

VOCATIONAL EDUCATION DEPARTMENT

David White Bull, Director
 Faith Ann Richards, Administrative Assistant
 Stanley Janis, Automotive Technology Instructor
 Joe Kirk, Automotive Technology Instructor
 Crystal Paulson, Office Technology Instructor
 Lyle Wilson, General Construction Instructor
 Vacant, General Construction Instructor
 Marlin Alt, Electrical Technology Instructor
 Joe Farrell, Plumbing Technology Instructor

Vocational Education Department Mission

To continuously improve all programs to provide all students with competitive human, technical, and conceptual skills to participate in the improvement of their communities and quality of life.

The Vocational Education Department offers the following degrees and programs:

Associate of Applied Science (AAS)

The Associate of Applied Science degree is a technical education and career-training program designed to provide students with hands-on experience in a variety of tasks and duties found in the world of business and government. These programs are not designed to facilitate the complete transfer of credits earned toward a higher academic degree.

AAS degree programs are offered only if and when vocational funding is available. Please contact the Vocational Education Department to see if the particular program of interest is currently funded. Vocational degree programs are subject to change without notice, depending on community need and the availability of funding, but active students will be given the opportunity to complete discontinued degree programs once they have been started.

AAS degrees offered:

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|--------------------------|-------------------------|
| A. Automotive Technology | C. General Construction |
| B. Electrical Technology | D. Plumbing Technology |
| E. Office Technology | |

Pre-Program Entrance Requirements

The above AAS degree programs require that entering students take the Accuplacer placement test offered by the OLC Foundational Studies Department. **Any required Developmental Math and English courses must be completed before you enter On-Site Construction I or Auto 101, OMath 113 or TMath 113.** Please see the Foundational Studies Registration Flowchart for courses you may take while you complete the program entrance requirements. Also see the **Suggested Educational Plan** for each degree area.

Vocational Education Course Learning Outcomes

When completing the program the student will be able to:

Automotive Program

- 1) Demonstrate professionalism and related soft skills.
- 2) Apply theory of vehicle operating systems.
- 3) Diagnose vehicle operating systems.
- 4) Repair vehicle operating systems.
- 5) Interpret service information.
- 6) Exhibit safety practices and procedures.
- 7) Prepare for ASE testing.

Electrical Program

- 1) Exhibit proper safety techniques and procedures.
- 2) Classify the use of common Electrical materials.
- 3) Analyze blueprints and isometric drawings.
- 4) Demonstrate proper techniques and procedures for installation of Electrical systems.
- 5) Perform skillfully the installation of light fixtures, outlets, and household equipment.
- 6) Apply knowledge of model Electrical code rules and regulations.
- 7) Prepare for SD apprenticeship card and knowledge.

General Construction Program

- 1) Exhibit problem solving, creativity, and resourcefulness.
- 2) Exhibit safety practices and procedures.
- 3) Demonstrate framing skills.
- 4) Apply interior finish techniques.
- 5) Perform exterior finish applications.
- 6) Perform estimating/print reading functions.
- 7) Prepare for industry or union credentials & knowledge.

Plumbing Technology Program

- 1) Exhibit problem solving, creativity, and resourcefulness.
- 2) Exhibit safety practices and procedures.
- 3) Demonstrate design and layout of plumbing and sewer systems.
- 4) Assemble copper, PEX and PVC water supply systems.
- 5) Read Blueprints and explain UBC code requirements.
- 6) Estimate a plumbing job.
- 7) Prepare for journeyman plumbing exam.

Office Technology Program

- 1) Demonstrate professional business communication.
- 2) Utilize computer and other technology for general office applications.
- 3) Exhibit ethical behavior in the office setting.
- 4) Apply bookkeeping and record keeping procedures.
- 5) Perform administrative responsibilities to the customer and employer.
- 6) Explain social behaviors and interactions between individuals, groups and institutions.
- 7) Demonstrate organizational skills.

