machine tools to produce precision metal parts, instruments, and tools. Machinists use machine tools, such as lathes, milling machines, and grinders, to produce precision metal parts. Although they may produce large quantities of one part, precision machinists often produce small batches or one-of-a-kind items. The parts that machinists make range from simple bolts of steel or brass to titanium bone screws for orthopedic implants. Hydraulic parts, anti-lock brakes and automobile pistons are other widely known products that machinists make.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	3
MATH	100	ELEMENTARY ALGEBRA** ***or higher***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	3
		Total	**12**
		Technical Requirements	
MACH	110	MACHINE SHOP OPERATIONS	3
MACH	113	TURNING THEORY AND OPERATIONS	3
MACH	123	MILLING THEORY AND OPERATIONS	3
MACH	125	MECHANICAL BLUEPRINT READING	3
MACH	130	MATERIALS APPLICATIONS	3
MACH	136	TURNING THEORY AND CNC OPERATIONS	3
MACH	141	MILLING THEORY AND CNC OPERATIONS	3
MACH	146	APPLIED COMPUTER AIDED DRAFTING FUNDAMENTALS	3
MACH	199	INTERNSHIP	6
		Total	**30**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

Semester Breakdown Diploma

First Semester (Fall Only)		CR
CSC 105	Microcomputer Software Applications I	3
MACH 110	Machine Shop Operations	3
MACH 113	Turning Theory and Operations	3
MACH 123	Milling Theory and Operations	3
MACH 125	Mechanical Blueprint Reading	3
MATH 100	Elementary Algebra ***or higher***	3
	Total Credit Hours	**18**

Second Semester (Spring Only)		CR
ENGL 106	Workplace Communications I	3
MACH 130	Materials Applications	3
MACH 136	Turning Theory and CNC Operations	3
MACH 141	Milling Theory and CNC Operations	3
MACH 146	Applied Computer Aided Drafting Fundamentals	3
PSYC 103	Human Relations in the Workplace	3
	Total Credit Hours	**18**

Third Semester (Summer Only)		CR
MACH 199	Internship	6
	Total Credit Hours	**6**

PROFESSIONAL TRUCK DRIVING

Certificate, 7 Credit Hours, 5-Week Program

The Professional Truck Driving program teaches the knowledge and skills to prepare students for driving over-the-road Class A tractor/trailer combination vehicles and consists of theory and behind-the-wheel instruction. Topics covered include basic vehicle operation, safe operating procedures, vehicle systems, vehicle inspection, backing, and vehicle controls. Western Dakota Technical College is a registered training provider of Entry Level Driver Training (ELDT) for the Federal Motor Carrier Safety Administration (FMCSA). This program meets ELDT requirements for both theory and behind-the-wheel instruction.

Course	No.	Course Title	Credits
		Technical Requirements	
TRU	101	TRUCK DRIVING THEORY & LAB	7
		Total	**7**

Semester Breakdown Certificate

	First Semester	CR
TRU 101	Truck Driving Theory & Lab	7
	Total Credit Hours	**7**

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RADIOLOGIC TECHNOLOGY

Associate of Applied Science, 79 Credit Hours, 36-40-Month Program

Students in radiographic technology acquire the necessary knowledge and skills to utilize radiation in disease diagnosis under the supervision of a physician. This program integrates academic learning with practical instruction, laboratory work, and over 900 hours of supervised clinical training to equip students for careers as radiologic technologists. Coursework covers patient care, radiographic anatomy and positioning, radiation safety and effects, x-ray generation, radiographic pathology, and advancements in x-ray technology. Students also gain practical experience in patient care, problem-solving, and effective communication within healthcare teams.

Course	No.	Course Title	Credits
		General Education Requirements	
CMST	101	FOUNDATIONS OF COMMUNICATION	3
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I ***or***	3
HUM	100	INTRODUCTION TO HUMANITIES	
ENGL	101	ENGLISH COMPOSITION I*	3
MATH	105	MATHEMATICAL REASONING**	3
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
SOC	100	INTRODUCTION TO SOCIOLOGY	
		Total	**15**
		Technical Requirements	
HC	114	ANATOMY & PHYSIOLOGY FOR THE HEALTH PROFESSIONS	3
HC	116	ANATOMY & PHYSIOLOGY FOR THE HEALTH PROFESSIONS LAB	1
HC	213	MEDICAL TERMINOLOGY	3
RAD	115	PATIENT CARE IN RADIOLOGIC SCIENCES	4
RAD	120	RADIOLOGIC PROCEDURES I	4
RAD	125	IMAGING PHYSICS	3
RAD	130	DIGITAL IMAGE ACQUISITION & DISPLAY	3
RAD	135	RADIOLOGIC PROCEDURES II	4
RAD	140	IMAGE EVALUATION	2
RAD	175	RADIOLOGY CLINICAL I	4
RAD	180	RADIOLOGY CLINICAL II	4
RAD	199	RADIOLOGY CLINICAL III	4
RAD	225	PRINCIPLES OF IMAGING & ETHICS	3
RAD	230	RADIOLOGIC PATHOLOGY	3
RAD	235	ADVANCED MODALITIES	3
RAD	240	RADIATION BIOLOGY & PROTECTION	3
RAD	245	REGISTRY REVIEW	2
RAD	275	RADIOLOGY CLINICAL IV	5
RAD	280	RADIOLOGY CLINICAL V	6
		Total	**64**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

Note: All courses in the Radiologic Technology program must be completed with a C or better.

Clinicals, practicums, and internships may include, but are not limited to, differential shifts, (evenings, nights, weekends, and holidays) to meet industry expectations. This may require travel outside of the Rapid City area.

Professional licensure and certification requirements often vary from state to state. Educational requirements by state for this program can be found https://www.wdt.edu/degree-programs/radiologic-technology/.

Semester breakdown on next page

Semester Breakdown – Spring Start

All prerequisite courses must be completed with a C or better to enroll in RAD technical courses.

	Prerequisite Semester (Spring)	CR			
CMST 101	Foundations of Communication	3			
HC 114	Anatomy & Physiology	3			
HC 116	Anatomy & Physiology Lab	1			
HC 213	Medical Terminology	3			
MATH 105	Mathematical Reasoning	3			
PSYC 101	General Psychology ***or***	3			
SOC 100	Introduction to Sociology				
	Total Credit Hours	**16**			
	Fall Semester	**CR**		**Spring Semester**	**CR**
RAD 115	Patient Care in Radiologic Sciences	4	CSC 105	Microcomputer Software Applications ***or***	3
RAD 120	Radiologic Procedures I	4	HUM 100	Introduction to Humanities	3
RAD 125	Imaging Physics	3	RAD 130	Digital Image Acquisition & Display	4
RAD 175	Radiology Clinical I	4	RAD 135	Radiologic Procedures II	4
			RAD 180	Radiology Clinical II	
	Total Credit Hours	**15**		**Total Credit Hours**	**14**
	Summer Semester				
RAD 140	Image Evaluation	2			
RAD 199	Radiology Clinical III	4			
	Total Credit Hours	**6**			
	Fall Semester	**CR**		**Spring Semester**	**CR**
ENGL 101	English Composition I	3	RAD 235	Advanced Modalities	3
RAD 225	Principles of Imaging & Ethics	3	RAD 240	Radiation Biology & Protection	3
RAD 230	Radiologic Pathology	3	RAD 245	Registry Review	2
RAD 275	Radiology Clinical IV	5	RAD 280	Radiology Clinical V	6
	Total Credit Hours	**14**		**Total Credit Hours**	**14**

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Semester Breakdown – Fall Start

All prerequisite courses must be completed with a C or better to enroll in RAD technical courses. CSC 105/HUM 100 and ENGL 101 are not prerequisite courses needed to enroll in RAD technical courses but are requirements for completion of the program.

Prerequisite Semester (Fall)		CR	Prerequisite Semester (Spring)		CR
CMST 101	Foundation of Communication	3	CSC 105	Microcomputer Software Applications ***or***	3
HC 213	Medical Terminology	3	HUM 100	Introduction to Humanities	
MATH 105	Mathematical Reasoning	3	ENGL 101	English Composition I	3
PSYC 101	General Psychology ***or***	3	HC 114	Anatomy & Physiology	3
SOC 100	Introduction to Sociology		HC 116	Anatomy & Physiology Lab	1
	Total Credit Hours	**12**		**Total Credit Hours**	**10**
Fall Semester		**CR**	**Spring Semester**		**CR**
RAD 115	Patient Care in Radiologic Sciences	4	RAD 130	Digital Image Acquisition & Display	3
RAD 120	Radiologic Procedures I	4	RAD 135	Radiologic Procedures II	4
RAD 125	Imaging Physics	3	RAD 180	Radiology Clinical II	4
RAD 175	Radiology Clinical I	4			
	Total Credit Hours	**15**		**Total Credit Hours**	**11**
Summer Semester					
RAD 140	Image Evaluation	2			
RAD 199	Radiology Clinical III	4			
	Total Credit Hours	**6**			
Fall Semester		**CR**	**Spring Semester**		**CR**
RAD 225	Principles of Imaging & Ethics	3	RAD 235	Advanced Modalities	3
RAD 230	Radiologic Pathology	3	RAD 240	Radiation Biology & Protection	3
RAD 275	Radiology Clinical IV	5	RAD 245	Registry Review	2
			RAD 280	Radiology Clinical V	6
	Total Credit Hours	**11**		**Total Credit Hours**	**14**

REGISTERED NURSING

Associate of Applied Science, 41 Credit Hours, 14-Month Program

This degree will provide a 1 + 1 bridge track for graduates of an LPN program who hold a current LPN license. This program is designed for students with a goal of advancing their nursing career which includes opportunities in hospital, long-term care, clinic, assisted living, and other settings. This program will allow individuals to expand on the technical and communication skills obtained through their LPN licensure. Students will be trained in the areas of science and technology, advanced nursing skills, problem-solving, and critical thinking, professionalism, and communication, as it relates to nursing.

Students in the second semester technical courses of the Registered Nursing program must successfully meet benchmark scores on the required exit exam in order to graduate. All students successfully completing the Registered Nurse program will earn an AAS degree in Registered Nursing and will be prepared to take the licensure exam to enter the workforce as registered nurses (RNs).

Course	No.	Course Title	Credits
		Prerequisite Requirements	
CHEM	106	CHEMISTRY SURVEY	3
CHEM	106L	CHEMISTRY SURVEY LAB	1
CMST	101	FOUNDATIONS OF COMMUNICATION	3
MATH	114	COLLEGE ALGEBRA	3
MICR	231	GENERAL MICROBIOLOGY*	3
MICR	231L	GENERAL MICROBIOLOGY LAB*	1
SOC	100	INTRODUCTION TO SOCIOLOGY	3
		Total	**17**
		Technical Requirements	
NURS	250	TRANSITION TO REGISTERED NURSING I	3
NURS	255	PHARMACOLOGY FOR THE REGISTERED NURSE ***online***	3
NURS	260	MEDICAL SURGICAL NURSING ACROSS THE LIFESPAN	6
NURS	270	MATERNAL CHILD NURSING	3
NURS	275	MENTAL HEALTH NURSING ACROSS THE LIFESPAN	3
NURS	286	TRANSITION TO REGISTERED NURSING II ***online***	3
NURS	298	REGISTERED NURSING PRACTICUM EXPERIENCE	3
		Total	**24**

Clinicals, practicums, and internships may include, but are not limited to, differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. This may require travel outside the Rapid City area.

Upon proof of current LPN licensure, 20 credits will be granted. An additional 17 credits in General Education courses and 24 credits in RN technical courses will be needed to meet graduation requirements for the RN degree.

Professional licensure and certification requirements often vary from state to state. Educational requirements by state for this program can be found https://www.wdt.edu/degree-programs/registered-nursing/.

Required steps to obtain the credential for the Registered Nursing Program. (PDF)

Semester breakdown on next page

Semester Breakdown AAS- Fall Start

Prerequisite Requirements must be completed with a C or better before enrolling in NURS Technical Courses. Students must hold a current LPN license before entering NURS Technical Courses.

		CR
CHEM 106	Chemistry Survey	3
CHEM106L	Chemistry Survey Lab	1
CMST 101	Foundations of Communication	3
MATH 114	College Algebra	3
MICR 231	General Microbiology	3
MICR 231L	General Microbiology Lab	1
SOC 100	Introduction to Sociology	3
	Total Credit Hours	**17**

	Fall Semester	**CR**
NURS 250	Transition to Registered Nursing I *(12 weeks)*	3
NURS 255	Pharmacology for the Registered Nurse ***online***	3
NURS 260	Medical Surgical Nursing Across the Lifespan	6
	Total Credit Hours	**12**

	Spring Semester	**CR**
NURS 270	Maternal Child Nursing *(1st 8 weeks)*	3
NURS 275	Mental Health Nursing Across the Lifespan *(2nd 8 weeks)*	3
NURS 286	Transition to Registered Nursing II ***online***	3
NURS 298	Registered Nursing Practicum Experience	3
	Total Credit Hours	**12**

Semester Breakdown AAS- Spring Start

Prerequisite Requirements must be completed with a C or better before enrolling in NURS Technical Courses. Students must hold a current LPN license before entering NURS Technical Courses.

		CR
CHEM 106	Chemistry Survey	3
CHEM106L	Chemistry Survey Lab	1
CMST 101	Foundations of Communication	3
MATH 114	College Algebra	3
MICR 231	General Microbiology	3
MICR 231L	General Microbiology Lab	1
SOC 100	Introduction to Sociology	3
	Total Credit Hours	**17**

	Spring Semester	**CR**
NURS 250	Transition to Registered Nursing I *(12 weeks)*	3
NURS 255	Pharmacology for the Registered Nurse ***online***	3
NURS 260	Medical Surgical Nursing Across the Lifespan	6
	Total Credit Hours	**12**

	Fall Semester	**CR**
NURS 270	Maternal Child Nursing *(1st 8 weeks)*	3
NURS 275	Mental Health Nursing Across the Lifespan *(2nd 8 weeks)*	3
NURS 286	Transition to Registered Nursing II ***online***	3
NURS 298	Registered Nursing Practicum Experience	3
	Total Credit Hours	**12**

If you are or have been convicted, pleaded guilty or no contest to, or received a suspended imposition of sentence for a felony or certain misdemeanors, you are advised that you may not be able to complete all course requirements for your chosen program, you may be prevented from taking required certification/licensure examinations in your chosen program field, and you may be prevented from gaining employment in your program field.

SURGICAL TECHNOLOGY

Associate of Applied Science, 60 Credit Hours, 18-Month Program***

The mission of the Surgical Technology program is to provide students with the knowledge, skills, and dedication necessary to become successful, valuable, and effective surgical technologists in the communities they serve.

Graduates of accredited surgical technology programs complete a comprehensive education in which they receive in-depth knowledge related to the operating room. This includes completion of a surgical rotation during a clinical experience. Throughout the educational experience, the surgical technology student learns the principles of asepsis and application of sterile technique. It is the position of The Association of Surgical Technologists (AST) that surgical technologists are subject matter experts in these principles. Other healthcare providers are recommended to draw upon the expertise of the surgical technologist to share their knowledge and skills in order to prevent the patient from acquiring an infection.

During the clinical portion of the program, students will complete a minimum of 120 cases of various specialties in the first or second scrub role. At the completion of all clinical requirements, students will sit for the Professional Certification of Surgical Technologist, (CST) Exam. Surgical technologists stand at the leading edge of advancements in surgical techniques and interventions using their professionalism, expertise, and abilities to make a difference.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
CMST	101	FOUNDATIONS OF COMMUNICATION* ***or***	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	
MATH	100	ELEMENTARY ALGEBRA** ***or higher***	3
PSYC	101	GENERAL PSYCHOLOGY ***or***	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
SOC	100	INTRODUCTION TO SOCIOLOGY	3
		Total	**15**
		Technical Requirements	
HC	114	ANATOMY & PHYSIOLOGY FOR THE HEALTH PROFESSIONS	3
HC	135	MEDICAL LAW AND ETHICS ***online***	2
HC	213	MEDICAL TERMINOLOGY I	3
HC	225	PATHOPHYSIOLOGY ***online***	3
ST	102	INTRODUCTION TO SURGICAL TECHNOLOGY	3
ST	111	INTRODUCTION TO SURGICAL TECHNOLOGY LAB	3
ST	128	SURGICAL PHARMACOLOGY ***online***	2
ST	130	SURGICAL PROCEDURES I	3
ST	131	PRINCIPLES AND PRACTICES OF SURGICAL TECHNOLOGY I	3
ST	230	SURGICAL PROCEDURES II	3
ST	231	PRINCIPLES AND PRACTICES OF SURGICAL TECHNOLOGY II	3
ST	250	SURGICAL TECHNOLOGY CLINICALS	13
ST	251	SURGICAL TECHNOLOGY CERTIFICATION REVIEW ***online***	1
		Total	**45**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

***Graduation Requirement: Students must sit for the national certification exam conducted by the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

Clinicals, practicums, and internships may include, but are not limited to, differential shifts (evenings, nights, weekends, and holidays) to meet industry expectations. Clinicals may occur during summer semester depending on program enrollments. This may require travel outside the Rapid City area.

Professional licensure and certification requirements often vary from state to state. Educational requirements by state for this program can be found https://www.wdt.edu/degree-programs/surgical-technology/.

Required steps to obtain the credential for the Surgical Tech Program. (PDF)

Semester breakdown on next page

Semester Breakdown AAS

First Semester		CR
HC 114	Anatomy & Physiology for the Health Professions	3
HC 213	Medical Terminology I	3
PSYC 101	General Psychology ***or***	3
PSYC 103	Human Relations in the Workplace	
ST 102	Introduction to Surgical Technology	3
ST 111	Introduction to Surgical Technology Lab	3
	Total Credit Hours	**15**

Second Semester		CR
HC 225	Pathophysiology ***online***	3
CMST 101	Foundations of Communication ***or***	3
ENGL 106	Workplace Communications I	
MATH 100	Elementary Algebra ***or higher***	3
ST 130	Surgical Procedures I	3
ST 131	Principles and Practices of Surgical Technology I	3
	Total Credit Hours	**15**

Third Semester		CR
CSC 105	Microcomputer Software Applications I	3
HC 135	Medical Law and Ethics ***online***	2
SOC 100	Introduction to Sociology	3
ST 128	Surgical Pharmacology ***online***	2
ST 230	Surgical Procedures II	3
ST 231	Principles and Practices of Surgical Technology II	3
	Total Credit Hours	**16**

Fourth Semester		CR
ST 250	Surgical Technology Clinicals	13
ST 251	Surgical Technology Certification Review ***online***	1
	Total Credit Hours	**14**

If you are or have been convicted, pleaded guilty or no contest to, or received a suspended imposition of sentence for a felony or certain misdemeanors, you are advised that you may not be able to complete all course requirements for your chosen program, you may be prevented from taking required certification/licensure examinations in your chosen program field, and you may be prevented from gaining employment in your program field.

TECHNICAL STUDIES

Associate of Applied Science, 60 Credit Hours, 18-Month Program

The Technical Studies curriculum will differ for each student. Individualized plans of study will be developed to meet the student's career goals and be approved by the Registrar at WDTC. 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 goal.

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 college where they enroll in the Technical Studies program. Each Technical College may have different course requirements, depending on the student's individualized plan of study.

Arts & Humanities	3 credits
Communications	3 credits
Computers	3 credits
Mathematics	3 credits
Natural sciences	4 credits
Social sciences	3 credits

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.

WELDING AND FABRICATION

Associate of Applied Science, 63 Credit Hours, 18-Month Program

The Welding and Fabrication program prepares students for the growing number of career opportunities in the welding field. The combination of classroom theory, hands-on welding skills training, and practical application in labs allows students to attain skills for entry-level employment.

