

**Areas of Study**

- Agriculture
  - Agri-Aviation Option
  - Agri-Business Option
  - Agri-Production Option
  - Commodity Merchandising Option
  - Dairy Option
  - Large Animal Technician Option
  - Precision Technology Option
  - Ranch Management Option
  - Swine Management Option
- Automotive Technology
  - Light Duty Diesel - 3rd Year Option
- Aviation Maintenance Technology
  - Flight Training Option
- Building Trades Technology
- Business Associate
  - Entrepreneurship Option
  - Human Resource Associate Option
  - Marketing & Management Option
  - Photography/Media Option
- Community Healthcare Worker
- Computer Information Systems
  - Networking & Cyber Security Specialist Option
  - Programming Specialist Option
  - Graphic Design & Digital Communications Specialist Option
- Cosmetology
- Custom Paint & Fabrication
  - Auto Body Technician Option
  - Diploma Option
- Dental Assisting - Certified
- Diesel Technology
  - CAT ThinkBig
  - CNH Forging the Future
  - Tractor Option
  - Truck Option
- Electronic Systems Technology
- Energy Operations
- Energy Technology
- Environmental Technology
- Financial Services
  - Agri-Financial Services Option
  - Business Accounting Option
  - Consumer Financial Services Option



- Heavy Equipment Operator
- High Performance Engine Machining
- Human Services Technician
  - Child Development Option
  - Developmental Disabilities Option
  - Mental Health/Activity Technician Option
  - Youth Offender Option
- Law Enforcement
  - Virtual Academy
- Med/Fire Rescue
  - Emergency Medical Specialist Option
  - Paramedic Diploma
- Medical Assisting
- Medical Laboratory Technician
- Nursing - LPN
- Nursing - RN
- Occupational Therapy Assistant
- Physical Therapist Assistant
- Precision Machining
- Robotics
- Welding Technology

**E-DEGREES** (online hybrid programs)

- Agriculture
  - Agri-Business Option
  - Commodity Merchandising Option
  - Ranch Management Option
- Business Associate
  - Entrepreneurship
  - Human Resource Associate Option
  - Marketing & Management Option
- Computer Information Systems
- Dental Assisting - Certified
- Electronic Systems Technology
- Emergency Medical Technician - Certification only
- Financial Services
- Law Enforcement Virtual Academy
- Med Fire Rescue
  - Emergency Medical Technician (EMT Basic) Certification – Certification only
  - Paramedic Option
- Medical Lab Technician
- Nursing
- Precision Machining



**LAKE AREA**  
**TECHNICAL INSTITUTE**

*It's your world.*

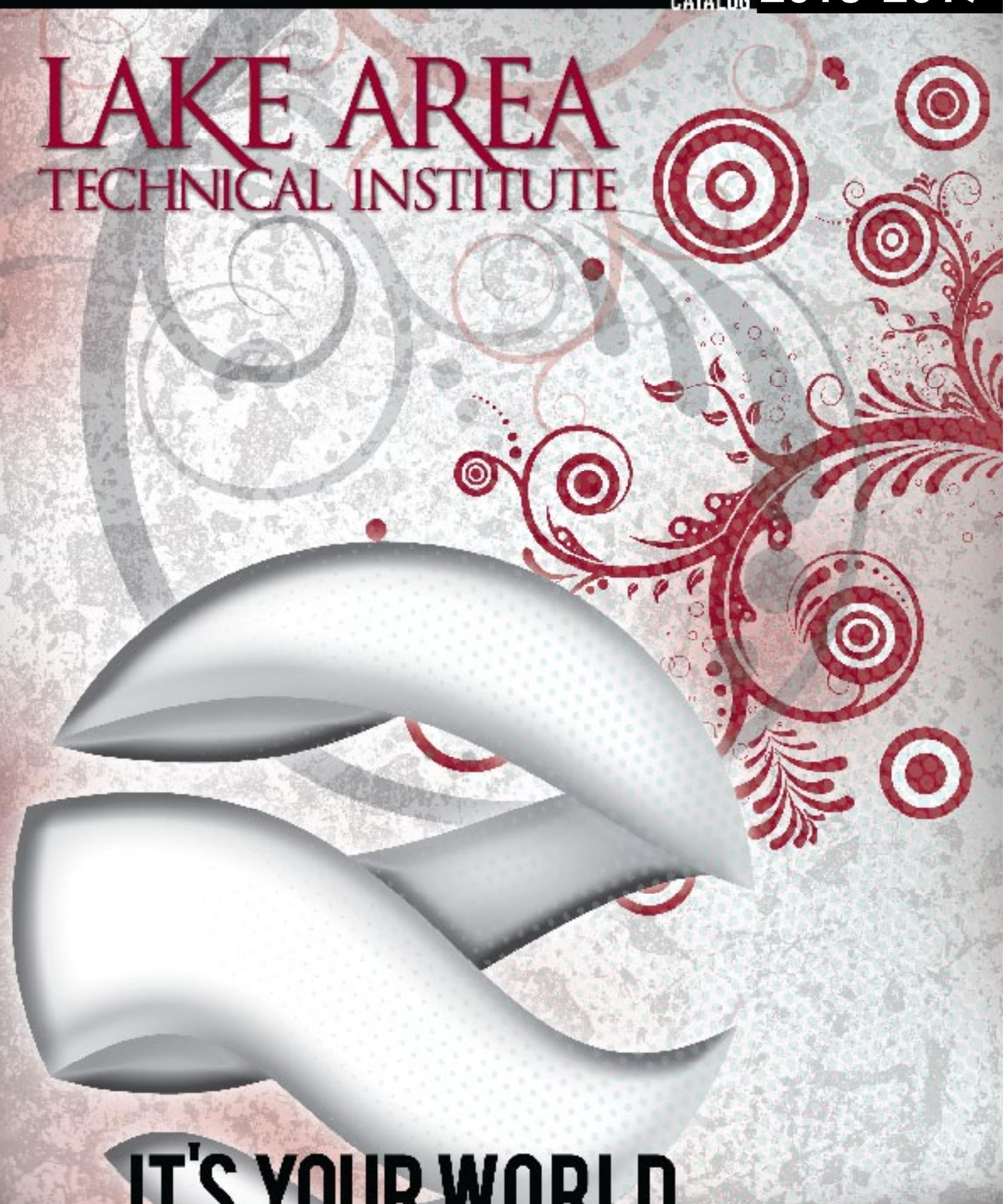
1201 Arrow Avenue  
Watertown, SD 57201  
(605) 882-LATI  
1-800-657-4344  
[www.lakeareatech.edu](http://www.lakeareatech.edu)

Lake Area Technical Institute

2018-2019

# LAKE AREA TECHNICAL INSTITUTE

# IT'S YOUR WORLD



**THE COURSES LISTED ARE BELIEVED TO BE ACCURATE AT THE TIME OF PRINTING AND ARE PROVIDED TO FACILITATE ACADEMIC PLANNING.**

Watertown School District 14-4 provides equal opportunity in its employment regulations, educational, and activity programs. It is the policy of the District not to discriminate on the basis of sex, race, color, national origin, creed, religion, marital status, status in regard to public assistance, age, ancestry, or disability.

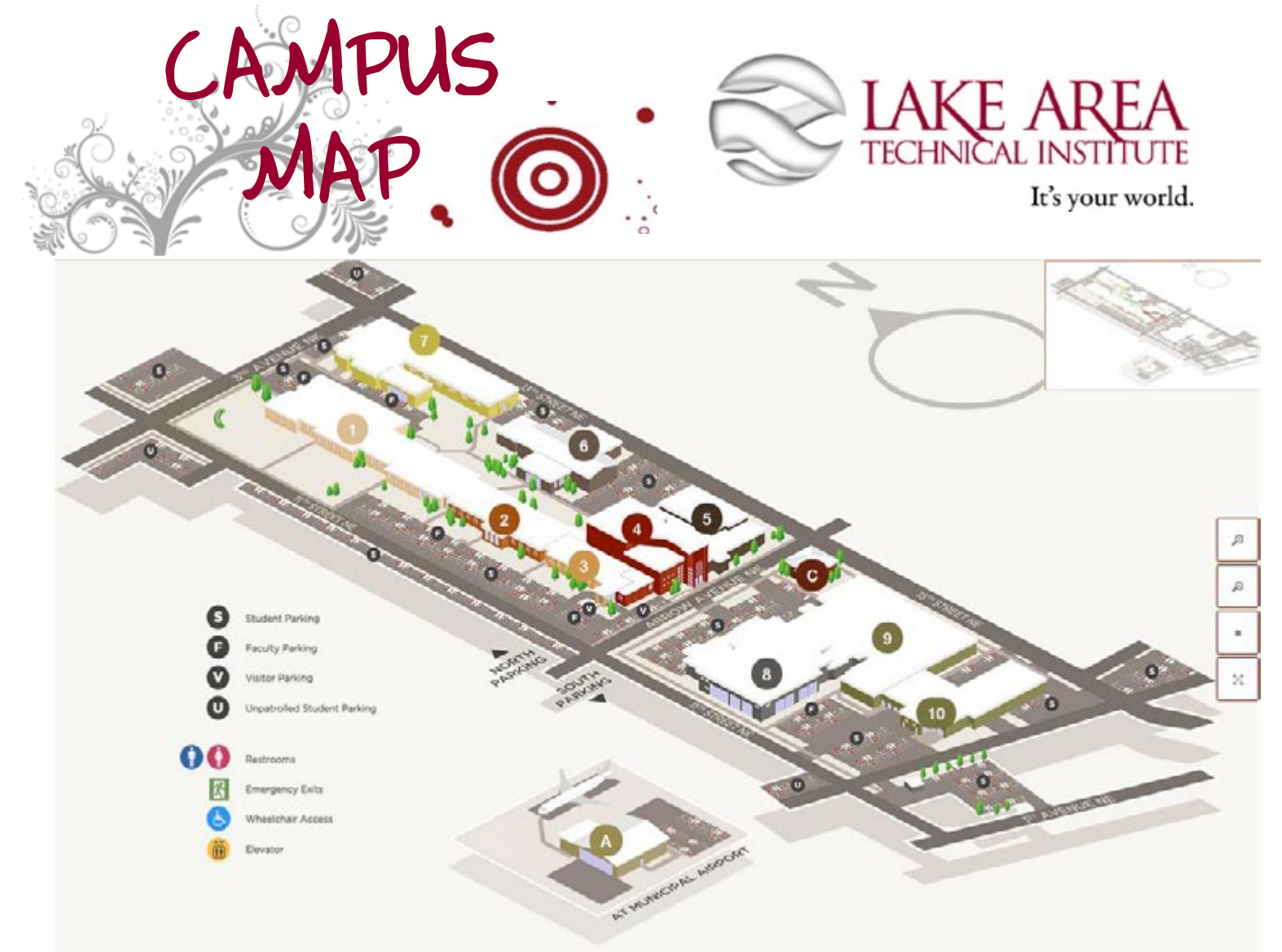
The Board's policy on nondiscrimination will extend to students, staff, the general public and individuals with whom it does business.

Persons with inquiries regarding implementation and compliance of Americans with Disabilities Act and Section 504 may contact the special services director. Those in need of accommodations should notify their instructor and make appropriate arrangements with LATI's Office of Disability Services at 882-5284, Ext. 216. Persons with inquiries regarding implementation and compliance regarding Title IX may contact the superintendent at 200 9th St. NE, Watertown, SD 57201, 605-882-6312. Additional inquiries may be directed to the Regional Director, Dept. of Education, Office for Civil Rights, 1961 Stout Street, Denver, CO 80294.

Accredited by: The Higher Learning Commission  
230 South LaSalle Street, Suite 7-500  
Chicago, Illinois 60604  
(800) 621-7440  
[www.hlcommission.org](http://www.hlcommission.org)



1201 Arrow Avenue  
P.O. Box 730  
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FAX: 1-605-882-6299  
[www.lakeareatech.edu](http://www.lakeareatech.edu)  
Date of Publication – April 2018



Click to view our interactive Campus Map that shows where classrooms are in every building!



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# ABOUT

Lake Area Tech



Lake Area Technical Institute operates in full accordance with the State of South Dakota and the regulations of the State Board of Education.

## VALUE STATEMENTS

- We believe in integrity, honesty and a caring attitude.
- We believe all people are valuable and should be treated with respect.
- We believe in promoting a positive image for technical education.
- We believe all employees contribute to the success of the institution.
- We believe that excellence and quality performance promotes success.

## MISSION STATEMENT

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.

## VISION STATEMENT

Lake Area Technical Institute will be the leader in technical education, working in partnership with business and industry and all levels of education. Lake Area Tech staff will integrate the latest technology and methods of delivering quality education to meet emerging global workforce demands. Lake Area Tech will continue to develop marketing strategies to promote technical education and will maintain excellence in all programs.

## ADMISSION POLICY

It is the policy of Lake Area Technical Institute that every person be given equal opportunity to be admitted into the program of his or her choice regardless of sex, race, color, national origin, creed, religion, marital status, status in regard to public assistance, age, ancestry, or disability.

Lake Area Tech accepts students for full-time enrollment who have a high school diploma or GED. In order to identify the students most capable of program completion and subsequent career success, LATI will require either an ACT test score, ACCUPLACER test score, or ATI-TEAS test score for all students desiring admission (some programs require additional testing). The tests need to have been taken within the last seven years. LATI strongly encourages all high school students considering technical education to take the ACT test when it is offered in their area. If that is not possible, applicants will need to schedule the ACCUPLACER or ATI-TEAS test at Lake Area Tech. Acceptance will be based on test scores.

All programs accept qualified students who meet the entrance standards until program capacity is met. After that, qualified accepted applicants are placed on a wait list. The Practical Nursing, Registered Nursing, and Physical Therapist Assistant programs' acceptance procedures includes a cutoff date as demand for the program exceeds capacity. Applicants are ranked by the Acceptance Committee according to acceptance test scores. Previous post-secondary GPA and work history may also be a factor.

## ADMISSION PROCEDURES

Lake Area Technical Institute requires all interested students to:

1. Complete an application form. Lake Area Tech also re-

- quires a \$25 non-refundable application fee. If a student attended Lake Area Tech previously, the \$25 application fee will still be required to update his/her admission file.
2. Submit a transcript of high school record or GED certificate. (All transcripts need to be sent from the issuing institution directly to LATI). If an applicant has attended other post-secondary schools or colleges, official transcripts should also be sent. High school seniors may apply any time during their senior year, but applications from juniors will not be processed.
3. All applicants need to submit ACT scores or schedule an appointment at LATI to take an entrance test. Existing test scores need to have been taken within the last seven years. These test scores, along with the transcripts, will assist the admission officer in determining if the applicant has the necessary ability to succeed in their program of choice. Some LATI programs require additional testing and an interview.
4. Once you are accepted, you will be required to pay a \$150 dollar holding fee. Of that, \$25 is non-refundable, and \$125 will be put towards your tuition. \*Notify us by July 1st if you will not be attending LATI, and we can reimburse \$125.

We recommend applying early to ensure your best chance of being admitted into the program of your choice. The application process is completed online at [www.lakeareatech.edu](http://www.lakeareatech.edu).

## RECOGNIZED HOME SCHOOL DIPLOMA OR EQUIVALENCY

High school diplomas obtained through an online high school program will be accepted by Lake Area Technical Institute if

### 2018-2019 Academic Calendar\*

Student Kick Off Day . . . . .	August 20
Fall Semester Begins . . . . .	August 21
Labor Day . . . . .	September 3
Columbus Day . . . . .	October 8
ATEA Conference . . . . .	October 5
Veterans Day . . . . .	November 12
Thanksgiving Break . . . . .	November 22-23
Fall Semester Ends . . . . .	December 18
Winter Break . . . . .	December 19 - January 3
New Student Orientation . . . . .	January 7
Spring Semester Begins . . . . .	January 8
Martin Luther King Day . . . . .	January 21
Presidents' Day . . . . .	February 18
Spring Break . . . . .	March 11-15
Easter Break . . . . .	April 19 - April 22
Spring Semester Ends/Graduation . . . . .	May 10
Summer Session Begins . . . . .	May 15
Memorial Day . . . . .	May 27
Independence Day Observed . . . . .	July 4
Summer Session Ends . . . . .	July 11

\* Academic calendar subject to change.



the institution granting the diploma is accredited by the Higher Learning Commission or a State Board of Education.

Home school graduates will be recognized as high school graduates. Some Lake Area Tech programs have national licensure requirements that may affect the admission process. Please contact Lake Area Tech for further information.

Acceptable ACCUPLACER or ACT scores (no older than seven years) will be required for admission from online high school graduates, home school graduates, high school graduates or GED certificate holders. Please contact the Admissions office for further information or if you have specific questions.

### ADMISSION OF TRANSFER STUDENTS

A decision concerning the acceptance of transfer students will not be made until an official transcript has been received by the Admissions Office from the institution the student previously attended.

Credits earned at other recognized accredited colleges, universities, and technical schools may be accepted in transfer; however, only those that apply to the student's major at Lake Area Tech are recorded on the transcript.

### ADMISSION OF FORMER STUDENTS

Any former student who was in good standing will be re-admitted if a suitable class schedule can be arranged for the applicant. All other applicants will be reviewed on a case by case basis.

### REMEDICATION COURSES

Remediation is available in math (MATH 090) and reading (RDG 090) for students whose scores are within one grade level of the program standards. Individual programs may have additional restrictions and requirements.

### ADMISSION OF INTERNATIONAL STUDENTS

To be considered for admission to Lake Area Technical Institute, international students must:

1. Rank in the upper half of their secondary school graduation class.
2. Have a 3.0 (B) average if transferring from another technical school, college or university.
3. Be proficient in English.
4. Be financially self-sustaining.

Your application will be processed when we receive ALL of the following documents and information. Please use the following as a checklist:

1. Complete and return an application form. Files for international students must be complete by May 1 for Fall Semester and September 1 for Spring Semester.
2. Submit the \$250 international application fee.
3. Academic credentials (translated into English)
4. TOEFL score (minimum paper-based score of 500, computer-based score of 200, score cannot be more than two years old). The results must be sent to Lake Area Technical Institute, Attention: Director of Enrollment, P.O. Box 730, Watertown, SD 57201.
5. Financial certification form.
6. Letter from financial sponsor (if applicable).
7. Bank/Employer/Broker financial statement.

An I-20 cannot be issued to you until your file is complete and you are admitted to Lake Area Technical Institute. The form I-20 is usually necessary for admission into the United States for post-secondary attendance. The American Consulate in your country can supply detailed information on student status and required visas.

### STUDENTS WITH SPECIAL NEEDS

Persons with inquiries regarding implementation and compliance of Americans with Disabilities Act and Section 504 may contact the special services director. Those in need of accommodations should notify their instructor and make appropriate arrangements with LATT's Office of Disability Services, 882-5284, Ext. 216. Persons with inquiries regarding implementation and compliance regarding Title IX may contact the superintendent at 200 9th St. NE, Watertown, SD 57201, 605-882-6312. Additional inquiries may be directed to the Regional Director, Dept. of Education, Office for Civil Rights, 1961 Stout Street, Denver, CO 80294.

### COURSE REGISTRATION

All new students are registered by the Director of Enrollment's Office. If you believe some of your high school and/or college credit may be transferable to LATI, please contact the Director



of Enrollment (605-882-5284, ext. 228). Once registered, you will be able to view your class schedule through the online student portal. Continuing students, please ask your advisor for guidance.

## VISITORS

Visitors are always welcome! LATI offices are open Monday through Friday from 7:30 a.m. to 5:00 p.m. Please allow at least one hour for touring and visiting with school staff. Since most classes are over by 3 p.m., please come earlier so you can see the labs and classrooms in action. To set up a tour, [click here](#) or contact the Admissions Office at:

Lake Area Technical Institute  
P.O. Box 730, 1201 Arrow Ave.  
Watertown, SD 57201-0730  
(605) 882-LATI or 1-800-657-4344

## SUMMER NEW STUDENT ORIENTATION

To help you find your way around Lake Area Tech, we schedule a “Summer New Student Orientation.” Join other incoming students for a day of helpful explanations, a fun overview of the services we provide, and introductions to LATI staff. Dates and times will be posted on our website.

## APPLYING ONLINE

For complete instructions on how to apply online, visit our website at [www.lakeareatech.edu](http://www.lakeareatech.edu).

## IMMUNIZATION REQUIREMENTS

South Dakota legislation requires any student born after 1956 entering a post-secondary education institution in South Dakota for the first time shall, within 45 days after the start of classes, present certification from a licensed physician that the student has received or is in the process of receiving the required two doses of immunization against measles, rubella and mumps OR has the presence of an immune antibody titer against measles, mumps, and rubella. This documentation may be accomplished by either a State Health Department certificate, high school immunization records or it may be included on the LATI Report of Health Evaluation signed by a licensed physician.

Students who are unable to ascertain their immunization status must obtain, at their own expense, the necessary tests and vaccinations.