**VOCATIONAL EDUCATION DEPARTMENT
ASSOCIATE OF APPLIED SCIENCE IN AUTOMOTIVE TECHNOLOGY**

1. VOCATIONAL EDUCATION CORE (12 credits)	Taken	Date	Grade
CS 103 Ethics in the Workplace	3	_____	_____
OEd 103 Computer Basics	3	_____	_____
OMath 113*Occupational Math	3	_____	_____
Lak 103 Lakota Language I	3	_____	_____

2. AUTOMOTIVE PROGRAM (48 Credits)

SEMESTER ONE:

Auto 101 Electrical Systems 12_____

SEMESTER TWO:

Auto 102* Brake Systems 12_____

SEMESTER THREE:

Auto 201* Engine Performance 12_____

SEMESTER FOUR:

Auto 202* Steering & Suspensions 12_____

Total Credits: 60

**VOCATIONAL EDUCATION DEPARTMENT
ASSOCIATE OF APPLIED SCIENCE IN AUTOMOTIVE TECHNOLOGY**

Suggested Educational Plan

Pre-Program Entrance Requirements 6 Credits

Math 093	Developmental Math*	0
R&W 093	Reading & Writing*	0
CS 103	Ethics in the Workplace	3
OEd 103	Computer Basics	3

First Semester 15 Credits

Auto 101	Electrical Systems	12
OMath 113*	Occupational Math	3

Second Semester 15 Credits

Auto 102	Brake Systems	12
Lak 103	Lakota Language	3

Third Semester 12 Credits

Auto 201	Engine Performance	12
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Fourth Semester 12 Credits

Auto 202	Steering & Suspensions	12
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Total Credits: 60

*Non-credit requirements or test-out

**VOCATIONAL EDUCATION DEPARTMENT
ASSOCIATE OF APPLIED SCIENCE IN ELECTRICAL TECHNOLOGY**

1. VOCATIONAL EDUCATION CORE (12 credits)	Where Taken	Date	Grade
CS 103	Ethics in the Workplace	3	_____
OEd 103	Computer Basics	3	_____
TMath 123*	Construction Trades Math	3	_____
Lak 103	Lakota Language I	3	_____
2. CONSTRUCTION TRADES CORE (17 credits)			
Trds 103	Occupational Safety	3	_____
Trds 133	Residential Print Reading	3	_____
Elec 103	Electrical Fundamentals	3	_____
PLMB 103	Plumbing Fundamentals I	3	_____
HV 103	Introduction to HVACR	3	_____
Elec 122	NEC® Codes	2	_____
2. ELECTRICAL TECHNOLOGY SPECIALIZATION (15 credits)			
Elec 113	Electrical Blue Prints	3	_____
Elec 133*	Motors	3	_____
Elec 213	Electrical Fundamentals II	3	_____
Elec 233	Advanced Electrical Theory	3	_____
Elec 223	Electrical Maintenance	3	_____
3. APPRENTICESHIP (16 credits)			
CAR 114	On-site Construction I	4	_____
CAR 124*	On-site Construction II	4	_____
CAR 214*	On-site Construction III	4	_____
CAR 224*	On-site Construction IV	4	_____
			Total Credits: 60

**VOCATIONAL EDUCATION DEPARTMENT
ASSOCIATE OF APPLIED SCIENCE IN ELECTRICAL TECHNOLOGY**

Suggested Educational Plan

Pre-Program Entrance Requirements 6 Credits

Math 093	Developmental Math*	0
R&W 093	Reading & Writing*	0
CS 103	Ethics in the Workplace	3
OEd 103	Computer Basics	3

First Semester 15 Credits

Elec 103	Electrical Fundamentals	3
Trds 103	Occupational Safety	3
CAR 114	On-site Construction I	4
TMath 123*	Construction Trade Math	3
Elec 122	NEC® Codes	2

Second Semester 13 Credits

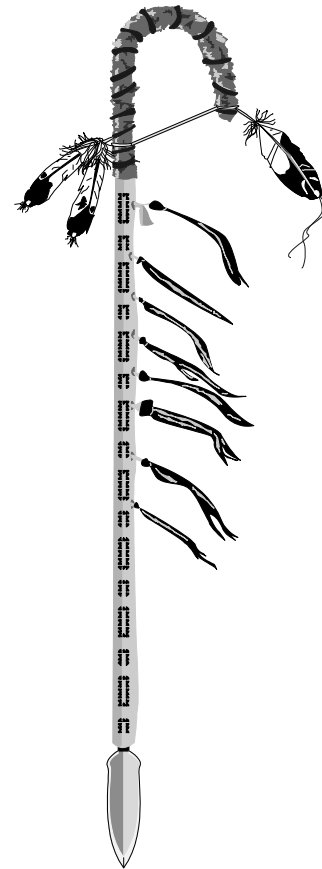
HV 103	Introduction to HVACR	3
Elec 113	Electrical Blue Prints	3
Elec 133	Motors	3
CAR 124	On-site Construction II	4

Third Semester 13 Credits

Trds 133	Residential Print Reading	3
PLMB 103	Plumbing Fundamentals I	3
Elec 213	Electrical Fundamentals II	3
CAR 214	On-site Construction III	4