The Welding and Fabrication program is designed to prepare students as entry-level technicians in many areas including the construction and repair of ships, automobiles, and thousands of other manufactured products. Students will study multiple welding and fabrication techniques with various types of welding equipment. Welders require a wide variety of skills that will continue to increase due to the increase of sophisticated fabrication and repair work demanded by industry. This program advances the student's welding skills and increases their employment opportunities.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	3
MATH	104	TECHNICAL MATHEMATICS**	3
MATH	105	MATHEMATICAL REASONING**	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	3
		Total	**15**
		Technical Requirements	
WDM	102	SHIELDED METAL ARC WELDING I	3
WDM	103	GAS METAL ARC WELDING I	3
WDM	104	FABRICATION I	3
WDM	105	OXY FUEL WELDING/CUTTING	3
WDM	151	GAS METAL ARC WELDING II	3
WDM	152	FABRICATION II	3
WDM	153	GAS TUNGSTEN ARC WELDING I	3
WDM	162	SHIELDED METAL ARC WELDING II	3
WDM	201	GAS TUNGSTEN ARC WELDING II	3
WDM	202	FABRICATION III	3
WDM	203	GAS METAL ARC WELDING III	3
WDM	217	SHIELDED METAL ARC WELDING III	3
WDM	223	GAS METAL ARC WELDING IV	3
WDM	239	ADVANCED WELDING APPLICATIONS	3
WDM	254	SHIELDED METAL ARC WELDING IV	3
WDM	260	WELDING CAPSTONE	3
		Total	**48**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

Semester breakdown on next page

Semester Breakdown AAS

First Semester		CR
CSC 105	Microcomputer Software Applications I	3
MATH 104	Technical Mathematics	3
WDM 102	Shielded Metal Arc Welding I	3
WDM 103	Gas Metal Arc Welding I	3
WDM 104	Fabrication I	3
WDM 105	Oxy Fuel Welding/Cutting	3
	Total Credit Hours	**18**

Second Semester		CR
ENGL106	Workplace Communications I	3
PSYC 103	Human Relations in the Workplace	3
WDM 151	Gas Metal Arc Welding II	3
WDM 152	Fabrication II	3
WDM 153	Gas Tungsten Arc Welding I	3
WDM 162	Shielded Metal Arc Welding II	3
	Total Credit Hours	**18**

Third Semester		CR
MATH 105	Mathematical Reasoning	3
WDM 201	Gas Tungsten Arc Welding II	3
WDM 202	Fabrication III	3
WDM 203	Gas Metal Arc Welding III	3
WDM 217	Shielded Metal Arc Welding III	3
	Total Credit Hours	**15**

Fourth Semester		CR
WDM 223	Gas Metal Arc Welding IV	3
WDM 239	Advanced Welding Application	3
WDM 254	Shielded Metal Arc Welding IV	3
WDM 260	Welding Capstone	3
	Total Credit Hours	**12**

WELDING AND FABRICATION- DIPLOMA

Diploma, 36 Credit Hours, 9-Month Program

The Welding and Fabrication program prepares students for the growing number of career opportunities in the welding field. The combination of classroom theory, hands-on welding skills training, and practical application in labs allows students to attain skills for entry-level employment.

The Welding and Fabrication program is designed to prepare students as entry-level technicians in many areas including the construction and repair of ships, automobiles, and thousands of other manufactured products. Students will study multiple welding and fabrication techniques with various types of welding equipment. Welders require a wide variety of skills that will continue to increase due to the increase of sophisticated fabrication and repair work demanded by industry. This program advances the student's welding skills and increases their employment opportunities.

Course	No.	Course Title	Credits
		General Education Requirements	
CSC	105	MICROCOMPUTER SOFTWARE APPLICATIONS I	3
ENGL	106	WORKPLACE COMMUNICATIONS I*	3
MATH	104	TECHNICAL MATHEMATICS**	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	3
		Total	**12**
		Technical Requirements	
WDM	102	SHIELDED METAL ARC WELDING I	3
WDM	103	GAS METAL ARC WELDING I	3
WDM	104	FABRICATION I	3
WDM	105	OXY FUEL WELDING/CUTTING	3
WDM	151	GAS METAL ARC WELDING II	3
WDM	152	FABRICATION II	3
WDM	153	GAS TUNGSTEN ARC WELDING I	3
WDM	162	SHIELDED METAL ARC WELDING II	3
		Total	**24**

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Basic Math.

Semester Breakdown Diploma

First Semester		CR	Second Semester		CR
CSC 105	Microcomputer Software Applications I	3	ENGL106	Workplace Communications I	3
MATH 104	Technical Mathematics	3	PSYC 103	Human Relations in the Workplace	3
WDM 102	Shielded Metal Arc Welding I	3	WDM 151	Gas Metal Arc Welding II	3
WDM 103	Gas Metal Arc Welding I	3	WDM 152	Fabrication II	3
WDM 104	Fabrication I	3	WDM 153	Gas Tungsten Arc Welding I	3
WDM 105	Oxy Fuel Welding/Cutting	3	WDM 162	Shielded Metal Arc Welding II	3
	Total Credit Hours	**18**		**Total Credit Hours**	**18**

COURSE DESCRIPTIONS (IN ALPHABETICAL ORDER BY COURSE PREFIX)

ACCT 120 PRINCIPLES OF ACCOUNTING I CREDITS: 3
This course is an introduction to fundamental accounting concepts. It focuses on understanding the steps in the accounting cycle, i.e., recording transactions, posting, preparing a trial balance, preparing the work sheet, financial statements, and the adjusting and closing process. Additionally, it includes the study of current and non-current assets, current and long-term liabilities, payroll accounting, and partnership accounting.

ACCT 121 PRINCIPLES OF ACCOUNTING II CREDITS: 3
This course continues the study of fundamental accounting concepts; however, it involves the students in the world of accounting as opposed to the recordkeeping function. The course includes the study of Generally Accepted Accounting Principles (GAAP) and the Conceptual Framework, the corporate form as the business entity, preparation of the Statement of Cash Flows, financial statement analysis, introduction to cost accounting, responsibility accounting, cost volume profit analysis, and budgeting. PREREQUISITE: ACCT 120.

ACCT 212 INTERMEDIATE ACCOUNTING I CREDITS: 4
This course is intended to develop each student's understanding of accounting by focusing on GAAP and the conceptual framework that provides the support for accounting information. It includes a review of the accounting cycle with advanced work in cash flow, inventory valuation methods, current and non-current assets and liabilities, their specific valuation, and balance sheet presentation. PREREQUISITE: ACCT 121.

ACCT 213 INTERMEDIATE ACCOUNTING II CREDITS: 4
This course is intended to develop each student's understanding of accounting information related to stockholders' equity, including earnings per share calculations, accounting for investments in securities, revenue recognition, interperiod tax allocation, pensions, leases, and financial statement analysis. PREREQUISITE: ACCT 212.

ACCT 215 PAYROLL ACCOUNTING CREDITS: 3
The students will study payroll accounting, including the reporting formats for the various governments. Manual payroll applications are covered in the course to enhance the student's job skills. The governmental reporting will include monthly, quarterly, semi-annual, and year-end reports. PREREQUISITE: ACCT 120.

ACCT 218 TAX ACCOUNTING I CREDITS: 3
This course is the study of federal income tax including the principles of income recognition, the principles of business and non-business expense deductions, and the concept of capital gains and losses. Emphasis is placed on the individual non-business taxpayer. Case problems involve the preparation of individual tax returns and the various supporting schedules. PREREQUISITE: ACCT 120.

ACCT 223 MANAGERIAL ACCOUNTING CREDITS: 3
This course focuses on using accounting information by management as a competitive advantage in real-world situations. The student will be prepared to help management develop the internal financial reports needed for these situations. The use of basic cost accounting skills and basic communication skills to provide management with useful internal information will be stressed. PREREQUISITE: ACCT 121.

ACCT 227 EXCEL FOR ACCOUNTING CREDITS: 3
This course develops the use of electronic spreadsheets using Excel in accounting applications. It encourages students to develop spreadsheet formulas for problem solving. Students will create graphs and macros. This encourages the students to develop effective accounting formats in the presentation of financial information. PREREQUISITES: ACCT 120 and CSC105.

ACCT 228 QUICKBOOKS ACCOUNTING CREDITS: 3
This course focuses on the integration of computerized information into the basic accounting process. It provides the link between accounting in a traditional sense and its application in an automated environment. It is designed to develop a working knowledge of Windows-based software packages using QuickBooks or QuickBooks Pro commonly used by business. PREREQUISITE: ACCT 120 or APPROVAL OF INSTRUCTOR.

ACCT 230 TOPICS AND ISSUES IN ACCOUNTING CREDITS: 3
This course includes many topics and issues in the accounting and bookkeeping fields: mastery of 10-key machines, South Dakota Sales Tax, South Dakota Use Tax, South Dakota Excise Tax, South Dakota Unemployment Tax (SUTA), Federal Unemployment Tax (FUTA), Workers' Compensation guidelines, and other common bookkeeping and accounting topics.

ACCT 290 INTERNSHIP CREDITS: 2-3
The internship offers students the opportunity to gain experience in an accounting environment and apply what they have learned in the first three semesters of the accounting program. PREREQUISITE: GPA OF 2.5 OR HIGHER

AE 101 DRAFTING FUNDAMENTALS CREDITS: 3
The student is introduced to the fundamentals of drafting for the architectural, civil, and mechanical fields. The course covers the principles of board drafting, use of equipment, orthographic drawings, shape description, isometric drawings, and basic design concepts. The course strives to develop good drafting habits, technical abilities, and communication and teamwork skills.

AE 111 ARCHITECTURAL DRAFTING I CREDITS: 3
This course is an introduction to architectural drafting and design. Students will build on their knowledge of residential construction and learn to apply that knowledge toward the development of residential construction documents which conform to code requirements, industry standards, and proper drafting techniques. PREREQUISITES: AE 135 and AE 139.

AE 135 ARCHITECTURAL CONSTRUCTION THEORY I CREDITS: 3
This course is an introduction to the concepts of architectural construction theory. The student is introduced to the fundamentals of construction practices and materials used in building foundations, floors, walls, roofs, and associated components. PRE or COREQUISITE: AE 139

AE 139 2D CAD CREDITS: 3
This course introduces the concept of 2D CAD using the latest release of AutoCAD and covers skills ranging from basic to advanced. Basic Draw and Modify commands will be studied, as well as advanced concepts such as Layers, Blocks, Annotations, X-Referencing, and Document Creation. Students will also learn proper computer care, file manipulation, and storage.

AE 141 ARCHITECTURAL 3D CAD CREDITS: 3
This course introduces the industry standard 3D CAD application in the architectural field. The course covers the basics of parametric 3D modeling with BIM (Building Information Modeling) software.

AE 142 MECHANICAL 3D CAD CREDITS: 3
This course introduces industry standard 3D CAD applications for the mechanical field. The course covers the basics of parametric 3D modeling including the concepts of parts, assemblies, and drawings.

AE 150 ARCHITECTURAL PRINT READING CREDITS: 1
This course addresses the need to accurately read and interpret technical drawings. Students will become familiar with the various symbols, abbreviations and terms associated with a standard set of construction documents and learn to navigate these drawings to accurately determine design intent.

AE 202 MECHANICAL DRAFTING CREDITS: 3
This course covers mechanical drafting practices used to create engineering drawings with a focus on drawing accuracy, drafting conventions, dimensioning, and readability. PREREQUISITES: AE 232 and AE 234.

AE 203 PRINCIPLES OF COMMERCIAL THEORY I CREDITS: 3
This course is an introduction to the concepts of commercial construction theory. Emphasis is placed on methods, materials, and terms that are used in the commercial construction industry including advanced concepts of foundation, wall, floor, and roof construction. PREREQUISITE: AE 139

AE 214 INTRODUCTION TO CIVIL DRAFTING CREDITS: 3
This course introduces students to practical concepts and drafting principles associated with civil engineering and design. Students learn to interpret maps and symbols, calculate surveying data, and develop drawings for common civil drafting functions. PREREQUISITE: AE 139.

AE 232 MECHANICAL PRINCIPLES CREDITS: 3
This course equips the student with basic principles of mechanical operations, component interaction, and assembly procedure. PREREQUISITE: AE 139 and PRE or COREQUISITE AE 142.

AE 234 MECHANICAL PRINT READING CREDITS: 2
Students will learn to read a variety of prints from different industries and to extract important construction and design information from each drawing.

AE 237 ARCHITECTURAL DRAFTING II CREDITS: 3
This course continues exploration into the concepts of architectural drafting and design. Students will become more proficient in designing and completing architectural drawings with increased independence from the instructor. Advanced techniques are introduced which make use of the student's growing skill with CAD software. PREREQUISITE: AE 111 and AE 141.

AE 240 3D ARCHITECTURAL DESIGN CREDITS: 3
This course continues the application of architectural design concepts and adapts them to the use of 3D Building Information Modeling (BIM). Students will apply their acquired skills and knowledge toward the development of functional designs and construction documents using the latest version of the appropriate 3D applications. PREREQUISITES: AE 141 and AE 237.

AE 244 3D ENGINEERING DESIGN CREDITS: 3
This course covers advanced features of parametric solid modeling including the concepts of parts, assemblies, drawings, sheet metal design, and animation. PREREQUISITE: AE 142.

AE 247 COMPUTER AUTOMATED MANUFACTURING CREDITS: 3
This course covers a working knowledge and application of computer automated manufacturing. PREREQUISITE: AE 142.

AE 249 INTRODUCTION TO MEP DESIGN CREDITS: 3
This course is designed to introduce the student to the concepts, techniques, and safety practices of mechanical, electrical, and plumbing (MEP) systems as they apply to the drafting environment. Course emphasis includes reading and drawing prints to show MEP requirements, safe practices, introduction to the National Electrical Code (NEC), MEP symbols, and basic concepts. PREREQUISITE: AE 139 and AE 141.

AE 250 INTRODUCTION TO MAPPING/GPS CREDITS: 2
This course covers principles of reading and using maps with industry standard technologies including Global Positioning Systems (GPS). Proper techniques of gathering usable mapping coordinates for Geographical Information Systems (GIS) will be emphasized.

AE 251 INTRODUCTION TO GIS CREDITS: 3
This course introduces principles and applications of Geographic Information Systems (GIS) using ArcGIS software. Students will develop skills in manipulating geographic data and representing this data through various informational mapping techniques. PREREQUISITE: AE 250.

AE 252 INTRODUCTION TO SURVEYING CREDITS: 3
This course exposes students to basic field surveying techniques and related office procedures. PREREQUISITES: MATH 114 or MATH 120 and PRE or COREQUISITE AE 250.

AE 297 INTERNSHIP CREDITS: 3
Work in a professional office for a minimum of 120 hours to gain computer aided drafting experience. The internship will be directly related to the drafting field and approved by the instructor. PREREQUISITE: AE 139.

AG 110 FUNDAMENTALS IN SOIL SCIENCE CREDITS: 2
This course is a study of soil science and includes topics of soil genesis, classification, and morphology, fundamentals in soil fertility and nutrient management, soil biology and ecology, management of soil physical properties, and land-use management.

AG 115 INTRODUCTION TO AGRONOMY & PLANT SCIENCE CREDITS: 3
Principles and practices in the development, production, and management of field crops, including plant breeding, plant diseases, insect control, and weed control.

AG 130 INTRODUCTION TO ANIMAL SCIENCE CREDITS: 3
Scientific animal agriculture. Importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of livestock.

AG 132 FARM AND RANCH MANAGEMENT CREDITS: 3
Basic concepts for successfully managing a farm and ranch, including management records, their analysis and use in making decisions and farm management concepts dealing with credit, land, machinery, capital, crops and livestock enterprises and labor. Instruction in contracts, leases, laws and regulations, estate planning, and applications of personnel and management principles.

AG 140 RANGE AND PASTURE MANAGEMENT CREDITS: 3
Principles and practices in the development, production, and management of forage crops and range plants, including grazing intensity and rotations, hay production, plant succession, insect control, ecological services, and weed control.

AG 220 BEEF CATTLE PRODUCTION CREDITS: 3
An overview of the beef cattle industry. Topics include the organization and operation of beef cattle enterprises, selection breeding, reproduction, health, nutrition, management, and marketing.

AG 222 CATTLE REPRODUCTION CREDITS: 3
This is a training course in the reproductive management and artificial insemination of cattle. Students will become familiar with and learn the anatomy of the cow reproductive tract. This course is designed to acquaint students with the techniques of artificial insemination and pregnancy diagnosis in the cow, and to familiarize students with the collection, evaluation, processing, and handling of semen. The class will also participate in a mock embryo transfer in order to acquaint students with estrus synchronization, drug protocols, and the mechanics of uterine flushing.

AG 234 PRINCIPLES OF FEEDS AND FEEDING CREDITS: 3
Study of the role and application of feed nutrients and additives. Topics include comparative aspects of digestion, absorption, and metabolism of nutrients. Emphasis on identification of nutrient requirements and formulation of dietary feeding regiment.

AG 250 AGRICULTURAL LAW AND CONTRACTS CREDITS: 2
Overview of how agricultural policy decisions affect agricultural producers and the general public. This course will serve as an introduction into the nature and extent that law can be utilized and how it affects farm and ranch operations, business transactions, liabilities, and the rural community. Additionally, contracted prices and producer insurance concepts will be covered.

AG 255 AGRICULTURAL ECONOMICS CREDITS: 3
An overview of production economics, principles of supply and demand, resource economics, world food situation, and marketing of agricultural products. Main points of discussion will include supply, demand, equilibrium, welfare, and market failures.

AG 299 INTERNSHIP CREDITS: 4
This course is designed to provide the student an opportunity to apply the skills and knowledge acquired in the classroom through active participation in their field of study.

AT 100 INTRODUCTION TO AUTOMOTIVE TECHNOLOGY CREDITS: .5
Students will learn competencies related to automotive shop safety, vehicle lift operation, basic electrical theory, electrical meter usage, and repair order writing. Students will perform laboratory tasks related to automotive shop safety, vehicle lift operation, electrical meter usage, and repair order writing.

AT 111 HEATING, VENTILATION, AND AIR CONDITIONING CREDITS: 3
Theory and operation of automotive heating, ventilation, and air conditioning systems, and environmental responsibilities will be taught during this course. Students will perform laboratory tasks related to diagnosis and repair of heating, ventilation, and air conditioning systems. Instruction will include how to use critical thinking and strategy-based diagnosis to repair these systems found on automobiles.

AT 132 HYBRID AND ELECTRIC VEHICLE SYSTEMS CREDITS: 2
Theory of operation of hybrid, plug-in hybrid, electric vehicles will be taught during this course. Students will learn service precautions associated with high voltage systems. Students will conduct service and maintenance of automotive high voltage components in lab.

AT 135 AUTOMOTIVE DRIVETRAINS CREDITS: 9
Theory of operation of automotive differentials, power transfer units, drivelines, standard transmissions, and automatic transmissions will be taught during this course. Students will perform laboratory tasks related to diagnosis and repair of differentials, power transfer units, drivelines, standard transmissions, and automatic transmissions. Instruction will include how to use critical thinking and strategy-based diagnosis to repair these systems found on automobiles.

AT 140 BRAKES/STEERING AND SUSPENSION CREDITS: 8
Theory of operation of automotive brake systems, steering systems, suspension systems, and vehicle wheel alignment will be taught during this course. Students will also perform laboratory tasks related to diagnosis and repair of automotive brake systems, steering systems, suspension systems, and vehicle wheel alignment. Instruction will include how to use critical thinking and strategy-based diagnosis to repair these systems found on automobiles.

AT 205 ELECTRICITY AND ELECTRONIC SYSTEMS CREDITS: 9
Theory of operation of batteries, starting systems, charging systems, lighting systems, computer networking, safety restraint systems, and convenience group options. Students will perform laboratory tasks related to batteries, starting systems, charging systems,

lighting systems, computer networking, safety restraint systems, and convenience group options. Instruction will include how to use critical thinking and strategy-based diagnosis to repair these systems found on automobiles.

AT 225 ENGINE PERFORMANCE CREDITS: 9
Theory of operation of automotive powertrain control systems, fuel delivery, exhaust systems, and emission control systems related to engine performance are taught during this course. Students will perform laboratory tasks related to diagnosis and repair of powertrain control systems, fuel delivery, exhaust systems, and emissions control systems. Instruction will include how to use critical thinking and strategy-based diagnosis to repair these systems found on automobiles.

AT 240 ENGINE OVERHAUL CREDITS: 4
Theory and operation of automotive internal combustion engines and failure analysis will be taught during this course. Students will perform laboratory tasks related to disassembly, measuring, and reassembly of internal combustion engines. Instruction will include how to use critical thinking and strategy-based diagnosis to repair these systems found on automobiles.