In the event the South Dakota State Department of Health declared an epidemic of measles or rubella, students who have no vaccination or immunity against the required preventable infectious diseases may be dismissed from the campus.

## ADDITIONAL IMMUNIZATION REQUIREMENTS FOR HEALTH PROGRAMS

Students enrolled in Dental Assisting, Medical Assisting, Med/Fire Rescue, Medical Lab Tech, Occupational Therapy Assistant, Physical Therapist Assistant, Nursing - LPN, Nursing - RN, Cosmetology and Human Services Technician must provide proof of specified vaccinations. For complete requirements, contact your program or view the LATI Report of Health Evaluation (distributed to all applicants in the health programs listed above).



## BACKGROUND CHECKS

Criminal background checks are performed on most health program students before clinical rotations begin. Please visit with your advisor about any possible concerns with licensure. Our Law Enforcement program also requires a background check. The background check is performed at the student's expense.

## PERSONAL INFORMATION CHANGES

Lake Area Tech is committed to maintaining clear and accurate student information records. The information recorded is obtained from a student's initial admission application. If a student has a legal name change after the admission application is submitted, the student is required to complete and submit the Name Change Form, which must be accompanied with legal documentation verifying the name change such as a social security card, marriage certificate, or court document. The Name Change Form is available to students on the My Forms page on My Portal. Paper copies are available at the Registrar's desk in the Student Services area. Likewise, students can update any changes in an address or contact information by completing and submitting the Address and/or Contact Information Change Form.

## ANNUAL ASSESSMENT REPORT

The Lake Area Tech Annual Assessment Report is available upon request. Contact the Assessment Coordinator at (605-882-5284).



# ABOUT Watertown







## **SOUTH DAKOTA'S RISING STAR**

Watertown, South Dakota, is a growing city of 21,000 located on the Big Sioux River and bordered by Lake Kampeska and Lake Pelican.

Experience the vibrant seasons of this unique prairie city. Swim or relax in nearby lakes and parks; join the sportsmen and women in year-round fishing tournaments for world-class walleye, bass, and northern; or head out into the fields for incredible pheasant, duck, deer, and turkey hunting.

Watertown is a growing city with so much to offer. Whether you like to snowmobile, play ball, jet ski, hike, shop, eat, or check out concerts and art galleries - there is something here for YOU!

## **INDOOR/OUTDOOR RECREATION**

### **PRAIRIE LAKES WELLNESS CENTER**

LATI students get a free basic membership to the new Prairie Lakes Wellness Center. (Select classes, etc. will have a charge. Check with the center for more details). The Wellness Center features a walking track, leisure pool, racquet ball courts, basketball courts, expanded cardio and weight area, larger fitness class areas, four full-size courts, an eight-lane pool, and more.

The Watertown area also offers other fun options like:

**BASEBALL/SOFTBALL • 30 MILES OF PAVED TRAILS FOR BICYCLING AND JOGGING • BOATING/FISHING • BOWLING • MINIATURE GOLF/GO-KART RACING • GOLF • HUNTING • INDOOR/OUTDOOR ICE SKATING ARENA • SNOWMOBILING • SLEDDING • ICE FISHING • STOCK CAR RACING • OUTDOOR**

**POOLS • BEACHES • INDOOR/OUTDOOR WATER PARKS • TENNIS COURTS • MOVIE THEATRE**

## **SHOPPING**

**DOWNTOWN SHOPPING WITH BOUTIQUES, COFFEE SHOPS, RESTAURANTS, AND ART GALLERIES • WATERTOWN MALL • TARGET • MENARD'S • WALMART • SHOPKO • SPECIALTY BUSINESSES**

## **PARKS**

**BRAMBLE PARK ZOO** is home to more than 500 mammals, reptiles, and birds and features a Discovery Center, gift shop, picnic area, park, playground, and outdoor band concerts!

**MEMORIAL PARK**, located on Lake Kampeska, offers swimming, a boat launch, camping, and concessions.

**STOKES-THOMAS LAKE CITY PARK**, located on Lake Kampeska, features modern camping, swimming and a boat launch.

**LAKE PELICAN RECREATION AREA** is located on Lake Pelican and offers fishing, camping, swimming, and boating. In the winter, a warming house is available for ice fishing, snowmobiling, and cross-country skiing.

**SANDY SHORES STATE PARK** on beautiful Lake Kampeska features water sports, a boat launch, picnic area and camping.

## **THE ARTS**

**REDLIN ART CENTER**, a 52,000 square foot monumental brick building at the junction of Highway 212 and Interstate 29 in Watertown, is home to more than 150 of Terry Redlin's original oil paintings.

**GOSS OPERA HOUSE**, an historic three-story building in uptown Watertown, features world-class entertainment, art galleries, coffee house, and a gourmet restaurant.

## **RESTAURANTS**

Whether you have a craving for burgers, pizza, subs, or wings - Watertown has it all and everything inbetween! The food choices in town are incredible as are the venues. There are many fine-dining establishments for special occasions, restaurants for the whole family, fast-food chain options, and a variety of ethnic-specific restaurants. Would you rather dine-in? Several restaurants deliver to your front door. Watertown's food establishments welcome LATI students to our fine city and look forward to serving you.

## **FESTIVALS AND EVENTS**

Watertown Winter Farm Show - Crazy Days - 4th of July Celebration - Cookin' on Kampeska - Winter Wonderland



# Tuition & Other Costs



## TUITION AND OTHER COSTS

### TUITION

The tuition rate is \$116.00 per semester credit.

### FEES

The facility fee rate, set by the State of South Dakota, is \$35 per credit for all students. LATI also charges departmental, campus support, repair/maintenance, state technology, state program development and parking fees. Please see a current cost sheet.

### DISTANCE FEES

For classes offered through LATI's eLearning system, you will be charged the established tuition and fees based on the number of credits taken. You will also be charged a \$46 per credit distance fee.

### BOOKS, SUPPLIES AND TOOLS @ STAX

Students are required to purchase assigned books and necessary tools/supplies for each course. Some programs require uniforms. Some programs also require the use of a laptop (laptops can be leased through the campus bookstore, Stax). Almost everything you need can be conveniently purchased from Stax.

### HOUSING

To help you find a place to live, LATI maintains a list of Watertown housing currently available to students, with helpful specifics like type of housing, size and cost. For a copy of the housing list, stop by the front office or check out our [housing webpage](#).

### MEALS @ MARKET 65

Market 65, located in the Student Center, serves fresh meals everyday from 6:45 a.m. to 4:00 p.m. (Summer hours are abbreviated). The cafeteria is designed for student and staff convenience. You are not required to buy a meal plan at LATI.

### APPLYING FOR FINANCIAL AID

In order to apply for federal financial aid, you need to complete the Free Application for Federal Student Aid (FAFSA). You can complete the FAFSA for the upcoming school year, on or after October 1. The FAFSA requires "prior prior" tax year information, thus making it easier to apply for financial aid. For example, the 2019-2020 FAFSA will be available October 1, 2018 and will require 2017 tax information.

The FAFSA will determine eligibility for the Pell Grant, Supplemental Educational Opportunity Grant, Work Study, Federal Direct Loan, and other need-based financial aid.

- Complete the FAFSA on or after October 1st for the upcoming school year.

- Make sure to submit your FAFSA by our priority date. (Please contact the LATI Financial Aid Office as that date may change in future years.)

- List LATI's school code of 005309 on your FAFSA.
- If additional information is needed for your file, a letter will be sent to you.
- Once we start awarding files, you will be sent an award letter indicating the types and amounts of financial aid you can expect to receive. (BE SURE TO SIGN AND RETURN ONE COPY.)

The Financial Aid Office at Lake Area Technical Institute has the capability to process corrections to FAFSA data electronically.

### PRIORITY DATE

Since funds under the Work Study and SEOG programs are limited, it will be necessary to apply by April 1 using the FAFSA. Any individual who submits FAFSA after April 1 cannot expect to be awarded aid on the basis of demonstrated financial need. However, this does not affect eligibility for a Pell Grant or the Direct Loan.

### FINANCIAL AID RESOURCES

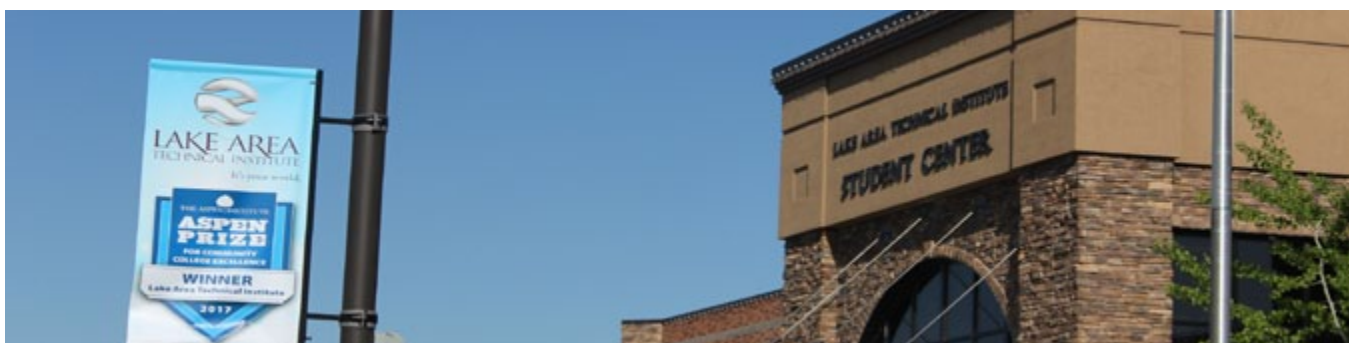
**Federal Pell Grant:** A federal grant program that provides funds to students who demonstrate financial need.

**Federal Supplemental Educational Opportunity Grant (SEOG):** A federal program that provides funds to students with exceptional financial need who are also eligible for a Pell Grant.

**Federal Work Study:** A federal program for students who demonstrate financial need. Students may work part-time on or off campus at approved work sites and are given the opportunity to earn money and gain work experience.

**Federal Direct Loan:** A low interest loan through the federal government that allows students to borrow up to \$3,500 for their first year and \$4,500 for their second year. This loan is either subsidized, unsubsidized, or a combination. If the loan is subsidized, the interest does not accrue while you are enrolled at least half-time. If the loan is unsubsidized, interest accrues from the time the loan is disbursed. Independent students may be eligible for an additional \$6,000 a year in unsubsidized Direct loans. Dependent students may be eligible for an additional \$2,000 a year in unsubsidized Direct Loans. Additional information on the terms and conditions of these loans can be obtained from the Financial Aid Office.

**Federal Direct Parent Loan (PLUS):** A loan program which provides an opportunity for parents of dependent students to borrow funds for their student's educational costs. The Financial Aid Office originates the eligibility, but the



money is borrowed from the federal government. Loan amounts may not exceed the estimated budget minus other financial aid. To apply for the PLUS loan, contact the Financial Aid Office.

**Private Alternative Loans:** Lake Area Tech works with several lenders to offer private alternative loans. These are non-federal, private loans. Please contact the Financial Aid Office for more information.

**SDEAF Grant:** The South Dakota Education Access Foundation Grant is a privately funded grant program that provides funds to students of low income, underrepresented backgrounds, and those facing other barriers to a postsecondary education. Funds are provided by the SDEAF Foundation to South Dakota postsecondary schools to award to students meeting the school and SDEAF eligibility requirements.

## OTHER OFF-CAMPUS AGENCY AND FINANCIAL AID SOURCES

**Tribal Education Funding:** If you qualify for tribal education funding, you should contact the tribe in which you are enrolled. Paperwork completed early will ensure timely arrival of your funding.

**Vocational Rehabilitation:** Financial assistance is available for mentally or physically disabled persons. Contact your local vocational rehabilitation services office.

**Veterans:** Students enrolled at Lake Area Tech are eligible to apply for **Veterans' Benefits**. To apply for benefits, contact the VA School Certifying Official located in Student Services at LATI.

**National Guard Benefits:** Members of the National Guard may qualify for tuition assistance or monthly stipends under the Chapter 1606 program. Contact your commanding officer for more information or apply online at GoArmyEd.com.

**Workforce Innovation and Opportunity Act (WIOA):** This is a program funded by the South Dakota Department of Labor. Economically disadvantaged students may qualify for grants in certain educational programs. Contact the South Dakota Department of Labor & Regulation office in your area.

## STUDENT CONSUMER DISCLOSURE INFORMATION

The Higher Education Act of 1965, as amended, requires that institutions participating in federal student aid programs provide various consumer disclosure information to students. This includes, but is not limited to, LATI policies, data on enrollments, program completions, graduation rates, faculty and staff, finances, institutional prices, privacy, and student financial aid.

### Admissions and Academic Information

Academic Calendar, Accreditation, Admission Policies, Admissions Deadlines, Catalog, Immunization & Health Info,



Student Handbook, Transfer/Prior Learning, FERPA

### General LATI Information

Accountability Report, Americans with Disabilities Act Policy, College Navigator Link to LATI, Computer Hardware & Software Use (Copyright), Diversity, Faculty & Staff, File a Complaint, IPEDS link to LATI, Nondiscrimination/Accessibility Policy, Special Facilities for Disabled Students, Textbooks & Laptops

### Student Financial Assistance & Student Loan Information

Code of Conduct, Entrance Loan Counseling for Student Borrowers, Federal Student Aid Penalties for Drug Law Violations, Financial Aid Information, Net Price Calculator, Preferred Private Loan Lender Policy, Refund Policy, Satisfactory Academic Progress Policy, Tuition & Costs

### Health and Safety

Campus Crime and Safety, Drug and Alcohol Abuse Policy, Immunization & Health Info, In the Event of an Emergency, Tobacco Use on Campus

### Student Outcomes

LATI Graduation Rates, LATI Retention Rates

### Voter Registration

South Dakota Voter Registration, National Voter Registration

### Job Placement Information

Current Placement Report, Employer Satisfaction Survey, Career Interest Inventory

## REFUND POLICY

Refunds of tuitions/fees for financial aid recipients will be made in accordance to the U.S. Department of Education Return of Title IV Funds. Students not receiving financial aid will receive a refund based on the institutional refund policy. The LATI institutional refund policy mirrors the Department of Education policy. Further information and examples of the refund policy are available by contacting the Financial Aid Office at LATI.

## FAMILY EDUCATION RIGHTS AND PRIVACY ACT (FERPA)

Legislation enacted in 1974 sets forth requirements designed to protect the privacy of students' educational records. FERPA questions may be directed to the Director of Enrollment.



# SC H O L A R S H I P

Information

## LAKE AREA TECH FOUNDATION

Funding for Lake Area Tech Foundation scholarships is made possible by donations provided from individuals, businesses, corporations and by LATI staff, faculty and alumni. Thanks to their generosity, the Lake Area Tech Foundation awarded nearly \$400,000 in scholarships to 400 students during the 2017-2018 school year!

All students who are accepted into a program by March 15 as full-time students are eligible and encouraged to apply for the scholarship awards that will be made during the coming academic year. The incoming student application timeline to apply for scholarships is January 1 - March 31. Scholarship recipients must be enrolled in 12 credit hours per semester, maintain satisfactory program progress, and complete customary donor acknowledgements as outlined by the Foundation office.

### Universal Application for All Scholarships

It's never been easier to apply for scholarships at Lake Area Tech. Whether you're applying for one or more, there is only one application to complete to qualify for all scholarships currently available through the Foundation. This includes LATI Foundation scholarships as well as Build Dakota full-ride scholarships (for eligible programs). The system automatically links each student with all scholarships for which he/she meets eligibility criteria. (Once a student creates an account, all available scholarships will appear).

Incoming LATI students can create an account to apply for LATI Foundation and Build Dakota scholarships [here](#). Simply create a username and password and begin the process.

### Lake Area Tech Scholarships

The Lake Area Tech Foundation awarded nearly \$400,000 in scholarships to 400 returning and incoming students during the 2017-2018 school year! We encourage all incoming and returning students to apply for the numerous Foundation scholarships available.



### Build Dakota/Stretch the Million Scholarships

- Both in-state students and out-of-state students are eligible for Build Dakota scholarships.
- The Build Dakota scholarships will support tuition, fees, books and other required program expenses in the eligible technical institute programs.
- Recipients of the Build Dakota scholarships will commit to living and working in the state, in their field of study, for three years following graduation.
- For additional information about program requirements and the student workforce commitment; please see the Build Dakota Scholarship site at [www.builddakotascholarships.com](http://www.builddakotascholarships.com)

In an effort to 'stretch' the available dollars in the Build Dakota Scholarship program, industry partners participate as a "Stretch the Million" partner. STM partners commit to paying half of the expenses of the Build Dakota Scholarship for a student scholar.

- BDS Full-ride scholarships support tuition, fees, books and other required program expenses in the eligible technical institute programs.
- Both in-state students and out-of-state students are eligible for the scholarships.
- Recipients of the scholarships will commit to living and working in the state, in their field of study, for three years following graduation.
- If a scholarship recipient has an industry (Stretch the Million) partner, the three year work commitment is with that business.





# ACADEMIC Standards

## ACCREDITATION

Lake Area Technical Institute is accredited by The Higher Learning Commission, the South Dakota Division of Workforce and Career Preparation, and by numerous agencies governing the quality and accreditation of the many programs at Lake Area Tech.

## GENERAL EDUCATION

An integral part of LATT's mission statement is the comprehensive, foundational nature of the technical education we provide. The required general education classes are critical to LATT's four core values: the General Education Student Learning Outcomes. General Education provides the broad knowledge and skills to enable LATT graduates to work effectively within society.

## GENERAL EDUCATION PURPOSE STATEMENT

The purpose of LATT General Education is to provide the building blocks for success. Through core general education courses, students gain skills and knowledge for effectiveness in communication, computer, math and the sciences.

## GENERAL ED STUDENT LEARNING OUTCOMES

- Demonstrate problem-solving skills and critical thinking.
- Develop professionalism, including team-working skills.
- Communicate effectively.
- Find and use information.

## INSTRUCTORS

All instructors have many years of successful practical experience in the job areas they teach, as well as having professional education and academic training. All instructors are certified by the South Dakota Office of Learning and Instruction.

## SATISFACTORY PROGRESS

Students are expected to meet standards of progress as determined by general school policy and department policy. Each department sets its minimum standards based on industry requirements. Students with academic deficiencies will be subject to loss of financial aid and may be terminated from school. Academic deficiencies may also affect eligibility for other types of financial assistance. The Department of Education requires schools to define and monitor satisfactory academic progress for financial aid recipients.

## ATTENDANCE

All departments have attendance requirements. Attendance is important to the mastery of course skills and development of proper work habits.

## PRIOR LEARNING

**Prior Learning (PL)** is granted in cases where a student may have work experience or other experiences where technical credit may be granted. This decision is made by the program department head, verification may be requested. [Click here](#) for more information.

## TEST OUTS AVAILABLE FOR THESE COURSES:\*

**ACCT 210 Principles of Accounting I** Students who have had two or more semesters of Accounting on the high school level and who received a "B" or better may elect take the Accounting I test-out. The test consists of an accounting simulation which covers the concepts from chapters one through 15 in the textbook.

Students who wish to take the test can be enrolled in any



section of Accounting I. They need to schedule the test with the Financial Services department. There is a fee of \$50 per credit to take the test. A minimum score of 80% is needed to pass. Should the test-out be successful, the student will not have to pay for ACCT 210 and the student transcript will reflect the credit earned and the fact that it was earned by Test Out (TO).

**CSC 100 or 102 Computer Test-Out Policy** Several LATT programs require a one or three credit computer course. An opportunity to test out of these classes is available. The instructor will explain this option the first day of class. A fee of \$50 per credit is required for the test.

**MA 115 Medical Terminology** Students who have taken medical terminology in high school may test out of this class. Check with the Director of Enrollment's Office for details. A fee of \$50 per credit is required for this test. The fee is waived if the class is part of a tech prep articulation agreement.

**MATH 100** Students may request to test out of any general math course. The test must be taken during the first week of the semester. A fee of \$50 per credit is required for the test.

\* **Only one test out allowed per course.**

## ACCUPLACER POLICY AND PROCEDURES

Lake Area Tech complies with the Board of Regents' request that all students demonstrate a readiness for ENGL 101 and MATH 102. Students registering for these courses will be contacted if they need to take the ACCUPLACER test.

## TRANSFER OF PREVIOUSLY EARNED COLLEGE CREDITS TO LAKE AREA TECH

Any credits transferred to Lake Area Tech must meet the following criteria:

1. An official transcript must be submitted from an accredited post-secondary institution. This will be kept in the student's official file at Lake Area Tech.
2. Credits must have a grade of "C" or above to be considered for transfer. When a course has been repeated for credit, the last grade earned will be evaluated for transfer.
3. Transfer credits will be recorded on the Lake Area Tech transcript with a TR notation. Transferred credits are not calculated in Lake Area's grade point average.
4. There is no charge to transfer credits for presently-enrolled students.
5. Transfer credits are not eligible for financial aid.