Fourth Semester 13 Credits

Lak 103	Lakota Language I	3
Elec 223	Electrical Maintenance	3
Elec 233	Advanced Electrical Theory	3
CAR 224	On-site Construction IV	4



Total Credits: 60

*Non-credit requirements or test-out

**VOCATIONAL EDUCATION DEPARTMENT
ASSOCIATE OF APPLIED SCIENCE IN GENERAL CONSTRUCTION**

1. VOCATIONAL EDUCATION CORE (12 credits) Where Taken Date Grade

CS 103	Ethics in the Workplace	3	_____
OEd 103	Computer Basics	3	_____
TMath 123*	Construction Trades Math	3	_____
Lak 103	Lakota Language I	3	_____

2. CONSTRUCTION TRADES CORE (17 credits)

Trds 103	Occupational Safety	3	_____
Trds 133	Residential Print Reading	3	_____
ELEC 103	Electrical Fundamentals	3	_____
PLMB 103	Plumbing Fundamentals I	3	_____
HV 103	Introduction to HVACR	3	_____
CAR 232	Res. & Light Comm. Bldg. Codes	2	_____

2. GENERAL CONSTRUCTION SPECIALIZATION (15 credits)

CAR 103	Carpentry Theory I	3	_____
CAR 113	Basic Drafting	3	_____
Trds 163	Concrete Fundamentals	3	_____
CAR 203	Carpentry Theory II	3	_____
Trds 213	Residential Estimating	3	_____

3. APPRENTICESHIP (16 credits)

CAR 114	On-site Construction I	4	_____
CAR 124*	On-site Construction II	4	_____
CAR 214*	On-site Construction III	4	_____
CAR 224*	On-site Construction IV	4	_____

Total Credits: 60

**VOCATIONAL EDUCATION DEPARTMENT
ASSOCIATE OF APPLIED SCIENCE IN GENERAL CONSTRUCTION**

Suggested Educational Plan

Pre-Program Entrance Requirements 6 Credits

Math 093	Developmental Math*	0
R&W 093	Reading & Writing*	0
CS 103	Ethics in the Workplace	3
OEd 103	Computer Basics	3

First Semester 13 Credits

Lak 103	Lakota Language I	3
TMath 123*	Const. Trade Math	3
Trds 103	Occupational Safety	3
CAR 114	On-site Construction I	4

Second Semester 13 Credits

CAR 103	Carpentry Theory I	3
CAR 113	Basic Drafting	3
Elec 103	Electrical Fundamentals	3
CAR 124	On-site Construction II	4

Third Semester 13 credits

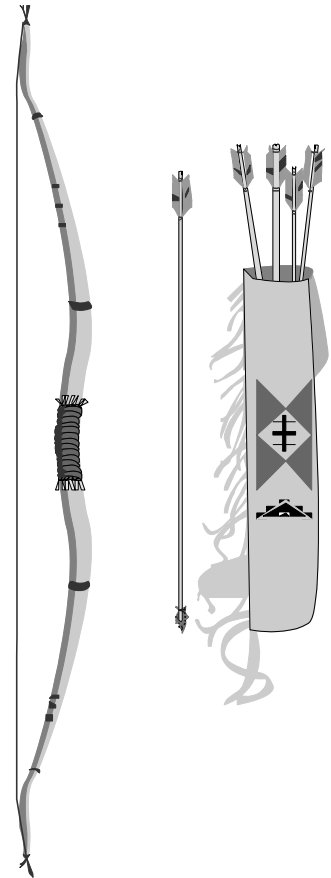
PLMB 103	Plumbing Fundamentals I	3
HV 103	Introduction to HVACR	3
Trds 163	Concrete Fundamentals	3
CAR 214	On-site Construction III	4

Fourth Semester 15 credits

Trds 133	Residential Print Reading	3
CAR 203	Carpentry Theory II	3
CAR 232	Res. & Light Comm. Bldg. Codes	2
Trds 213	Residential Estimating	3
CAR 224	On-site Construction IV	4