AT 245 ENGINE CONSTRUCTION AND OPERATION CREDITS: 3
Theory and operation of automotive engines, fundamentals of engine construction, engine mechanical failure analysis, thermal management and lubrication systems will be taught during this course. Students will perform laboratory tasks related to diagnosis and repair of engine mechanical failures, thermal management, and lubrication systems. Instruction will include how to use critical thinking and strategy-based diagnosis to repair these systems found on automobiles.

AT 250 SHOP AND PARTS MANAGEMENT CREDITS: 1
This course will provide the student with knowledge about vehicle identification and a wide range of vehicle parts for all makes and models. They will practice skills required to become proficient at customer relations, sales, merchandising, cataloging, and inventory management.

AT 299 AUTOMOTIVE TECHNOLOGY INTERNSHIP CREDITS: 3
This course is designed to provide the student an opportunity to apply the skills and knowledge acquired in the classroom through active participation in their field of study.

BIOL 101 BIOLOGY SURVEY I CREDITS: 3
Study of the nature, diversity, and classification of life, ecology, cells, and cell cycle. Mendelian and modern generics evolution and evolution theory. Intended for those not majoring in biology.

BIOL 101L BIOLOGY SURVEY I LAB CREDITS: 1
Laboratory experience that accompanies BIOL 101.

BUS 120 PRINCIPLES OF MARKETING CREDITS: 3
This course introduces the student to the basic concepts and practices of modern marketing philosophies. Topics include marketing and how it relates to business, consumer behavior, marketing research, strategy and planning, product and pricing decisions, distributions, and promotion decisions, for both consumer and industrial goods and services.

BUS 140 BUSINESS LAW CREDITS: 3
This course involves a thorough study of the law of contracts, sales, product liability, agency, corporations, employment, and other selected topics. Upon completion of this course, students will be better prepared to make sound business decisions while considering legal ramifications.

BUS 141 WRITTEN COMMUNICATIONS FOR BUSINESS CREDITS: 3
This writing course is designed to assist students with the development and refinement of their written communication skills as it relates to business. It stresses the factors underlying the composition of managerial communications, reader analysis, and content quality for letters and memoranda, and informational and analytical reports. PREREQUISITE: ACHIEVED REQUIRED SCORE ON A NATIONAL or A WESTERN DAKOTA TECHNICAL COLLEGE QUALIFYING PLACEMENT TEST or A PASSING GRADE IN ENGL 091.

BUS 158 WEB DESIGN FOR BUSINESS CREDITS: 3
This project-based course gives students the fundamental skills required to design responsive web sites based on current standards. Throughout the course students are introduced to planning and designing effective web pages; implementing web pages by writing HTML and CSS code; enhancing web pages with the use of page layout techniques, text formatting, graphics, images, and multimedia; and producing a functional, multi-page website.

BUS 162 PROJECT MANAGEMENT CREDITS: 3
This course develops a foundation of concepts and solutions that supports the planning, scheduling, controlling, resource allocation, and performance measurement activities required for successful completion of a project.

BUS 166 DIGITAL IMAGE DESIGN FOR BUSINESS CREDITS: 3
This course is an all-inclusive look into the tools and techniques used in image editing and manipulation. Students will learn how to create and manipulate graphics in order to create works of arts to be used in digital business communication.

BUS 205 SOCIAL MEDIA MARKETING CREDITS: 3
This course studies the ever-changing world of social media marketing, researches the history and the impact social media has on business and marketing. Students will identify and utilize various social media marketing tools and learn how to effectively integrate them into the marketing mix.

BUS 210 SUPERVISORY MANAGEMENT CREDITS: 3
This course studies management functions of planning, organizing, staffing, leading and controlling. Students will learn about supervision and working with people to inspire, empower and develop them to become more effective in their working roles.

BUS 215 SEARCH ENGINE MARKETING CREDITS: 3
Explore and apply search engine marketing fundamentals such as search engine optimization, pay-per-click, link development, and other tactics that can improve the search engine performance of any website. Create webpages that are search engine friendly and meet the needs of customers. Learn how to evaluate search engine marketing efforts and make tactical adjustments to improve results.

BUS 218 DESIGN ESSENTIALS CREDITS: 3
Students will learn the art of desktop publishing including text style and graphic integration to create practical business documents such as posters, flyers, booklets, and brochures. The course also focuses on design principles such as consistency, proportion, balance, typography, and color theory.

BUS 224 PERSONAL FINANCE CREDITS: 3
This course is a survey of individual investment and finance choices and opportunities. Topics include budgeting, cash-flow, use of credit, auto, life, and health insurance, home mortgages, and will and estate planning. Students will focus on the knowledge to provide themselves with a secure financial future.

BUS 227 WRITING FOR SOCIAL MEDIA MARKETING CREDITS: 3
Effective social media marketing efforts require a unique copywriting approach. Discover why social media writing needs to be different and how effective writing changes how customers interact with businesses. Learn about appropriate writing tone and how to achieve a writing style that increases engagement and return traffic. Use case studies, examples, and hands-on writing projects to understand and apply effective social media writing techniques.

BUS 228 PERSONAL INVESTMENTS CREDITS: 3
This course is an intermediate course designed to give students a better understanding of the basic theories, instruments, environments, and practical techniques associated with personal and business investment decisions such as stocks, bonds, mutual funds, real estate, asset allocation and risk and return. Upon completion of this course, students will be better prepared to make sound investment decisions.

BUS 233 SMALL BUSINESS ENTREPRENEURSHIP CREDITS: 3
This course is an introduction to the concepts, terminology, and process of new venture creation, operations and growth, as well as the introduction of entrepreneurial management practices into existing businesses. This course will assist in the identification of entrepreneurial opportunities and strategies. Feasibility, legal, management and ethical responsibilities are emphasized. Students will complete a capstone project of a comprehensive business plan and oral presentation.

BUS 241 ADVANCED COMPUTER APPLICATIONS FOR BUSINESS CREDITS: 3
The primary focus of the class will be on expert proficiencies in word processing and spreadsheet software. The class is designed to meet all the required skills needed to take the Microsoft Office User Specialist Expert exams in word processing and spreadsheet software. The curriculum will also cover additional Windows-based programs and computer operations. PREREQUISITE: CSC 105.

BUS 250 SOCIAL MEDIA MARKETING CAMPAIGN CREDITS: 3
In this capstone course, create and implement a social media marketing campaign for an actual business or organization. Use business, marketing, and social media principles and tactics to select a client, assess the client's needs, evaluate the market, and construct a sound social media campaign. During the campaign, use available metrics and data to evaluate the effectiveness of the campaign.

BUS 291 INTERNSHIP CREDITS: 3
This course is designed to provide the student an opportunity to apply the skills and knowledge acquired in the classroom through active participation in a local business. This is a volunteer or paid supervised internship. PREREQUISITE: GPA OF 2.5 OR HIGHER

CEA 150 AQUAPONICS / INDOOR GROWING CREDITS: 3
This course covers the study of the aquaponics cycle and how it can be adapted to different growing conditions. It includes the application of indoor, controlled climate systems to achieve optimal production results. Emphasis is given to the 3 living organisms that make up an aquaponics system: plants, aquatic organisms, and bacteria. Students will utilize existing aquaponics systems to grow crops and fish throughout the course.

CEA 205 HORTICULTURE CREDITS: 3
This course introduces basic plant science and garden cultivation and management. Topics of plant taxonomy, environmental conditions for growth, soil management, and landscape and garden design will be addressed.

CEA 250 AQUACULTURE CREDITS: 3
This course introduces principles underlying aquatic productivity and management. The concepts covered include species selection, genetics, nutrition and health, reproduction, and creating optimal production environments. Students will utilize aquaculture systems to grow crops and fish throughout the course.

CEA 255 CEA DESIGN CREDITS: 3
This course introduces environmental and engineering concepts that factor into efficient aquaponics system design. Throughout this course students will be researching and developing a system of their own design. PREREQUISITE: CEA 205

CEA 280 TOPICS IN CONTROLLED ENVIRONMENT AGRICULTURE CREDITS: 1
Topics address current events, skills, knowledge, and/or attitudes and behaviors pertinent to the Controlled Environment Agriculture industry and relevant to the professional development of the student.

CHEM 106 CHEMISTRY SURVEY CREDITS: 3
A one-semester survey of chemistry. Not intended for those needing an extensive chemistry background. Introduction to the properties of matter, atomic structure, bonding, stoichiometry, kinetics, equilibrium, states of matter, solutions, and acid-base concepts. PREREQUISITE: ACHIEVED REQUIRED SCORE ON A NATIONAL OR A WESTERN DAKOTA TECHNICAL COLLEGE QUALIFYING MATH PLACEMENT TEST or A PASSING GRADE IN MATH101 or HIGHER.

CHEM 106L CHEMISTRY SURVEY LAB CREDITS: 1
Laboratory designed to accompany CHEM 106.

CIS 123 INFORMATION TECHNOLOGY HARDWARE/SOFTWARE CREDITS: 3
Information Technology Hardware/Software lays a foundation of the basic information required to assemble a computer and troubleshoot problems that occur. Students will learn how to properly install, configure, upgrade, troubleshoot, and repair PC hardware and software. The course will help prepare the student to become a computer service technician and pursue a future career in IT technology or simply be equipped with the knowledge of how a computer works. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 129 WINDOWS OPERATING SYSTEMS CREDITS: 3
This course covers the Windows operating system. Subject areas include installation, configuration, administration, and network setup. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 131 NETWORKING TECHNOLOGIES I CREDITS: 3
The course focuses on network terminology and protocols, Open System Interconnection (OSI) models, cabling, cabling tools, routers, Ethernet, Internet Protocol (IP) addressing, and network standards and design. Basic small office/home networks will be addressed, including wireless and security configurations. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 132 NETWORKING TECHNOLOGIES II CREDITS: 3
Students will develop skills on initial router configuration, software management, routing protocol configuration, TCP/IP, and security and disaster recovery. PREREQUISITE: CIS 131. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 133 NETWORKING TECHNOLOGIES III CREDITS: 3
In this course the student will assemble switching devices while using switching technology on the LAN side of a network. Students will also produce a wireless network using wireless technology points. PREREQUISITE: CIS 132. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 134 NETWORKING TECHNOLOGIES IV CREDITS: 3
In this course the student will evaluate current WAN technologies and network services that are required by enterprise networks. PREREQUISITE: CIS 133. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 136 CLOUD FUNDAMENTALS CREDITS: 3
Cloud Fundamentals will equip students with essential knowledge and skills to excel in cloud computing, preparing them for the fast-evolving landscape of IT and cloud-related roles in the industry. This course focuses on key aspects of cloud technology, including Cloud Architecture and Design, Cloud Security, Cloud Deployment, Operations and Support, and Troubleshooting. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 201 LINUX TECHNOLOGIES CREDITS: 3
In this course, students will explore the Linux file system and learn how to utilize a Linux operating system both as a standalone client and server, or as a domain server within an MS Windows-based network. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 213 NETWORKING USING WINDOWS SERVER CREDITS: 3
This course features Windows Server as the local area network operating system and provides hands-on tutorials for the student to plan and implement Windows Server. The study includes an introduction to configuring protocols such as TCP/IP and continues with how to configure name resolution and vital services such as DNS, WINS, DHCP, and IPSec. The course also emphasizes Active Directory configuration. PREREQUISITE: CIS 129. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 215 NETWORK DESIGN AND VIRTUALIZATION CREDITS: 3
Students will design a virtualized computer network to be integrated into a networked environment. PREREQUISITES: CIS 132, CIS 201, and CIS 213. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 216 INTRODUCTION TO PROGRAMMING CREDITS: 3
This course is intended to give students with no previous programming experience the tools needed to create real-world procedural applications. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 219 ADVANCED SERVER TECHNOLOGIES CREDITS: 3
This course features Windows and Linux servers as the local area network operating system. Students will complete hand-on tutorials to plan and implement Windows and Linux servers. The course includes an introduction to configuring protocols such as TCP/IP. The course also includes how to configure DNS, vital services such as PowerShell, email collaborations, remote install, WSUS, WDS, and many other advanced tools. PREREQUISITE: CIS 213. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE

FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 220 NETWORK SECURITY I CREDITS: 3

In this course, the student will analyze the cyber security risks of a network using ethical hacking methods and be able to design options to mitigate those vulnerabilities. PREREQUISITES: CIS 201 and CIS 213 or APPROVAL OF INSTRUCTOR. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 225 DATABASES CREDITS: 3

This course introduces students to database creation, manipulation, and the Structured Query Language (SQL). GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 230 COMPUTER FORENSICS CREDITS: 3

Students will inspect digital evidence, analyze the data, and validate the analysis related to cyber security, incident response, and network breaches. PREREQUISITES: CIS 133, CIS 201, and CIS 213. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 235 NETWORK SECURITY II CREDITS: 3

Students will build on cyber security and ethical hacking methods by covering the Cyber Kill Chain, incident handling, incident response, Red and Blue Team procedures and latest vulnerabilities affecting industry. PREREQUISITE: CIS 220. GRADE REQUIREMENT: A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

CIS 299 INTERNSHIP CREDITS: 3

This course is designed to provide the student an opportunity to apply the skills and knowledge acquired in the classroom through active participation in their field of study. PREREQUISITE: SUCCESSFUL COMPLETION OF ALL FIRST AND SECOND SEMESTER CIS TECHNICAL COURSES. GRADE REQUIREMENT: A MINIMUM GRADE OF C OR EQUIVALENT INDUSTRY CERTIFICATION MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE COMPUTER SCIENCE PROGRAM.

CJUS 119 CRIMINAL LAW AND PROCEDURES CREDITS: 3

Students will be taught the differences between the criminal and civil law process. They will understand how to interpret criminal statutes and apply those statutes to violations in a law enforcement application. The study of federal, state, and local governments and their respective courts will be covered. The criminal code and pretrial and post-trial procedures, from a constitutional basis as well as that found in South Dakota Codified Law Titles 22, 23, and 23A, will be covered. Students will become familiar with proper trial preparation, conduct, and demeanor as it relates to the law enforcement officer.

CJUS 123 CRIMINAL INVESTIGATIONS CREDITS: 3

Students will be taught the fundamentals of the crime scene and post-crime investigation as it relates to property crimes, crimes against persons, and white-collar crime. Specific instruction as it relates to South Dakota Codified Law will be covered as it relates to these crimes. Crimes committed in relation to cults, hate groups, explosives, and drugs and the culture that promotes them will be covered.

CJUS 124 JUVENILE METHODS CREDITS: 3

The course is designed to introduce students to the basics of the juvenile justice system. The course will begin with a history of juvenile crime and the social significance of trends being observed by professionals. Although a focus will be placed upon the role of law enforcement in dealing with juvenile issues from a preventative and enforcement aspect, several areas of the system will also be examined. Among these are terminologies pertaining to this area of the criminal justice system and the causes of delinquency, gangs, and child abuse. The workings of the schools, social services, detention facilities, prosecutors, diversion programs, the court, and correctional institutions (as they relate to the juvenile justice system) will be touched upon as well. All of the information will be presented in a manner such that the students will not only be able to become familiar with theory but also see how it applies to everyday law enforcement workings.

CJUS 200 COMMUNITY CORRECTIONS CREDITS: 3
This course will focus on alternative methodologies of corrections as opposed to traditional correctional institutions such as prisons and jails. The student will learn the philosophies and structures of alternative correctional programs in the criminal justice system and how they impact victims, offenders, and society.

CJUS 201 INTRODUCTION TO CRIMINAL JUSTICE CREDITS: 3
The Introduction to Criminal Justice course is a general study of the components that make up the Criminal Justice Industry. The Courts, Corrections, and Law Enforcement will be focus of the course as well as individual roles criminal justice professionals serve in each component. This course explores methodologies used to address crime and criminals from the national to the local level using historic and contemporary perspectives.

CJUS 205 CRIMINAL JUSTICE FORENSICS CREDITS: 3
This course explores how specific technologies are used by professionals in the criminal justice system to apprehend offenders, secure convictions on the guilty, exonerate the innocent, and make the criminal justice system more efficient. Views from the past and into the future will give student perspective on the ever-changing forensics in the criminal justice system and the demands for modernization and the cost impact to society.

CJUS 210 CONTEMPORARY SECURITY PRACTICES CREDITS: 3
This course explores the practices of security professionals. Students will explore topics and tactics of security organizations and the personnel they employ. Specific tasks covered in this course include patrol, investigations, risk assessment, and emergency management. Also explored will be the technology and equipment used in the field to safeguard resources.

CJUS 215 ETHICS IN CRIMINAL JUSTICE CREDITS: 3
The focus of this course is on the ethical decisions made in the criminal justice system and ethical predicaments placed on criminal justice professionals. Ethical theory from ancient Greece to contemporary western culture will be explored and applied in confronting ethical issues. Critical analysis regarding justice, duty, freedom, punishment, happiness, and other topics will give students an understanding of ethical issues, considerations, and approaches in the field.

CJUS 225 DOMESTIC VIOLENCE CREDITS: 3
This course explores domestic and family violence. Students will examine relative perspectives such as feminist, psychological, sociological, historical, and legal. Specific course topics include patriarchy, marital rape, domestic assault, and child sexual abuse. Theories of violence, alternatives to violent interactions and the criminal justice system's response will give students an understanding of the impact of domestic violence crimes on society.

CJUS 229 CORRECTIONS CREDITS: 3
Students will understand the U.S. system of corrections, parole, and probation. Students will also learn how these three parts of the criminal justice system interface with each other and with the law enforcement officer on the street. Students will be exposed to the duties and responsibilities of the personnel involved in each of these areas.

CJUS 230 AGENCY ORGANIZATION AND MANAGEMENT CREDITS: 3
This course explores administrative practices of a multitude of law enforcement agencies. It will study types of agencies and command and control structure. Organizational theory and management will also be covered to include personnel management, policy and procedure, and operational methodologies.

CJUS 235 CRIMINOLOGY CREDITS: 3
The focus of this course is on factors related to crime in America, including basic issues, scope, and economic impact. Students will examine the causes of criminal behavior, policy implications, and research. Explanations and measurements of crime, criminal law, characteristics of criminals and victims, white-collar, organized, and sexual crimes will also be studied.

CJUS 240 COURT SYSTEMS AND PRACTICES CREDITS: 3
The focus of this course is the judicial system which makes up one third of the entire criminal justice system. Court Systems and Practices is an overview of the American judicial system. The course identifies the roles of judicial officers and other professionals responsible for judicial operations.

CJUS 245 LAW ENFORCEMENT OPERATIONS AND PROCEDURES CREDITS: 3
This course introduces daily law enforcement activities and procedures. It examines law enforcement response to routine and emergency calls for service and various types of situations common to law enforcement officers. The course explores use of force, arrest procedures, field interviews, police reporting, and ethics. The class will identify gang activity, signs and indicators of drug abuse, and handling of civil disobedience. There will be an emphasis on courtroom testimony, occupational hazards, and communications.

CJUS 250 CONSTITUTIONAL LAW CREDITS: 3
This course examines the structure of the Constitution of the United States of America. Historical and contemporary case law will be studied as well as function of the United States Supreme Court. Students will understand how case law is established and the impact to society and the criminal justice industry.

CJUS 299 INTERNSHIP CREDITS: 3
This course is designed to provide the student an opportunity to apply the skills and knowledge acquired in the classroom through active participation in their field of study. PREREQUISITE: INSTRUCTOR APPROVAL.

CMST 101 FOUNDATIONS OF COMMUNICATION CREDITS: 3
Introduces the study of speech fundamentals and critical thinking through frequent public speaking practice, including setting, purpose, audience, and subject.

CSC 105 MICROCOMPUTER SOFTWARE APPLICATIONS I CREDITS: 3
This course is an introductory course in software applications, which includes basic technical concepts, as well as hands-on experience. The utility of the computer is demonstrated by introducing Windows, word processing, spreadsheet, database, and presentation software to the student.

CT 117 CARPENTRY & SAFETY CREDITS: 6
This course explains the different types of building materials, fasteners, adhesives, and tools used by carpenters in the construction industry. It will also cover reading plans and elevations to understand construction designs, building floor systems for residential and commercial properties, constructing wall and ceiling framing systems, and understanding the methodologies of roof framing. This course provides an introduction to finish carpentry and exteriors such as roofing, siding, and window installation. Additionally, students will be able to clearly identify, define and explain construction industry hazards and acceptable corrective measures in accordance with the 29th Code of Federal Regulations, Part 1926 (29 CFR 1926), Occupational Safety and Health Administration (OSHA) Construction Industry Regulations. The OSHA 10 certification will be a requirement for this course.