- The minimum unit to be transferred is one-half credit. Courses accepted in transfer from institutions with different credit and/or grading systems than Lake Area Tech's will be converted.

current policy.

- Non-enrolled students will be charged \$10 per course for transferring credits.

## TRANSFER OF GENERAL EDUCATION COLLEGE CREDITS

In addition to the preceding criteria, the following policies apply:

- No age restrictions are placed on the life of the general education credit to be transferred. The course to be transferred must be applicable to the student's degree program at Lake Area Tech. Credit will not be given for duplication of courses.
- General education credits fulfilling the Associate of Applied Science degree requirements must be approved by the Director of Enrollment.

## TRANSFER OF TECHNICAL STUDIES COLLEGE CREDITS

In addition to the preceding criteria, the following policies apply:

- Technical studies credits fulfilling the Associate of Applied Science degree or diploma requirements must substantially match Lake Area Tech's curriculum.
- The decision to accept specific technical credits will be made at the program level.
- Time limit for accepting transfer technical credit will be five (5) years. Credits earned more than five (5) years ago must be verified and approved at the Lake Area Tech department level.
- A minimum of one-third of the technical credits must be from Lake Area Tech in order to be granted a diploma or degree.

## TRANSFER OF ONLINE COURSE CREDIT

Students may transfer online course credits to LATI. The courses must be accredited through a professional accrediting agency and must conform to the requirements of courses as determined by each program. The Director of Enrollment will grant final approval of online course credits regarding the appropriateness and applicability to the student's course of study.

## PROCESS FOR TRANSFERRING DIPLOMA CREDITS TO A.A.S. DEGREE

Lake Area Tech graduates who have previously received a diploma and desire to receive an A.A.S. degree will be subject to the following conditions:

- All technical credits must have been earned within the past five (5) years by time of completion. Credits older than five (5) years will be verified at the department level. The verification process may include documentation by current employer or previous employer.
- Any general education credits transferred in must meet the transfer requirements of Lake Area Tech.
- Technical education courses must meet the requirements of the current program.
- Transferring credits for enrolled students is subject to

## TRANSFERRING TO A COLLEGE OR UNIVERSITY

Lake Area Tech has many formal program-to-program transfer/articulation agreements with private and public colleges and universities in South Dakota and out-of-state. Students who attend and graduate from Lake Area Tech may decide to continue their education with one of the many institutions that have articulation agreements in place. The amount of credits that transfer differ based on the major and college or university selected.

For further information and a complete listing of agreements, go to [www.lakeareatech.edu](http://www.lakeareatech.edu) and visit the programs pages under Academics, or call our admissions office.

## STUDENT RECORDS

Student records include the following information:

- LATI transcript (on file permanently)
- Application (on file seven (7) years)
- High school/college transcripts (on file seven (7) years)
- Correspondence (on file seven (7) years)

Any student objecting to information being released by Lake Area Technical Institute may block such release by notifying the Director of Enrollment's Office.

All student records are the property of Lake Area Tech. Upon written request from the student, a copy of the student's admission test results and high school transcript will be provided to a student.





# STUDENT Services



## HOW CAN WE HELP YOU?

Our Student Services are designed to help you get the most out of your time at Lake Area Tech. We encourage you to take a moment and check out what our campus has to offer!

## CAREER GUIDANCE

The LATI admissions staff is dedicated to helping you choose the best training program among the options at Lake Area Tech. Call or stop in to visit with one of our friendly Admission Representatives or set up a tour to get first-hand knowledge of the program of your choice.

## SD DEPARTMENT OF LABOR & REGULATION

Our Job Advisor assists students looking for part-time work while attending school. SDWORKS, the state's largest jobs database, was recently enhanced. The new virtual one-stop system has more intuitive technology, a more comprehensive list of jobs, a more robust resume builder, and a better internal messaging system. Stop by our on-campus Job Advisor office for more information or register online at [sdjobs.org](http://sdjobs.org).

## PLACEMENT

We fully assist our graduates as they seek out suitable and profitable employment. Placement of graduates is administered through the Placement Office, in cooperation with program instructors.

The Job Advisor at LATI receives hundreds of calls year-round from industry employers who want to list opportunities. Many companies send recruiters or make arrangements for students to take tours of their company and learn about opportunities.

The Job Advisor has access to more than 12,000 jobs listed in SDWORKS. Whether you are looking for part-time work while in school, a full-time career after graduation, or even a work experience internship, visit with Job Advisor Julie Mollenhoff (ext. 256) or stop by her on-campus office.

## COUNSELING

Personal counseling is available from two on-staff counselors. These services are kept confidential. Many situations can be handled on-campus, but occasionally students may be referred to another agency more suited to their needs.

## HOUSING

All Lake Area Tech students live off campus. Lake Area Tech does not own or provide any housing. The Lake Area Tech Housing Coordinator keeps a **current list** of available houses, apartments, sleeping rooms and other rentals suited to the students' needs. Housing information may be obtained by requesting a paper copy or going online to our website. The Housing Coordinator will be glad to offer any assistance possible in this area. Some LATI programs require internships/field work which may shorten a student's stay on campus. Keep this in mind when signing a lease.

## FINANCIAL AID

Financial Aid Office personnel are available to assist students in understanding the wide variety of financial aid available. They will be glad to explain which benefits students are eligible for, and they are available to answer questions when applying for financial aid. There are no age limitations on who can qualify for financial aid.

## SCHOOL NURSE

A school nurse is available to consult with students about health problems and refer them to the appropriate health care provider in the community. This person is not allowed to dispense medications. A communicable disease policy has been adopted by the Watertown School District. A complete description of this policy is available in the Business Manager's Office.

## SPECIAL FACILITIES FOR DISABLED STUDENTS

Lake Area Tech is recognized as having educational facilities that are accessible to the disabled with mobility impairments. Wheelchair entrances are located at Door 3A, Door 2A (near the library), the front entrances of the Technical Education Center, the Automotive and Construction Technology Center, the Manufacturing, Energy and Transportation Center, the Ag and Environmental Center, and the Student Center. Lake Area Tech complies with the 1973 guidelines established by the U.S. Department of Health, Education and Welfare.

## STUDENT ASSISTANCE PROGRAM

Information on preventing drug and alcohol abuse will be presented to all students during the school year. Specific referrals for drug and alcohol-related issues will be made by on-campus counselors. Referrals are directed to NESD Alcohol and Drug Prevention Resource Center when deemed necessary.



## CAMPUS ACTIVITIES BOARD (CAB)

At the beginning of each year, Lake Area Tech students elect a Campus Activities Board (CAB) consisting of a president, vice president, secretary-treasurer and four student representatives. The Campus Activities Board plans activities for the student body on a year-long basis. Past activities have included: intramural sports, pizza parties, snow sculpturing, Vikings trips, cake decorating contests - and everything in between! Students are encouraged to get involved with the CAB by casting their vote and also by attending meetings to voice their opinion.

If you are looking for positive, fun social activities outside the classroom, join the CAB and get involved! You can also take advantage of the opportunities around Watertown (see About Watertown), and your free student basic membership to the Prairie Lakes Wellness Center (additional fees apply for select activities/amenities beyond the basic membership):

- Walking Track
- Leisure Pool
- 8-Lane Pool
- Racquetball Courts
- Basketball Courts
- Cardio/Weight Areas, and so much more!

## STUDENT ACTIVITIES

There's always something to do!

- Dances
- Theme Parties
- Volunteer Activities
- Trips
- Social Gatherings
- Picnics
- Fundraisers
- Intramurals
- Entertainment

## INTRAMURAL SPORTS

LATI also has an active intramural program, including:

- Basketball • Softball • Volleyball
- Dodgeball • Laser Tag • Flag Football

Register for intramural sports in the bookstore, Stax.

## STUDENT ORGANIZATIONS

A variety of clubs and organizations are available including:

- American Dental Assistants Association, Student Member
- American Physical Therapy Association, Student Chapter
- Associated General Contractors, AGC Student Chapter
- CRU - Campus Crusade
- Diesel Tech Club
- Home Builders' Association, Student Chapter
- Laboratory Technology Club
- Lake Area Tech Car Club
- Occupational Therapy Assistant Club
- Post-Secondary Agricultural Student Organization (PASO)
- Rodeo Club
- SkillsUSA
- Student Medical Assistants Organization
- Student Voice
- Veterans' Club



## STUDENT AMBASSADORS

Student Ambassadors are selected by their instructors to represent their programs as well as Lake Area Tech. Ambassadors assist with tours, presentations, open houses, and conferences.

## LIBRARY FACILITIES

The Leonard H. Timmerman Library is full of helpful resources and services. The library's collection includes various online databases, ebooks, streaming educational videos, books, reference materials, magazines, journals and newspapers. The LATI **Library webpage** puts many of these information resources right at students' fingertips. The website also helps students with research-based tasks such as locating sources, utilizing sources and citing sources. At the library, full-time staff is available to assist students with their research questions. Other services available through the library include interlibrary loan, computer access, printers, photocopier, collaborative workstations, and scanners. E-readers and iPads are available for loan.

The library, located in room 210 of the Main Building, supports both collaborative and individual study. The space includes study rooms students can use as quiet individual study spaces or as places to meet and work in groups. Library hours are 7:30 a.m. to 8:00 p.m. Monday through Wednesday, 7:30 a.m. to 6:30 p.m. on Thursdays, and 7:30 a.m. to 4:00 p.m. on Fridays. Summer hours are abbreviated.

## EDUCATIONAL SERVICES CENTER

The center, located in the Timmerman Library, is open eight hours daily. Students may be referred to the center for tutoring services or they may make use of the services offered on their own. Educational Services Center staff members are available for coordinating tutoring services, or students may request peer tutoring in specific areas. An area which can be reserved for study groups is also available.



## LAPTOP LEASE-TO-OWN PROGRAM

Many programs require students to lease a laptop from LATI. This technology is necessary to keep students at the forefront of technology in their fields. We have found laptops and the ability to utilize the latest software is extremely important to the success of our students.

Students are required to utilize a laptop in the following programs: Agriculture, Automotive Technology, Aviation Maintenance, Business Associate, Computer Information Systems, Dental Assisting, Diesel Technology, Energy Technology/Operations, Electronic Systems Technology, Financial Services, Med/Fire Rescue, Law Enforcement, Medical Lab Tech, Occupational Therapy Assisting, Physical Therapist Assistant, Nursing, Precision Machining, and Robotics.

Some programs are eligible, but not required to lease a laptop. Please visit our [laptop page](#) on our website for specific details regarding laptops or contact the Lake Area Tech Help Desk.

## STUDENT IDENTIFICATION CARDS

As a student at LATI, you will receive a Student ID card, which entitles you to attend and participate in events sponsored by Student Services and the Campus Activities Board. If you choose to deposit money into a Campus Cash account (see below) your Student ID card can also be used to make campus purchases.

## CAMPUS CASH

As a student at LATI, you may open a Campus Cash account. Your card will not be activated until you have deposited money into your campus cash account. Once money has been deposited into your Campus Cash account, you can use your student ID card to make purchases in the Lake Area Tech bookstore, Stax, the Mind Grind Coffee Shop and Market 65 - our cafeteria.

## STUDENT CENTER

The Lake Area Tech Student Services Center is centrally located on the main campus. Students gather in the Student Center for meals, coffee breaks, entertainment, activities, socializing and studying.

## FOOD SERVICE - MARKET 65

Market 65 is located in the Student Services Center. A wide variety of meals and snacks are served from 6:45 a.m. to 4:00 p.m. each day. The food service operates on a "cash and carry" basis. Students aren't required to purchase meal plans.

## COFFEE SHOP - MIND GRIND

Located next to the food service area, LATI's coffeehouse - Mind Grind - is open weekdays from 6:45 am - 3:00 p.m. (summer hours vary) and serves specialty coffees, espressos, lattes, and blended coffee drinks. It features Green Mountain organic, free-trade coffee.

## BOOKSTORE - STAX

Stax, the Lake Area Tech Bookstore, stocks all program textbooks and supplies and most uniforms and tools required by LATI programs. Stax is located on the second floor of the Student Services Center and also offers clothing and gift items. The bookstore also sells stamps and cashes student checks.

## LAKE AREA TECH

### CHILDREN'S EDUCARE CENTER

The center provides day-care and preschool for the children of Lake Area Tech students. Admission to the center is limited and a fee is charged for these services. Contact the Educare Center at 882-5284, Ext. 440 for more information.

### CAR POOL INFORMATION

Many LATI students commute to campus. The Housing Coordinator keeps a record of the car pools available so commuting students can coordinate rides whenever possible. Car pool groups also receive a significant parking discount.

### INSURANCE

Students attending Lake Area Technical Institute are expected to obtain medical insurance coverage. The school provides no insurance coverage. Student coverage through a private insurance company is made available for those who wish to apply. Please inquire in the Admissions Office.

### INSTITUTIONAL LIABILITY

Lake Area Technical Institute disclaims liability for any kind of student injury or illness as a result of participation in intramural sports, student activities, field trips, shop or laboratory work and classroom activities. Every reasonable effort is made to provide safe conditions for these activities.

### RELIGIOUS ACTIVITIES

The local churches in Watertown have a primary objective to stimulate the moral and spiritual values of students attending Lake Area Technical Institute. There is active cooperation between the churches and the school.

### CAMPUS CRUSADE (CRU)

Lake Area Tech's Campus Crusade is a non-denominational religious organization made up of students who gather for fellowship and Bible study. Cru meets every Tuesday at 7:00 PM in Room 431.

### STUDENT'S RIGHT TO KNOW AND CAMPUS SECURITY ACT

In compliance with the Crime Awareness and Campus Security Act of 1990, Lake Area Technical Institute has made available upon request, statistics of criminal offenses that have occurred on campus and the policies and procedures for reporting a criminal action. This information is listed in the Lake Area Tech **Student Handbook** which is posted on our website.



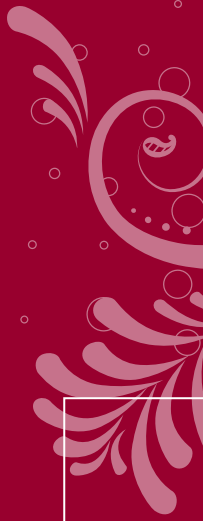


# LAKE AREA TECH

Profile 2016-2017

FOUNDED:	1965
LOCATION:	Watertown, SD (Population – 21,000) 90 miles north of Sioux Falls, SD 140 miles south of Fargo, ND 220 miles west of Minneapolis, MN
ACCREDITATION:	The Higher Learning Commission
DEGREE GRANTED:	Associate of Applied Science
CAMPUS SIZE:	40 Acres
ENROLLMENT:	2451 Full-Time: 68.9% Part-Time: 31.1% (Out-of-State: 14.6%)
ENROLLMENT BY AGE:	Under 18 . . . . . 11.5% 18-19 . . . . . 38.4% 20-29 . . . . . 41.7% 30-39 . . . . . 5.3% (Age unknown).... 0.1% 40-49 . . . . . 2.0% 50+ . . . . . 1.0%
ENROLLMENT BY GENDER: (Undeclared).... 0.2%	Males . . . . . 50.2% Females . . . . . 49.6%
DIVERSITY:	. . . . . 4.4%
RETENTION:	. . . . . 83%
ONLINE E-DEGREE:	. . . . . 11.5%
Two-Year Graduation Rate	. . . . . 70.2%
RECRUITMENT TERRITORY:	South Dakota Southern North Dakota Western Minnesota Northwest Iowa
STUDENT/FACULTY RATIO:	16:1
TUITION: (PER CREDIT HOUR)	In-State . . . . . \$114 Out-of-State . . . . . \$114 *SD will buy down \$10 per credit in 2017-18
FINANCIAL AID:	91% of students receive financial aid 43% of students received a federal Pell Grant 400+ scholarships awarded: \$390,000
EMPLOYMENT:	86% of the students work part-time or full-time while attending school
PLACEMENT*:	98.56% of the graduates are employed or continuing their education 85% of graduates choose employment in SD (*2015-2016 graduate survey)
<b>2016-17 Information - this information will be updated in June 2018</b>	

# PROGRAMS of Study



LAKE AREA  
TECH



## The Sky's the Limit!

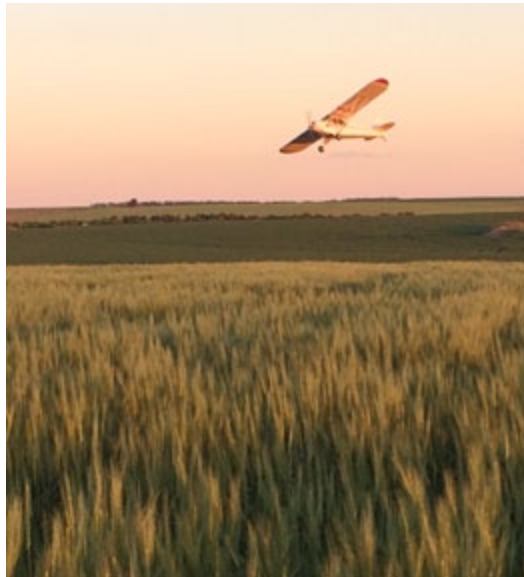
Lake Area Tech is excited to offer our nine-month Agri-Aviation diploma option for students interested in becoming aerial spray pilots. LATI's outstanding Agriculture and Aviation Maintenance Technology programs now offer this unique combination option for anyone with a passion for ag and aviation. The Agri-Aviation option is the first of its kind at technical institutes in South Dakota and one of only a handful in the nation.

Graduates of this option will obtain two pilot certifications that will depend on previous certifications they may have. If a student enters this program with no previous flying experience, they will be able to obtain a private pilot and instrument certificate. If a student already has a private pilot license, then he/she can obtain an instrument and commercial rating. The agriculture and flight training received in this program will be valuable preparation for a career in aerial application.

## Comprehensive Training Included

A well-blended foundation in agriculture courses and aviation courses offer students the right combination of training to excel in the field of ag aviation. At Lake Area Tech, students can expect training from experienced ag and aviation instructors to include:

- aircraft operation for chemical aerial application to fields
- GPS management for accurate application
- job record maintenance using GPS equipment, computer hardware, and software
- management of crop and plant health using appropriate chemicals



- crop and weed identification
- safety practices in a dynamic agricultural, aviation, and chemical handling environment
- administration of first aid and/or CPR
- compliance with local, state, and federal commercial pesticide application guidelines
- flight training (additional fees apply)

The job demand is high in this industry. Secure your future today!

**A laptop is required  
for this option.**

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

**Click here to view the Agriculture/Agri-Aviation  
Course Outline**

**Click here to view the Agriculture Placement Report**

**Click here to view the Agriculture  
Student Learning Outcomes**

**Lake Area Technical Institute:  
superior, comprehensive technical education that  
changes lives and launches careers.**



**AGRICULTURE**  
Agri-Aviation Option





# AGRICULTURE

## Agri-Business Option

20  
Months

### The Right Place

Lake Area Tech is a strong and active presence in the world of agri-business. For more than 50 years we've been training the employees and owners of the region's agricultural supply businesses. Because we are well-established and have an outstanding reputation for skilled graduates, you can feel confident about job opportunities all over the Midwest.

If you have agriculture in your blood, love business and working with people, this option is for you!

### What can I expect?

With our specially designed ag training, you'll get the latest education in crops, soils, fertilizers, chemicals, animal science and nutrition, business management, credit and collections, supervision, business law, sales, accounting and more!

As a student, you'll have opportunities to be involved in Lake Area Tech's demonstration farm, which works in partnership with area ag businesses. Each year of this two-year program also includes a Supervised Occupational Experience (SOE) or internship with a local or regional co-op, CHS affiliated, Agtegra, or a privately owned facility.

When you have successfully completed the required courses, you will be awarded an Associate of Applied Science (A.A.S.) degree.

### Lake Area Tech Farm

The Lake Area Tech Ag program has developed a working demonstration farm northwest of Watertown. The Ag students are actively involved in the management decisions of the farm and implement industry trends in agriculture including mapping and precision ag study. The demonstration farm applies the no-till/strip-till concept and is making use of cover crops to observe the benefits of this type of application. Partnerships with ag business and industry allows us to utilize state-of-the-art ag equipment to plant and harvest the crops. Producer tours are conducted during the year as well as other regional ag events and educational seminars.

*A laptop is required for this option.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

[Click here to view the Agriculture/Agri-Business Option Course Outline](#)

[Click here to view the Agriculture Placement Report](#)

[Click here to view the Agriculture Student Learning Outcomes](#)

Lake Area Technical Institute:  
superior, comprehensive technical education that  
changes lives and launches careers.



Get your Agri-Business degree online.  
For more information, visit the  
**Agri-Business e-degree page.**

## Master the Technology

Because of the enormous changes that have taken place in agriculture, today's farm owners and managers must have comprehensive knowledge of crops, growing conditions, and diseases to make successful decisions. At LATI, you'll be immersed in the latest and best farming techniques. You'll also get a healthy dose of modern economics and savvy business practices.

Agri-Production is designed for graduates who plan to own or manage a farm or livestock operation and want to succeed!