Total Credits: 60

*Non-credit requirements or test-out



**VOCATIONAL EDUCATION DEPARTMENT
ASSOCIATE OF APPLIED SCIENCE IN PLUMBING**

		Where Taken	Date	Grade
1. VOCATIONAL EDUCATION CORE (12 credits)				
CS 103	Ethics in the Workplace	3	_____	
OEd 103	Computer Basics	3	_____	
TMath 123	Construction Trades Math	3	_____	
Lak 103	Lakota Language I	3	_____	
2. CONSTRUCTION TRADES CORE (17 credits)				
Trds 103	Occupational Safety	3	_____	
Trds 133	Residential Print Reading	3	_____	
ELEC 103	Electrical Fundamentals	3	_____	
PLMB 103	Plumbing Fundamentals I	3	_____	
HV 103	Introduction to HVACR	3	_____	
PLMB 202	UBC Codes	2	_____	
2. PLUMBING SPECIALIZATION (15 credits – complete five from following list)				
PLMB 123	Piping Materials	3	_____	
PLMB 153	Plumbing Fundamentals II	3	_____	
PLMB 213	On-site Waste Water & Recycling	3	_____	
PLMB 223	Well Drilling & Pump Installation	3	_____	
PLMB 243	Commercial & Health	3	_____	
PLMB 253	Sewer & Water (transit)	3	_____	
PLMB 263	Plumbing Design & Layout	3	_____	
PLMB 273	Plumbing Blueprints (CAD/CAM)	3	_____	
3. APPRENTICESHIP (16 credits)				
CAR 114	On-site Construction I	4	_____	
CAR 124*	On-site Construction II	4	_____	
CAR 214*	On-site Construction III	4	_____	
CAR 224*	On-site Construction IV	4	_____	

Total Credits: 60

VOCATIONAL EDUCATION DEPARTMENT ASSOCIATE OF APPLIED SCIENCE IN PLUMBING

Suggested Educational Plan

Pre-Program Entrance Requirements 6 Credits

Math 093	Developmental Math*	0
R&W 093	Reading and Writing*	0
CS 103	Ethics in the Workplace	3
OEd 103	Computer Basics	3

First Semester 13 Credits

TMath 123	Construction Trades Math	3
Trds 103	Occupational Safety	3
PLMB 103	Plumbing Fundamentals I	3
CAR 114	On-site Construction I	4

Second Semester 13 Credits

PLMB 123	Piping Materials	3
PLMB 153	Plumbing Fundamentals II	3
Trds 133	Residential Print Reading	3
CAR 124	On-site Construction II	4

Third Semester 12 Credits

PLMB 202	UBC Codes	2
PLMB 213	On-Site Waste Water & Recycling	3
PLMB 223	Well Drilling & Pump Installation	3
CAR 214	On-site Construction III	4

Fourth Semester 16 Credits

ELEC 103	Electrical Fundamentals	3
PLMB 253	Sewer & Water (transit)	3
HVAC 103	Intro to HVACR	3
Lak 103	Lakota Language I	3
CAR 224	On-site Construction IV	4

Total Credits: 60

*Non-credit requirements or test-out

**VOCATIONAL EDUCATION DEPARTMENT
ASSOCIATE OF APPLIED SCIENCE IN OFFICE TECHNOLOGY**

1. GENERAL EDUCATION CORE (18 credits)	Where Taken	Date	Grade
Engl 103* Freshman English I	3	_____	_____
Engl 113* Freshman English II	3	_____	_____
SpCm 103 Speech Communications	3	_____	_____
OMath 113* Occupational Math	3	_____	_____
OEd 103 Computer Basics	3	_____	_____
Social Science Elective	3	_____	_____
2. LAKOTA STUDIES (6 credits)			
Lak 103 Lakota Language I (or higher)	3	_____	_____
LSoc 103 Lakota Culture OR			
LHist 203* Lakota History I	3	_____	_____
3. PROFESSIONAL REQUIREMENTS (42 credits)			
CS 103 Ethics in the Workplace	3	_____	_____
MIS 213* Concepts of Database Management	3	_____	_____
OEd 123* Word Processing I	3	_____	_____
OEd 133 Records Management	3	_____	_____
MIS 143* Introduction to Spreadsheets	3	_____	_____
OEd 153 Professional Development	3	_____	_____
OEd 173* Dictation/Transcription	3	_____	_____
OEd 243* Office Management, Security & Safety	3	_____	_____
OEd 253* Word Processing II	3	_____	_____
OEd 283 Keeping Financial Records	3	_____	_____
OEd 293 Record Keeping Application Software	3	_____	_____
Professional Elective (must be a 200	3	_____	_____
Professional Elective level or higher)	3	_____	_____
OTech 273* Office Technology Internship	3	_____	_____
Total Credits: 66			

**VOCATIONAL EDUCATION DEPARTMENT
ASSOCIATE OF APPLIED SCIENCE IN OFFICE TECHNOLOGY**

Suggested Educational Plan

Pre-Program Entrance Requirements 6 Credits

Math 093	Developmental Math*	0
R&W 093	Reading & Writing*	0
CS 103	Ethics in the Workplace	3
OEd 103	Computer Basics	3