CT 120 CONCRETE & MASONRY WORK CREDITS: 3
This course covers basic characteristics of concrete structures, types of concrete, how to prepare and place concrete, concrete mix design, formwork systems, and finishes in concrete. Precast concrete and cast-in-situ concrete will also be discussed. The course also the history of masonry, tools and equipment, and measurements and drawings used by masons. It will also introduce basic masonry units such as clay bricks, concrete blocks and stone. Masonry tasks such as spreading of mortar, furrowing, buttering, and brick laying technique are discussed.

CT 125 STEEL FRAME CONSTRUCTION CREDITS: 3
This course covers steel building construction in detail. Topics include light and heavy steel construction, residential steel construction, fire protection of steel structures, welding, bolting, and riveting steel, corrosion protection of steel, and finishes of steel structures.

CT 130 COMMERCIAL MODULAR CONSTRUCTION CREDITS: 3
This course will discuss modular building processes compared to traditional site-built construction, terminology, and concepts of modular building including client needs, design, fabrication, transportation, and installation.

CT 199 CONSTRUCTION INTERNSHIP I CREDITS: 6
This course consists of supervised work experience in an approved training situation. It is designed to provide practical experience in the construction industry. PREREQUISITES: CT 117 and CT 120

DEN 105 DENTAL SCIENCES AND ORAL HEALTH CREDITS: 3
This course will include the survey of human anatomy and physiology, the structure of the head and neck as applied to dental assisting, the function of the maxilla and mandible, processes, foramen, sutures, and major nerve and blood supply. It also provides fundamental instruction of the oral structures as they apply to oral histology, embryology, morphology, and dental anatomy. The study of oral health and prevention of dental caries, periodontal disease, and other pathologic conditions through patient education in plaque removal, good oral habits, fluoride therapy and nutritional counseling as it relates to oral health will be introduced. COREQUISITE: DEN 108, DEN 113, DEN 122.

DEN 108 CHAIRSIDE DENTAL ASSISTING LAB I CREDITS: 5
This course provides practical application and hands-on learning in basic dental assisting skills, including team and patient positioning, operatory light adjustment, instrument identification and transfer, preparation of dental anesthetic, HVE and air/water use with an emphasis on four handed restorative dentistry, Pediatric and Orthodontic specialties. Assembly of instrumentation for restorative and specialties procedures, placement of rubber dams, handpiece identification, preparation, and bur and tooth identification.

COREQUISITE: DEN 105, DEN 113, DEN 122.

DEN 112 DENTAL PRACTICE MANAGEMENT CREDITS: 2
Introduces management of the dental office, including business office procedures and techniques, written and electronic communications, computer use, dental insurance, inventory control, accounts receivable, recall systems, and staff and patient management. To include the ability to discuss HIPAA, the legal and ethical standards expected of the dental professional. This course prepares students for successful employment by incorporating resume writing, completion of a job application, and interview techniques. PREREQUISITE: DEN 105, DEN 108, DEN 113, DEN 122. COREQUISITE: DEN 134, DEN 148.

DEN 113 PHARMACOLOGY AND MEDICAL EMERGENCIES CREDITS: 3
Emphasizes prevention and treatment of the most common medical emergencies in the dental office. Covers the preparation of the office and staff to deal with these emergencies, including gathering patient information, such as a health history and vital signs. Discusses the use of emergency equipment and supplies. Emphasizes use of dental anesthesia and pharmacology and their role in medical emergency situations. Prepares students to sit for the American Health Association Healthcare Provider CPR certification exam. COREQUISITE: DEN 105, DEN 108, DEN 122.

DEN 122 DENTAL MATERIALS CREDITS: 3
This course will introduce the student to various materials used in dentistry. These include gypsum, waxes, impression materials, cements (protective layers) and restorative materials. The student will learn identification, purposes and properties as well as the proper manipulation/preparation procedure for each. Laboratory equipment, safety measures and lab emergency protocol will be emphasized. This course will cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. Emphasis will be placed on the knowledge of microorganisms, aseptic techniques, sterilization, and hazardous communication management. COREQUISITE: DEN 105, DEN 108, DEN 113.

DEN 134 DENTAL RADIOLOGY CREDITS: 3
Students learn the history and background of radiology and radiation physics. They are instructed in the components of dental x-ray machine, types of radiation, visual characteristics of the radiographic beam, radiation effects and measurement. They learn the purposes of x-rays as a diagnostic tool, with their risks and benefits. Detailed description of the effect of radiation exposure to the human body and the protocols for patient and dental assistant safety are stressed. They will learn common production errors, processing techniques, mounting procedures, identification of radiographic landmarks, the procedures and state policies required for dental offices to ensure quality radiographs, radiation safety, and the use of imaging systems for dental purposes. Students are provided the opportunity to begin developing clinical skills by obtaining dental radiographs in a variety of clinical assignments. Students will expose and process diagnostically acceptable intraoral and extraoral dental films, using both the paralleling and bisecting techniques while applying knowledge of safety protocols and state policies to ensure the highest quality radiographs. PRE-REQUISITE: DEN 105, DEN 108, DEN 113, DEN 122. COREQUISITE: DEN 112, DEN 148.

DEN 148 CHAIRSIDE DENTAL ASSISTING LAB II CREDITS: 5
This course is designed to provide student instruction in the practical applications of advanced dental techniques within Endodontic, Prosthodontic, Oral, and Periodontal specialties. Emphasis is given to step-by-step procedures performed by the Dental Healthcare Professional (DHCP) and will be performed on typodonts in a laboratory setting, in a pre-clinical setting on patient. Advance functions include coronal polishing, pit and fissure sealants, fabrication of temporary crown and bridges, retraction cord, cementing of prosthesis, suture removal, and placement/removal of perio paks. This course will help the student obtain skills for their expanded functions dental certification. PREREQUISITE: DEN 105, DEN 108, DEN 113, DEN 122. COREQUISITE: DEN 112, DEN 134.

DEN 175 DENTAL CLINICAL PRACTICES CREDITS: 8
All clinical procedures are performed with supervision of participating dentists and dental assistants while periodically evaluated by the preceptor. PREREQUISITE: SUCCESSFUL COMPLETION OF ALL FIRST AND SECOND SEMESTER DEN TECHNICAL COURSES.

DT 100 INTRODUCTION TO DIESEL TECHNOLOGY CREDITS: 3
This course will introduce students to the Diesel Technology field. Students will learn competencies related to basic use and care of hand and precision tools, shop and machine safety, use of PPE (personal protective equipment), and the applications and classifications of MORE (mobile off-road equipment). Lifting, rigging, and hoisting procedures are also competencies that students will learn. Additionally, students will be presented with career opportunities and paths available in the Diesel Technology field.

DT 115 PREVENTATIVE MAINTENANCE CREDITS: 3
This course encompasses the characteristics and benefits of a well-planned maintenance program. This course will cover the tools and procedures needed to perform a proper preventive maintenance inspection (PMI) on diesel powered heavy/medium/light duty trucks and construction equipment.

DT 122 VEHICLE ELECTRICITY AND ELECTRONIC SYSTEMS CREDITS: 6
This course is designed to provide the students with knowledge of shop safety around electrical components while learning the electronical theory of the DC systems found in the on/off highway equipment used today. Students will learn how to read and interpret wiring schematics, disassemble and assemble connectors, understand starting and charging systems, and batteries.

DT 135 UNDER-TRUCK DIAGNOSIS CREDITS: 8
The hands-on construction, operation, and repair of heavy-duty vehicle brakes, steering, and suspension systems will be covered in this course. Vehicle alignment procedure will also be taught during this course.

DT 150 HYDRAULICS I CREDITS: 3
This course teaches fluids and how they are utilized to transmit energy and force. The maintenance and repair of pumps, actuators, valves, accumulators, cylinders, and motors are included. Students will learn how to maintain and service reservoirs, coolers, and filters. In addition to maintaining a hydraulic system, students will learn to read hydraulic schematics and troubleshoot hydraulic problems.

DT 155 DIESEL ENGINES I CREDITS: 5
This course teaches the diagnostic and repair skills necessary for diesel engine work on heavy/medium/light duty trucks and construction equipment. All of the following areas are covered: diesel engine design, overhaul, tune-up, fuel systems, troubleshooting, and repair.

DT 205 DIESEL TECHNOLOGY HVAC CREDITS: 3
Diesel Technology HVAC is a course designed to enable the student to understand the principles of mobile heating, ventilation, and air conditioning systems in heavy/medium/light duty trucks and construction equipment. The student will use modern equipment for testing and diagnosing related systems. Ensure students have the knowledge, skills, and ability to take and pass the United States Clean Air Act MACS Section 609 Refrigerant Recycling and Recovery Certification Program exam.

DT 230 SHOP MANAGEMENT CREDITS: 3
The course is designed to instruct the student with safety in the workplace, benchmarking, tracking efficiencies in the shop, inventory control, and in fleet management. The course will enable the student to possess the basic knowledge of management skills in a wide range of diesel shop environments from on highway trucks to an off-highway fleet.

DT 235 HEAVY DUTY POWERTRAINS CREDITS: 4
This course introduces the basic principles of transmissions, differentials, and drivetrains. Students will understand the operation of all drivetrain components and the procedure for disassembly, repair, and the reassembling of each component. Included are how to perform failure analysis and how to troubleshoot drivetrain problems. Additional areas included are automatic transmissions, agriculture transmissions, and power shift transmissions.

DT 250 HYDRAULICS II CREDITS: 3
This course teaches fluids and how they are utilized to transmit energy and force. The maintenance and repair of pumps, actuators, valves, accumulators, cylinders, and motors are included. Students will learn how to maintain and service reservoirs, coolers, and filters. In addition to maintaining a hydraulic system, students will learn to read hydraulic schematics and troubleshoot hydraulic problems. PREREQUISITES: DT 150 Hydraulics I

DT 255 DIESEL ENGINES II CREDITS: 8
This course is designed to provide the student with the necessary instructions to diagnose and repair diesel powered heavy/medium/light duty trucks and construction equipment drivability and performance problems. PREREQUISITES: DT 155 Diesel Engines I

ECON 202 PRINCIPLES OF MACROECONOMICS CREDITS: 3
The course is designed to provide students with a better understanding of macroeconomic issues that affect their daily lives. Economics is about making choices, i.e., how we use our limited "means" to satisfy our unlimited wants. Macroeconomics considers how the economy as a whole makes those decisions, both domestically and on the global scene.

EET 102 INTRODUCTION TO ENVIRONMENTAL SCIENCES CREDITS: 4
This course is a study of environmental interactions, including population and cultural problems, resource utilization, and impacts upon biotic systems. Material is presented to enable students to better understand and evaluate contemporary environmental problems and the application of science to their solutions.

EET 140 LABORATORY METHODS IN ENVIRONMENTAL SCIENCE CREDITS: 3
In this course, students will investigate the natural world through the process of the scientific method. Basic concepts related to laboratory science and field methods are emphasized through sampling and analyzing various earth materials for physical, chemical, and biological properties that are relevant to current environmental issues. Students will learn concepts in sample collection and storage methods, calibration of field and laboratory instruments, sources of error, and recording and analysis of data. Upon completion of this course, students will be proficient in planning, conducting, and reporting on environmental investigations.

EET 202 WATER QUALITY CREDITS: 3
Sampling techniques of surface water, quality assurance, quality control, and data processing techniques are included. Field exercises to acquire water quality data and to service data-gathering equipment will be conducted. Safety procedures are stressed. PREREQUISITES: CHEM 106, CHEM 106L, MATH 114, and EET 140.

EET 210 ENVIRONMENTAL REGULATIONS & HAZMAT AWARENESS CREDITS: 2
This course presents an overview of the regulations that are related to environmental protection, including OSHA regulations, Clean Air Act, SARA, RCRA, and similar regulations. This course also provides an awareness of why the regulations exist, how they are enforced, penalties for noncompliance, and practical experience in interpretation of the regulations. Students will also undergo EPA/OSHA requirements for awareness level certification related to hazardous materials recognition and operations at incidents involving the release of hazardous materials.

EET 215 HYDROLOGY & STREAM FIELD METHODS CREDITS: 4
This course will provide students a basic knowledge of the underlying principles of hydrology. This course exposes the student to a variety of analytical techniques and instruments utilized in stream analyses. PREREQUISITES: CHEM 106, CHEM 106L, EET 140, and MATH 114

EET 220 WATER TREATMENT AND DISTRIBUTION CREDITS: 3
This course will provide the student with information related to situations commonly encountered by water operators. Topics include water distribution and related facilities, water storage facilities, operation and maintenance, disinfection techniques, and safety. Upon completion, students will have a basic understanding of the operational and maintenance concepts for water distribution systems as well as an ability to analyze and solve problems. PREREQUISITES: EET 140, and MATH 114

EET 225 AIR QUALITY CREDITS: 2
This course will introduce the student to the concepts and terms essential to understanding the major issues surrounding air pollution. Basic atmospheric processes will be presented as they affect delivery and dispersion of pollutants. Sampling and analysis methods will be discussed. The health effects of various pollutants and air toxics will be presented in order to understand the purpose of air pollution regulations. The increasing concerns regarding indoor air quality will be presented along with approaches to investigation and control.

EET 235 CONSTRUCTION MATERIALS SAMPLING & TESTING CREDITS: 3
This course will cover the materials, proportioning, mixing, placing, finishing, curing, sampling, and laboratory/field testing techniques commonly used for Portland Cement Concrete. It will cover the testing and properties of asphalt cement and asphalt concrete. The course also will cover gradation, moisture control, and density of gravels. Students will evaluate the capacity of cement and concrete to withstand stress and strain. This course will prepare students for the certification exam from the American Concrete Institute.

EET 251 ENVIRONMENTAL GEOLOGY CREDITS: 3
This course introduces geology as it relates to human activities and is designed for both non-science majors and students interested in environmental careers. The course emphasizes geologic hazards including earthquakes, volcanic eruptions, flooding, mass movements, and pollution of water and soil resources. It also examines waste disposal along with related topics in medical geology and environmental law.

EET 260 WASTEWATER COLLECTION AND TREATMENT CREDITS: 3
This course provides an introduction to the causes of water pollution, the reasons for treating polluted waters, and the fundamentals of wastewater treatment. Students will study the basic principles of treatment plant operation and the processes commonly used in pollution control facilities. Investigation of terms, mathematics, and problem-solving techniques commonly used by wastewater treatment personnel will be included. PREREQUISITES: EET 140 and MATH 114

EET 299 FIELD INTERNSHIP CREDITS: 3
Environmental, controlled environment, or geotechnical work experience in business, industry, or government. PREREQUISITE: ADVISOR APPROVAL, INT 201.

EMS 101 EMERGENCY MEDICAL TECHNICIAN CREDITS: 6

This course consists of all aspects of emergency medical care at the Emergency Medical Technician level in accordance with the National Registry and the Department of Transportation guidelines. You must be at least 16 years of age to be eligible to certify as an EMT. If you are not yet 16 years old, you may enroll in the course with the understanding that your certificate will be held until the age requirement is met. A MINIMUM GRADE OF C MUST BE EARNED TO SUCCESSFULLY COMPLETE THIS COURSE, TO BE ELIGIBLE TO SIT FOR THE NREMT EMT CERTIFICATION EXAM, AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

EMS 120 EMERGENCY MEDICAL RESPONDER CREDITS: 3

This course consists of all aspects of emergency medical care at the Emergency Medical Responder level in accordance with the National Registry and the Department of Transportation guidelines. A MINIMUM GRADE OF C MUST BE EARNED TO SUCCESSFULLY COMPLETE THIS COURSE, TO BE ELIGIBLE TO SIT FOR THE NREMT EMT CERTIFICATION EXAM, AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

EMS 125 EMR TO EMT BRIDGE CREDITS: 3

This course consists of all aspects of emergency medical care at the Emergency Medical Technician level in accordance with the National Registry and the Department of Transportation guidelines. You must be at least 16 years of age to be eligible to certify as an EMT. If you are not yet 16 years old, you may enroll in the course with the understanding that your certificate will be held until the age requirement is met. A MINIMUM GRADE OF C MUST BE EARNED TO SUCCESSFULLY COMPLETE THIS COURSE, TO BE ELIGIBLE TO SIT FOR THE NREMT EMT CERTIFICATION EXAM, AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE. PREREQUISITES: Must have a current NREMT EMR Certification.

EMS 160 ADVANCED EMERGENCY MEDICAL TECHNICIAN CREDITS: 6

This course consists of all aspects of emergency medical care at the Advanced Emergency Medical Technician level in accordance with the National Registry and the Department of Transportation guidelines. PREREQUISITES: CURRENT CPR CARD, CURRENT EMT CERTIFICATION. GRADE REQUIREMENT: A MINIMUM GRADE OF C MUST BE EARNED IN THIS COURSE TO SUCCESFULLY COMPLETE THIS COURSE.

EMS 235 PARAMEDIC I CREDITS: 4

This course consists of well-being of the paramedic, research in EMS, general pathophysiology, IV administration, history taking, techniques of physical exam, patient assessment, pulmonology, gastroenterology, urology, infectious and communicable diseases, toxicology, gynecology, obstetrics, neonatology, neonatal resuscitation and Emergency Pediatric Care certification. PREREQUISITES: CURRENT CPR CARD, CURRENT EMT CERTIFICATION, HC 114, and HC 213. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PARAMEDIC PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE. CO-REQUISITES: EMS 240 and EMS 244.

EMS 240 PARAMEDIC II CREDITS: 4

This course consists of introduction to pre-hospital care, EMS systems, role and responsibilities of the paramedic, illness and injury prevention, ethics in pre-hospital care, general principles of pharmacology, life span development, endocrinology, allergies, and anaphylaxis, behavioral/psychiatric emergencies, and Principles of Ethics and Personal Leadership (PEPL) certification. PREREQUISITES: CURRENT CPR CARD, CURRENT EMT CERTIFICATION, HC 114, and HC 213. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PARAMEDIC PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE. CO-REQUISITES: EMS 235 and EMS 244.

EMS 244 PARAMEDIC III CREDITS: 4

This course consists of therapeutic communications, documentation, medical terminology, medication administration, airway management, ventilation, anatomy and physiology, geriatrics, patients with special challenges, acute interventions in chronic care, abuse, neurology, toxicology, hematology, cardiology, 12-lead EKG, Advanced Cardiac Life Support certification (ACLS), and Pediatric Advanced Life Support certification (PALS). PREREQUISITES: Current CPR Card, current EMT Certification, HC 114, and HC 213. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PARAMEDIC PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE. CO-REQUISITES: EMS 235 and EMS 240.

EMS 250 PARAMEDIC CLINICAL I CREDITS: 2

The student's clinical rotations will include intensive care unit, operating room, IV lab, pediatric unit, and labor/delivery/newborn nursery/NICU. PREREQUISITES: CURRENT CPR CARD, CURRENT EMT CERTIFICATION, CURRENT ACLS, EMS 235, EMS 240, AND EMS 244. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PARAMEDIC PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE. PROGRESSION: PROGRESSION TO EMS 250 LIVE CLINICAL SITES REQUIRES

THE STUDENT TO HAVE SUCCESSFULLY PASSED ACLS, AND DEMONSTRATE COMPETENCY AS INDICATED BY THE NATIONAL REGISTRY OF EMERGENCY MEDICAL TECHNICIANS' PARAMEDIC PRACTICAL SKILL SHEETS IN THE AREAS OF PRACTICE TO BE PERFORMED DURING THE CLINICAL ROTATION.

EMS 252 PARAMEDIC IV CREDITS: 4
This course consists of emergency vehicle operations, ambulance operations, trauma assessment, assault assessment, assessment-based management, Advanced Medical Life Support certification, Pre-Hospital Trauma Life Support certification (PHTLS), and SAFETY certification. PREREQUISITES: CURRENT CPR CARD, CURRENT EMT CERTIFICATION, EMS 235, EMS 240, AND EMS 244. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PARAMEDIC PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE. CO-REQUISITE: EMS 258.