## What can I expect?

This option offers the unique chance to tailor your training by choosing classes that fit your goals. Get instruction - and plenty of practical experience - in animal nutrition, crop science, marketing, fertilizers, livestock development and maintenance, farm machinery, farm management, decision-making, record-keeping, planning and farm accounting.

This hands-on, experience-rich option is specially designed for future farmers and ranchers. During the spring semester of your first year you will return to a farm or ranch to practice real record keeping procedures. During your second year you'll be given the opportunity to work with an area agri-business. The knowledge you need to run a profitable operation is found in this curriculum!



## We Practice What We Preach

The Lake Area Tech Agriculture program has developed a working demonstration farm northwest of Watertown. The Agriculture students are actively involved in the management decisions of the farm, and are continually exploring and applying industry trends in agriculture.

Learn to operate geospatial technology as you perform GPS data collection, mapping, variable rate methods, and more! Strong partnerships with ag business and industry give Lake Area Tech students access to the latest in equipment. Producer tours are conducted during the year as well as other regional ag events and educational seminars.

*A laptop is required  
for this option.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

Click here to view the Agriculture/Agri-Production  
Option Course Outline

Click here to view the Agriculture Placement Report

Click here to view the Agriculture  
Student Learning Outcomes

Lake Area Technical Institute:  
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changes lives and launches careers.

18  
Months



AGRICULTURE  
Agri-Production Option



### Success Starts Here

As a leading industry in South Dakota, agriculture provides premium career opportunities. In particular, the area of commodity merchandising - which unites buyers and sellers of grain, manages investments, and offers financial advice - is an important and vital part of the ag industry. As grain markets evolve with technology and globalization, there is an ever increasing demand for qualified field experts who can build and manage profitable local grain businesses.

As an agriculture commodity merchandiser, you'll set prices and purchase commodities for grain elevators on a local level. If you think you would enjoy working with a diverse range of people, making frequent decisions, and offering financial guidance, then look no further for a great career!

### What can I expect?

As a student in the Commodity Merchandising Option, you'll get plenty of interactive, practical experience. You can expect courses in: Accounting, Seed and Grain Technology, Financial Management, Commodity Marketing and Merchandising, Co-op Principles, and more! To make sure you are as ready as possible for a great career - we also require two business internships.

### Careers

As a graduate of this program you can expect outstanding opportunities and a great income! Strong employment growth is expected to result from increasing investment in securities and commodities, along with the growing need for investment advice. Though most commodity merchandisers will work for local grain elevators, ethanol plants nationwide are also hiring buyers/merchandisers.

*A laptop is required for this option.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

Click here to view the Agriculture/Commodity Merchandising Option Course Outline

Click here to view the Agriculture Placement Report

Click here to view the Agriculture Student Learning Outcomes

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.



Get your Commodity Merchandising degree online. For more information, go to the [Commodity Merchandising e-degree page](#).

### The Dairy Industry Needs You

In an effort to keep up with industry, many Midwestern dairies have expanded into larger, more efficient operations and now produce a higher quality and quantity of milk than ever before. In the world of dairy, operators rely on cutting-edge techniques and knowledge to manage optimal dairy production, nutrition, and health.

Dairies everywhere are struggling to find employees who have the skills to help them succeed. This option is designed to prepare you for a great career in the dairy industry. If dairy is your passion, this is the place for you!



### What can I expect?

After completing the Ag Dairy Option, you will have the knowledge and experience to work at, manage, or even own a large, state-of-the-art dairy operation. We feature hands-on, active learning, including field trips to local dairies and AI training by a certified company (for which there is a fee). You'll be immersed in the latest information on dairy science, health, and nutrition. You'll learn to trouble-shoot problem areas in the dairy herd, and get practical training in farm management and commodity marketing. Most importantly, you will learn to keep accurate and consistent records on a dairy herd.

You will also complete two supervised occupational experiences (internships) at a dairy of your choice.

*A laptop is required  
for this option.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

18  
Months

Click here to view the Agriculture/Dairy  
Option Course Outline

Click here to view the Agriculture Placement Report

Click here to view the Agriculture  
Student Learning Outcomes

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AGRICULTURE  
Dairy Option



# AGRICULTURE

## Large Animal Technician Option

18  
Months



### Become a Large Animal Expert

With this option, you'll get the knowledge and experience you'll need to be a herd technician for a modern dairy, beef, or swine operation. You could also work as an assistant to a large animal veterinarian.

### What can I expect?

This option features hands-on, real-world training, including plenty of visits to successful large-animal operations, and not one but two experience-boosting internships!

Expect to learn the basics of large animal nutrition and health as you study ration formulation for cattle, swine, and sheep; and correct techniques for vaccination, immunization, and artificial insemination. (A certified company performs the AI

training, for which there is a fee). We will train you to recognize large animal anatomy, spot common large animal diseases, and safely care for injuries.

### Career Opportunities

The goal of this option is to supply highly skilled assistants to large livestock operations and rural large-animal veterinarians. With training as a large animal technician you might also sell animal care products or animal feed.

The South Dakota Department of Labor statistics indicate a favorable future employment projection for large animal technicians in general.

**\*Please note:** This is not a Vet Tech program. No small animal work will be taught and no national accreditation is necessary.

*A laptop is required for this option.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

Click here to view the Agriculture/Large Animal Technician Option Course Outline

Click here to view the Agriculture Placement Report

Click here to view the Agriculture Student Learning Outcomes

Lake Area Technical Institute:  
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## Know the Future of Farming

Geospatial technology has revolutionized the operation of today's successful farms. GPS and GIS now allow farmers to optimize input, reduce waste, and generate maximum yields. Designed for use in all types of agricultural systems, precision technology has improved the production of everything from row crops to dairies. Now you can learn to use this valuable technology to its highest potential!

## What can I expect?

As a student in this option, you'll get extreme hands-on experience with GPS and remote sensing for data collection, GIS for data processing and analysis, variable rate technology, and more! Expect to master the latest technical, operational, and software applications for John Deere, Case IH, Raven, Ag Leader, Trimble, and Ag Chem precision systems.

You'll get lots of active, "real time" learning as you gather and use data from the LATI demonstration farm and area co-op farms. You will also have two internship opportunities with co-ops, private businesses, producers and/or a home farm operation.

## Career Opportunities

This option will prepare you for a career in the precision agriculture industry, including precision farming, geographic information system (GIS) analysis, and equipment manufacturer technician and sales. Specific job responsibilities might include GPS mapping, GIS database management, precision agriculture consulting, and applications in variable rate application technology. As more and more farms nationwide adopt the use of precision ag systems, more

technicians will be needed to operate, troubleshoot, and repair the equipment!

## Putting it to Use

The Lake Area Tech Agriculture program has developed a working demonstration farm located northwest of Watertown. LATI Ag students are actively involved in the management decisions of the farm and implement industry trends in agriculture including mapping and precision ag study. Partnerships with ag business and industry allow LATI to utilize state-of-the-art equipment to plant and harvest the crops. Producer tours are conducted during the year as well as other regional ag events and educational seminars.



*A laptop is required for this option.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

[Click here to view the Agriculture/Precision Technology Option Course Outline](#)

[Click here to view the Agriculture Placement Report](#)

[Click here to view the Agriculture Student Learning Outcomes](#)

Lake Area Technical Institute:  
superior, comprehensive technical education that  
changes lives and launches careers.

20  
Months

AGRICULTURE  
Precision Technology Option



# AGRICULTURE

## Ranch Management Option

100  
Months

### Home on the Range

There's a definite need for qualified ranch managers in South Dakota and in the region, so if you've got a desire to manage your own ranch and implement best-practices, then our Ranch Management option just may be for you. After completing the coursework, you'll earn an Associate of Applied Science degree in Ag/Ranch Management.

### What can I expect?

As a student in Lake Area Tech's Ranch Management option, you'll start out receiving a solid foundation in fundamental agriculture coursework. Then, you'll expand on that knowledge and learn about specific aspects of Ranch Management including beef and sheep production, livestock marketing, nutrition, grazing practices, range ecology, breeding, and more!

### Career Opportunities

The goal of this option is to meet the demand for qualified ranch managers who may either return to their home ranch or work for other livestock operations.

As a graduate of this program, you'll have a solid foundation in agriculture and ranch management that will provide you with the skills needed to manage a variety of ranch-related and livestock matters like

animal health/husbandry, soil/water management, and livestock-related business/marketing practices.

If you're interested in a diverse career, working outdoors, and being responsible for livestock and the land on which they live, then this might be the career for you! Give us a call today or visit our website at [www.lakeareatech.edu](http://www.lakeareatech.edu).



*A laptop is required for this option.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

[Click here to view the Agriculture/Ranch Management Option Course Outline](#)

[Click here to view the Agriculture Placement Report](#)

[Click here to view the Agriculture Student Learning Outcomes](#)

Lake Area Technical Institute:  
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Get your Ranch Management degree online. For more information, go to the [Ranch Management e-degree page](#).



# AGRICULTURE

## Swine Management Option

18  
Months

### Specialized Skills Needed

To help meet the growing demands in the agriculture sector for workers with specialized skills, Lake Area Tech now offers an 18-month Swine Management option in the Agriculture program. Students who enroll in the Swine Management option will graduate with a strong background in Large Animal, and emphasis in swine specialty courses. On-the-job experience will be gained through two internships.

Graduates will find job opportunities in a wide variety of ag-related businesses including swine operations, feed supply companies, and animal health businesses – in addition to high-demand jobs in the ag-production industry. The swine option will also prepare students to return to work on their family farm operation.



In addition to the course objectives in our current Large Animal option, the new option will offer objectives which include:

- Identifying common swine breeds, characteristics and uses, husbandry practices and biosecurity standards.
- Developing skills in swine nutrition, digestive anatomy, and ration management.
- Obtaining knowledge of operational swine facility management, including development of business plans.
- Providing training in safety, swine handling, and swine reproduction techniques.
- Developing knowledge of swine anatomy, physiology, and disease management.

**A laptop is required  
for this option.**

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)



[Click here to view the Agriculture/Swine Management Option Course Outline](#)

[Click here to view the Agriculture Placement Report](#)

[Click here to view the Agriculture Student Learning Outcomes](#)

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changes lives and launches careers.



## The Road to Success

The automotive industry needs technicians who are trained in the latest diagnostic and repair methods. Join the ranks of other successful auto graduates who are now working at dealerships, independent garages, auto service centers or fleet maintenance centers. This program has a high job-placement rate, meaning our graduates find jobs! What are you waiting for? Start your journey toward the career you've always wanted!

## What can I expect?

We offer the best in "real world" training. Gain experience and confidence in our innovative training center - designed like an actual repair shop. We are fully equipped with the latest in diagnostic equipment, a large parts department, complete manuals, and a full range of late-model and hybrid cars.

Recently, our auto program - which has been NATEF-certified since 2010 - added new training aids including five Ford Fusion cars, a Hunter Alignment System, Premium Scissor Long-Deck Rack, RoadForce Touch 4th Generation Wheel Balancer, and an Ergonomic Center Clamping Tire Changer. This new equipment ensures students are training on the industry's most up-to-date automotive gear. With this program, you'll find premium, project-based training that will keep your full attention and prepare you for a successful career!

Staying current with industry standards is a priority. All of the instructors are master-certified by ASE and the program is NATEF certified, so as a student, you can be confident your training at Lake Area Tech is second to none. The Auto Department is also a Snap-On Training Center that offers certifications in Torque, Scan Tool Diagnostics and Digital Multi Meter.

## Career Opportunities

With experience, many of our graduates have gone on to service manager positions, opened their own repair shops, or even used their mechanical skills to secure great careers in the manufacturing field!

## Light Duty Diesel Option

Graduates of the LATI Automotive Technology program or Diesel Technology program can enroll in the **Light Duty Diesel** option. This option offers comprehensive theory and hands-on skills to successfully master light-duty consumer trucks and diesel engines. During the nine-month option, students will work with various manufacturers' engines and learn how diesel power and performance is achieved. After completion, the graduate will earn an additional Associate of Applied Science degree.



*A laptop is required for this option.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

[Click here to view the Automotive Technology Course Outline](#)

[Click here to view the Automotive Technology Placement Report](#)

[Click here to view the Automotive Technology Student Learning Outcomes](#)

Lake Area Technical Institute:  
superior, comprehensive technical education that  
changes lives and launches careers.

18  
Months

AUTOMOTIVE  
Technology

### Be Part of an Exciting Field

Graduates of our Federal Aviation Administration (FAA) certified program can look forward to excellent pay, unique travel privileges, great fringe benefits, and the ability to work anywhere in the world!

### What can I expect?

Our 19-month Aviation Maintenance program will train you to be an Airframe & Powerplant (A&P) mechanic. You'll be eligible to test for your airframe certification at the end of your first year, and your powerplant certification at the end of your second year. Aviation students can expect to be immersed in the mechanical, electrical, and structural workings of airplanes. You'll study a variety of subjects, including physics, aerodynamics, welding, aircraft drawings, piston and turbine engines, aircraft structure, aircraft systems, and more!

The Aviation Maintenance program at LATI specializes in unique opportunities to strengthen your knowledge of aircraft performance and operation, including the chance to acquire private, instrument, commercial and multi-engine pilot rating in a unique variety of aircraft.

Students of this program have the opportunity to complete the coursework necessary for an Associate of Applied Science (A.A.S.) Degree or enter our Agri-Aviation diploma option! (See Agri-Aviation option page for more details).

*A laptop is required  
for this program.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)



### Careers

Wherever aircraft are being used, a licensed aviation maintenance technician must be available to service and maintain them. Graduates could work for fixed-base operators, certified repair stations, corporate aviation, regional or international air carriers, or state and federal agencies. This profession usually includes an awesome salary, adventure, and boundless opportunities!

[Click here to view the Aviation Maintenance Technology Course Outline](#)

[Click here to view the Aviation Maintenance Technology Placement Report](#)

[Click here to view the Aviation Maintenance Technology Student Learning Outcomes](#)

*Lake Area Technical Institute:  
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changes lives and launches careers.*



### Hands On

Building a bright future in the construction and carpentry world begins right here at Lake Area Tech! Do you have a flair for design? A way with a hammer? An eye for detail? Then our Building Trades Technology program might be just what you're looking for. In only 18 months, your new and diverse career could be a reality!

### What can I expect?

Our students gain a solid foundation in residential design, site preparation, concrete work, floor/wall/roof construction, ventilation, interior finishing, cabinetry, and building codes. Yes, you'll hit the books, but much of your time will be spent building a custom-made home from start to finish. This on-site experience will escalate your skills and give you the upper hand once you hit the job market.

### Careers

Speaking of the job market, occupations in the construction field are expected to grow at a faster than average pace! Jobs with commercial contractors, maintenance shops, woodworking shops, sash and door companies, furniture manufacturers, and home contractors are waiting for you. Want to be your own boss? Consider our Business/Entrepreneurship program option after completing your A.A.S. degree in Building Trades and you'll be well on your way to printing business cards with the word 'Owner' behind your name!

But wait, there's more! In the classroom, you'll also learn about light commercial construction, estimation, and working in a green industry. And, you'll be exposed to the latest in construction technology like blower door testing. Out of the classroom, you'll get the chance to sharpen your leadership skills and interact with a network of professionals by joining trade organizations like the Home Builders Student Chapter, the Associated General Contractors of SD, and Skills USA.

### BTT Summer Jump Start

If you're a soon-to-be high school graduate with a dream of pursuing a Building Trades Technology (BTT) degree at Lake Area Tech, take a look at this option! Beginning in late May, our Building Trades program will offer a Summer Jump Start session! What is it? The BTT Summer Jump Start puts students on a fast-track to graduation beginning with an intense, skills-oriented summer session. Upon successful completion of the summer session, students will enter the fall semester as a second-year student and will be on schedule to graduate in the spring!

To be eligible for the BTT Summer Jump Start, students must have completed building trades classes in high school or possess equivalent prior building trades experience. If you're ready to commit, take the first step by applying to Lake Area Technical Institute here. In only a year's time, you'll be walking across the graduation stage with a degree in your hand!

### Option for Currently Employed

Construction employees who are currently working can also apply for the BTT Summer Jump Start session. If you've got the experience and can demonstrate your capabilities, consider applying for the BTT Summer Jump Start option and earn your degree in Building Trades Technology! This fast-paced option may be ideal for those who wish to earn a degree in only one year!

[Click here to view the Building Trades Technology Course Outline](#)

[Click here to view the Building Trades Technology Placement Report](#)

[Click here to view the Building Trades Technology Student Learning Outcomes](#)

18  
Months



**BUILDING**  
Trades Technology

### A Career to Count On

As a graduate of this option you will be able to set up and use any existing accounting system. No matter what the economic situation, businesses and organizations everywhere need individuals to manage their financial information. In other words - the job prospects are good!

### What can I expect?

Our graduates are known for having the perfect blend of financial knowledge and real-life working experience. This program features student-friendly, flexible options. You can expect to study cost accounting, tax accounting, payroll accounting, banking, wealth management, and financial analysis. Our students have a variety of opportunities to gain valuable, real life experience including:

- Experience with actual accounting software.
- Helping low income and elderly people with tax preparation through the special Volunteer Income Tax Assistance (VITA) program.
- Completing a credited part-time or summer internship in the financial sector.

### Careers

Graduates of the Business Accounting option could work for a bank, a business firm, or any number of industrial or insurance companies. There is really no end to employers who need skilled accountants! The U.S. Bureau of Labor Statistics says job prospects in this field are expected to increase “faster than average” through 2018.



*A laptop is required for this program.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

[Click here to view the Business Accounting Option Course Outline](#)

[Click here to view the Business Accounting Option Placement Report](#)

[Click here to view the Business Accounting Option Student Learning Outcomes](#)

Lake Area Technical Institute:  
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Get your Business Accounting degree online. For more information, go to the **Business Accounting e-degree page.**

## Make Your Dreams Happen

Always wanted to start your own business? Lake Area Tech's Business Associate/Entrepreneurship program option is designed to help you succeed. Whether you are an enterprising student in a current technical program, a returning graduate, or someone with ideas and drive who wants additional creative, managerial, financial, and productive skills - this option is designed for you. Our economy needs new thinkers, leaders, and owners!

## What can I expect?

In the Entrepreneurship option, you will learn the crucial theories and practices needed to be successful including: creative problem solving, networking, strategic goal-setting, defining markets, business plan development, and incorporating principles of manufacturing, selling, and accounting.

Our curriculum is approved and continually updated by an industry advisory board of area entrepreneurs and potential employers. As a student, you will be

guided in business planning, real world projects with area companies, industry field trips, and finally, an internship and/or capstone project.

## Program Features

If you are an A.A.S. technical institute graduate, consider taking your education to the business-owner level by adding an additional year of study in our Entrepreneurship option. Or, earn your Business Associate/Entrepreneurship option online! Click at the bottom of this page for more information.

Whatever your plans, we are here to help you start your journey!



A laptop is required  
for this program.

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)



Click here to view the **Business Associate/  
Entrepreneurship Option Course Outline**

Click here to view the **Business Associate Program  
Placement Report**

Click here to view the **Business Associate Student  
Learning Outcomes**

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Get your Entrepreneurship degree online.  
For more information, go to the  
**Entrepreneurship e-degree page.**

20 Months

**BUSINESS ASSOCIATE**

**Entrepreneurship Option**

## A Great Career

Human resources is one of the fastest growing sectors of American business. As a human resource associate, you will help companies find, hire, and keep the most effective employees. You might specialize in a specific department (payroll, benefits, safety, etc.) work with an HR team, or - if you work for a small company - manage human resources all on your own!

## What can I expect?

This 20-month option features creative, practical training. You can expect lots of hands-on projects, as well as learning and networking opportunities with visiting HR professionals. You'll learn how to explain company procedures and benefits to new employees; develop training presentations; initiate, organize, maintain and store personnel records; and manage issues/crises in the workplace. To make sure you have all the experience you'll need, we also require a credited internship or final (capstone) project equivalent.

## Careers

Any business or organization that depends on large amounts of employees needs human resource personnel. If you are detailed, creative, efficient, compassionate, and enjoy working with people - human resources could provide you with the career you've always dreamed of!



*A laptop is required for this option.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)



**Click here to view the Business Associate/Human Resources Associate Option Course Outline**

**Click here to view the Business Associate Program Placement Report**

**Click here to view the Business Associate Student Learning Outcomes**

*Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.*



Get your Human Resources degree online. For more information, go to the **Human Resources e-degree page.**

20  
Months



**BUSINESS ASSOCIATE**  
Human Resource Associate Option

### Prepare to Succeed

The Marketing & Management option offers world-class business training. Our experienced faculty will teach you:

- the evaluation of customer needs
- price determination
- promotion/advertising
- sales strategy
- government regulations
- ...and much more!

### What can I expect?

Our Business Program features an active, hands-on approach to learning. In Marketing & Management, you can expect to complete a variety of real-world projects, visit businesses, and interact with various professionals who have made a career in marketing and management. To boost your confidence (and your resume) we also require an internship experience.