First Semester 15 Credits

Engl 103	Freshman English I	3
OMath 113*	Occupational Math	3
LAK 103	Lakota Language I	3
SpCm 103	Speech Communication	3
MIS 213*	Concepts of Database Management	3

Second Semester 15 Credits

Engl 113	Freshman English II	3
OEd 123	Word Processing I	3
OEd 133	Records Management	3
LSoc/LHist	Lakota Culture/History	3
OEd 153	Professional Development	3

Third Semester 15 Credits

	Social Science Elective	3
OEd 253	Word Processing II	3
OEd 283	Keeping Financial Records	3
OEd 243	Office Mgmt, Security & Safety	3
MIS 143	Introduction to Spreadsheets	3

Fourth Semester 15 Credits

OEd 293	Record Keeping Software	3
OEd 173	Dictation/Transcription	3
	2 Professional Electives	6
OTech 273	Office Technology Internship	3

*Non-credit requirements or test-out



Total Credits: 66

VOCATIONAL EDUCATION COURSE DESCRIPTIONS:

Auto 101 Electrical Systems

Prerequisite: None

The first of four semesters begins with the student getting an overall picture of the program. Topics include Safety, Communications, Basic Shop Procedures, Service Information, Tools and Equipment, and Basic Vehicle Maintenance. Using state of the art computer based instruction modules, students will begin learning automotive Electronics. The areas of study includes: Introduction to Electronics, Semi-Conductors, Transistors, Circuits and Troubleshooting. 12 credits

Auto 102* Brake Systems

Prerequisite: Auto 101

Student will be able to use a drum/disc brake trainer, which will be a two wheel model. This trainer will be part of a brake system program to present the live operation and study hydraulic brake systems. A Delco/Bosh ABS/TCS system trainer will used to present “real world” operation and study of antilock brake/traction control systems. 12 credits

Auto 201* Engine Performance, Emission & Ignitions

Prerequisite: Auto 102

Student will learn how to use training boards to perform troubleshooting and engine control fundamentals, engine control diagnostic fundamentals, engine control system troubleshooting, and injector/ fuel pump systems. 12 credits

Auto 202* Steering & Suspensions

Prerequisite: Auto 201

In this course students will study and gain knowledge of the following: Steering, Suspension Service and Repair including steering system design, Steering gear and linkage (manual and power), rack-and-pinion, steering columns, front and rear suspension designs, Electrical suspension control systems, wheel bearing and spindle design, wheel and tire assembly service, wheel alignment diagnosis and adjustment. Students will have hands on training and testing. 12 credits

CAR 103 Basic Carpentry Theory I

Prerequisite: None

This course deals with the study of the various tools and materials including “green construction” materials used in construction and proceeds into the study of foundation systems and materials, floor systems, wall systems, and roof systems used in any type of residential construction. This course focuses on the rough in stage of residential construction.

3 credits

CAR 203 Carpentry Theory II

Prerequisite: CAR 103

This course completes the study of residential construction. It concentrates on the finishing of the interior, exterior, and attachments to the home.

3 credits

CAR 113 Basic Drafting

Prerequisite: TMath 123

Students will gain experience in transferring abstract ideas to workable drawings. Simple block drawing exercises will advance to residential home, and multi-plan drawings.

3 credits

CAR 114 On-Site Construction I

Prerequisite: TMath 123; Trds 103

Continued construction of the residential home started with CAR 114. Emphasis for each student will be toward their specific degree program through hands-on activities. Electrical students will primarily do the wiring; plumbing students will install piping and plumbing fixtures and the general construction students will do primarily the framing, etc. (All students will work in all phases of the general construction for additional experience.) 4 credits

CAR 124* On-Site Construction II

Prerequisite: CAR 114

Continued construction of the residential home started with CAR 114. Emphasis for each student will be toward their specific degree program through hands-on activities. Electrical students will primarily do the wiring; plumbing students will install piping and plumbing fixtures and the general construction students will do primarily the framing, etc. (All students will work in all phases of the general construction for additional experience.) 4 credits

CAR 214* On-Site Construction III

Prerequisite: CAR 124

Continued construction of the residential home started with CAR 114. Emphasis for each student will be toward their specific degree program through hands-on activities. Electrical students will primarily do the wiring; plumbing students will install piping and plumbing fixtures and the general construction students will do the framing, etc. (All students will work in all phases of the general construction for additional experience.) 4 credits