EMS 255 PARAMEDIC CLINICAL II CREDITS: 4
The student's clinical rotation will be in the emergency room. PREREQUISITES: CURRENT CPR CARD, CURRENT EMT CERTIFICATION, CURRENT ACLS, EMS 235, EMS 240, AND EMS 244. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PARAMEDIC PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE. PROGRESSION: PROGRESSION TO EMS 255 LIVE CLINICAL SITES REQUIRES THE STUDENT TO HAVE SUCCESSFULLY PASSED PHTLS AND AMLS, AND DEMONSTRATE COMPETENCY AS INDICATED BY THE NATIONAL REGISTRY OF EMERGENCY MEDICAL TECHNICIANS' PARAMEDIC PRACTICAL SKILL SHEETS IN THE AREAS OF PRACTICE TO BE PERFORMED DURING THE CLINICAL ROTATION.

EMS 258 PARAMEDIC V CREDITS: 2
This course consists of environmental emergency management, clinical decision making, All Hazards Disaster Response certification, Geriatric Education for EMS certification (GEMS), and Tactical Emergency Casualty Care certification (TECC). PREREQUISITES: CURRENT CPR CARD, CURRENT EMT CERTIFICATION, CURRENT ACLS, EMS 235, EMS 240, and EMS 244. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PARAMEDIC PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE. CO-REQUISITE: EMS 252.

EMS 275 PARAMEDIC INTERNSHIP CREDITS: 10
The student's clinical rotations will include ambulance field training. PREREQUISITES: CURRENT CPR CARD, CURRENT EMT CERTIFICATION, CURRENT PALS, CURRENT ACLS, CURRENT PHTLS, CURRENT AMLS, EMS 252, EMS 258, EMS 250 AND EMS 255. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PARAMEDIC PROGRAM. PROGRESSION: PROGRESSION TO EMS 275 LIVE CLINICAL SITES REQUIRES THE STUDENT TO DEMONSTRATE COMPETENCY AS INDICATED BY THE NATIONAL REGISTRY OF EMERGENCY MEDICAL TECHNICIANS' PARAMEDIC PRACTICAL SKILL SHEETS IN THE AREAS OF PRACTICE TO BE PERFORMED DURING THE CLINICAL ROTATION.

EMS 280 NREMT PREP CREDITS: 2
This course serves as a comprehensive review for the NREMT Paramedic exam. Students will assess their knowledge in required content areas of Paramedicine including medical emergencies, trauma emergencies, cardiac emergencies, airway, and operations. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PARAMEDIC PROGRAM.

ENGL 091 BASIC WRITING CREDITS: 2
This course will provide the basic elements of grammar and the writing process. Students will learn to communicate effectively by clarifying messages, analyzing a reader's needs, and identifying different writing types.

ENGL 091C BASIC WRITING CREDITS: 2
This course will provide the basic elements of grammar and the writing process. Students will learn to communicate effectively by clarifying messages, analyzing a reader's needs, and identifying different writing types. This course is a co-requisite section designed to be taken simultaneously with either ENGL 101, ENGL 106, or BUS 141. PREREQUISITE: ACHIEVED REQUIRED SCORE ON A NATIONAL or A WESTERN DAKOTA TECHNICAL COLLEGE QUALIFYING PLACEMENT TEST.

ENGL 101 COMPOSITION I CREDITS: 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. PREREQUISITE: ACHIEVED REQUIRED SCORE ON A NATIONAL or A WESTERN DAKOTA TECHNICAL COLLEGE QUALIFYING PLACEMENT TEST or A PASSING GRADE IN ENGL 091 or ENGL 106.

ENGL 106 WORKPLACE COMMUNICATIONS I CREDITS: 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. PREREQUISITE: ACHIEVED REQUIRED SCORE ON A NATIONAL or A WESTERN DAKOTA TECHNICAL COLLEGE QUALIFYING PLACEMENT TEST or A PASSING GRADE IN ENGL 091.

ENGL 108 WORKPLACE COMMUNICATIONS II CREDITS: 3
Students will prepare and deliver professional oral and written communications required in the workplace. PREREQUISITE: ENGL 101 or ENGL 106.

ENGL 201 COMPOSITION II CREDITS: 3
This course builds on the skills taught in ENGL101 to help students write effectively in various rhetorical contexts. Students will study principles of rhetoric, research, critical thinking, and logic to produce effective college-level prose. This includes work in various types of genres. PREREQUISITE: ENGL 101.

HC 114 ANATOMY & PHYSIOLOGY FOR THE HEALTH PROFESSIONS CREDITS: 3
Students will gain an introductory understanding of the structure and function of the human body. This course emphasizes concepts essential for student success in health program curriculum as well as in practical, work-related environments.

HC 116 ANATOMY & PHYSIOLOGY FOR THE HEALTH PROFESSIONS LAB CREDITS: 1
This is the study of the structure in relation to function of the human body at the cellular, tissue, and organ levels. Major systems studied will include the skeletal, nervous, circulatory, respiratory, digestive, endocrine, urinary, and reproductive systems. The laboratory will include use of dissections, human models, preserved specimens, slides, and the human skeleton.

HC 124 INTRODUCTION TO PATIENT CARE CREDITS: 1
This course is designed to provide the student with the knowledge necessary to provide safe patient care at an introductory level. CLINICAL PROGRESSION: STUDENTS MUST BE MAINTAINING A “C” OR BETTER IN HC 124, HAVE COMPLETED HC 124 WITH A “C” OR BETTER WITHIN THE LAST 6 MONTHS, or HAVE NURSING DIRECTOR APPROVAL TO PARTICIPATE IN HC 126 CLINICALS. GRADE REQUIREMENT: A MINIMUM GRADE OF “C” MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM A WDTC PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

HC 126 INTRODUCTION TO PATIENT CARE LAB AND CLINICAL CREDITS: 2
This course is designed to provide the student with the skills and clinical experience necessary to provide safe patient care at an introductory level. CO-REQUISITE: MUST BE CURRENTLY ENROLLED IN HC 124, PASSED HC 124 WITH A MINIMUM GRADE OF “C” IN THE PAST 6 MONTHS, or OBTAIN NURSING DIRECTOR APPROVAL. CLINICAL PROGRESSION: STUDENTS MUST MAINTAIN A “C” OR BETTER IN HC 124 and HC 126 TO PARTICIPATE IN HC 126 CLINICALS. GRADE REQUIREMENT: A MINIMUM GRADE OF “C” MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM A WDTC PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

HC 135 MEDICAL LAW AND ETHICS CREDITS: 2
This course introduces the student to the legal principles and ethical issues affecting all healthcare professionals today.

HC 200 PHARMACOLOGY FOR HEALTHCARE CREDITS: 3
This course will cover the knowledge of common medications, usage, and safety associated with them.

HC 202 MEDICAL MICROBIOLOGY CREDITS: 3
An introduction to the study of microorganisms with emphasis on those affecting human health and the diseases they cause. The structure, metabolism, pathogenicity, disease prevention and cure of microorganisms including bacteria, fungi, parasites, and viruses will be emphasized. Topics of discussion will also include mechanisms for prevention of disease transmission. PREREQUISITE: HC 114 or LPN LICENSE

HC 205 PROFESSIONALISM IN HEALTHCARE CREDITS: 1
Although hands-on technical skills remain a high priority in the healthcare field, good character, a strong work ethic, and personal/professional traits and behaviors are increasingly important. This course covers the professional standards that apply to all healthcare workers and the shared responsibility to provide the highest quality of healthcare services. Emphasis is placed on professionalism, communication, attitude, behaviors, expectations, and appearance.

HC 213 MEDICAL TERMINOLOGY I CREDITS: 3
Students will be taught the basic techniques of medical word building. These techniques will be applied to acquire an extensive medical vocabulary. The course introduces students to medical terms relating to the anatomy and physiology of body systems, pathology, diagnosis, medical treatments, and procedures.

HC 225 PATHOPHYSIOLOGY CREDITS: 3
This course includes the study of various diseases and disorders of each of the body systems. PREREQUISITES: HC 114 and HC 213.

HOS 110 HOSPITALITY PRINCIPLES CREDITS: 3
This course introduces the hospitality industry and essential customer service and communication skills that ensure efficient delivery of quality services. Students are taught the skills necessary to effectively communicate, meet the service quality expectations of a diverse clientele, and appropriately represent their organizations.

HOS 120 HOTEL & LODGING OPERATIONS INTERNSHIP CREDITS: 3
This course examines the management of hotel and lodging operations with an emphasis on customer service and improving profitability. Students are introduced to the basics of facilities management in core lodging segments, operational procedures, guest relations, and the relationships between operational departments. Analysis of operational efficiencies to improve organizational outcomes is also addressed.

HOS 125 FOOD & BEVERAGE OPERATIONS INTERNSHIP CREDITS: 3
This course emphasizes the daily operations and management of food and beverage service within the hospitality industry. Students learn principles related to the hiring and training of service workers, food handling and sanitation, layout and equipment planning, and safety regulations and standards. Essential elements of the course include purchasing and cost control, menu management, and innovation in the food and beverage industry.

HUM 100 INTRODUCTION TO HUMANITIES CREDITS: 3
This interdisciplinary course introduces students to humanistic knowledge, inquiry, and values by focusing on connections among humanities disciplines (such as art, languages, literature, music, philosophy, and religion).

HVAC 121 ELECTRICAL APPLICATIONS FOR HVAC I CREDITS: 4
This course covers general knowledge of basic electrical applications used by industry. Use of basic electrical equipment including multimeters is stressed. Topics include current, voltage, resistance, symbols, and basic AC and DC circuits. Introduction to automatic component controls and motors in their typical applications are also included.

HVAC 125 HVAC INSTALLATION I CREDITS: 3
This course provides a comprehensive introduction to designing and installing heating, ventilating, and air-conditioning systems. Students learn basic principles of heat transfer and the basic refrigeration cycle applied to air conditioning.

HVAC 126 HVAC INSTALLATION I LAB CREDITS: 4
Laboratory designed to accompany HVAC 125.

HVAC 135 ELECTRICAL APPLICATIONS FOR HVAC II CREDITS: 3
This course continues the coverage of electrical applications used by heating, ventilating, air-conditioning installers. Students learn a more thorough explanation of voltage and current, including basic measuring techniques and safety concerns. PREREQUISITE: HVAC 121.

HVAC 145 HVAC INSTALLATION II CREDITS: 3
This course provides advanced instruction on designing and installing heating, ventilating, air-conditioning systems. Students also will go into more depth on topics such as refrigerant handling procedures, gas piping and sizing, chimney and vent calculations, and the uniform mechanical code. This course also includes preparation for and completion of the universal heating, ventilating, air-conditioning certification exam. The examination requires an additional fee. PREREQUISITE: HVAC 125.

HVAC 146 HVAC INSTALLATION II LAB CREDITS: 4
Laboratory designed to accompany HVAC 145. PREREQUISITE: HVAC 126.

HVAC 199 INTERNSHIP CREDITS: 6
This course is designed to provide the student an opportunity to apply the skills and knowledge acquired in the classroom through active participation in their field of study. PREREQUISITES: HVAC 135, HVAC 145, and HVAC 146.

HVAC 222 HVAC/R CREDITS: 3
Commercial air conditioning, chilled-water, hydronic heating, and geothermal heat pump systems will be introduced. Students will study indoor air quality, psychometrics, air distribution, and balancing. PREREQUISITES: ALL FIRST AND SECOND SEMESTER HVAC COURSES. CO-REQUISITE: HVAC 223.

HVAC 223 HVAC/R LAB CREDITS: 4
This course is designed to accompany HVAC 222. PREREQUISITES: ALL FIRST AND SECOND SEMESTER HVAC COURSES. CO-REQUISITE: HVAC 222.

HVAC 225 ELECTRICAL APPLICATIONS FOR HVAC/R III CREDITS: 3
This course provides a more in-depth knowledge on diagnosing problems in electrical components and electrical circuits that make up refrigeration, heating, and air-conditioning systems. Students will apply learned knowledge to troubleshoot HVAC systems. PREREQUISITES: ALL FIRST AND SECOND SEMESTER HVAC COURSES.

HVAC 232 REFRIGERATION CREDITS: 3
This course is designed to introduce the fundamentals of low, medium, and high temperature commercial refrigeration. This includes the study of commercial freezers, walk-in boxes, and commercial refrigeration equipment. PREREQUISITES: ALL FIRST AND SECOND SEMESTER HVAC COURSES. CO-REQUISITE: HVAC 233.

HVAC 233 REFRIGERATION LAB CREDITS: 4
This course is designed to accompany HVAC 232. PREREQUISITES: ALL FIRST AND SECOND SEMESTER HVAC COURSES. CO-REQUISITE: HVAC 232.

HVAC 235 ELECTRICAL APPLICATIONS FOR HVAC/R IV CREDITS: 3
This course is a continuation of previous HVAC electrical applications with emphasis on commercial and special refrigeration electrical equipment and components. Students will be introduced to basic direct digital controls, pneumatics, and electronic control circuits used in HVAC/R systems. PREREQUISITE: HVAC 225.

IEL 102 ELETRICAL FUNDAMENTALS I CREDITS: 9
This course introduces the fundamental concepts of basic electricity through the study and application of Direct Current (DC) and Alternating Current (AC) to circuits including series circuits, parallel circuits, series-parallel circuits, and the application of OHMS law. A study of electrical quantities and measuring basic quantities using a VOM and the oscilloscope is also included. This course covers the physical make up and characteristics of electrical components and how to construct, analyze and troubleshoot circuits.

IEL 103 ELECTRICAL FUNDAMENTALS II CREDITS: 3
This course continues the introduction of fundamental concepts of basic electricity. An exploration of the physical make-up, characteristics, and how to analyze and troubleshoot electrical equipment, circuits, and wiring methods is used to solidify understanding of electrical fundamentals. PREREQUISITES: IEL 102.

IEL 105 INTRODUCTION TO INDUSTRIAL ELECTRONICS CREDITS: 4
This course introduces fundamental concepts of basic electricity—alternating and direct current properties. It includes basic circuit analysis of series circuits, parallel circuits, series-parallel circuits, and Ohms Law and a study of electrical quantities and their measurements using electrical metering. This course also covers how electrical properties can be used as signaling information and introduces troubleshooting techniques.

IEL 122 ELECTRICAL CODE STUDY I CREDITS: 3
This course deals with commercial and industrial wiring standards with heavy emphasis on the National Electrical Code. Electrical services are studied in more depth, grounding and bonding are emphasized, and wiring methods for several types of locations are studied. PREREQUISITE: IEL 131.

IEL 123 INDUSTRIAL DATA COMMUNICATION CREDITS: 2
This course will cover the operation and installation of data communication cabling systems. Students will be introduced to telephone and video system operation and cable installation. In addition, an introduction to networking is given with special emphasis on cabling and fiber optics. This course is designed to prepare the industrial electrician for the ever-increasing demand for installation of cabling systems in residential, commercial, and industrial projects. PREREQUISITES: IEL 102 and IEL 103.

IEL 131 INTRODUCTION TO ELECTRICAL WIRING CREDITS: 3
This course is designed to emphasize the importance of safety and to provide a foundation for practical electrical wiring. Information included begins with a general introduction of the National Electrical Code and laws pertaining to electrical licensing and installation. Theory and lab experience are used in the study of residential wiring principles and common residential circuit hookups.

IEL 135 BASIC ELECTRICAL MATERIALS AND DEVICES CREDITS: 1
This course is designed to cover essential electrical materials, identify the industry's commonly used materials, and understand its terminology.

IEL 211 ELECTRICAL MOTOR CONTROL CREDITS: 3
This course is intended to familiarize the student with motor control theory from very basic concepts to much more complicated circuits. This course is intended to be taken concurrently with IEL 216 – Motor Control Lab. PREREQUISITES: IEL 223 and IEL 226.

IEL 213 ELECTRICAL HEATING AND APPLIANCES CREDITS: 2
This course will provide the student with an understanding of electrical heat and electrical heating control circuits. Installation, maintenance, and troubleshooting of electrical heating systems are an important component of an industrial electrician's career. This course will also introduce the student to air conditioning and heat pump operation as well as the essentials needed to understand control systems on gas and oil heating systems. PREREQUISITES: IEL 102 and IEL 103.

IEL 214 ELECTRICAL CODE STUDY II CREDITS: 2
This course deals with commercial and industrial wiring standards with heavy emphasis on the National Electrical Code. Electrical services are studied in more depth, grounding and bonding are emphasized, and wiring methods for several types of specific locations are studied. PREREQUISITE: IEL 122.

IEL 216 ELECTRICAL MOTOR CONTROL LAB CREDITS: 2
This course utilizes a hands-on approach to learning motor control circuit wiring. The student will complete the control wiring of sample circuits using the developed trainers in the lab. This hands-on experience greatly helps the student in retaining the information that is presented in the IEL211-Electrical Motor Control course. PREREQUISITES: IEL 131, IEL 223, and IEL 226. CO-REQUISITE: IEL 211.

IEL 217 SPECIAL SYSTEMS CREDITS: 4
This course will provide a basic understanding of how Special Electrical Systems work and provide an opportunity for students to obtain the knowledge and skills necessary to service these systems and supported peripherals. Upon conclusion of this course, students will be able to understand basic components of Special Systems as well as upgrading and troubleshooting. Special Systems may include but not limited to: Computer systems, Electronic Access control, Security camera systems etc. PREREQUISITES: IEL 102 or IEL 105.

IEL 218 WIRING LAB I CREDITS: 3
The purpose of this course is to provide the student with the basic skills and technical knowledge required to enter the electrical construction field as an inside wire person. The course activities provide varied applications of practical job and shop practices and experience in the use of an electrician's tools and equipment. Actual on-the-job training is obtained through the rough-in wiring of WDTC projects. PREREQUISITES: IEL 131.

IEL 220 WIRING LAB II CREDITS: 3
This course is a study of the National Electrical Code in relation to commercial and industrial electrical installations. Actual electrical installations, compiling pertinent facts for bidding purposes, and on-the-job training through the wiring of WDTC projects are included in this course. PREREQUISITE: IEL 218.

IEL 221 PROGRAMMABLE LOGIC CONTROLLERS CREDITS: 2
This course introduces programmable logic controllers and the concepts and structure of programmable controllers and provides beginning programming skills. The student will have the basic knowledge to be able to do limited maintenance, programming, and installation of programmable controller systems in the industrial environment. The student will also have the background for more advanced training in programmable control. PREREQUISITES: IEL 211 and IEL 216 or IEL 105.

IEL 222 PROGRAMMABLE LOGIC CONTROLLERS LAB CREDITS: 3
This course will give the student hands-on experience in programming programmable controllers. The theory learned in previous coursework will be put into practice in a laboratory environment that includes simulated industrial applications. Programmable control is an area of ever-increasing industrial importance today. PREREQUISITES: IEL 211 and IEL 216 or IEL 105. CO-REQUISITE: IEL 221.

IEL 223 ELECTRICAL MOTOR LAB CREDITS: 1
This is a laboratory course intended to accompany the motor study course. Through actual hands-on experiments on developed trainers in the lab, the student will be able to reinforce the concepts learned in motor study. This course should be taken concurrently with IEL 226 Electric Motor Fundamentals and Maintenance. PREREQUISITES: IEL 102.

IEL 224 POWER DISTRIBUTION CREDITS: 2
Transformers are considered the most important type of equipment in the process of distribution of electrical power. Included in this course are transformer theory, code, and actual transformer connections. PREREQUISITES: IEL 102 and IEL 103.

IEL 226 ELECTRICAL MOTOR FUNDAMENTALS AND MAINTENANCE CREDITS: 2
This course involves a study of the operational theory and construction of AC and DC motors. It is important for the electrician to have an understanding of motor principles and motor construction in order to facilitate proper motor installation and troubleshooting. This course should be taken concurrently with IEL 223 Electric Motor Lab. PREREQUISITES: IEL 102.

IEL 231 ELECTRICAL DRAWINGS AND SCHEMATICS CREDITS: 2
This course will teach the basics of blueprint reading and electrical schematics through the study of electrical system integrations into construction. PREREQUISITE: IEL 131

IEL 232 DIGITAL DRAWINGS AND ESTIMATING CREDITS: 2
This course will teach the basics of digital drawings using industry specific software. Students will plan and estimate a residential and commercial structure of National Electrical Code requirements. A study on how electrical systems reflect building locations and specialized requirements. PREREQUISITE: IEL 231.

IEL 299 ELECTRICIAN INTERNSHIP/CO-OP CREDITS: 6
The Electrician Internship/CO-OP course is a hands-on course where students gain experience with an employer through on-the-job electrical related work at an approved job site. PREREQUISITE: ADVISOR APPROVAL REQUIRED.