### Come experience . . .

...our like-no-other business program. With small, personal class sizes and world-wise instructors - our program will definitely set you apart!

### Careers

Marketing and management are some of the fastest growing career areas - and employers are eager to hire applicants with experience and skill. Graduates will find work in the vast wholesale and retail sectors, or in advertising, social media marketing, small business management, or accounting.

**A laptop is required for this option.**

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)



**Click here to view the Business Associate/Marketing & Management Option Course Outline**

**Click here to view the Business Associate Program Placement Report**

**Click here to view the Business Associate Student Learning Outcomes**

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.



Get your Marketing & Management degree online. For more information, go to the **Marketing & Management e-degree page.**

20  
Months

**BUSINESS ASSOCIATE**  
Marketing & Management Option

# BUSINESS ASSOCIATE

## Photography/Media Option

20  
Months

### Make Your Vision Happen

Offering a unique mix of photography and business training, this option will prepare you to launch your own photography business, or work in the artistic/visual communications field. Graduates of this option will earn an Associate of Applied Science degree in Business.

### What can I expect?

As a student of this 20-month option, you can expect project-based training in a broad range of photography styles. You'll get advanced training in photo editing and enhancement, learn how to effectively market/broadcast your work, and learn real-world application from visiting professional photographers. You will also complete an experience-building internship or final (capstone) project. In addition, students will also take core business courses to give those wishing to own and operate their own businesses a solid business foundation.

### Careers

Graduates of the Business Associate Photography/Media option can develop careers in portraiture, commercial product illustration, photojournalism, studio management, and digital imaging. As a graduate, you may also wish to utilize our strong business/entrepreneurship training in a photography venture of your own!

Acceptance into this option is limited. In addition to the LATI application, you must electronically submit the following for review:

1. A paper (1-2 pages) describing why you want to be a photographer. Please include any previous photography/media experience (even if your



experience is limited) and discuss why you want to have a photography business.

2. A portfolio consisting of 5-10 items of any previous photography or media you have produced. Digital format or hardcopies will be accepted.

3. Select one portfolio item and write a short paragraph about it. When did you produce it? What type of equipment were you using? (Even cell phone photos are acceptable.) Why did you select this item?

**A laptop is required for this option.**

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

**Please note . . .**

...you will be required to purchase a professional quality camera.

**Click here to view the Business Associate/Photography Media Option Course Outline**

**Click here to view the Business Associate Program Placement Report**

**Click here to view the Business Associate Student Learning Outcomes**

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.





### Make a Difference

Are you interested in a medical career that doesn't follow a traditional route? Take note!

Beginning in Fall 2018, Lake Area Tech will offer an exciting new Community Healthcare Worker program. After completing the program, graduates will be equipped with the necessary skills to be employed in medical positions such as a community health adviser, social and human services assistant/specialist, community health advocate; eldercare advocate; weight loss advocate/coach; and casework specialist.

### What can I expect?

Community healthcare workers are often responsible for the health of community members who may not be cared for by traditional medical institutions including culturally diverse populations and underserved community members. Community healthcare workers often provide some basic direct services as well, such as first aid and some health screenings.



[Click here to view the Community Healthcare Worker Course Outline](#)

### Options

Students enrolled in the new program will have three options: earn a certificate after completing six months, earn a diploma after one year, or earn an Associate of Applied Science degree after completing the entire 18-month program. During the coursework, students can expect to receive instruction in health care, basic nutrition, pharmacology, nursing, autism, mental health, psychology, sociology, behavioral analysis, communication, intervention, counseling and community services, and developmental services, such as literacy and life skills training. Please note, this program is in the development stage and program details may be subject to change. Please visit [www.lakeareatech.edu](http://www.lakeareatech.edu) for the latest updates.

**A laptop is required for this option.**

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

18  
Months



COMMUNITY HEALTHCARE  
Worker

Lake Area Technical Institute:  
superior, comprehensive technical education that  
changes lives and launches careers.

## Think Like a Hacker

Today's information networks are under constant threat from theft, fraud, and sophisticated viruses. As businesses make large investments in innovative technology, they are depending more and more on specialists to protect the safety and integrity of their systems and information.

## What can I expect?

Our 20-month Networking and Cyber Security Specialist option allows you to perform actual network intrusions, so you can anticipate and defend against future threats. You will also learn how to install and manage information security systems, as well as how to gather and analyze data for computer crime investigation.

You can expect to gain maximum experience in networking and security. As a student, you will spend approximately 80% of your time doing the work of a security specialist. To make sure you have the job experience you'll need, we also require a 180-hour internship.

In addition, LATI offers CCNP (Cisco Certified Network Professional) - an advanced certification that will give you a HUGE advantage in the networking field and more job opportunities. In a



national competition testing network savvy and skill, LATI students consistently earn top places among other student peers across the country.

Our graduates also have the option to take advantage of a 2+2 articulation agreement with Mount Marty College. "2+2" means that when a student graduates with a two-year Associate of Applied Science degree in Computer Information Systems, they can transition into two years of Mount Marty classes and receive a Bachelor's degree in Management Information Systems with a minor in Business.

*A laptop is required for this option.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

Click here to view the **Computer Information Systems Networking & Cyber Security Specialist Course Outline**

Click here to view the **Computer Information Systems Placement Report**

Click here to view the **Computer Information Systems Student Learning Outcomes**

Lake Area Technical Institute:  
superior, comprehensive technical education that  
changes lives and launches careers.



Get your Networking & Security Specialist degree online. For more information, go to the **Computer Information Systems e-degree page.**

20 Months

COMPUTER INFORMATION SYSTEMS  
Networking & Cyber Security Specialist Option

### Think About It

All the software we now use wouldn't exist without the work of programming specialists. A programmer "writes" programs - or converts the design of a software program into a logical series of instructions that computers can follow. Recently, programming specialists have also been working in software design and identifying user need.

### What can I expect?

As a student in our 18-month option, you will learn the latest techniques in software design, creation, and maintenance. Expect to become fluent in current programming languages and databases.

We teach mobile app development for a variety of devices using jQuery Mobile and Android Studio. While taking programming classes, you'll also take classes in web design and maintenance, security and system analysis and design among other option-related courses.

This option features "learning by doing." Expect to spend about 80% of your time honing the skills of a programming specialist with hands-on projects. To make sure you have the job experience you'll need, we also require a 240-hour internship.

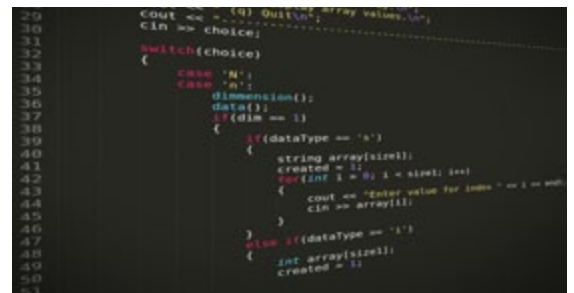
### Careers

According to the US Bureau of Labor, employment of computer programmers is expected to grow much faster than average for occupations through 2018.

This option has a high placement rate, and graduates are reporting great job satisfaction and excellent wages.

**A laptop is required for this option.**

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)



[Click here to view the Computer Information Systems Programming Specialist Option Course Outline](#)

[Click here to view the Computer Information Systems Placement Report](#)

[Click here to view the Computer Information Systems Student Learning Outcomes](#)

Lake Area Technical Institute:  
superior, comprehensive technical education that  
changes lives and launches careers.



Get your Programming Specialist degree online. For more information, go to the [Computer Information Systems e-degree page](#).

## Be a Creator

Do you have a flair for creativity? Do you think of yourself as 'techy'? Then our Graphic Design and Digital Communication Specialist option just might be for you. As a student, you'll learn the skills needed to work in a fast-paced, creative environment. Graphic Design and Digital Communication Specialist students will work with illustration, image manipulation and compositing, video, animation, and other editing programs that give them an edge in the world of web development, graphic design, and multimedia production. Graphic Design and Digital Communication Specialist students also spend a significant amount of time learning traditional art principles and photography tools and techniques that can be integrated into future design projects.

## What can I expect?

Businesses everywhere need media creators to develop the most up-to-date graphics, product and service promotions, social media marketing material and communication creations. At LATI, expect a solid foundation in graphics, multimedia production, animation, visual FX, web development and database design, networking, hardware and more to prepare you for your dream career. During this 18-month



program, you will spend around 80% of your time working on projects and you'll also gain real-world experience during your 240-hour internship. Job opportunities are waiting for you in design studios, advertising and marketing agencies, newspapers, magazine and book publishers, and even interactive media and web design firms. Let us help you get there!

## Looking Ahead

Our graduates have the opportunity to take advantage of a 2+2 articulation agreement with Mount Marty College. "2+2" means that when a student graduates with a two-year Associate of Applied Science degree in CIS, they can transition straight into two years of Mount Marty classes and receive a Bachelor's degree in Management Information Systems with a minor in Business.

*A laptop is required for this option.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

Click here to view the **Computer Information Systems Graphic Design & Digital Communication Specialist Course Outline**

Click here to view the **Computer Information Systems Placement Report**

Click here to view the **Computer Information Systems Student Learning Outcomes**

*Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.*



Get your Graphic Design & Digital Comm. Specialist degree online.

For more information, go to the **Computer Information e-degree page.**

18  
Months



**COMPUTER INFORMATION SYSTEMS**  
Graphic Design & Digital Communication Specialist Option

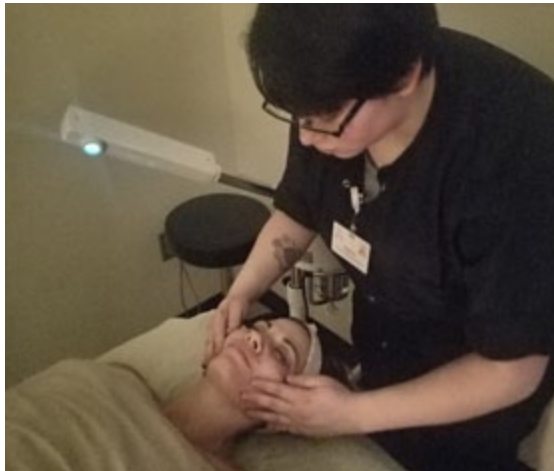
### Helping People Look and Feel Great

Cosmetology professionals help people look and feel their best. Our Cosmetology program offers a team of talented instructors who train full-time students of all ages. Our students are anxious to work in this exciting and rewarding industry. We believe education is an adventure and the learning experience needs to be progressive and fun!

### What can I expect?

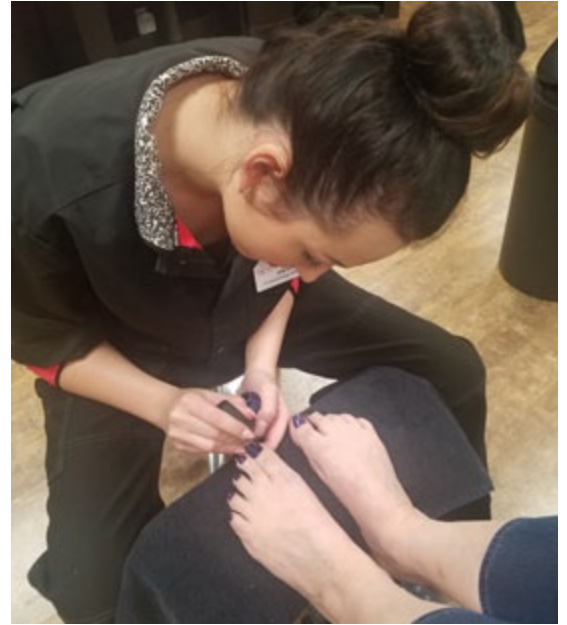
Our 15-month Cosmetology program (2100 hours) offers training in hair, skin, and nail care. You'll study the fundamentals of cosmetology and apply your knowledge on the Cosmetology clinical floor – a fully operational public salon right here on campus.

You will incorporate the latest techniques and technical talents while cutting, coloring, shaping, and designing hair. You will also apply make up and perform manicures, pedicures, and facials. During the year, the Cosmetology program sponsors on-campus cosmetology events during which experts in the field share the latest trends in the industry. All students are required to take a three-part board exam administered by the South Dakota Cosmetology Commission after completion of the program.



### Careers

Imagine a career that is rewarding and gratifying every day. You could work as a stylist, research technician, platform artist, manufacturer's representative, salon owner or manager, nail tech, esthetician, or instructor. The opportunities in this field are vast! Let us help you begin your exciting career in cosmetology!



### Interested in . . .

...owning your own business? Consider combining your cosmetology training with a degree in Business Associate/Entrepreneurship!

Learn more at:  
[www.lakeareatech.edu/academics/](http://www.lakeareatech.edu/academics/)

[Click here to view the Cosmetology Course Outline](#)

[Click here to view the Cosmetology Placement Report](#)

[Click here to view the Cosmetology Student Learning Outcomes](#)

## Designed to Succeed

A great option for creative and detail-driven people, the Custom Paint & Fabrication program will send you into the manufacturing and automotive industries with the high-demand training you need to shine in the business of auto restoration/body work, painting, and customizing. As a graduate of this program, you'll be equipped to move beyond the shop, applying your valuable training to various manufacturing fields.

## What can I expect?

As a student of Custom Paint & Fabrication, you'll be immersed in the world of auto restoration and customization. You can expect hands-on learning as you practice the most current techniques in sheet-metal work, welding, refinishing, tinting and blending, fiberglass composites, and more! We now have a virtual reality paint training system. This enables students to practice paint gun techniques



right in the classroom without any product usage or discharge of VOC.

The CPF program at Lake Area Tech has two options: Autobody Technician and the diploma option. You can choose to get a diploma after only nine months or get your Associate of Applied Science degree in Autobody Technician in 18 months.

## Hot Careers

A graduate from this program is ready for a career in auto restoration, customization, collision repair, or essentially any painting or fabrication (metal working or welding) industry that requires cutting-edge training and expertise. Industry is actively seeking trained painters and collision/custom auto body technicians. Get ready - this program will set you up for the career you've always dreamed of!



Click below to view the Custom Paint & Fab Course Outlines  
[Diploma Option](#)      [A.A.S. Degree Option](#)

Click here to view the Custom Paint & Fab  
[Placement Report](#)

Click here to view the Custom Paint & Fab  
[Student Learning Outcomes](#)

Lake Area Technical Institute: superior, comprehensive technical  
education that changes lives and launches careers.

9 Months -  
Diploma Option

18 Months -  
Associate of Applied  
Science Degree

  
  
**CUSTOM**  
Paint & Fabrication

11 Months -

20 Months -  
Optional Associate  
of Applied Science  
(A.A.S.) Degree

**DENTAL**  
Assisting - Certified

### A Shining Career

Dental assistants are the “extra hands” of the dentist, and vital members of the dental health care team. A career in dental assisting will give you:

- **Variety:** Dental assistants positions are diverse and interesting.
- **Flexibility:** Career options include both full-time and part-time positions. Since dental assistants are in demand, you may have some flexibility in choosing your hours.
- **Excellent working conditions:** Dental offices are interesting, pleasant, people-oriented environments.
- **Personal satisfaction:** Dental assisting involves contact with people, and with this personal interaction comes the satisfaction of knowing you’ve really helped someone by providing a valuable health service.

### What can I expect?

As a student of our Certified Dental Assisting program, you’ll get active, hands-on training and experience in our on campus lab. You can expect classroom and lab instruction that will prepare you to:

- Perform chair-side procedures in general and specialty practices
- Perform radiographic techniques
- Maintain patient records and perform office management skills
- Take impressions and perform basic laboratory procedures
- Perform expanded functions allowed in SD

Students interested in the online option of the Certified Dental Assisting program can learn more by clicking on the edegree graphic below.

### Excellent Opportunities

Most dental offices hire multiple trained dental assistants. The U.S. Bureau of Labor states employment opportunities in this field are “excellent” - in fact, dental assisting is one of the fastest growing occupations nationwide. Positions are available in private and group practices for general dentistry as well as in specialty practices such as oral surgery, orthodontics, periodontics, endodontics and pediatric dentistry. Other sources of employment include public health dentistry, hospitals, dental school clinics, insurance companies, and sales.

### Accreditation

The program in dental assisting is accredited by the Commission on Dental Accreditation (**and has been granted the accreditation status of “approval without reporting requirements.”**) The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611.

All graduates are eligible to complete the Dental Assisting National Board and meet all requirements to be registered in radiography expanded functions by the South Dakota Board of Dentistry. To be accepted into the program, the American Dental Association requires all applicants to have a high school diploma or GED.

[Click here to view the Certified Dental Assisting Course Outline](#)

[Click here to view the Certified Dental Assisting Placement Report](#)

[Click here to view the Certified Dental Assisting Student Learning Outcomes](#)

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.



Get your Dental Assisting degree online.  
For more information, go to the  
**Dental Assisting - Certified e-degree**

## America Runs on Diesel!

Diesel-powered equipment is essential to this country's operation and economy. Diesel equipment is used to plant, fertilize, and harvest on typical American farms. Diesel trucks, trains, and ships carry grain and livestock to market and keep manufactured products en route to American stores. Everywhere, powerful diesel machines build and repair roads, dams and levees, and prepare the ground for building projects.

## What can I expect?

As a first-year Diesel Technology student, you'll complete hands-on training in our spacious diesel facility. Our ASE-certified instructors will instruct you on small engines, light-duty diesel engines, power trains, hydraulics, electrical systems, welding, and heating/ventilation/air conditioning (HVAC). In your second year, you have the option to specialize in Ag/Industrial (Tractor) or Heavy Truck.

In Ag/Industrial, you'll be trained in diesel engine overhaul, hydraulic system diagnostics, HVAC system diagnostics, tractor electrical system diagnostics, fuel injection systems, diesel engine tune-up, electrical/hydraulic systems, and GPS combine familiarization. If you choose Heavy Truck, you'll train in diesel engine overhaul, diesel fuel systems, diesel engine tune-up/troubleshooting, truck electrical systems, electronic diesel engine controls, truck drive trains, air brake systems, suspension/steering, and preventive maintenance. Both options feature projects on customer-owned equipment.

## Careers

As an Ag/Industrial option graduate, you may work for a farm equipment dealer, an independent equipment repair shop, a construction firm, a diesel injection equipment repair shop, a farm repair shop, or maintenance facility. As Heavy Truck option graduate,

**A laptop is required  
for this option.**

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)



you may work for a truck dealership, a commercial truck fleet, a bus line, a heavy equipment shop, a construction firm, or independent repair shop. A diesel technology career often leads to positions in equipment/part sales and management positions at all levels.

## ASE Master Certified Program

The Board of the National Institute of Automotive Service Excellence (ASE) has granted the Lake Area Technical Institute Diesel Technology program "Master Certification" status after evaluating the program's curriculum, equipment and facilities.

## CNH Forging the Future

Students who are interested in a career with Case New Holland may enroll in the CNH Forging the Future program at Lake Area Tech. For more information [click here](#) or contact your local CNH dealer or LATI.

## ThingBIG Caterpillar Option

Students selected for the Caterpillar ThinkBIG program will have the opportunity for full-time employment with the dealership upon successful completion of the program. For more information, go to [www.lakeareatech.edu](http://www.lakeareatech.edu) or contact Rebecca Rensvold at Butler Cat at 1-800-873-8858. The Lake Area Technical Institute ThinkBIG program is fully accredited by the AED Foundation – an affiliate of the Associated Equipment Distributors. [Click here for more information.](#)

## Light Duty Diesel Option

Graduates of the LATI Automotive program or Diesel programs can enroll in the **Light Duty Diesel** option. This option offers comprehensive theory and hands-on skills to successfully master light-duty consumer trucks and diesel engines. During the nine-month option, students will work with various manufacturers' engines and learn how diesel power and performance is achieved. After completion, graduates will earn an additional Associate of Applied Science degree.



[Click here to view the Diesel Technology Course Outline](#)

[Click here to view the Diesel Technology Placement Report](#)

[Click here to view the Diesel Technology Student Learning Outcomes](#)

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.

18  
Months



**DIESEL**  
Technology



### You'll be in demand - guaranteed.

Electronic systems now form the powerful "central nervous system" of manufacturing and business technologies. Crucial areas include computer systems, automated manufacturing systems, medical machines, digital signs and displays, - and more!

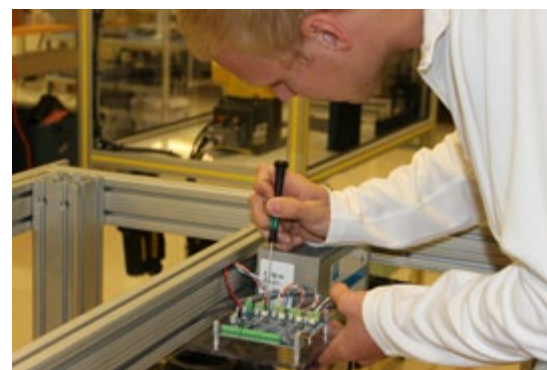
The industry needs skilled technicians to design, manufacture, and support this technology. Currently our program has far more job listings from potential employers than we have graduates! If you have never considered a career as an electronic technician, take a moment to learn about what this exciting field has to offer. You won't regret it!