CAR 224* On-Site Construction IV

Prerequisite: CAR 124

Continued construction of the residential home started with CAR 114. Emphasis for each student will be toward their specific degree program through hands-on activities. Electrical students will primarily do the wiring; plumbing students will install piping and plumbing fixtures and the general construction students will do primarily the framing, etc. (All students will work in all phases of the general construction for additional experience.) 4 credits

CAR 232 Light Commercial & Residential Building Codes

Prerequisite: TMath 123

This course provides authoritative requirements and recommendations compiled from the nation's leading professional associations, industry publications, and building code organizations. Coverage includes standards for concrete, masonry, framing, finish carpentry and cabinetry, insulation, roofing, windows and doors, drywall and ceramic tile, floor covering, plumbing, Electrical, HVAC, and more.

2 credits

CS 103 Ethics in the Workplace

Prerequisite: None

This course is designed to teach the principles of customer expectations, ethics, and the general process of handling and retaining customers. The student will become more aware of and recognize ethical issues at home, at school, in the community, and in the workplace. This course will encourage the student to think more clearly, critically, and logically about difficult ethical issues and questions and how to apply the right concepts and decisions in the workplace. 3 credits

Elec 103 Electrical Fundamentals

Prerequisite: TMath 123

This is an introduction to basic wiring of switches, outlets, lights, and appliances in residential applications. This course introduces the student to AC/DC Electron theory, Electron flow resistance, voltage, ohms law, magnetism, inductance, and capacitance.

3 credits

Elec 113 Electrical Blue Prints

Prerequisites: TMath 123

Students will develop efficient and accurate print reading skills in the areas of Electrical construction and maintenance. Concepts of drawing, sketching, views, plans, schedules, and specifications will be studied and then reinforced by actual print reading exercises that offer practice in the interpretation and analysis of various prints in the residential, commercial and industrial fields. Students will benefit from exposure to Electrical, mechanical, hydraulic, and specialized communication symbology that will improve recognition and understanding of other craft symbols likely to be encountered on the job.

3 Credits

Elec 122 NEC® Codes

Prerequisites: TMath 123

Print reading Based on 2008 National Electrical Code® is designed to enable the student to learn Electrical print reading and become familiar with applicable sections of the NEC®. Complete references to the book are presented throughout the text. Trade Competency Tests are included at the end of each chapter to help students check their understanding of the text material and the NEC®. 2 credits

Elec 133* Motors

Prerequisite: TMath 123

This course introduces motors from a magnet spinning in a magnetic field to three-phase adjustable speed types and the basic methods of wiring and controlling them.

3 credits

Elec 213 Electrical Fundamentals II

Prerequisite: Elec 103

This is a continuation of the basic wiring- Fundamentals I (Elec 103) course with wiring of switches, outlets, lights, and appliances in residential applications. This course introduces the student to AC/DC electron theory, electron flow resistance, voltage, ohms law, magnetism, inductance, and capacitance. Students will study the methods used to safely install, maintain and troubleshoot the wiring systems of a house. 3 credits

Elec 223 Electrical Maintenance

Prerequisite: None

This course investigates the problems of an Electrical complex and the probabilities of failure and maintenance methods to prevent them. 3 credits

Elec 233 Advanced Electrical Theory

Prerequisite Elec 122

This course includes the study of transformers, generators, and power lines, and other advanced electrical topics. Students will be able to understand the power distribution industry from the standpoint of the Vocational Education Electrical Program. 3 credits

HV 103 Introduction to HVACR

Prerequisite: TMath 123

This course is designed to guide apprentices, entry-level technicians, and first-year students through their first experiences in the HVACR Trade. It provides a solid and thorough introduction to the field. It is the culmination of the efforts of industry leaders like the Air Conditioning Contractors of America (ACCA), Plumbing-Heating-Cooling Contractors Association (PHCC), and Refrigeration Service Engineers Society (RSES). It provides simple concepts that provide an overview of the world of HVACR and its main systems and components. Coverage then progresses to increasingly complex procedures, such as maintenance and inspection, installation and repair, and customer service and sales. 3 credits

MIS 143 Introduction to Spreadsheets

Prerequisite: OEd 103 or test out

This is a continuation of the study of spreadsheets emphasizing the advanced features of functions, macros and business graphics.

3 credits

MIS 213 Concepts of Database Management

Prerequisite: OEd 103 or test out

An introduction to Data Base Management Systems (DBMS). Topics include, but are not limited to: relational models, keys, function, queries, reports and management of database systems.