INT 201 GAE/INTERNSHIP PREP CREDITS: 3
Study away/internship preparation that accompanies INT 202 or EET 299 or program internship course.

INT 202 GLOBAL ACADEMIC EXPERIENCE CREDITS: 3
Study away opportunity to work in a multidisciplinary and multicultural team environment. PREREQUISITE: ADVISOR APPROVAL, INT 201.

LET 206 FIREARMS AND EVOC PREPARATION CREDITS: 3
This course is intended to introduce firearms skills and emergency vehicle operation skills to law enforcement students and to serve as a comprehensive review in preparation for the South Dakota Law Enforcement Officer Reciprocity Examination offered by the South Dakota Law Enforcement Officers Standards and Training Commission.

LET 226 PHYSICAL TRAINING CREDITS: 1
This course will provide instruction on the principles of nutrition and the impact these principles have on overall health and well-being. Students will complete fitness tests to determine their current level of fitness compared to the standards of the Cooper Institute of Aerobics Research and construct a fitness plan based upon individual goals. Students will participate in the fitness plan over the course of the semester and record a journal including a dietary record and workouts completed. Students will have access to the WDT gym facilities and receive instruction on the proper use of gym equipment.

LET 251 FIREARMS TRAINING CREDITS: 3
This course will provide the student with knowledge, skills, and tactics to properly maintain, safely handle, and effectively employ a handgun. Students will learn the four basic rules of firearms safety, shooting fundamentals, nomenclature of a pistol, revolver, and ammunition, range safety rules, how to properly load and unload their firearm, how to clean and maintain their firearms, how to clear malfunctions, and how to make legal decisions on the use of the firearm. NOTE: No person who has been convicted of a felony under SDCL chapter 22-42 or of a felony for a crime with the same elements in another state may possess or have control of a firearm. Any student who has been convicted of a misdemeanor crime of domestic violence may not be able to possess a firearm under state and federal law. Any student who is subject to a court order preventing possession of a firearm may not participate in this class. PREREQUISITES: VALID DRIVER'S LICENSE, PASS A CRIMINAL BACKGROUND CHECK. GRADE REQUIREMENT: A MINIMUM PROFICIENCY OF 80% MUST BE EARNED ON THE SOUTH DAKOTA LAW ENFORCEMENT TRAINING STATE HANDGUN QUALIFICATION COURSE TO BE ELIGIBLE TO GRADUATE FROM THE LAW ENFORCEMENT TECHNOLOGY PROGRAM AND TO PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

LET 255 EMERGENCY VEHICLE OPERATIONS CREDITS: 3

This course will provide the student with the basic knowledge and skills needed to safely operate a patrol vehicle under emergency conditions. Students will learn the statutory requirements governing the operation of emergency vehicles and the associated liability issues, how proper utilization of steering, braking, and acceleration can help control physical forces during emergency vehicle operations, how proper maintenance and use of safety devices can reduce risk of injury or death, and be able to perform vehicle placement, threshold braking, slalom/lane change, evasive maneuvers, and skid-car braking. PREREQUISITES: VALID DRIVER'S LICENSE, PASS A CRIMINAL BACKGROUND CHECK.

LET 275 BASIC LAW ENFORCEMENT TRAINING CREDITS: 14

The WDTC Basic Law Enforcement Training course is 560 hours of instruction designed to prepare students for 21st century law enforcement. Coursework is physically demanding, cogitatively challenging, and conducted under the instruction and supervision of credentialed professionals with industry experience. The Basic Law Enforcement Training course will meet or exceed all standards established by the State of South Dakota Law Enforcement Officers Standards and Training Commission to ready students for entry-level law enforcement careers upon graduation. At the end of this course, students will take the South Dakota Law Enforcement Reciprocity Exam offered by the South Dakota Law Enforcement Officers Standards and Training Commission. PREREQUISITES: SUCCESSFUL COMPLETION OF THE FIRST THREE SEMESTERS OF THE LET PROGRAM. NOTE: IN ACCORDANCE WITH SOUTH DAKOTA CODIFIED LAW AND THE SOUTH DAKOTA LAW ENFORCEMENT OFFICERS STANDARDS AND TRAINING COMMISSION, ALL INDIVIDUALS SERVING IN THE CAPACITY OF LAW ENFORCEMENT OFFICERS IN THE STATE OF SOUTH DAKOTA MUST BE AT LEAST 21 YEARS OF AGE PRIOR TO APPOINTMENT.

LET 280 SD LAW ENFORCEMENT RECIPROCITY EXAM REVIEW CREDITS: 2

This course will be taken concurrently with the LET 275 Basic Law Enforcement Training course. It is intended to serve as a comprehensive review in preparation for the South Dakota Law Enforcement Officer Reciprocity Examination offered by the South Dakota Law Enforcement Officers Standards and Training Commission. PREREQUISITES: SUCCESSFUL COMPLETION OF THE FIRST THREE SEMESTERS OF THE LET PROGRAM. CO-REQUISITE: LET 275

MA 210 MEDICAL ASSISTING I CREDITS: 3

This course is designed to give the basic knowledge and understanding of the career of medical assisting and the administrative skills required to be employed as an entry-level medical assistant. CO-REQUISITE: MA 214.

MA 214 MEDICAL ASSISTING I CLINICAL CREDITS: 1

This course provides medical assisting students the opportunity to apply their skills and knowledge in the medical office. Students are placed in medical facilities to gain hands-on experience in the administrative skills required of an entry-level medical assistant. Students are under the supervision of the facility and are periodically evaluated by the preceptor. PREREQUISITE: CURRENT CPR CARD. CO-REQUISITE: MA 210.

MA 250 MEDICAL ASSISTING II CREDITS: 3

This course will teach students the clinical knowledge needed for an entry-level medical assistant. PREREQUISITE: MA 210 and MA214. CO-REQUISITE: MA 253.

MA 253 MEDICAL ASSISTING II LAB AND CLINICAL CREDITS: 5

This course provides the medical assisting students the opportunity to apply their clinical skills and knowledge in the clinical setting after completion of lab hours. Students are placed in medical facilities of Rapid City and surrounding areas to gain hands-on experience in the clinical skills required of an entry-level medical assistant. Students are under the supervision of the facility and are periodically evaluated by the preceptor. PREREQUISITES: CURRENT CPR CARD, ADVISOR APPROVAL, MA 210, AND MA 214. CO-REQUISITE: MA 250.

MACH 110 MACHINE SHOP OPERATIONS CREDITS: 3

This course will cover the topics of machine shop safety, semi-precision and precision measurement, layout, inspection, bench work, band saw and drill press work, job planning, order of operations, tooling options, tool grinding, work holding devices and fixtures, and maintenance. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PRECISION MACHINING PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

MACH 113 TURNING THEORY AND OPERATIONS CREDITS: 3

This course introduces the metal cutting lathe, its care, setup, and use as applied to current industry practices. Topics addressed will include lathe safety, machine setup, and carrying out the basic lathe operations of turning, drilling, boring, facing, and thread cutting. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PRECISION MACHINING PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE

MACH 123 MILLING THEORY AND OPERATIONS CREDITS: 3
The vertical milling machine and its set-up and operation are introduced in this course. Students will learn milling machine safety, tramming of the mill, and the use of edge finders and dial indicators to locate part features and align work. Use of the Cartesian coordinate system, drilling, surfacing, slotting, pocketing and contour milling procedures will be covered. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PRECISION MACHINING PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE

MACH 125 MECHANICAL BLUEPRINT READING CREDITS: 3
This course addresses the interpretation of blueprints commonly encountered in the machine shop. Drawing layout, sectional views, auxiliary views, assembly drawings, conventional, baseline, and GT&D dimensioning conventions, bill of materials, and symbols used in the metal working industry are among the topics covered. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PRECISION MACHINING PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE

MACH 130 MATERIALS APPLICATIONS CREDITS: 3
Training in this course includes metals composition and characteristics, material selection, heat treatment, hardness testing, machinability, and use of the surface grinder and other precision grinding equipment. PREREQUISITES: MACH 110, MACH 113, MACH 123, and MACH 125. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PRECISION MACHINING PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE

MACH 136 TURNING THEORY AND CNC OPERATIONS CREDITS: 3
Training will focus on CNC lathe operation and programming fundamentals in addition to expanding conventional lathe skills through projects that incorporate four-jaw chuck, collet, and face plate setups. Work will progress to include multi-part assemblies where fit, finish, and attention to detail need to be employed. PREREQUISITES: MACH 110, MACH 113, MACH 123 and MACH 125. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PRECISION MACHINING PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE

MACH 141 MILLING THEORY AND CNC OPERATIONS CREDITS: 3
Training will focus on CNC milling machine operation and programming fundamentals while explanding on milling machine skills that apply to both conventional and CNC work. The use of sine bars, gauge blocks, and boring heads will be explored. Work will progress to include multi-part assemblies where fit, finish, and attention to detail need to be employed. PREREQUISITES: MACH 110, MACH 113, MACH 123, and MACH 125. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PRECISION MACHINING PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE

MACH 146 APPLIED COMPUTER AIDED DRAFTING FUNDAMENTALS CREDITS: 3
This course provides training in the use of parametric modeling software to generate part geometry, shop drawings, and bills of materials for mechanical parts and assemblies. Design intent and strategies for using software to streamline work planning in the machine shop, as well as introducing the use of CAM software to generate tool paths for CNC machining are some of the topics covered. PREREQUISITE: MACH 125. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PRECISION MACHINING PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE

MACH 199 INTERNSHIP CREDITS: 6
Students will have the opportunity to apply their skills and knowledge in select machine manufacturing shops of varying specialties. Students will observe and assist in various tasks to obtain exposure and real-world experiences. All internship tasks are performed with supervision of participating professional machinists while periodically evaluated by the preceptor. PREREQUISITE: STUDENTS MUST COMPLETE ALL FIRST AND SECOND SEMESTER CORE PROGRAM COURSES WITH A "C" OR BETTER. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE PRECISION MACHINING PROGRAM.

MATH 090 BASIC MATHEMATICS CREDITS: 2
This course provides a mathematically sound and comprehensive coverage of basic computational skills and their applications. Certain topics from algebra are also included. The content and level of rigor of the text form the basis of a course that would properly serve as preparation for a traditional algebra course. The text has been developed to meet the needs of the traditional post-secondary student and the needs of the mature student whose mathematical proficiency may have declined during years away from formal schooling.

MATH 100 ELEMENTARY ALGEBRA CREDITS: 3
This course prepares students for college-level mathematics. Topics generally include: basic properties of real numbers, exponents and radicals, rectangular coordinate geometry, solutions to linear equations, inequalities, and polynomials. PREREQUISITE: ACHIEVED REQUIRED SCORE ON A NATIONAL or A WESTERN DAKOTA TECHNICAL COLLEGE QUALIFYING PLACEMENT TEST or A PASSING GRADE IN MATH 090.

MATH 101 INTERMEDIATE ALGEBRA CREDITS: 3
This course includes real numbers and variable expressions, first-degree equations, polynomials, factoring, rational expressions, rational exponents and radicals, and quadratic equations. PREREQUISITE: ACHIEVED REQUIRED SCORE ON A NATIONAL or A WESTERN DAKOTA TECHNICAL COLLEGE QUALIFYING PLACEMENT TEST or A PASSING GRADE IN MATH 100 or MATH 105.

MATH 104 TECHNICAL MATHEMATICS CREDITS: 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. PREREQUISITE: ACHIEVED REQUIRED SCORE ON A NATIONAL or A WESTERN DAKOTA TECHNICAL COLLEGE QUALIFYING PLACEMENT TEST or A PASSING GRADE IN MATH 090.

MATH 105 MATHEMATICAL REASONING CREDITS: 3
This course is designed to develop the student's ability to reason with quantitative information to help them succeed in their careers and personal life. Topics include logic and problem solving with an emphasis on linear algebraic applications, operations on polynomials, quantitative information in everyday life, and topics selected from probability and statistics or modeling. PREREQUISITE: ACHIEVED REQUIRED SCORE ON A NATIONAL or A WESTERN DAKOTA TECHNICAL COLLEGE QUALIFYING PLACEMENT TEST or A PASSING GRADE IN MATH 090.

MATH 112 BUSINESS MATHEMATICS CREDITS: 3
A practical, working knowledge of relevant mathematical ideas and computations is developed for preparation in many careers, as well as in daily and consumer life. PREREQUISITE: ACHIEVED REQUIRED SCORE ON A NATIONAL or A WESTERN DAKOTA TECHNICAL COLLEGE QUALIFYING PLACEMENT TEST or A PASSING GRADE IN MATH 090.

MATH 114 COLLEGE ALGEBRA CREDITS: 3
This course involves equations and inequalities; polynomial functions and graphs; exponents, radicals, binomial theorem, and zeros of polynomials; systems of equations; exponential, logarithmic, inverse functions, and applications and graphs. Other topics selected from sequences, series, and complex numbers will be covered. PREREQUISITE: ACHIEVED REQUIRED SCORE ON A NATIONAL or A WESTERN DAKOTA TECHNICAL COLLEGE QUALIFYING PLACEMENT TEST or A PASSING GRADE IN MATH 101.

MATH 120 TRIGONOMETRY CREDITS: 3
Topics include trigonometric functions, equations, and identities; inverse trigonometric functions; exponential and logarithmic functions, and applications of these functions. PREREQUISITE: ACHIEVED REQUIRED SCORE ON A NATIONAL OR A WESTERN DAKOTA TECHNICAL COLLEGE QUALIFYING PLACEMENT TEST or A PASSING GRADE IN MATH 101 or MATH 114.

MDS 130 MEDICAL COMPUTERIZED APPLICATIONS CREDITS: 3
This course is designed to teach the student how to manage the medical office in a computerized setting. The student will learn to build databases and use them in many different ways. Once the databases are set up, the student will learn other office management skills such as entering patient data, arranging appointments, keeping track of charges and payments, filing insurance electronically, etc.

MDS 175 RECORDS MANAGEMENT CREDITS: 2
The student will learn and apply alphabetic, numeric, and subject filing according to the rules established by the Association of Records Managers and Administrators. This class also covers record storage and retrieval systems, equipment, file maintenance, and improvement of record control.

MDS 210 HEALTHCARE CODING I CREDITS: 4
This is an introductory course to the statistical classification system of the International Classification of Diseases, Ninth and Tenth Revision, Clinical Modification (ICD-9-CM and ICD-10-CM and PCS), the system in use in hospitals and private medical practices for the classification and reporting of morbidity and mortality in the United States. Many third-party payment systems are based on the ICD-9-CM and/or the ICD-10-CM and PCS classification and coding system. The course also introduces Current Procedural Terminology (CPT). PREREQUISITES: HC 114 and HC 213 or PERMISSION FROM INSTRUCTOR.

MDS 211 HEALTHCARE CODING II CREDITS: 3
This course is a continuation of Health Care Coding I with the introduction of DRG and APC systems of reimbursement. ICD-9-CM, ICD-10-CM and PCS, CPT and HCPCS manuals will be utilized. HCPCS coding system will be investigated. Additionally, this course includes an overview and education of electronic coding systems. PREREQUISITE: MDS 210 or PERMISSION FROM INSTRUCTOR.

MDS 220 HEALTHCARE FUNDAMENTALS AND REIMBURSEMENT CREDITS: 2
This course will cover financial reimbursement and third-party payers including government programs. HIPAA regulations and clinical and hospital corporate compliance issues will be reviewed.

MDS 260 ADVANCED CODING CREDITS: 4
Advanced level of coding focusing on surgical procedural coding. Utilization and coding of templates is reviewed. Diagnostic Related Groups (DRG's) in the inpatient hospital setting are analyzed. Surgical instrumentation and operating room processes and coding are evaluated in more depth. The importance of utilizing coding resources is emphasized and utilized for a broader view of the coding arena. PREREQUISITES: HC 213 and MDS 210.

MDS 299 INTERNSHIP CREDITS: 3
This course is designed to provide the student an opportunity to apply the skills and knowledge acquired in the classroom through active participation in their field of study. PREREQUISITE: INSTRUCTOR APPROVAL.

MEC 105 FUNDAMENTALS OF AUTONOMOUS EQUIPMENT APPLICATIONS CREDITS: 3
This course provides the fundamental concepts for autonomous equipment operation, installation and maintenance, and basic troubleshooting of the hardware and software used in the agriculture, construction, and mining industries.

MEC 130 MECHANICAL BASICS CREDITS: 3
This course focuses on the development of basic mechanical skills for the installation of hardware related to autonomous technology, preventive maintenance of affected hardware and related equipment, and an overview of how mechanical systems influence data pertinent to the operation of autonomous technology systems.

MEC 140 MSHA NEW MINER TRAINING CREDITS: 2
Upon the successful completion of this course, participants will have met the requirements of the MSHA New Miner Training part 48. The student will be provided with an MSHA certificate.

MEC 150 AUTONOMOUS TECHNOLOGY CREDITS: 6
This course provides students with specific training from industry experts including installing, commissioning, troubleshooting, and maintaining the hardware and software of autonomous equipment. PREREQUISITES: CIS 131, IEL 105, MEC 105, MEC 130

MEC 199 INTERNSHIP CREDITS: 6
This course consists of supervised work experience in an approved training situation. It is designed to provide practical experience in the mining industry. PREREQUISITES: CIS 131, IEL 105, MEC 105, MEC 130

MICR 231 GENERAL MICROBIOLOGY CREDITS: 3
Principles of basic and applied microbiology. COREQUISITE: CHEM106, CHEM 106L

MICR 231L GENERAL MICROBIOLOGY LAB CREDITS: 1
Laboratory experience that accompanies BIOL 231. COREQUISITE: CHEM106, CHEM 106L

MLT 205 IMMUNOLOGY CREDITS: 3
This course covers the basic theory and principles of the immune system including antigens, antibodies, origin, stimulation, and body response and rejection. Immunoglobulins, complement, and classification of immunity will be presented. Serological techniques and procedures will be performed. PREREQUISITES: MATH 101, HC 114, HC 213, PH 114, PH 133. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE MEDICAL LABORATORY TECHNICIAN PROGRAM AND TO PROGRESS TO MLT CLINICAL PRACTICUM.

MLT 210 CLINICAL CHEMISTRY CREDITS: 4
This course will cover basic laboratory instrumentation, math, standardization, pipetting, laboratory glassware, methodologies of chemistry testing, safety in the laboratory, and quality control concepts. It will introduce advanced clinical chemistry theory, organ functions, and disease correlations. PREREQUISITE: MATH 101 HC 114, HC 213, PH 114, PH115, PH133, PH165, CHEM 106, CHEM 106L, MLT 205.GRADE REQUIREMENT**:** A MINIMUM GRADE OF C MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE MEDICAL LABORATORY TECHNICIAN PROGRAM AND TO PROGRESS TO MLT CLINICAL PRACTICUM

MLT 215 IMMUNOHEMATOLOGY CREDITS: 4
The Immunohematology course is an extension of theory presented in the Immunology Course and will transition into the major concepts and principles of Blood Banking. This course will explore basic genetics, blood group systems, and antibodies, with emphasis on ABO grouping, Rh typing, antibody screening and identification, Coombs, compatibility testing, transfusion of blood components, component therapy, and donor selection. PREREQUISITE: MATH 101, HC 114, HC 213, PH 114, PH 115, PH 133, PH 165, and MLT 205. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE MEDICAL LABORATORY TECHNICIAN PROGRAM AND TO PROGRESS TO MLT CLINICAL PRACTICUM.

MLT 222 URINALYSIS/BODY FLUIDS CREDITS: 2
This course examines the basic principles of urinalysis and kidney function. It will discuss the anatomy, physiology, and pathology of the urinary system. Physical, chemical, and microscopic examination will be performed using urinalysis procedures on both normal and abnormal specimens. Body fluid analysis will also be examined. PREREQUISITES: HC 114, HC 213, MATH 101, PH 114, PH 133, PH 165. COREQUISITES: PH 115, MLT 205, and MLT 230. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE MEDICAL LABORATORY TECHNICIAN PROGRAM AND TO PROGRESS TO MLT CLINICAL PRACTICUM.