### What can I expect?

Our 18-month program begins by teaching you electronics at the component level. Next, expect to move beyond the basics as you learn surface mount soldering, microprocessors, motor controls, programmable logic controllers, circuit board design, troubleshooting, robotics, and more!

At LATI, we make sure you get active, hands-on training, including work experience in our fully equipped Electronic Systems lab.

We have articulation agreements with South Dakota State University offering the opportunity to transfer credits seamlessly into a Bachelor of Science degree in Operations Management.



### Careers

As a graduate of this program, you could be employed in visual communications, manufacturing, electronic distributors, or machine safety products. The electronic technician is involved in every aspect from design to manufacturing to technical support. Careers in this field come with high wages and plenty of opportunities for advancement.

*A laptop is required  
for this program.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

Click here to view the Electronic Systems Technology  
Course Outline

Click here to view the Electronic Systems Technology  
Placement Report

Click here to view the Electronic Systems Technology  
Student Learning Outcomes

Lake Area Technical Institute: superior, comprehensive technical  
education that changes lives and launches careers.



Get your EST degree online.  
For more information, go to the  
**Electronic Systems Technology edegree page.**

## Be Where the Energy Is!

The future is here for energy! Our 20-month Energy Operations program is based on the demands and guidance of the energy industry, and will prepare you for a rewarding career in the operation of a power (coal, hydro, wind, nuclear, etc.) or process (ethanol, oil, bio-diesel, etc.) plant.

## What can I expect?

Our program provides cutting-edge theoretical training - as well as plenty of hands-on experience in the fully equipped Lake Area Tech Energy Lab. You can expect to establish a foundational understanding of energy mechanics and systems to prepare yourself for a career in the high-demand process plant or power plant operation fields. You will then dive into monitoring, controlling, and troubleshooting for plant and process systems including: electrical systems, turbines, boiler systems, and more. Throughout your coursework, you will be instructed in metallurgy, pneumatics, hydraulics, thermodynamics, combustion, vibration analysis, and dynamic balancing.

To make sure you have the experience you'll need, we also require an industry internship.

## Dynamic Careers

Graduates of our program will earn high wages in ethanol plants, power plants, wind turbine farms, pipelines, dairy and cheese processing plants, and any industry needing a skilled technician to monitor, control, and operate production equipment. Click on the Placement Report link below to see the latest wages being earned by new grads!

*A laptop is required for this program.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)



[Click here to view the Energy Operations Course Outline](#)

[Click here to view the Energy Operations Placement Report](#)

[Click here to view the Energy Operations Student Learning Outcomes](#)

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.

20  
Months



**ENERGY**  
Operations

### Technicians in Demand

The energy producing industry is actively seeking technicians who have the skill and experience to maintain and repair production equipment - including wind energy - the fastest growing sector of renewable energy, according to the U.S. Bureau of Labor Statistics.

This field offers high wages and the assurance of a growing job market. Start your journey. Be a part of the new technology powering our world!

### What can I expect?

As a student of our 20-month Energy Technology program, you can expect plenty of active experience in addition to your classroom training. You will spend time in LATI's fully equipped Energy Lab, and be instructed in mechanical maintenance, repair and overhaul. You will also learn alignment techniques, metallurgy, pneumatics, hydraulics, combustion, vibration analysis, and dynamic balancing.

*A laptop is Required  
for this program.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

### Careers

With the growth of the energy industry throughout the nation, graduates will be able to find jobs and earn high wages in ethanol plants, power plants, wind turbine farms, pipelines, or dairy and cheese processing plants.

Click on the Placement Report link below to see the latest statistics on Lake Area Tech Energy Technology graduates including wage averages, which are some of the highest in all of our programs!



Photo credit: NRCgov on VisualHunt.com / CC BY-NC-ND

[Click here to view the Energy Technology Course Outline](#)

[Click here to view the Energy Technology Placement Report](#)

[Click here to view the Energy Technology Student Learning Outcomes](#)

*Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.*

11 Months -

20 Months -



# ENVIRONMENTAL Technology

## Make a Difference

Environmental Technology is one of the fastest growing and most diverse career fields in the United States today. The practice of Environmental Technology encompasses two fundamental objectives:

1. Public health protection - to help prevent the transmission of disease among humans.
2. Environmental health protection - to preserve the quality of our natural surroundings, including air, land, water, and wildlife.

Most recently, graduates of this program have found cutting-edge jobs with alternative fuel suppliers (such as ethanol plants), ecological/wildlife agencies, environmental consulting firms, conservation organizations, and agricultural businesses, just to name a few.

Job duties may include:

- Making chemical solutions and reagents
- Conducting environmental site assessments
- Performing quality assurance evaluations
- Participating in research and development programs
- Using various instruments to collect, prepare and analyze environmental samples
- Performing microbiologic and molecular testing
- Conducting ecological wildlife surveys
- Conducting environmental health and safety audits and inspections

LATI's Environmental Technology program is a great choice for anyone who cares about the future of our environment. If you like science, variety, and being outdoors, this is the option for you!



Photo credit: USFWS/Southeast on Visualhunt.com / CC BY

## What can I expect?

As a student in the Environmental Technology program, you will be trained to use the newest testing and monitoring technology. You will also learn proper sampling and record-keeping procedures through hands-on lessons, experiments, and projects that take place both in and out of the classroom. To make sure you have the experience you'll need, we also require two field internships.

## Careers

Environmental science technicians work in the laboratory and in the field for federal, state, and local environmental, wildlife or health agencies, agricultural, architectural and engineering firms, and environmental consultants. You might also be employed by water/wastewater treatment facilities, private industry, utility companies, biofuel facilities and petroleum/natural gas industries.

[Click here to view the Environmental Technology Course Outline](#)

[Click here to view the Environmental Technology Placement Report](#)

[Click here to view the Environmental Technology Student Learning Outcomes](#)

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.

## Why Financial Services?

Financial Services is a diverse and exciting field. As a graduate, you could have a career in accounting, banking, insurance, or investing, to name a few.

Our graduates are known for having the perfect blend of knowledge and real-life working experience. We offer three high-demand options within the Financial Services program: Agri-Financial Services, Business Accounting, and Consumer Financial Services.

If you like working closely with people and money, this could be the program for you!

## What can I expect?

As a student of our Financial Services program, you can expect a focus on practical, active learning. You will receive a strong core of financial education, including training in accounting, personal finance, micro and macro economics, buying, selling and financial management. You will then move on to specialized financial training in one of our three options.

In all three options you will also complete at least one credited internship. This is a valuable opportunity to test your knowledge, gain work-place experience, and punch up your resume.



## Careers

This program has a high job placement rate. We currently have graduates working at banks and businesses across South Dakota and beyond!

**A laptop is required  
for this program.**

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

**Click here to view the Financial Services Course Outlines**  
Agri-Financial Services Option    Business Accounting Option  
Consumer Financial Services Option

**Click here to view the Financial Services  
Placement Report**

**Click here to view the Financial Services  
Student Learning Outcomes**

*Lake Area Technical Institute: superior, comprehensive technical  
education that changes lives and launches careers.*



Get your Financial Services degree online.  
For more information, go to the  
**Financial Services e-degree page.**

20  
Months



**FINANCIAL**  
Services

9 Months  
18 Months

# HEAVY EQUIPMENT Operator



## Get Paid to Play in the Dirt!

Did you like to play with tractors, bulldozers, and shovels as a kid? Get paid for it now! Graduates from LATI's Heavy Equipment Operator program will enter into a field in high-demand for qualified workers in commercial and industrial construction, heavy equipment operation, and earthmoving equipment operation. The job demand is high for Heavy Equipment Operators so jump on board and we'll help get you there!

## What can I expect?

Not only will you learn safety, maintenance, and technical aspects of the job, but you'll be trained to operate heavy equipment that's used in commercial and industrial construction. Get ready to sit behind the wheels of dozers, graders, and loaders!

LATI's solid Diesel, Welding, Electronics, and Precision Machining programs are great resources

for the Heavy Equipment Operator program students. Plan to rub elbows and share equipment with students and instructors in these established programs as you advance through the hands-on course work.

## Careers

Graduates of the program will enter the work force ready and able to perform in this industry with a solid background in safety, technology, and operations. Employers are waiting for you!

Graduates of this program may also choose to transfer into an environmental management program at a four-year institution. Job demand is high and is expected to remain high in this field and the beginning wage projections are above average. We are here to help you uncover a new world, so let us know if you have any questions about this exciting program at LATI.

[Click here to view the Heavy Equipment Operator Course Outline](#)

[Click here to view the Heavy Equipment Operator Placement Report](#)

[Click here to view the Heavy Equipment Operator Student Learning Outcomes](#)

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.

## Ladies and Gentlemen...Start Your Engines!

If the sound of a revved up engine makes your motor run, just think of how you'll feel after learning what makes that engine run! Lake Area Tech's High Performance Engine Machining (HPEM) program will help meet the demand for qualified high performance engine machinists in the automotive, diesel, and precision machining industries.

Job opportunities in South Dakota and nationally for high performance engine machinists are on the rise. The projected wage and job opportunities in this field are favorable for highly skilled graduates so let us help you get on the fast track to the job of your dreams.

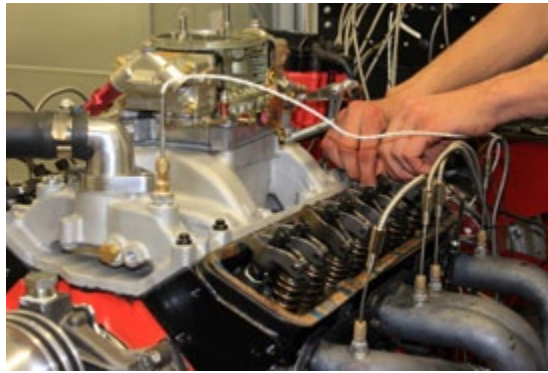
### What can I expect?

Students in the HPEM program can expect a well-rounded education that includes technical knowledge and hands-on skills. You'll be trained in machining; precision measuring; turning/milling; and engine analysis, performance, repair, and engine tuning. During the year, you'll take fun and informative field trips to the PRI Show and the Wisconsin 100.

This program offers a 9-month diploma program for LATI graduates with a Diesel, Automotive Technology, or Precision Machining A.A.S. degree. See the link below for those course outlines. Consider it another step on your road to success!

### Careers

As a graduate of the HPEM program, you'll choose from careers in the automotive, diesel, and precision machining industries. Locally and regionally there are



jobs in auto machine shops or think big and land a job at NASCAR, or with top fuel or cup teams! The possibilities are practically endless! Let us help you shape your world.

To learn more about the High Performance Engine Machining program, click on each of the links below!



[Click here to view the High Performance Engine Machining Course Outlines](#)

[Click here to view the High Performance Engine Machining Placement Report](#)

[Click here to view the High Performance Engine Machining Student Learning Outcomes](#)

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.

18  
Months



HIGH PERFORMANCE  
Engine Machining

9 Months -  
18 Months -



# HUMAN Services Technician

## A Career that Touches Lives

Our diverse Human Services program will prepare you for a career that makes a difference. As a graduate, you could provide daily care and support to children or the elderly. You could also help people overcome personal, professional, and/or social barriers.

This program allows you to choose among four high demand training options: Activity/Mental Health Technician, Child Development, Developmental Disabilities and Youth Offender.

### What can I expect?

All four Human Services options feature interactive, experience-based learning. The coursework has been carefully designed to give you opportunities to learn, develop and practice meaningful activity and care methods. You will also complete a four-week specialized internship at the end of your second semester. Graduates of the HST program are eligible to sit for the Social Work Associates exam for the Social Work Associate level of licensure in South Dakota.

### Rewarding Careers

Trained technicians in these areas are always in demand! The U.S. Bureau of Labor Statistics cites that “the employment of human service technicians will grow much faster than average, particularly for applicants with appropriate training.”

As an **Activity Technician**, you will work to bring stimulating, positive activity into the lives of nursing home, group home, or assisted living residents. You might arrange for entertainment (speakers, musicians,



etc.), or organize group games, crafts, or outings.

**Child Development:** As a daycare provider, preschool teacher, or preschool paraprofessional, you can help provide children ages newborn-6 a stable, nourishing environment. Spend your workday building confidence, encouraging interests and talents, and allowing children to grow and learn through play and exploration!

**Developmental Disabilities:** This option will prepare you to assist people with developmental disabilities (autism, Down syndrome, learning disabilities, etc.). You could work with individuals in their homes, in a group home or in a developmental training center.

**Youth Offender:** This unique option will prepare you to work with youth who have been removed from their homes/communities because of behavioral or mental health concerns. You could be a youth counselor in a group home, or work in behavioral education as a paraprofessional.

[Click here to view the Activity Technician/Mental Health Option Course Outline](#)

[Click here to view the Child Development Option Course Outline](#)

[Click here to view the Developmental Disabilities Option Course Outline](#)

[Click here to view the Youth Offender Option Course Outline](#)

[Click here to view the Human Services Technician Placement Report](#)

[Click here to view the Human Services Technician Student Learning Outcomes](#)

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.



## No Ordinary Job

Are you looking for variety and action? Do you consider yourself fair, confident, and inquisitive? Then read on to learn more about our 18-month Law Enforcement program! Lake Area Tech values the partnership it has with local, state, tribal, and federal agencies as its mission is to graduate students with the necessary knowledge and skills to be employed in the law enforcement field including positions as police officers, sheriff deputies, corrections officers, highway patrol troopers, criminal investigators, tribal officers, crime scene specialists, communications officers, conservation officers, probation, parole, and juvenile officers.

## What can I expect?

At LATI, Law Enforcement students will be offered training in areas not limited to but including Constitutional Law, Criminal Law & Procedures, Criminal Investigations, Crime Scene Evidence Collection, Juvenile Justice, First Responder, Patrol Procedures, Firearms, Mechanics of Arrest, Street Survival Tactics, Corrections, and Emergency Vehicle Operations. Students will also learn how the legal and criminal justice systems work in tandem with local, state, and federal government agencies. After successful completion of the program, students will earn an Associate of Applied Science Degree in Law Enforcement.

Our mission is fundamental: To recruit, educate, train, and develop outstanding law enforcement leaders who will remain true to the principles of Law Enforcement - service, justice, and fundamental fairness. Our vision is predetermined by our profession: to become noble guardians of democracy!

*A laptop is required  
for this program.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)



## Law Enforcement Virtual Academy

Our Law Enforcement program is expanding to offer currently serving officers a virtual pathway to an Associate of Applied Science degree in Law Enforcement! In just nine short months, officers who have successfully completed the South Dakota Basic Officer Certification are eligible to apply to the new LATI Law Enforcement Virtual Academy. To accommodate an officer's work schedule, Lake Area Tech will provide a mix of online and on-campus (or hybrid) classes. This Virtual Academy option has been developed in conjunction with the Law Enforcement Officers Standards and Training Commission and Law Enforcement partners across South Dakota.

Lake Area Tech will count, as prior learning experience (PLE), all classes completed by graduates of the South Dakota Law Enforcement Academy and will waive commensurate coursework leading to the A.A.S. degree option in Law Enforcement. If an officer isn't currently employed in law enforcement at the time of the application for PLEs, they must have completed the SDLEOSTC Training Academy not more than five years prior to the first application for PLEs. If it's been longer than five years, LATI will review applications on a case-by-case basis.

[Click here to view the Law Enforcement Course Outline](#)      [Placement Report](#)

[Click here to view the Law Enforcement Virtual Academy Course Outline \(Scroll to bottom\)](#)

[Click here to view the Law Enforcement Student Learning Outcomes](#)

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.

18 Months



**Law  
Enforcement**

20 Months



### No Ordinary Job

In crisis situations, people's lives often depend on the quick and highly skilled reaction of emergency medical technicians (EMTs), paramedics, and firefighters. The fast pace and intense situations in this field require emergency personnel to be emotionally steady, focused, compassionate, and physically strong.

You never know what the day will bring in this field! As a med/fire rescue technician, your responsibilities might include: controlling and extinguishing fires, assisting with lifesaving medical treatment on the scene and during transportation to hospitals, assisting in disaster recovery, providing aircraft fire rescue and playing an important role in the control and clean-up of spills and hazardous chemical incidents.

### What can I expect?

We've revised our accredited program to include more options for you. Earn an Associate of Applied Science Degree in Med/Fire Rescue and receive a solid foundation in the medical and fire-fighting aspects of this career. Or, after the first year, move to the Emergency Medical Specialist option and focus on patient care and "behind the scenes" processes like billing and coding for insurance claims and using electronic

health records. Both of these options are 20-month programs. Another option is to earn a Paramedic diploma after completing the first 15 months of the program. Check out the course outlines below to see which option is for you. Our latest option is the Emergency Medical Technical Certification option that can be completed online in one semester and we also offer an online **Paramedic Option!** Have you always wanted a career that gives you the chance to make a difference? Let us help you start your journey!

### Careers

According to the U.S. Bureau of Labor Statistics, regional and national trends show a significant increase over the next 10 years in career opportunities in the med/fire rescue profession.

### Accreditation

The Med/Fire Rescue program is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). Contact information is as follows: Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL 33756 . The phone number is 727-210-2350 and it is on the web at: [www.caahep.org](http://www.caahep.org). The Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions contact information is: 8301 Lakeview Parkway, Suite 111-312, Rowlett TX 75088. The phone/fax numbers are (214) 703-8445 and FAX (214) 703-8992. Find them on the web at [www.coaemsp.org](http://www.coaemsp.org).



*A laptop is required for this program.*  
Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

[Click here to view the Med/Fire Rescue Option Course Outline](#)

[Click here to view the Emergency Medical Specialist Option Course Outline](#)

[Click here to view the Paramedic Diploma Option Course Outline](#)

[Click here to view the Med/Fire Rescue Placement Report](#)

[Click here to view the Med/Fire Rescue Student Learning Outcomes](#)



**MED/FIRE**  
Rescue

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.

## A Diverse Health Professional

Medical Assistants are multi-skilled health professionals trained to assist in all aspects of the medical practice. The medical assistant will help the physician/provider examine and treat patients and perform routine tasks to keep the office running smoothly.

The medical assistant will perform clerical duties such as updating the patient's medical records, answering telephones, completing insurance forms, scheduling hospital admission and laboratory services and apply the coding rules for CPT, ICD-10, and Level II (HCPCS). Clinical duties include taking and recording vital signs, preparing and explaining treatments and procedures, and collecting laboratory specimens (excluding intravenous). In addition, the medical assistant will prepare patients for X-rays and authorize prescription telephone orders.

### What can I expect?

To earn your Associate of Applied Science degree in Medical Assisting, you will complete 20 months of hands-on training (includes externship). You will take classes in medical terminology, pharmacology, keyboarding, clinical office procedures, and more! We also require a 240-hour non-paid, supervised externship in a medical facility. The externship will consist of an unpaid, supervised rotation experience in a health care facility to understand the "big picture" of a medical assistant's many responsibilities. You will also have the opportunity to build working relationships with co-workers and practice your technical skills.

After completion of this program you will be eligible to take a national certifying examination.

### Careers

Medical assistants make up the largest of all the allied health occupations. Virtually every practicing



physician employs at least one to three medical assistants. Medical assistants work in hospitals, public health facilities, laboratories, insurance companies, voluntary health agencies, and other allied health facilities. There also are opportunities with federal agencies such as the Veterans Administration, the U.S. Health Service, or armed forces clinics and hospitals.

### Program Graduation Requirements

It is the goal of the Medical Assisting program at Lake Area Tech to prepare competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills) and affective (behavior) learning domains. To achieve that goal, students must earn a grade of C (2.0) or higher in all technical courses as a prerequisite to MA 240 Administrative and Clinical Externship. Students must earn a grade of C (2.0) or higher in their clinical externship in order to graduate.

### Accreditation

The Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Medical Assisting Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs: 25400 U.S. Highway 19 North, Suite 158 Clearwater, FL 33763, 727-210-2350. [www.caahep.org](http://www.caahep.org)

[Click to view the Medical Assisting Course Outlines: Fall Spring](#)

[Click here to view the Medical Assisting Placement Report](#)

[Click here to view the Medical Assisting Student Learning Outcomes](#)

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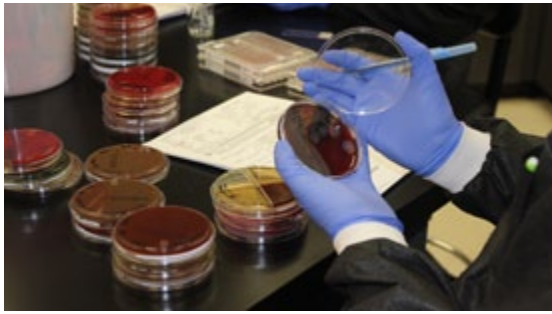
20 Months -

  
**MEDICAL**  
Assisting



# MEDICAL Laboratory Technician

20  
Months



### This Could be You

Medical laboratory is a rewarding, challenging field that is absolutely vital to the world of healthcare. Did you know - over 70% of objective clinical data that physicians use to determine treatment comes from tests that medical laboratory technicians (MLTs) perform on patient samples?