3 credits

MIS 243 Data-Based Applications and Design

Prerequisite: MIS 213

A continuation of the study of database emphasizing database concepts, design and management techniques.

3 credits

OEd 103 Computer Basics

Prerequisite: None

A general education course designed for students to key the alphabetic and number keys by touch and to key with good accuracy and increasing speed. Students will also be formatting basic business documents such as memos, letters, simple reports and tables. 3 credits

OEd 123* Word Processing I

Prerequisites: OEd 103 or test out

This course provides opportunities for skill development in the Electronic procedures of producing quality business documents. Word Processing Software is used to develop the competencies of creating, formatting, editing/revising and the printing of documents such as memos, letters, reports, tables, labels, envelopes, and etc. Competencies in the areas of composing and proofreading documents, and producing effective communication skills are the objectives of this course. 3 credits

OEd 133 Records Management

Prerequisite: None

This course will apply alphabetic, geographic, numeric and subject filing procedures according to the rules established by ARMA (American Records Management Association). Storage systems, file maintenance, records control, and Electronic filing are included in this course. Records Management is a part of all offices nationwide. 3 credits

OEd 153 Professional Development

Prerequisite: None

This course is designed to provide students with professional job skills and professional job seeking skills. A "Professional Portfolio" will be compiled during this class. Items, to be included but not limited to, are: resume, transcript, graded school assignments, achievements/honors, volunteer work certificates or projects, scholarship letters, recommendation letters, and any other documents that will help the student become successfully employed. Parliamentary Procedures, Robert's Rules of Order, will also be studied. 3 credits

OEd 173* Dictation/Transcription

Prerequisite: OEd 123

This course provides fundamental instruction in the use of dictating/transcribing equipment in preparing office letters, correspondence and meeting minutes. The course includes a review of spelling, rules of dictation, rules of transcription and the mechanics of producing error free documentation at employable production rates.

3 credits

OEd 243* Office Management, Security & Safety

Prerequisites: CS 103, Engl 103, OEd 103, OEd 153, and OEd 133 or with approval of Department Director. This course features modern practices and problems in the business office. Office safety, office/document security, work ethics, problem-solving and decision-making tools, social responsibilities, organizational structures, supervising, staffing, training, and office control through a systems analysis process are areas to be studied. 3 credits

OEd 253* Word Processing II (General)

Prerequisite: OEd 123 and MIS 213

This course develops the advanced application competencies of document composition. Improved productivity in the most efficient, timesaving way of producing office documents using Electronic equipment and templates, proofreading/editing documents will be a major objective of this course. This course has an exit requirement of 40 words-per-minute without error.

3 credits

OEd 283 Keeping Financial Records (formerly: ENTR 103)

Prerequisite: None

This course will give the student a thorough background in the basic record keeping skills used in business. The skills presented will also serve as a sound background for employment in office jobs. Students will be working with budgets, credit records, cash receipts, checking account records, petty cash records, retail charge sales, accounts receivable and payable, payroll records, and etc. 3 credits

OEd 293* Record Keeping Application Software (formerly: ENTR 123)

Prerequisite: OEd 283 or with approval of instructor or director.

Accounting software for small business and entrepreneurship will be introduced for business recordkeeping and management. An example of this would be "Quick Books". An introduction to a word processing program and a spreadsheet program will be provided so that the student will be able to learn how to integrate financial documents into letters or reports and how to import data from an existing spreadsheet to a bookkeeping management program.

3 credits

OMath 113 Occupational Math

Prerequisite: Math 093 or test out

This one-semester course helps students develop mathematical skills needed in the occupation that they are seeking. It provides a comprehensive coverage of the basic computational skills and their applications. The course is developed to meet not only the needs of the traditional post-secondary student, but also the needs of the mature student whose mathematical proficiency may have declined during years away from formal schooling.

3 credits

OTech 273* Office Technology Internship

Prerequisite: Final semester of Program or department approval.

Students will work as a supervised office assistant in an office on or off the reservation in a tribal, government, or private entity for ninety hours. A daily log of hours, activities performed, an overall report of the internship experience, plus the normal signed documents required to take the internship work experience will be required. 3 credits

PLMB 103 Plumbing Fundamentals I

Prerequisites: Math 093, R&W 093- Developmental math and reading & writing, or test-out.

Students will be taught history of plumbing and value in creating healthy society. Will learn plumbing definitions as spelled out in Uniform Plumbing Code . Will be exposed to basic concepts of DWV systems and basic water distribution. 3 credits.