MLT 230 HEMATOLOGY/COAGULATION CREDITS: 4
This course will present basic and advanced hematology theory and disease correlations. Differentials, cell morphology, and hematological measurements will be discussed. Hemostasis theory and application of the coagulation pathway including factors will be presented. Microscope work, automated hematological instrumentation, and coagulation testing will be emphasized. PREREQUISITES: MATH 101, HC 114, HC 213, PH 114, PH 133, PH 165. COREQUISITES: PH 115, MLT 205, and MLT 222. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE MEDICAL LABORATORY TECHNICIAN PROGRAM AND TO PROGRESS TO MLT CLINICAL PRACTICUM

MLT 250 PARASITOLOGY/MYCOLOGY CREDITS: 1
Introduces the fields of Medical Mycology and Medical Parasitology. This course will emphasize and cover specimen processing and diagnostic procedures of medically significant pathogens. Identifies characteristics, life cycles, pathogenicity, and diagnostic testing for medically significant parasites. PREREQUISITES: None. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE MEDICAL LABORATORY TECHNICIAN PROGRAM AND TO PROGRESS TO MLT CLINICAL PRACTICUM.

MLT 255 CLINICAL MICROBIOLOGY CREDITS: 4
This course provides an introduction to the classification, morphology, identification, and sensitivity testing of microorganisms. More technical aspects of clinical microbiology including differential staining and testing for the detection, identification, and disease correlation of bacteria, parasites, and fungus will also be covered. PREREQUISITES: MATH 101, HC 114, HC 213, PH 114, PH 115, PH 133, PH 165, CHEM 106, CHEM 106L, and MLT 205. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE MEDICAL LABORATORY TECHNICIAN PROGRAM AND TO PROGRESS TO MLT CLINICAL PRACTICUM.

MLT 275 MEDICAL LABORATORY TECHNICIAN CLINICAL CREDITS: 12
The clinical practicum is designed to give the medical laboratory technician student experience in a clinical setting. Affiliated medical laboratories will provide students with observation, practice, and performance of laboratory tests and procedures. Students will rotate through phlebotomy, hematology, hemostasis, urinalysis and body fluids, chemistry, serology, microbiology, and immunohematology. PREREQUISITE: SUCCESSFUL COMPLETION OF THE FIRST THREE SEMESTERS OF MLT COURSES. CO-REQUISITE: MLT 280. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE MEDICAL LABORATORY TECHNICIAN PROGRAM.

MLT 280 MEDICAL LABORATORY TECHNICIAN CERTIFICATION REVIEW CREDITS: 1
This course will be taken concurrently with the Medical Laboratory Technician Clinical. It is intended to serve as a comprehensive review in preparation for the Board of Certification (BOC) examination for Medical Laboratory Technicians (MLT) offered by the American Society of Clinical Pathology (ASCP). PREREQUISITE: SUCCESSFUL COMPLETION OF THE FIRST THREE SEMESTERS OF MLT COURSES. CO-REQUISITE: MLT 275. GRADE REQUIREMENT**:** A MINIMUM GRADE OF C MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE MEDICAL LABORATORY TECHNICIAN PROGRAM.

MP 101 INTRODUCTION TO MEAT SCIENCES CREDITS: 3
This course serves as an introduction to the meat processing industry. Components of biology, muscle structure, cuttability, carcass quality, and an overview of how meat is processed from the producer's farm to the family table.

MP 110 MEAT PROCESSING I CREDITS: 4
This lab course will educate students on the proper techniques of meat cutting and processing. Students will be involved with carcass breakdown, from whole carcass to retail cuts. The proper cutting techniques will be identified and practiced through this course.

MP 120 MEAT PROCESSING II CREDITS: 3
This lab course is a continuation of Meat Processing I. In this continued education course, students will be involved with all phases of meat production, from the stunning and disabling, to hair/hide removal using industry standard equipment, and viscera removal. Aging, carcass breakdown, and custom cutting will also be fundamental building blocks for students within this course. PREREQUISITE: MP 101, MP 110, and MP 150.

MP 150 FOOD SAFETY AND PROCESSING CREDITS: 4
This course instructs students on the food safety behind meat processing. Hazard analysis and critical control points (HACCP's), sanitation, quality control, and other safety measures will be covered in this course. This course is geared towards educating students on how to create quality products that are safe for consumers and safe for the meat processing workforce.

MP 199 MEAT PROCESSING INTERNSHIP I CREDITS: 6
This course is designed to provide the student an opportunity to apply the skills and knowledge acquired in the classroom through active participation in their field of study. PREREQUISITE: MP 120

MP 240 SPECIALTY MEATS CREDITS: 3
This course is geared towards processing specialty meats, value added products, and variety meats such as sausages, jerky, pre-pressed patties and wild game. Specialty products are a growing demand in the meat processing industry, and this course aims to educate students on how to add value to products to increase income potential and create lasting products for consumers. PREREQUISITE: MP 199

MP 299 MEAT PROCESSING INTERNSHIP II CREDITS: 6
This course is designed to provide the student an opportunity to apply the skills and knowledge acquired in the classroom through active participation in their field of study. PREREQUISITE: MP 240

NRS 101 SKILLS LAB I & II CREDITS: 2
This course focuses on developing practical nursing skills required to safely and effectively care for individuals in various healthcare settings. Students will incorporate the nursing process and theoretical concepts while achieving these skills. PREREQUISITES: CURRENT CNA CERTIFICATION or A "C" OR HIGHER IN HC 124 AND HC 126 AND A C OR HIGHER IN ALL PREREQUISITE COURSES. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NRS 106 FOUNDATIONS IN PRACTICAL NURSING CREDITS: 3
This course establishes the foundation for nursing practice by providing the fundamental concepts and skills needed to meet basic human physiological needs in a safe, legal, and ethical manner. An introduction to the nursing process is presented along with anatomy and physiology, microbiology, geriatric nursing, nutrition, and basic concepts of clinical judgment related to the nursing process. Students will learn concepts and theories basic to the art and science of nursing, including nursing history, theories, and ethics. PREREQUISITES: CURRENT CNA CERTIFICATION or A "C" OR HIGHER IN HC 124 AND HC 126; AND A C OR HIGHER IN ALL REQUIRED PREREQUISITE COURSES. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NRS 111 INTRODUCTION TO PHARMACOLOGY & PATHOPHYSIOLOGY CREDITS: 2

This course provides opportunities to develop comprehension of basic pharmacology and pathophysiology and integrate them into the nursing process to meet the needs of individuals of all ages and cultural backgrounds in a safe, legal, and ethical manner. This course will also emphasize nutritional needs of individuals and integrates these components into the overall fundamental concepts and skills needed to meet basic human physiological needs. PREREQUISITES: CURRENT CNA CERTIFICATION or A "C" OR HIGHER IN HC 124 AND HC 126; and A C OR HIGHER IN ALL REQUIRED PREREQUISITE COURSES. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NRS 122 ADULT HEALTH CLINICAL I CREDITS: 4

This course will focus on clinical experiences that include interpretation, medical terminology, nutrition, and pharmacology with an emphasis on how it integrates into the nursing process. This course involves direct care for adults and geriatric clients including communication assessment, and professional documentation as well as passing medications, identifying signs and symptoms of different diseases, and learning the importance of diet and nutrition in adults. PREREQUISITES: CURRENT CNA CERTIFICATION or A "C" OR HIGHER IN HC 124 AND HC 126; and A C OR HIGHER IN ALL REQUIRED PREREQUISITE COURSES. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NRS 132 MENTAL HEALTH NURSING FOR THE PRACTICAL NURSE CREDITS: 3

This course presents basic concepts of mental health issues and care for individuals with mental health illnesses. Categories of mental health illness are discussed along with common therapies to treat them. The course addresses issues nurses will incorporate into their work environment to assist them in caring for individuals with special mental and emotional needs. The course will identify behavioral science concepts that relate to interpersonal relationships, communication, and cultural diversity. There is a clinical component to this course. PREREQUISITES: CURRENT CNA CERTIFICATION or A "C" OR HIGHER IN HC 124 AND HC 126; and A C OR HIGHER IN ALL REQUIRED PREREQUISITE COURSES. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NRS 201 SKILLS LAB III CREDITS: 1

This course focuses on developing the advanced practical nursing skills required to safely and effectively care for individuals in various healthcare settings. Students will incorporate the nursing process and theoretical concepts while achieving these skills. PREREQUISITES: NRS 101, NRS 106, NRS 111, NRS 122, and NRS 132. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NRS 206 MEDICAL-SURGICAL NURSING FOR THE PRACTICAL NURSE CREDITS: 3

This course will provide opportunities to develop competencies necessary to meet the needs of young adult through geriatric clients in a safe, legal, and ethical matter using the nursing process. This course includes nursing theory with an emphasis on care of patients with disease/disorders of the following systems: nervous, sensory, respiratory, circulatory, urinary, gastrointestinal, endocrine, musculoskeletal, integumentary, and hematological. The nursing process and clinical judgement is integrated into the study of each disease process. PREREQUISITES: NRS 101, NRS 106, NRS 111, NRS 122, and NRS 132. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NRS 211 PHARMACOLOGY FOR THE PRACTICAL NURSE CREDITS: 2

This course includes nursing theory and the care of patients with a variety of disease/disorders with an emphasis on how pharmacology impacts the treatment outcomes, how medical terminology assists with disease identification, and the importance of nutrition on the recovery process. PREREQUISITES: NRS 101, NRS 106, NRS 111, NRS 122, and NRS 132. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NRS 222 ADULT HEALTH CLINICAL II CREDITS: 4

This course is the clinical component of adult health nursing in which the students provide direct care to patients in a variety of acute, inpatient settings. The students utilize various components of the nursing process to design appropriate care for patients. The student is expected to assess, utilize, and apply the concepts of clinical judgement, communication, and promotion of safety to the care of patients in the acute care setting. This course will focus on basic phlebotomy, IV infusion skills, and advanced practical nursing skills. PREREQUISITES: NRS 101, NRS 106, NRS 111, NRS 122, and NRS 132. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NRS 232 MATERNAL-CHILD NURSING FOR THE PRACTICAL NURSE CREDITS: 3
This course emphasizes the physiological, psychosocial, cultural, and developmental needs of the maternal and child clients. This course will introduce the student to family-centered care, wellness, health promotion, illness prevention, maternity and pediatric nutritional needs, and the growth and development of the child from conception to adolescence. There is a clinical component to this course. PREREQUISITES: NRS 101, NRS 106, NRS 111, NRS 122, and NRS 132. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NRS 236 PRACTICAL NURSING PRECEPTORSHIP CREDITS: 2
This course builds on previous course concepts of leadership and management. The student is expected to demonstrate ability to apply the concepts of clinical judgement, communication, and promotion of safety with patients in the clinical setting. This course provides the opportunity for students to apply concepts of leadership and management while under the supervision of an RN instructor or RN/LPN preceptor. PREREQUISITES: NRS 101, NRS 106, NRS 111, NRS 122, and NRS 132. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NRS 241 TRANSITION TO PRACTICAL NURSING CREDITS: 1
This course will provide students with opportunities to gain knowledge and skills necessary to transition from student to practicing nurse. This course will focus on the scope of practice for LPN's and trends in nursing and healthcare delivery. This course provides both a comprehensive content review and test taking strategies for students preparing to graduate from the LPN program and take the NCLEX-PN exam. PREREQUISITES: NRS 101, NRS 106, NRS 111, NRS 122, and NRS 132. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NURS 250 TRANSITION TO REGISTERED NURSING I CREDITS: 3
Transition to Registered Nursing I assists with the student's transition from Licensed Practical Nursing into an Associate Degree nursing program with the emphasis on the RN scope of practice. Students will focus on the RN skills, legal and ethical issues, and roles of the professional nurse. This course provides strategies for learners to succeed in a learner-centered educational environment. Opportunities are available for students to analyze self-behaviors that reflect the values and professional identity of the registered nurse. Students will gain insight into the nursing profession through learning the history and trends of nursing. There is a lab component to the course. PREREQUISITES: A MINIMUM OF A C OR HIGHER IN ALL REQUIRED PREREQUISITE COURSES. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NURS 255 PHARMACOLOGY FOR THE REGISTERED NURSE CREDITS: 3
Pharmacology for the Registered Nurse focuses on the science of pharmacology and considers the role of the registered nurse in client education, and the preparation, management, and administration of medications and supplemental nutrition therapy. An emphasis on understanding the action of medications, safe administration practices and competence in drug calculations is made. Evidence-based practice and quality improvement initiatives are incorporated to maximize safety to clients throughout the lifespan. PREREQUISITES: A MINIMUM OF A C OR HIGHER IN ALL REQUIRED PREREQUISITE COURSES. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NURS 260 MEDICAL SURGICAL NURSING ACROSS THE LIFESPAN CREDITS: 6
Medical Surgical Nursing Across the Lifespan focuses on nursing care of the young adult through geriatric clients in the acute care setting. Emphasis is on the use of clinical judgement, placing attention on a holistic understanding of the cultural, psychosocial, and spiritual needs of the individual and family. Application of the nursing process, evidence-based practice, quality improvement initiatives and the art of caring behaviors are integrated throughout the course. There is a clinical component to this course. PREREQUISITES: A MINIMUM OF A C OR HIGHER IN ALL REQUIRED PREREQUISITE COURSES. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NURS 270 MATERNAL - CHILD NURSING CREDITS: 3
Maternal/Child Nursing focuses on the nursing needs of individuals as they relate to childbearing and children. Students will utilize clinical judgement skills through the nursing process, evidence-based practice, and quality improvement to implement preventative, supportive, and therapeutic plans of care. There is an emphasis on the physiological, cultural, and growth and developmental needs of the clients. There is a clinical component to this course. PREREQUISITES: NURS 250, NURS 255, and NURS 260. GRADE

REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NURS 275 MENTAL HEALTH NURSING ACROSS THE LIFESPAN CREDITS: 3

Mental Health Nursing Across the Lifespan focuses on nursing care of the client with mental health and psychiatric disorders. Emphasis is on the use of clinical judgement skills, with attention on a holistic understanding of the cultural, psychosocial, and spiritual needs of the individual and family. Application of the nursing process, evidence-based practice, quality improvement initiatives and the art of caring behaviors are integrated throughout the course. There is a clinical component to this course. PREREQUISITES: NURS 250, NURS 255, and NURS 260. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NURS 286 TRANSITION TO REGISTERED NURSING II CREDITS: 3

Transition to Registered Nursing II facilitates the transition from the role of Practical Nurse to that of a Registered Nurse. This course provides both a comprehensive content review and test taking strategies for students preparing to graduate from the LPN to RN program and take the NCLEX-RN exam. Opportunities are available for students to analyze self-behaviors that reflect the values and professional identity of the Registered Nurse. PREREQUISITES: NURS 250, NURS 255, and NURS 260. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

NURS 298 REGISTERED NURSING PRACTICUM EXPERIENCE CREDITS: 3

The Practicum is the capstone course for the program. This faculty and preceptor guided practicum experience focuses on providing students with the opportunity to comprehensively apply and integrate synthesized theoretical and clinical experiences from previous nursing courses into a capstone experience. This course is designed to prepare students for professional nursing while demonstrating an ability to achieve all program student learning outcomes to the care of diverse patient populations. The nursing process, evidence-based practice, and quality improvement initiatives are applied while emphasizing patient-centered care, patient education, teamwork, safety, and informatics. PREREQUISITES: NURS 250, NURS 255, and NURS 260. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE NURSING PROGRAM OR PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

PH 114 PHLEBOTOMY PRINCIPLES AND PRACTICES CREDITS: 4

This course introduces students to the practice of phlebotomy and the role of the phlebotomist as part of the healthcare team. Students will become familiar with phlebotomy equipment and learn about basic blood collection procedures. Special blood collection procedures, safety procedures, quality management, and legal issues are discussed. Students will engage in active-learning experiences and hands-on training necessary to develop the skills of an entry-level phlebotomist. Students will also learn the procedures performed by a phlebotomist and will become familiar with different types of equipment and techniques applied. The importance of professionalism and good communication skills in the patient care environment are stressed. CO-REQUISITE: PH 165.

PH 115 INTRODUCTION TO LAB METHODS CREDITS: 3

This course provides training for the clinical laboratory assistant including laboratory safety, equipment and instrumentation, basic laboratory mathematics, regulations and standards, quality assurance practices, record keeping and billing, specimen processing, and CLIA waived and point-of-care laboratory testing. The course combines theory and hands-on practice of laboratory procedures with an emphasis on the necessity for accuracy and attention to detail. PREREQUISITE: MATH 105, HC 114, HC 213, PH 114, PH 133, PH 165

PH 133 POINT OF CARE AND FUNDAMENTAL DIAGNOSTICS CREDITS: 3

This course provides active learning experiences and hands on training for the clinical lab assistant including lab safety, laboratory procedures, CLIA waived point of care testing and equipment, quality assurance, client services, and specimen collection and processing.

PH 165 PHLEBOTOMY CLINICAL CREDITS: 2

The clinical section consists of clinical practice in phlebotomy and laboratory assistant training at various healthcare institutions and laboratories. The program director will coordinate clinical schedules and evaluations. CO-REQUISITES: PH 114.

PH 170 LAB ASSISTANT CAPSTONE CREDITS: 3

This course provides and introduction to basic microbiology specimen collection, processing, and handling. The capstone course provides opportunity for an integration of program coursework, knowledge, skills, and experiential learning enabling the student to demonstrate achievement of skills learned from PH104, PH125, and PH131, PH132. The clinical practicum is designed to give the medical laboratory technician student experience in a clinical setting. Affiliated medical laboratories will provide students with observation, practice, and performance of laboratory tests and procedures. Students will rotate through phlebotomy, hematology,

hemostasis, urinalysis and body fluids, chemistry, serology, microbiology, and immunohematology. PREREQUISITES: MATH 105, HC 114, HC 213, PH 114, PH 133, PH 165. CO-REQUISITE: PH 115.

PLU 150 PLUMBING THEORY I CREDITS: 3
This course is designed to provide a foundation in plumbing materials, tools, methods and construction. Safety is highly emphasized as is the importance and practice of work records and daily reports. COREQUISITE: PLU 155

PLU 155 PLUMBING THEORY I LAB CREDITS: 4
This lab course is intended to accompany the PLU 150 Plumbing Theory I course. Hands-on introductions to tool use, materials and joining methods will progress towards individual and group application projects. COREQUISITE: PLU 150

PLU 160 PLUMBING CODE CREDITS: 3
This course will prepare students for the state Journeyman's plumbing exam that is required after their fourth year of apprenticeship. The Journeyman's plumbing exam helps determine a student's ability to acquire a Contractor's license (South Dakota's Master license). Students will read and interpret current local plumbing and fuel gas codes. The ability to understand and apply the code is invaluable for an individual employed in the plumbing industry.

PLU 165 PLUMBING PRINT READING & DRAFTING CREDITS: 2
This course is designed to prepare student to review blue prints, recognize common industry symbols, take scale measurements, and identify locations of plumbing fixtures. Students will complete sketches of scale and isometric drawings to be used for estimating or construction. They will also compare different plan views of multiple trades to identify possible conflicts of location of materials.

PLU 170 PLUMBING THEORY II CREDITS: 3
This course will build upon the foundational concepts and content introduced in Plumbing Theory I. Advanced applications regarding plumbing materials, tools, methods and construction will be explored. In addition, testing pressures and procedures will be introduced. PREREQUISITE: PLU 150 COREQUISITE: PLU 175

PLU 175 PLUMBING THEORY II LAB CREDITS: 4
Lab is designed to accompany the Plumbing Theory II course and will include the manual installation of plumbing materials in real world simulations of new construction. PREREQUISITE: PLU 155 COREQUISITE: PLU 170

PLU 180 PLUMBING FIXTURES & REPAIR CREDITS: 2
Students will create and write up work orders keeping track of materials and time and, summarizing what they repair. Students will leave the course able to recognize plumbing fixtures and differentiate residential and commercial applications. Basic service principles and troubleshooting will be discussed. PREREQUISITE: PLU 150 COREQUISITE: PLU 185

PLU 185 PLUMBING FIXTURES & REPAIR LAB CREDITS: 3
This lab course is intended to accompany the PLU 180 Plumbing Fixtures and Repair course. The lab will offer students the opportunity to install several common plumbing fixtures. Students will be able to handle multiple fixtures in varying degrees of disrepair. PREREQUISITE: PLU 155 COREQUISITE: PLU 180

PSYC 101 GENERAL PSYCHOLOGY CREDITS: 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.

PSYC 103 HUMAN RELATIONS IN THE WORKPLACE CREDITS: 3
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.