An MLT helps determine the cause of patient symptoms by performing a wide variety of tests. They identify infection-causing microorganisms and provide information on the best antibiotic for treatment, perform cell counts on blood, type and crossmatch blood for transfusion, measure chemicals in blood and body fluids and microscopically identify cells in the urine and blood.

LATI's Medical Laboratory Technician program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Road, Suite 720, Rosemont IL, 60018. (773) 714-8880 [www.naacls.org](http://www.naacls.org).

### What can I expect?

Our 20-month program offers interactive, hands-on learning in LATI's two fully equipped medical labs. We also boast a Sim Lab experience with prepared specimens for Blood Bank and Microbiology testing using industry standard equipment. After the completion of Sim Lab, the student will proceed to a 16-week clinical.

### Clinical sites include:

- Avera Medical Group Brookings, SD
- Avera Dells Area Hospital, Dell Rapids, SD
- Avera McKennan Hospital, Sioux Falls, SD
- Avera Sacred Heart Hospital, Yankton, SD
- Avera St. Luke's Hospital, Aberdeen, SD
- Brookings Health System, Brookings, SD
- Brown Clinic, Watertown, SD
- Chippewa County Hospital, Montevideo, MN
- Coteau des Prairies Hospital, Sisseton, SD
- Huron Regional Medical Center, Huron, SD
- Madison Healthcare Services, Madison, MN
- Milbank Area Hospital - Avera, Milbank, SD
- Mobridge Regional Hospital and Clinic, Mobridge, SD
- Ortonville Area Health Services, Ortonville, MN
- Prairie Lakes Healthcare System, Watertown, SD
- Sanford Clinic, Watertown, SD
- Sanford Medical Center, Aberdeen, SD
- Sanford Medical Center, Sioux Falls, SD
- Sanford Heath, Fargo, ND

Upon graduation from the MLT Program, students will be eligible to take the American Society of Clinical Pathologist's Board of Certification national certification test. In 2017, the program's certification pass rate was 89% (three year average for graduates taking the exam within a year). Both online and on campus applicants may enroll in either the fall or spring semesters.

### Careers

Currently, many opportunities for MLTs are available due to industry demand and retirements. Hospitals need competent laboratory personnel such as medical laboratory technicians to help meet increased demands for lab services. Medical Lab Technicians work in hospital and clinic laboratories. Others have chosen employment in food production labs, ethanol plants, research facilities, the armed forces, and public health centers.

**A laptop is required  
for this program.**

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

[Click here to view the Medical Laboratory Technician Course Outline](#)

[Click here to view the Medical Laboratory Technician Placement Report](#)

[Click here to view the Medical Laboratory Technician Student Learning Outcomes](#)

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.



Get your Medical Laboratory Technician degree online. For more information, go to the **Medical Laboratory Tech e-degree page.**

## Is Nursing for You?

Nursing—few career fields are as rewarding—or as challenging. Nurses use the latest medical technology at the direct and critical level of patient care. The best nurses are also responsible, compassionate, and ultimately motivated by a sincere desire to help people.

## What can I expect?

As a student in the LATI Practical Nursing program, you can expect to gain theory and practical experience in the care of obstetrical, pediatric, medical, psychiatric, surgical and geriatric patients.

This program offers a Licensed Practical Nurse (LPN) and a Registered Nurse (RN) option. Completion of some or all of the recommended courses will be in the students' best interest to maintain a reasonable credit load during the course of study at Lake Area Tech. After the successful completion of the LPN program, he or she can apply for admission to the RN Associate of Applied Science degree. Upon completion, the student is eligible to write the NCLEX-RN exam.

## Acceptance Criteria

Admission is competitive. Acceptance is based on:

- ATI-TEAS Score
- GPA - Most recent GPA of 2.5 or better

Completed admission files will be reviewed for acceptance shortly after the deadline for admission. Applicants will be notified of acceptance or denial by letter. The top 56 students are accepted for admission for the on campus program, 40 are accepted for the full-time online program, and 24 are accepted for the part-time online program.

## Options

There are three paths or opportunities for a student looking to complete the LPN nursing diploma. There is a full-time campus option, a full-time online option and part-time online option. Full-time campus and



online begin each fall in August. The full-time options are 11 months in length. The part-time option only starts in January of each year and takes 22 months to complete. See our website for current deadlines.

## Careers

Employment of nurses is expected to increase faster than average for all occupations in response to the health care needs of a growing and aging population. Nursing education offers employment opportunities in hospitals, long-term care facilities, clinics, assisted living facilities and community health locations.

## Accreditation

The Practical Nursing program is accredited by the ACEN: Accreditation Commission for Education in Nursing located at: 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326, (404) 975-5000, Fax (404) 975-5020, [www.nlnac.org](http://www.nlnac.org).

*A laptop is required  
for this program.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

[Click here to view our Practical Nursing Course Outline](#)

[Click here to view the Practical Nursing Placement Report](#)

[Click here to view our Practical Nursing Student Learning Outcomes](#)

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Get your Nursing degree online. For more information, go to the [Nursing e-degree page](#).

11 Months

  
**NURSING**  
Licensed Practical Nursing

## Is Nursing for You?

The Professional Registered Nursing Program at Lake Area Tech is an Associate of Applied Science Degree Program. The AAS Nursing Program prepares students who are Licensed Practical Nurses to complete a program of study in professional nursing that incorporates theory, clinical, lab, and simulation experiences. The program lasts 11 months over three semesters that builds off of the student's LPN degree. The program is a campus based option and is only available to start each fall.

Upon completion of this program, graduates are eligible to take the NLCEX-RN (National Council Licensure Examination for Registered Nurses). Graduates of this program may apply to another college or a university to pursue a Bachelor's degree in nursing after completing their AAS degree and becoming a registered nurse.

## Acceptance Criteria

All students interested in applying for the Professional Registered Nursing Program must meet each of the following acceptance criteria:

- Must be an LPN with a current unencumbered LPN license
- Most recent GPA must be 2.75 or higher
- Any transferrable courses must be a C or higher
- Interviews for selected candidates must be completed
- Admission is competitive and acceptance is contingent upon meeting all of the requirements. Please visit the website for further information and other requirements including deadlines.



## Careers

Employment options are increasing at a steady rate in the field of nursing. Many AAS nurses also elect to continue their education towards a Bachelor's degree.

## Accreditation

In February 2018, the program received interim approval from the SD Board of Nursing, 4305 South Louise Ave Suite 201, Sioux Falls, SD, 57106-3315  
Tel: (605) 362-2760 Fax: (605) 362-2768  
<https://doh.sd.gov/boards/nursing/>

*A laptop is required  
for this program.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

Click here to view our Registered Nursing  
Course Outline

Click here to view our Registered Nursing  
Acceptance Criteria

Click here to view our Registered Nursing  
Student Outcomes

Lake Area Technical Institute: superior, comprehensive technical  
education that changes lives and launches careers.

11 Months



**NURSING**  
Registered Nursing

20  
Months

# OCCUPATIONAL Therapy Assistant

## What is Occupational Therapy?

Occupational Therapy promotes health by enabling people to engage in activities of daily living. Under the supervision of an Occupational Therapist, Occupational Therapy Assistants (OTAs) help people overcome physical, mental, and emotional barriers. When helping their clients, OTAs commonly use what is individually familiar and enjoyable to teach injury prevention, improve functional ability, and adapt equipment/environment to improve quality of life. Our fully accredited 20-month program will prepare you to work in a variety of health care settings.

## What can I expect?

As a student of this program, you'll receive the most up-to-date OTA training, including lecture, lab experience, discussion, demonstration and off-site field-work experiences. Satisfactory completion of this program requires that the individual maintain a 2.0 GPA and complete all course work with a grade of C or higher (one grade of D will be allowed in a general or related course).

Graduates of this accredited program are eligible to take the national certification examination administered by the National Board of Certification of Occupational Therapy (NBCOT). After successful completion of the exam, the graduate will be a Certified Occupational Therapy Assistant (COTA). Most states also require licensure to practice. Typically licensure is based on the results of the NBCOT Certification Exam.

## Careers

Just six months after graduation, our Occupational Therapy Assistant grads are averaging \$20.96 an hour according to Lake Area Tech's latest placement report.

Graduates of this program could work for home health care providers, outpatient clinics, long-term care facilities, hospitals, elementary/secondary schools, and more!

## Application Process

If you are interested in applying for the OTA program you may begin building an application file at any time. Completed applications are processed as they are received. Your application will not be processed until it is complete, or contains:

- \$25 application fee, and an official high school transcript or GED certificate.
- Official transcripts from any post-secondary work.
- ACT score
- A writing sample - [click here for information](#)
- We also recommend obtaining experience with disadvantaged populations or observing an OT or OTA.

Class size will be limited to 26 students per year. Applicants should be aware that this is an academically intense curriculum.

## Accreditation

Lake Area Technical Institute is accredited by The Higher Learning Commission. The OTA program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) c/o Accreditation Department, American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449. ACOTE's telephone number c/o AOTA is (301) 652-AOTA. Their website is [www.acoteonline.org](http://www.acoteonline.org). Be advised that students graduating from an unaccredited program are not eligible to take the NBCOT Certification Exam. In addition, a felony conviction may affect an individual's eligibility to sit for the national exam and/or obtain state licensure. LATI is an open admissions technical institute.

**A laptop is required  
for this program.**

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

[Click here to view our Occupational Therapy Assistant Course Outline](#)

[Click here to view the Occupational Therapy Assistant Placement Report](#)

[Click here to view our Occupational Therapy Assistant Student Learning Outcomes](#)

Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.

## An Outstanding Career

Under the supervision of physical therapists, physical therapist assistants (PTAs) help patients who are suffering from physical disabilities, movement dysfunctions, and pain. As a PTA, you might implement treatment plans of care that incorporate therapeutic exercises, rehabilitation, therapeutic heat and cold, soft tissue mobilization, ultrasound, electrical stimulation, traction, and more!

PTAs identify barriers for the disabled and assist in teaching other professionals, patients, and family members to perform treatment procedures, exercises, and functional activities. They recognize the psychosocial effects of illness and injury and know how to interact appropriately with patients and the patients' families.

## What can I expect?

As a student of our 20-month, nationally accredited Physical Therapist Assistant program, you'll get the latest and most effective classroom instruction, and valuable experience in our fully equipped physical therapy labs. You will also complete three clinical experiences.

Individuals interested in the PTA program should have strong people skills and some background in the biological sciences. Potential students should also be fit, as the physical demands include moderate to heavy lifting. Upon successful completion of the required courses, graduates will be awarded an Associate of Applied Science (A.A.S.) degree and will be eligible to take the National Physical Therapy Exam (NPTE).

## Opportunities

"Employment of physical therapist assistants is expected to grow by 35 percent through 2018, much faster than the average for all occupations." -US Bureau of Labor Statistics.

Graduates of this program report high job satisfaction and excellent wages. Our physical therapist assistants can secure jobs in hospitals, long-term care facilities,



rehabilitation centers, schools and private practice clinics.

## Application Process

Acceptance into the PTA program is limited to 28 students. Applicants are evaluated based on the assessment of ACT/reading scores and essay questions. Students may begin the application process in September for the next fall's PTA class. The application deadline is December 20, 2018. Applications may be accepted after the deadline if there is not a full class for next fall's program. Please check with the Admissions Office for enrollment levels after January 15. Detailed information regarding the application process can be received by contacting the LATI Admissions Office or following the **Apply Now** link on the PTA page of the LATI website.

## Accreditation

The Physical Therapist Assistant program at Lake Area Technical Institute is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) 1111 North Fairfax Street, Alexandria, Virginia 22314; telephone: 703-706-3245; email: accreditation@apta.org; website: <http://www.capteonline.org>.

A laptop is required  
for this program.  
Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

Click here to view the Physical Therapist Assistant  
Course Outline

Click here to view the Physical Therapist Assistant  
Placement Report

Click here to view the Physical Therapist Assistant  
Student Learning Outcomes

Lake Area Technical Institute: superior, comprehensive technical  
education that changes lives and launches careers.

20  
Months

PHYSICAL  
Therapist Assistant

62



18  
Months

# PRECISION Machining Technology

## Purposeful American Career

Virtually everything manufactured in U.S. industries - automotive, space, medical, green, etc. can be traced back to the work of a machinist. Trained in the working properties of metals, machinists use manual and cutting-edge computer-controlled methods to make precision-machined products. There is a constant and unmet need for these “surgeons of steel” in American manufacturing - as they supply highly respected skills and expertise to an area’s business and infrastructure.

Our Precision Machining graduates report high wages, great advancement opportunities, and job satisfaction. Machinists make America! Let us help you start your journey towards a secure career!

## What can I expect?

As a student of our 18-month program, you will receive the maximum experience-edge, including practical, project-based learning in our 11,000 square foot precision machining lab. During your first year, you’ll be introduced to blueprint reading with Intro to Cad, machine trades math, precision measuring, cutting tool geometry, manual milling, manual turning, and an introduction to CNC milling and turning centers.

During your second year, you’ll expand your

knowledge of Computer Numerical Control (CNC) machines. To keep you on top of the hiring game, as well as help you qualify you for better pay and a specialized job title, you will learn to program and monitor the work of a variety of CNC machines. You will also learn how to produce fixtures, punches, dies, and molds.

Ready to learn more? Our High Performance Engine Machining program offers a third year option for Precision Machining, Automotive, and Diesel graduates who opt to further their education. After nine months, you’ll have your HPEM diploma and you’ll be even more marketable to employers in the machining industry!

## Opportunities

Graduates of this program will find employment as machine set-up personnel, maintenance technicians, general machinists, tool-and-die-makers, moldmakers and CNC operators/programmers. Machinists with the right training have the opportunity to earn great wages.

*A laptop is required  
for this program.*

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

Click here to view the Precision Machining  
Course Outline

Click here to view the Precision Machining  
Placement Report

Click here to view the Precision Machining  
Student Learning Outcomes

*Lake Area Technical Institute: superior, comprehensive technical  
education that changes lives and launches careers.*



Get your hybrid Precision Machining degree online.  
For more information, go to the  
**Precision Machining e-degree page.**

## The Best and Brightest

There is a huge demand for robotic technicians in the high tech world of manufacturing, as countless industries adopt the use of cutting-edge automated systems to improve safety and efficiency. This field is full of fresh potential for imaginative and mechanically-minded individuals.

Our program has a very high placement rate and graduates are reporting excellent wages. Our latest placement survey shows grads in this program are averaging \$22.01 per hour. That's just six months after graduation! Start your journey with an exciting career in automation!

## What can I expect?

Lake Area Tech offers an innovative Robotics Lab with the latest array of automated equipment. As a student of this 18-month program, you can expect active, hands-on learning, as well as plenty of close interaction with industry. You'll take classes in circuitry, soldering, blueprint reading, mechanical systems, robotic engineering, welding, machining, and so much more! We offer a fall start or **spring start**.

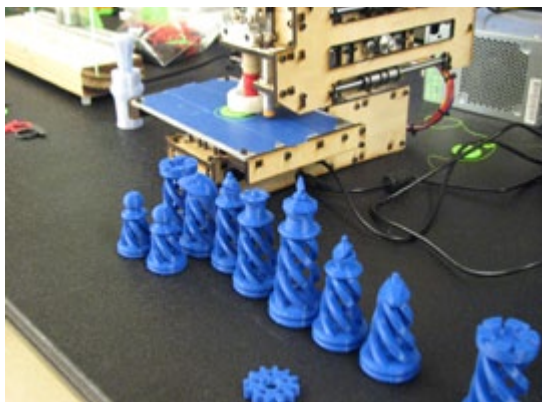
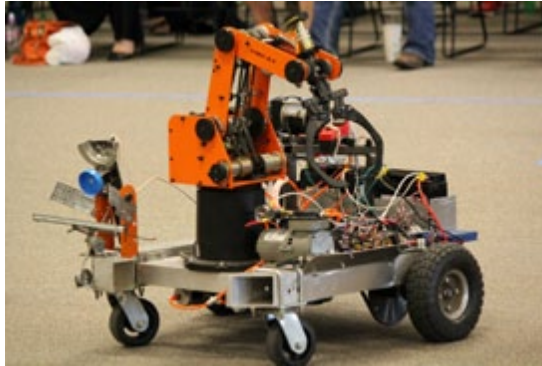
Additionally, we have articulation agreements with South Dakota State University offering the opportunity to transfer credits seamlessly into a Bachelor of Science degree.

**A laptop is required  
for this program.**

Learn more at [www.lakeareatech.edu](http://www.lakeareatech.edu)

## Careers

Employment opportunities include fluid power controls/systems technician, electro-mechanical technician, fluid power systems mechanic, robotics technician, automated systems technician, manufacturing technician, plant engineering technician, and process control technician.



[Click here to view the Robotics Course Outline](#)

[Click here to view the Robotics Placement Report](#)

[Click here to view the Robotics Student Learning Outcomes](#)

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Get your Robotics degree online. For more information, go to the **Robotics e-degree page**.

18  
Months



ROBOTICS

9 Months -  
18 Months -

  
**WELDING**  
Technology

### Graduates in Demand

Welding is used in countless industries. Welders—especially those trained in the latest technology—are in constant, nation-wide demand.

### What can I expect?

Our program features hands-on, interactive training in our spacious welding facility, which features OSHA standard ventilation and customized welding booths. You'll learn brazing, arc welding, heliarc welding, metal inert gas (Tig and Mig) welding and oxyacetylene welding.

You can expect the latest and best in welding instruction, including learning to operate automated (robotic) welding equipment and ultrasonic testing equipment. You'll also be exposed to related skills, like basic electricity and blueprint reading.

As a graduate of our program, you'll be eligible to take the American Welding Society Certification Guided Bend Test on 3/8 inch steel in the vertical and overhead position, using shielded-metal arc welding, gas-metal arc welding or flux-cored arc welding.

### You have options!

As a welding student at Lake Area Tech, you can complete your diploma degree in nine short months, go on to earn your Associate of Applied Science degree in 18 months, or choose the A.A.S. degree with a Marketing & Management option or Precision Machining option. See below for those course outlines.

### Careers

Welders who are skilled in the techniques, materials, designs, and new applications of the welding process can expect lots of opportunities and career advancement. Welders have a wide array of career choices including welder operator, repair and maintenance welder, pipeline welder, welding supervisor, welding inspector, welding technician and welding engineer.