PLMB 123 Piping Materials

Prerequisite: Trades 103- Occupational Safety

Students will work with materials used in plumbing applications. Will learn to solder and braze copper . Will learn mechanical joints for various materials. Will learn proper technique for assembly of screwed piping assemblies. Will work with solvent weld and mechanical joint plastic piping. 3 credits.

PLMB 153 Plumbing Fundamentals II

Prerequisite: PLMB 103 & TMath 103- Plumbing Fundamentals I and Trades Math

Will study DWV systems as explained in chapters 7&9 of Uniform Plumbing Code. Will size both residential and commercial buildings. 3 credits

PLMB 202 UBC Codes

Prerequisite: PLMB 103 & PLMB 153- Plumbing Fundamentals I & II

Will study material standards, plumbing fixtures and water heaters as spelled out in chapters 3-5 of Uniform Plumbing Code. 2 credits

PLMB 213 On-site Waste Water & Recycling

Prerequisite: PLMB 103 & PLMB 153- Plumbing Fundamentals I & II and UBC Codes

Students will learn about on-site waste according to chapter 16 and Appendix H of the Uniform Plumbing Code and from South Dakota Department of natural Resources (DNR) standards. 3 credits

PLMB223 Well Drilling and Pump Installation.

Prerequisites: PLMB 103- Plumbing fundamentals I

Will study South Dakota Department of Natural Resources (DNR) regulations and Water Works Association (WWA) standards for well and proper pump installation 3 credits.

PLMB 243 Commercial and Healthcare Facilities

Prerequisite: PLMB 103 & PLBM 153- Plumbing Fundamentals I & II and UBC Codes

Student will learn about plumbing systems in health care facilities and commercial buildings as spelled out in chapters 8 and 13-15 of Uniform Plumbing Code. 3 credits

PLMB 253 Sewer & Water Laterals and Mains (transit)

Prerequisite: PLMB 103 & PLBM 123 - Plumbing Fundamentals I and Piping Materials

Will learn proper installation of sewer & water mains and laterals as per chapter 7 Uniform Plumbing Code. Will also use transit use for this application and for onsite waste systems. 3 credits

PLMB 263 Plumbing Design & Layout

Prerequisite/co-requisite- Plumbing Core Program

Will learn design of residential and commercial plumbing systems. Will learn material take-off. Prep for South Dakota Journeyman Exam 3 credits

PLMB 273 Plumbing Blueprints

Prerequisite: PLMB 103 & OEd 103- Basic Computers, or test-out

Will learn to use computers in design and interpretation of plumbing systems. 3 credits.

TMath 123 Construction Trade Math

Prerequisite: Math 093 or test out

Trade Math will demonstrate the applications of math principles to the construction industry in the area of actual building, estimating, and drafting. Some of the principles addressed are surface areas, volumes, properties of spheres and circles, fractions and decimals, weight, and measures. The context will be based on realistic carpentry problems, including modern construction materials and practices. 3 credits

Trds 103 Occupational Safety

Prerequisite: None

The students will learn about theories and concepts (causes and costs of accidents, ethics and safety, Workers' Compensation and OSHA Compliance); OSHA's Construction Standard and Safety Practices; applications on the job (program and policies, safety and hazard analysis, accident investigation, reporting and record keeping, & emergency response plan); preventing violence in the workplace, stress, etc. The students will have the opportunity to receive CPR Training and Certification.

3 credits

Trds 133 Residential Print Reading

Prerequisite: TMath 123

Print reading will address the need to accurately interpret technical drawings and transform them into actual projects. Students will study the principles of architectural and structural details and measurements. 3 credits

Trds 163 Concrete Fundamentals

Prerequisite: CAR 103 Carpentry Theory I

This class provides basic knowledge of concrete construction. Contents include organizing for quality, concrete mixture designs, specifications, foundations, formwork, reinforcement and embedment's in structures, joints and reinforcement for slabs-on-ground, preparing for concreting, concrete placing and finishing, common field problems, and safety. 3 credits

Trds 213 Residential Estimating

Prerequisite: TMath 123

This is an introduction course to residential estimating processes and to the steps involved in accurately preparing a cost estimate. Students will learn how to price excavation and site work, concrete, carpentry, masonry, plumbing, heating, and Electrical work, as well as the general expenses and sub-trade work. Specifics on how to prepare a bill of materials from takeoff, how to summarize and prepare a bid for a custom home, assessing markup on an estimate, and how to review a bid before it is submitted to the client as well as information on preparing estimates for remodeling jobs.

3 credits