RAD 115 PATIENT CARE IN RADIOLOGIC SCIENCES CREDITS: 4
This course is an introduction to radiology science, patient care skills, and the ethical and legal responsibilities appropriate to the radiographer's scope of practice. Students will demonstrate skills in professional communication, monitoring, protection, and physical care for the patient while in the radiology department. Pharmaceuticals, radiopharmaceuticals, IVs, and contrast reactions will also be covered. PREREQUISITES: MUST EARN A "C" OR BETTER IN ALL PREREQUISITE COURSES. CO-REQUISITES: RAD 120, RAD 125 AND RAD 175. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM AND TO PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

RAD 120 RADIOLOGIC PROCEDURES I CREDITS: 4

This course is designed to introduce the student to the anatomy and positioning of radiographic examinations. Specifically, the student learns positioning skills for the chest, abdomen, upper extremity, lower extremity, spine, and pelvis. Students will begin image evaluation for quality within the Simulation Lab. PREREQUISITES: MUST EARN A "C" OR BETTER IN ALL PREREQUISITE COURSES. CO-REQUISITES: RAD 115, RAD 125 AND RAD 175. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM AND TO PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

RAD 125 IMAGING PHYSICS CREDITS: 3

This course is designed to develop a foundation and foster an understanding of radiographic equipment, quality, and technique. Basic physical principles will be introduced and expanded upon in the areas of measurement, energy, atomic structure, electricity, magnetism, and how they are applied to the production of radiation. Basic essentials of radiographic exposure formulation, manipulation of techniques, and how to adjust technical factors to maintain quality due to different patient conditions will be discussed. PREREQUISITES: MUST EARN A "C" OR BETTER IN ALL PREREQUISITE COURSES. CO-REQUISITES: RAD 115, RAD 120 AND RAD 175. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM AND TO PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

RAD 130 DIGITAL IMAGE ACQUISITION & DISPLAY CREDITS: 3

This course provides a foundational understanding of digital imaging in radiologic technology and advanced imaging. Terminology, key concepts, and quality components related to digital imaging acquisition, display, and archiving, including Picture Archiving and Communication Systems (PACS) will be covered. This course also addresses technical factor adjustments, fundamentals of fluoroscopy and surgical imaging equipment, and introduces advanced imaging modalities. PREREQUISITES: RAD 115, RAD 120, RAD 125, AND RAD 175. GRADE REQUIREMENT: CO-REQUISITES: RAD 135 AND RAD 180. A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM AND TO PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

RAD 135 RADIOLOGIC PROCEDURES II CREDITS: 4

This course is designed to introduce the student to the anatomy and positioning of the gastrointestinal (alimentary canal), skull, pediatrics, geriatrics, trauma, surgical, and other advanced areas of positioning. Students will begin image evaluation for quality within the Simulation Lab. PREREQUISITES: RAD 115, RAD 120, RAD 125, and RAD 175. CO-REQUISITES: RAD 130 AND RAD 180. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM AND TO PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

RAD 140 IMAGE EVALUATION CREDITS: 2

In this course, students evaluate radiographic images and predict the effects that various technical factors, including equipment, technical factors (i.e. kVp and mAs), and accessory devices. Evaluation of images of all learned radiographic projections for quality will also be completed including density, contrast, rotation, marker placement, and other image quality factors. PREREQUISITES: RAD 130, RAD 135, AND RAD 180. CO-REQUISITES: RAD 199. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM AND TO PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

RAD 175 RADIOLOGY CLINICAL I CREDITS: 4

Students experience adaptation to the hospital environment with rotating shifts and assignments. Students will demonstrate the correlation of classroom theory while competently performing basic radiographic exams and procedures learned in RAD 120. Active participation in the Radiology Department's radiographic and fluoroscopic rooms with radiation safety practices is required. PREREQUISITES: MUST EARN A "C" OR BETTER IN ALL PREREQUISITE COURSES. CO-REQUISITES: RAD 115, RAD 120 AND RAD 125. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM AND TO PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

RAD 180 RADIOLOGY CLINICAL II CREDITS: 4

Students will experience supervised clinical practice and patient care with rotating shifts and site assignments. Competency evaluation includes radiographic exams and procedures learned in RAD 120 and RAD 135. PREREQUISITES: RAD 115, RAD 120, RAD 125, AND RAD 175. CO-REQUISITES: RAD 130 AND RAD 135. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM AND TO PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

RAD 199 RADIOLOGY CLINICAL III CREDITS: 4
Students will experience supervised clinical practice and patient care with rotating shifts and site assignments. Competency evaluation includes routine radiographic exams and procedures of the chest, upper limb, lower limb, abdomen, urinary system contrast studies, surgery, contrast and GI imaging, spine, thorax and ribs, cranial, and pediatrics. PREREQUISITES: RAD 130, RAD 135, AND RAD 180. CO-REQUISITES: RAD 140. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM AND TO PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

RAD 225 PRINCIPLES OF IMAGING & ETHICS CREDITS: 3
This course will discuss quality assurance programs, quality control testing, and preventative maintenance on imaging equipment. Ethical and legal principles will be discussed to create a high level of understanding of these topics and how they relate to radiology professional Code of Ethics and governing societies. PREREQUISITES: RAD 140 AND RAD 199. CO-REQUISITES: RAD 230 AND RAD 275. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM AND TO PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

RAD 230 RADIOLOGIC PATHOLOGY CREDITS: 3
This course introduces students to pathologies that are imaged in a radiology department. Anatomy, physiology, additive and destructive pathologies, and congenital abnormalities will be discussed. Students will learn patient care techniques including communication according to pathology. PREREQUISITES: RAD 140 AND RAD 199. CO-REQUISITES: RAD 225 AND RAD 275. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM AND TO PROGRESS INTO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

RAD 235 ADVANCED MODALITIES CREDITS: 3
This course provides an overview of equipment, procedures, techniques, anatomy, sterile technique, and imaging protocols of specialty areas to include sonography, computed tomography MRI, nuclear medicine, radiation therapy, cardiovascular/interventional, mammography, and DEXA. PREREQUISITES: RAD 225, RAD 230, AND RAD 275. CO-REQUISITES: RAD 240, RAD 245 AND RAD 280. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM.

RAD 240 RADIATION BIOLOGY & PROTECTION CREDITS: 3
This course provides an overview of the nature of radiation interaction with matter and the effects of radiation exposure. Students will learn patient and personnel radiation protection practices, limiting standards, units of measurement, regulatory agencies, and the effects of radiation on the body. PREREQUISITES: RAD 225, RAD 230, AND RAD 275. CO-REQUISITES: RAD 235, RAD 245 AND RAD 280. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM.

RAD 245 REGISTRY REVIEW CREDITS: 2
This course will be taken concurrently with Radiology Clinical V. It is intended to serve as a comprehensive review in preparation for the national certification exam in radiology technology. PREREQUISITES: RAD 225, RAD 230, AND RAD 275. CO-REQUISITES: RAD 235, RAD 240 AND RAD 280. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM.

RAD 275 RADIOLOGY CLINICAL IV CREDITS: 5
Students will experience supervised clinical practice and patient care with rotating shifts and site assignments. Students will perform venipuncture, vital signs, and sterile technique. Competency evaluation includes advanced chest and abdomen exams, upper extremity, lower extremity, spine, bony thorax, cranial, pediatric, trauma, mobile, advanced GI and GU contrast procedures, and surgery exams. PREREQUISITES: RAD 140 AND RAD 199. CO-REQUISITES: RAD 225 AND RAD 230. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM.

RAD 280 RADIOLOGY CLINICAL V CREDITS: 6
Students will experience supervised clinical practice and patient care with less assistance to foster increased proficiency and responsible decision-making which will include rotating shifts and site assignments. Students will perform venipuncture, vital signs, and sterile technique. Competency evaluation includes advanced chest and abdomen exams, upper extremity, lower extremity, spine, bony thorax, cranial, pediatric, trauma, mobile, advanced GI, GU, and orthopedic contrast procedures, and surgery exams. PREREQUISITES: RAD 225, RAD 230, AND RAD 275. CO-REQUISITES: RAD 235, RAD 240 AND RAD 245. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE RADIOLOGIC TECHNOLOGY PROGRAM.

SOC 100 INTRODUCTION TO SOCIOLOGY CREDITS: 3
Comprehensive study of society with analysis of group life and other forces shaping human behavior.

ST 102 INTRODUCTION TO SURGICAL TECHNOLOGY CREDITS: 3
This course is an introduction to concepts and practices of surgical technology. It encompasses the role of the surgical technologist, a basic history of surgery, the surgical patient, medical-legal issues, safety, infection control, disinfection and sterilization, and concepts of wound closure and wound healing. CO-REQUISITE: ST111. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE SURGICAL TECHNOLOGY PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

ST 111 INTRODUCTION TO SURGICAL TECHNOLOGY LAB CREDITS: 3
This course is an introduction to surgical technology in a lab setting and clinical setting. Students will learn and apply the principles of aseptic technique, care of the perioperative patient, duties of the circulator, and principles of safety as they apply to the perioperative environment. Students will learn basic surgical instrumentation, equipment, and supplies. CO-REQUISITE: ST102. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE SURGICAL TECHNOLOGY PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

ST 128 SURGICAL PHARMACOLOGY CREDITS: 2
In this course, students will learn the concepts and practices of pharmacology and anesthesia care in the perioperative environment. **Online only.** PREREQUISITES: ST130 and ST 131. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE SURGICAL TECHNOLOGY PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

ST 130 SURGICAL PROCEDURES I CREDITS: 3
This course is designed to introduce the students to diagnostic procedures and minor and major procedures in all surgical areas. PREREQUISITES: HC 114, HC 213, ST 102, and ST 111. CO-REQUISITE: ST 131. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE SURGICAL TECHNOLOGY PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

ST 131 PRINCIPLES AND PRACTICE OF SURGICAL TECHNOLOGY I CREDITS: 3
Student will apply techniques and concepts mastered in the first semester. Students will continue to learn surgical instrumentation, basic instrument setups, patient draping, safe handing/handling of surgical instrumentation, sharps, medications, and the proper performance of surgical counts. Students will also participate and demonstrate competence in a variety of simulated procedure-based scenarios and interventions in the lab performing both the scrub and circulator role. PREREQUISITES: HC 114, HC 213, ST 102, and ST 111. CO-REQUISITE: ST 130. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE SURGICAL TECHNOLOGY PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

ST 230 SURGICAL PROCEDURES II CREDITS: 3
This course is a continuation of Surgical Procedures I and introduces the student to diagnostic procedures and minor and major procedures in all surgical areas. PREREQUISITES: ST 130 and ST 131. CO-REQUISITE: ST 231. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE SURGICAL TECHNOLOGY PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

ST 231 PRINCIPLES AND PRACTICES OF SURGICAL TECHNOLOGY II CREDITS: 3
Students will apply techniques and concepts mastered in the second semester. Students will continue to learn surgical instrumentation, basic instrument setups, patient draping, safe handling/handling of surgical instrumentation, sharps, medications, and the proper performance of surgical counts. Students will also participate and demonstrate competence in a variety of simulated procedure-based scenarios and interventions in the lab performing both the scrub and circulator role. PREREQUISITES: ST 130 and ST 131. CO-REQUISITE: ST 230. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE SURGICAL TECHNOLOGY PROGRAM AND TO PROGRESS TO COURSES THAT REQUIRE THIS COURSE AS A PREREQUISITE.

ST 250 SURGICAL TECHNOLOGY CLINICALS CREDITS: 13
Surgical Technology Clinicals take place at a healthcare facility. It consists of work experience in the perioperative environment. Students will participate in a minimum of 120 surgical procedures in the scrub role. The procedures will be completed in a variety of areas and must meet ARC/STSA requirements. Students will perform and develop to entry-level competency as a surgical

technologist. At the completion of the course, students will return to main campus to take the Certified Surgical Technologist exam required of accreditation. PREREQUISITE: SUCCESSFUL COMPLETION OF ALL FIRST THROUGH THIRD SEMESTER ST TECHNICAL COURSES. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE SURGICAL TECHNOLOGY PROGRAM. CLINICAL PROGRESSION: ALL REQUIRED SURGICAL TECHNOLOGY COURSES, OTHER THAN ST 251, MUST BE SUCCESSFULLY COMPLETED PRIOR TO ENTERING THE CLINICAL PHASE OF THE PROGRAM.

ST 251 SURGICAL TECHNOLOGY CERTIFICATION REVIEW CREDITS: 1
This course serves as a comprehensive review for the national certification exam in surgical technology. Students will assess their knowledge in required content areas of surgical technology including perioperative case management and basic sciences of anatomy and physiology, pharmacology, pathophysiology and microbiology. **Online only.** PREREQUISITES: ST 230 and ST 231. GRADE REQUIREMENT: A MINIMUM GRADE OF "C" MUST BE EARNED IN THIS COURSE TO BE ELIGIBLE TO GRADUATE FROM THE SURGICAL TECHNOLOGY PROGRAM.

TRU 101 TRUCK DRIVING THEORY & LAB CREDITS: 7
This course teaches the knowledge and skills to prepare students for driving over-the-road Class A tractor/trailer combination vehicles and consists of theory and behind-the-wheel instruction. Topics covered include basic vehicle operation, safe operating procedures, vehicle systems, vehicle inspection, backing, and vehicle controls. Western Dakota Technical College is a registered training provider of Entry Level Driver Training (ELDT) for the Federal Motor Carrier Safety Administration (FMCSA). This program meets ELDT requirements for both theory and behind-the-wheel instruction. Upon successful completion of the course, students will take a third-party driving exam to obtain their Class A Commercial Driver's License (CDL). GRADE REQUIREMENT: 80% OR HIGHER ON THEORY ASSESSMENT AND 100% PROFICIENCY ON REQUIRED DRIVING SKILLS.

WDM 100 WELDING AND FABRICATION FOR GENERAL APPLICATIONS CREDITS: 2
This course teaches the student safety procedures and familiarization with MIG set-up operations and welding in flat, horizontal, vertical, and overhead positions. In addition, the use and care of oxyacetylene welding and the cutting torch are covered.

WDM 102 SHIELDED METAL ARC WELDING I CREDITS: 3
Shielded Metal Arc Welding theory and skills training will allow the student to attain an acceptable level of welding skills. Equipment safety, setup, operation, and maintenance and electrode identification, application, and metallurgy are covered for the welding of ferrous metals. Surface and fillet welds in all positions, along with carbon arc gouging and cutting, will be the main focus in this course.

WDM 103 GAS METAL ARC WELDING I CREDITS: 3
Gas Metal Arc Welding classroom theory and skills training in the lab will allow the student to attain an acceptable level of welding skills. This course is designed to provide the student with a technical understanding of wire welding processes, equipment set up, metal transfers, and shielding gases. The development of welding procedures to successfully weld various types and thickness of structural steels are stressed. Students will perform fillet welds in all positions.

WDM 104 FABRICATION I CREDITS: 3
This course is an introduction to fabrication concepts. It focuses on safety fundamentals, basic skills of measurement, industry math practices, hand tools, pattern development, beginning metal forming, joint design, and an introduction to metallurgy. Projects will be designated by the instructor.

WDM 105 OXY FUEL WELDING/CUTTING CREDITS: 3
This course is the study of welding and cutting using oxygen and acetylene gases. Students will learn the proper setup, shut down, and safety associated with this process. Shop work will cover manual cutting, semi-automated cutting, filler and autogenous welding.

WDM 151 GAS METAL ARC WELDING II CREDITS: 3
This course is designed to provide the student with a technical understanding of wire welding processes, equipment set-up, metal transfers, and shielding gases including solid and flux core wires. Students will practice developing their welding skills in and out of positions using differing processes to successfully weld various types and thickness of structural metal. Students will weld grooved plate with and/or without backing in all positions. PREREQUISITE: WDM 103.

WDM 152 FABRICATION II CREDITS: 3
This course continues the study of fabrication concepts with a focus on material selection, blueprint reading, fastener selection, weld symbols, and application of joint design with proper part fitment. It will also cover material preparation, part assemblies, and welding procedure. Projects will be designated by instructor. PREREQUISITE: WDM 104.

WDM 153 GAS TUNGSTEN ARC WELDING I CREDITS: 3
This course is an introduction to GTAW theory and skills training. Students will learn and apply proper equipment setup and safety related to this process. Fundamentals will be taught on light gauge ferrous material and be joined autogenously and with filler. PREREQUISITE: WDM 102 and WDM 105.

WDM 162 SHIELDED METAL ARC WELDING II CREDITS: 3
Shielded Metal Arc Welding classroom theory and skills training in the lab enables the student to attain an acceptable level of welding skills. Students will weld on grooved plate with backing in and out of position. These welds will be completed on 3/8" – 1" thickness metal using Low-Hydrogen and Fast Freeze electrodes. ***Course Completion Requirement: Students must perform the ¾"Qualification SMAW 3G and 4G Welding Tests. *** PREREQUISITE: WDM 102.

WDM 201 GAS TUNGSTEN ARC WELDING II CREDITS: 3
This course continues the study of GTAW theory and skills training. Students will apply fundamental skills to weld in and out of position on light gauge material, tubing, and open root pipe. Ferrous and nonferrous materials will be used. PREREQUISITE: WDM 153.

WDM 202 FABRICATION III CREDITS: 3
This course continues the study of fabrication concepts with a focus on preliminary manufacturing modules. The course will cover an introduction to project design and layout, manufacturing implementation, jigs and fixtures, and quality control. It will also cover the use of manufacturing techniques, welding economics, and application of a BOM (bill of materials). Projects will be designated by instructor. PREREQUISITE: WDM 152.

WDM 203 GAS METAL ARC WELDING III CREDITS: 3
This course is designed to give students the ability to use their fundamental MIG welding skills and apply them to various real-world applications. Fillet welding techniques will be expanded to encompass welding parameter settings on light gauge through unlimited thickness. Emphasis will be placed on operator understanding and selection of solid-wire (mild steel), metal-core (mild steel, and or low-alloy steels), and flux-cored (mild, steel, and or low-alloy steels) for the correct application. Equipment understanding, setup, and variations will be explored. PREREQUISITE: WDM 151.

WDM 217 SHIELDED METAL ARC WELDING III CREDITS: 3
This course continues the study of SMAW theory and skills training with a focus on open root welding on grooved plate in all positions. Students will complete these tasks using Low-Hydrogen and Fast-Freeze electrodes. PREREQUISITE: WDM 162.

WDM 223 GAS METAL ARC WELDING IV CREDITS: 3
This course will focus on performing groove welds on plate and tubular joints, with and without backing, in all positions. GMAW, FCAW, and MCAW may all be utilized. Students will weld on carbon steel of varying thicknesses up to 1". Welder qualification and testing requirements will be studied as relevant to the procedures used in the course. PREREQUISITE: WDM 203.

WDM 239 ADVANCED WELDING APPLICATIONS CREDITS: 3
This course is designed to build on the knowledge and experience that students have learned in their courses to this point. A variety of specialized welding and cutting processes will be utilized, and students will learn advanced techniques to successfully weld multiple material types and joint designs. Newest industry technologies will be studied as appropriate. Students will have the option to spend more time with processes and procedures that align with their career plan. PREREQUISITE: WDM 203, WDM 217, and WDM 201.

WDM 254 SHIELDED METAL ARC WELDING IV CREDITS: 3
This course continues the study of SMAW theory and skills training with a focus on 2G, 5G and 6G pipe. Students will complete these tasks using E7018 and E6010 electrodes. PREREQUISITE: WDM 204.

WDM 260 WELDING CAPSTONE CREDITS: 3
This class will provide the graduating student skills to prepare them for management, supervisor, and foreman positions in the welding industry. This will be accomplished by taking a critical look at the economics behind successful weld production and manufacturing. Topics covered during theory will be, but not limited to, expenditures, productivity, AWS code, research and development, team building, specialized welding processes, and industry trends. Skills training in the lab will be based on the industry that the student has chosen as a career path and, when applicable, the student will work with standards set by a future employer or by industry. *******Course Completion Requirement: Students must, according to their choosing, perform one or a combination of the following Unlimited Thickness Welding Tests: SMAW 3G and 4G, FCAW 3G and 4G, or GMAW 2G. The SMAW Process or the FCAW Process require two tests to be performed. ******* PREREQUISITE: SUCCESSFUL COMPLETION OF ALL FIRST THROUGH THIRD SEMESTER WDM TECHNICAL COURSES.