Welcome to  
*your* **WORLD.**

[Click here to view the Welding Diploma Option Course Outline](#)

[Click here to view the Welding A.A.S. Degree Course Outline](#)

[Click here to view the Welding Marketing & Management Option Course Outline](#)

[Click here to view the Welding Precision Machining Option Course Outline](#)

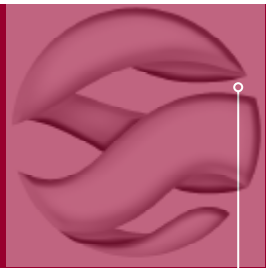
[Click here to view the Welding Placement Report](#)

[Click here to view the Welding Student Learning Outcomes](#)

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*Megan  
Photography  
Tune*



# COURSE

## Descriptions

- ACCT 205 BASIC ACCOUNTING FOR HUMAN SERVICES**  
This course addresses accounting procedures that relate to the human services field. 2 credits
- ACCT 210 PRINCIPLES OF ACCOUNTING I**  
An introductory course in the recording, reporting, and analysis of business transactions of sole proprietorships. 3 credits
- ACCT 211 PRINCIPLES OF ACCOUNTING II**  
This course provides a thorough understanding of basic accounting concepts and techniques as they are applied to business. Involves analysis and use of accounting practices for partnerships and corporations. Cash-flow statements and financial statements are prepared. Accounting 210 must be successfully completed before enrolling in this class. 3 credits
- ACCT 214 COST ACCOUNTING**  
This course provides the student with a thorough understanding of cost concepts, cost behavior, and cost accounting techniques as they are applied to manufacturing cost systems. Accounting 210 must be successfully completed before enrolling in this class. 3 credits
- ACCT 218 TAX ACCOUNTING I**  
This introductory course will provide a thorough understanding of basic federal income tax. Prerequisite: ACCT 210 – Principles of Accounting I 3 credits
- ACCT 220 COMPUTER ACCOUNTING APPLICATIONS**  
This course will reinforce the accounting concepts learned throughout the Financial Services program while learning to utilize QuickBooks accounting software. Prerequisite: ACCT 210 – Principles of Accounting I 3 credits
- ACCT 222 PAYROLL ACCOUNTING**  
The student will possess an appreciation and an understanding of the personnel and payroll records that provide the information required under the numerous laws affecting the operations of a payroll system. Accounting 210 must be successfully completed before enrolling in this class. 3 credits
- ACCT 224 FINANCIAL STATEMENT ANALYSIS**  
The student will gain knowledge of financial statements, analysis of liquidity, profitability and solvency. Use of ratio analysis, comparative analysis, company norms and industry average in the evaluation of a business. 3 credits
- ACCT 226 FINANCIAL STATEMENT ANALYSIS FOR AGRICULTURE**  
This course will enable students to properly analyze financial statements particular to the agricultural industry. 3 credits
- ACCT 230 PRINCIPLES OF ACCOUNTING III**  
Provides an in-depth understanding of basic to intermediate accounting concepts and techniques as they are applied to business as well as an overview of the accounting profession. Accounting 210 and 211 must be successfully completed before enrolling in this class. 3 credits
- ACCT 233 PRINCIPLES OF ACCOUNTING IV**  
Provides an in-depth understanding of basic to intermediate accounting concepts and techniques as they are applied to business as well as an overview of the accounting profession. Accounting 210 and 211 must be successfully completed before enrolling in this class. 3 credits
- ACCT 235 TAX ACCOUNTING II**  
This course will equip students with the skills and certification necessary to prepare income tax returns for the low-income and elderly under the IRS VITA (Volunteer Income Tax Assistance) Program. Customer service and positive communication skills will also be practiced. Accounting 218 must be successfully completed before enrolling in this class. 2 credits
- ACCT 237 APPLIED FEDERAL INCOME TAX**  
This course will allow students to prepare income tax returns for the low-income and elderly under the IRS VITA (Volunteer

Income Tax Assistance) Program. They will also learn how to electronically file a tax return. Customer service and positive communication skills will also be practiced. Accounting 235 must be successfully completed before enrolling in this class. 1 credit

- AED 100 AUTOMATED EXTERNAL DEFIBRILLATOR**  
To prepare individuals in the workplace to provide care for breathing emergencies, perform cardiopulmonary resuscitation (CPR) and use an automated external defibrillator (AED) for victims of sudden cardiac arrest. 1/2 credit
- AG 100 SOIL SCIENCE**  
This course is an overview of soil and how we may manage a piece of land properly. Students will study glacial development of soil, structure, texture, soil type, soil chemistry, organic matter, and practices that will improve and protect the soil. The challenge will be to improve the soil over the long-term. Recently the ag society started to use methods by which soils were maintained or improved can you recommend them as an agronomist or how to use them on a farm or ranch. 3 credits
- AG 102 CROP SCIENCE**  
The world's growing population and the technological changes in agriculture have created an atmosphere that is very intriguing and very fast-paced. The opportunities that are available have expanded greatly in recent years. This course will focus on growth stages of crops grown in the Midwest and also the different techniques used to grow those crops. 3 credits
- AG 106 ANIMAL HEALTH I**  
Animal Health I is designed to provide the student with the basic knowledge of what causes diseases in livestock, how to identify livestock that are affected by different diseases, and basic treatment applications of medicines to those livestock. 3 credits
- AG 122 FERTILIZERS**  
Students will learn to discuss the need for fertilizers, identify the different fertilizer needs for different soils and different crops, explain bulk blending, compute a bulk blend, and compute cost of fertilizer. 3 credits
- AG 124 AG CHEMICALS**  
This course is designed to familiarize the student with resources and information required to develop a sound agronomic crop plan. AG 124 will prepare students for positions as agronomists who will be making these recommendations to area producers. 3 credits
- AG 126 WEED MANAGEMENT**  
Coursework includes training to meet federal certification: recognition of pests and noxious weeds; selection, application and disposal of chemicals; construction of a field-mapping system. 3 credits
- AG 135 FARM POWER/ENGINES**  
Discusses engine principles and design, safety, oil, fuel and coolant selection, and general engine and tractor maintenance principles. 2 credit
- AG 158 FARM/RANCH RECORDS**  
Application of standard financial procedures, using the computer to record, compile and complete typical financial records for farming operation projections. 2 credits
- AG 159 FARM/RANCH RECORDS**  
(Financial Services) Application of standard financial procedures, using the computer to record, compile and complete typical financial records for farming operation projections. 2 credits
- AG 200 ANIMAL NUTRITION**  
Animal nutrition is a very important aspect of raising animals so they can reach their maximum production level. This course will give the student a better understanding of the digestive system of different animal species; the essential nutrients required by all animals to live, maintain, grow, and reproduce; along with an understanding of the commercial feed industry. 2 credits

- AG 214 AG CHEMICAL EQUIPMENT**  
This course is designed to familiarize the student with skills needed to operate effectively in custom application industry. This course will also prepare the student for a career in the field of custom application by completing and mastering the specific student outcomes. 2 credits
- AG 216 FARM POWER/ELECTRICAL WIRING**  
Every farm depends on electricity on a day to day basis, whether that be ensuring livestock are fed, drying and transporting grain, or simply plugging in a grinder in the shop. This class aims to give students a basic understanding of electricity as well as the knowledge to install and repair simple electrical circuits. 2 credits
- AG 221 MACHINERY MANAGEMENT**  
Machinery Management emphasizes the study of machinery budgeting, planning, and replacement strategies. This course also covers the theory of operations of combines and planters. 2 credits
- AG 224 FACILITIES**  
Students will plan the construction of a facility, using the topics covered. The project will be very hands on where as you will use a real piece of land. At the end of the semester you will present your proposed facility to the Codington County zoning board. At the end of this class you will have the knowledge to plan your own facility. 2 credits
- AG 226 COMMODITY MARKETING**  
Maximizing farm profit; using the futures market; hedging; avoiding dangers of speculation; participating in the options market; developing a personal market strategy. 3 credits
- AG 247 BUSINESS SUPERVISED OCCUPATIONAL EXPERIENCE III (SEO)**  
Students will be provided the opportunity to gain hands-on practical experience through internships provided by members of the agricultural industry. This could include coops, seed dealers, chemical retailers and any other opportunities that offer service to our area producers in the farming community. 6 credits
- AGR 101 BASIC ANIMAL HUSBANDRY**  
This course will familiarize students with livestock behavior and facility management for optimal health and well-being of livestock animals. This course is designed to familiarize students with handling livestock safely and humanely. 1.5 credits
- AGR 103 BREEDING PRACTICES AND TECHNIQUES**  
This course will provide a basic introduction to the physiological mechanisms that control and affect reproductive processes in livestock species and how they can be manipulated. Students will be able to apply these basic concepts in managing livestock reproduction. Artificial insemination (hands-on) will be covered every year (extra fees apply). 1 1/2 credits
- AGR 105 AG SAFETY**  
Agriculture is a very diverse industry, encompassing all sorts of jobs, opportunities, and potential safety hazards. This class is designed to provide students with some basic knowledge in regards to being safe in many agricultural settings, as well as provide information about different rules, regulation, and rights employees have in terms of their safety and well-being. 1 credit
- AGR 107 EQUINE SCIENCE**  
This course introduces students to the equine industry. Topics covered will include equine evolution, domestication, industry, colors, breeds, parts and systems. 3 credits
- AGR 110 ANIMAL SCIENCE**  
To provide a basic understanding of Animal Science as related to nutrition, genetics, reproduction, and the industry of beef, swine, and sheep. 3 credits
- AGR 113 FARRIER INTRODUCTION**  
This course will provide an introduction to farrier skills. 1 credit
- AGR 116 SHEEP/GOAT PRODUCTION**  
This course introduces basic sheep/goat management principles. Students will study the year around management and production cycle of a sheep/goat enterprise and how each production stage influences enterprise profitability. This course also studies the philosophy of sheep/goat management and its relationship to business goals. 1 credit
- AGR 117 RANCH SUPERVISED OCCUPATIONAL EXPERIENCE (S.O.E.)**  
Students will gain hands-on, practical experience through an internship at their own ranch or other ranch that will offer an opportunity to utilize the skills and applications learned in the classroom. 6 credits
- AGR 118 SOIL AND WATER MANAGEMENT**  
Topics include water quality, the relationship between soil and water, identification of water sources, and South Dakota law affecting water usage. 3 credits
- AGR 119 PRECISION SUPERVISED OCCUPATIONAL EXPERIENCE I (S.O.E.)**  
Students will gain hands-on practical experience through internships provided by members of the agricultural industry. This could include coops, seed dealers, chemical retailers and any other opportunities that offer service to our area producers in the farming community. 6 credits
- AGR 120 SEED AND GRAIN TECHNOLOGY**  
Stored grain is one of the most liquid assets a producer or elevator has to market. As such, knowledge behind preserving stored grain as well as the systems necessary to do so are key. Seed technology has also come a considerable ways recently, with advances in genetics, treatments, and agronomic knowledge based on selecting hybrids. This class strives to provide some introductory knowledge to both of these topics. 2 credits
- AGR 121 INTRO TO PRECISION AG**  
Students will learn how the GPS system operates and how signal is corrected. Students will also learn basic components of Ag precision equipment along with set-up, navigation, and basic use. Students will demonstrate basic computer management skills that they will need for their internship and fall courses. 3 credits
- AGR 125 PRECISION SUPERVISED OCCUPATIONAL EXPERIENCE II (S.O.E.)**  
Students will gain hands-on practical experience through internships provided by members of the agricultural industry. This could include coops, seed dealers, chemical retailers and any other opportunities that offer service to our area producers in the farming community. 5 credits
- AGR 142 COMMERCIAL PESTICIDE CERTIFICATION**  
Study, review and administer exam for the certification to apply commercial pesticides. 1/2 credit
- AGR 145 ENVIRONMENTAL INTERNSHIP**  
The student will observe/receive training in testing and control techniques at a treatment facility, or in a water-quality monitoring laboratory, or in a field-service setting. 5 credits
- AGR 149 SWINE SCIENCE**  
This course will provide a basic introduction into the swine industry and familiarize the student with the scientific principles of swine science and the practical art of implementing those principles. 3 credits
- AGR 150 COMMERCIAL DRIVERS LICENSE PREPARATION**  
Prepares the student to be eligible to take the CDL exam. 1/2 credit
- AGR 155 LARGE ANIMAL SUPERVISED OCCUPATIONAL EXPERIENCE I (SOE)**  
Students will be provided the opportunity to gain hands-on practical experience through internships with establishments who work with large animals (beef, dairy, swine, sheep, and goats) such as veterinarians, large herd operations, and Ag businesses. 6 credits

- AGR 156 FARM MANAGEMENT I**  
Student will gain practical experience in setting goals, conducting financial analysis, and building various budgets that can be used in the farm business. 3 credits
- AGR 157 DAIRY SUPERVISED OCCUPATIONAL EXPERIENCE (SOE)**  
Students will have the opportunity to gain hands-on practical experience through an internship on a local commercial dairy operation. Primary areas of focus will be dairy herdsmanhood, milking, feeding, calf care and general farm duties. 6 credits
- AGR 162 CO-OP PRINCIPLES**  
Identification of the structure and scope of American cooperatives, the economic rationale, marketing and financing concepts, management, and structural dynamics. 3 credits
- AGR 163 PRINCIPLES OF SELLING**  
This course is an overview of the agricultural sales process, including selling, buying, customer relations, strategies, legal and ethical considerations. 3 credits
- AGR 165 BUSINESS SUPERVISED OCCUPATIONAL EXPERIENCE I (SOE)**  
Students will be provided the opportunity to gain hands-on practical experience through internships provided by members of the agricultural industry. This could include coops, seed dealers, chemical retailers and any other opportunities that offer service to our area producers in the farming community. 6 credits
- AGR 166 COMMODITY SUPERVISED OCCUPATIONAL EXPERIENCE I (SOE)**  
Students will gain hands-on practical experience through internships provided by members of the agricultural industry. This could include coops, seed dealers, chemical retailers and any other opportunities that offer service to our area producers in the farming community. 6 credits
- AGR 167 BUSINESS SUPERVISED OCCUPATIONAL EXPERIENCE II (SOE)**  
Students will be provided the opportunity to gain hands-on practical experience through internships provided by members of the agricultural industry. This could include coops, seed dealers, chemical retailers and any other opportunities that offer service to our area producers in the farming community. 5 credits
- AGR 169 PRODUCTION SUPERVISED OCCUPATIONAL EXPERIENCE I (SOE)**  
To achieve proficiency in general management skills, students work at an established farm/ranch, usually their homes. Structured assignments must be completed. Instructors will visit the sites several times during this period. 6 credits
- AGR 170 DAIRY SCIENCE**  
This course will provide a basic introduction into the dairy industry and familiarize the student with the scientific principles of dairy science and the practical art of implementing those principles. 3 credits
- AGR 176 COMMODITY SUPERVISED OCCUPATIONAL EXPERIENCE II (SOE)**  
Students will gain hands-on practical experience through internships provided by members of the agricultural industry. This could include coops, seed dealers, chemical retailers and any other opportunities that offer service to our area producers in the farming community. 5 credits
- AGR 180 ARTIFICIAL INSEMINATION (AI) CERTIFICATION**  
1/2 credit
- AGR 201 MEDICAL TERMINOLOGY**  
Students will learn to articulate fluently medical terminology used within the large animal and veterinary fields. 3 credits
- AGR 202 LIVESTOCK NUTRITION PROBLEMS**  
Livestock Nutrition Problems is intended for students with interest in the principles, as well as the application of livestock nutrition and feeding. 2 credits
- AGR 204 ANIMAL HEALTH II**  
Animal Health II is designed to provide the student with the basic knowledge of the different diseases that most commonly affect livestock. The student will become familiar with disease symptoms to properly diagnose the affected livestock along with which medications to administer for that disease. 3 credits
- AGR 205 TREATMENT OF ANIMAL INJURY & SAMPLE COLLECTION**  
Students will collect various samples from livestock animals, conduct routine treatments and demonstrate methods of treating common diseases and injuries of livestock animals. 3 credits
- AGR 209 BIOLOGICS AND PHARMACEUTICAL ADMINISTRATION**  
Students will develop pharmaceutical and vaccination protocols for large livestock, determine accurate withdrawal times, and apply safe handling practices for animals and products. 2 credits
- AGR 210 FORAGES AND GRASSES**  
Production and management of common forages and grasses; management of tame pastures and rangelands; and various aspects of grazing practices. 3 credits
- AGR 211 ANIMAL ANATOMY**  
Students will evaluate the anatomy and physiology of the animal body: specifically, cattle sheep and swine. Upon completion, students will be able to identify anatomical structures, describe basic functions and vital processes for all body systems. 3 credits
- AGR 212 PLANT DISEASE/INSECT IDENTIFICATION AND CONTROL**  
A field can be a great sense of pride for both a producer as well as an agronomist. However, it can also be a fantastic home for many pest species of insects as well as providing host organisms for diseases. This class is designed to introduce students to the identification process of major crop pests and diseases. 3 credits
- AGR 215 ADVANCED FERTILIZERS, SOILS AND WASTE MANAGEMENT**  
In this class students will plan the nutrition program for a specific piece of ground. The student will also explore different ways to fertilize the ground besides the use of commercial fertilizer. 3 credits
- AGR 217 ELECTRONIC COMPONENTS AND TROUBLE SHOOTING**  
This course is designed as a study of the various electronic components that a person may encounter on most precision controlled equipment. It will include identification of various parts and the trouble shooting of those components. 2 credits
- AGR 223 ADVANCED COMPUTER APPLICATIONS FOR AGRICULTURE**  
Student will gain a working knowledge of the various file systems and advanced equipment used in precision agriculture. Students will be able to identify file systems used by various precision Ag manufactures, their structure, and how to convert files to work with other manufactures. Student will also gain a working knowledge of advanced components in the precision agriculture industry. Also, students will have experience in setting up field computers and equipment to be used in the precision agriculture field. 3 credits
- AGR 227 PRECISION AG TOOLS**  
Through the use of collected data and geographical information systems, students will learn how to identify variability that may exist in production fields. Based on the field's variability students will learn how to create management zones and write prescriptions to manage variability. 3 credits
- AGR 232 FARM MANAGEMENT II**  
Farm Management II will introduce the student to a variety

- of topics that will prepare the student to make well-formed decisions in production agriculture. 3 credits
- AGR 233 COMMODITY FUTURES AND OPTIONS**  
An overview of key topics in the futures industry such as futures fundamentals, hedging, basis, price analysis and options on futures. 3 credits
- AGR 235 COMMODITY MERCHANDISING**  
Teaches the skills of basis trading; position reports, grain accounting; selling and customer service. 3 credits
- AGR 236 BUSINESS MANAGEMENT I**  
This course is designed to expose the student to the business world and how both internal and external forces effect the success of the organization as a whole. AGR 236 is here to help prepare those students that will become managers of retail locations in the Ag industry. 3 credits
- AGR 237 BUSINESS LAW AND SUPERVISION**  
Develop knowledge and skills in planning, organization, communication, motivation and leadership. An important course for anyone, especially in the business of agriculture. 3 credits
- AGR 238 BUSINESS MANAGEMENT II**  
Prerequisite: AGR 236. Topics include marketing, financial management and reporting, international business growth, and discussion of career implications. 1 1/2 credits
- AGR 239 MICROSOFT EXCEL FOR AG**  
Students will learn how MS Excel spreadsheets can be used to organize, consolidate, analyze, and report agricultural industry data to aid in decision making and record keeping in the agriculture setting. 1 credit
- AGR 241 FARM MACHINERY**  
Students will demonstrate the use of farm machinery during harvest time. 1 credits
- AGR 243 FINANCIAL STATEMENT ANALYSIS FOR AG**  
Students will gain a basic understanding of financial statements relative to the ag industry. 3 credits
- AGR 247 PRECISION SUPERVISED OCCUPATIONAL EXPERIENCE III (S.O.E.)**  
Students will gain hands-on practical experience through internships provided by members of the agricultural industry. This could include coops, seed dealers, chemical retailers and any other opportunities that offer service to our area producers in the farming community. 6 credits
- AGR 249 PRODUCTION SUPERVISED OCCUPATIONAL EXPERIENCE II (SOE)**  
To achieve proficiency in general farm/ranch management skills, students will work at an established farm/ranch, usually their homes. Structured assignments must be completed. Sixty internship hours must be completed in Animal Health and for agronomy related business. Instructors will visit the sites several times during this period. 6 credits
- AGR 251 INTRO TO RANGE MANAGEMENT AND PLANTS**  
This course will cover the basic principles of range management which includes plant identification, range evaluation, and range improvements. 2 credits
- AGR 252 ADVANCED NUTRITION**  
Advanced Nutrition is a very important aspect of raising livestock so they can reach their maximum production level. This course will give the student a better understanding of the principles of feeding, management, and proper care of stock cows, heifers, and bulls. 3 credits
- AGR 253 LARGE ANIMAL SUPERVISED OCCUPATIONAL EXPERIENCE II (SOE)**  
Students will be provided the opportunity to gain hands-on practical experience through internships with establishments who work with large animals (beef, dairy, swine, sheep, and goats) such as veterinarians, large herd operations, and Ag businesses. 6 credits
- AGR 254 BEEF PRODUCTION**  
This course includes an overview of the United States and national beef industry including an introduction to the segments of the beef production chain and the scope of the industry 2 credits
- AGR 255 DAIRY HERD MANAGEMENT**  
This course is designed to familiarize students the management of a dairy herd. This will include current trends in the industry, facility development and maintenance, the importance of cow comfort, health and nutrition, record keeping, and development of replacement animals. 2 credits
- AGR 257 MILK PRODUCTION**  
This course is designed to familiarize students with the fundamentals of the dairy industry as it relates to the most crucial component: milk. This will include nutrition, milk quality and the most recent trends in the industry. 1 credit
- AGR 258 BASIC DAIRY SPANISH**  
This course will teach students the basic fundamentals of the Spanish language as a foundation on which to further develop their Spanish speaking skills. After learning the fundamentals, students will be introduced to words and phrases commonly used in the dairy industry. This will enable them to more effectively communicate with Hispanic workers in their work environment and help to develop stronger, more effective employee/employer communications. Students will also study cultural differences and social protocol. 2 credits
- AGR 259 DAIRY SUPERVISED OCCUPATIONAL EXPERIENCE II (SOE)**  
Students will be provided the opportunity to gain hands-on practical experience through an internship on a local commercial dairy operation. Primary areas of focus will be dairy herdsmanship, milking, feeding, calf care and general farm duties. 6 credits
- AGR 261 LIVESTOCK MARKETING AND EVALUATION**  
Students will study the market structures and organization of the livestock industry. Emphasis will be on factors affecting prices, changing competitive arrangements, and marketing problems facing farmers and ranchers. Additional emphasis will be placed on the development of a logical marketing plan. 3 credits
- AGR 262 PRECISION AGRICULTURE/DATA COLLECTION**  
Precision Ag Data Collection prepares students in the use of software applications in agriculture. Students will use mobile and desktop application to analyze, manipulate, and create data used in the production agriculture industry. 2 credits
- AGR 263 RANCH SUPERVISED OCCUPATIONAL EXPERIENCE II (S.O.E.)**  
Students will gain hands-on, practical experience through a second internship at their own ranch or other ranch that will offer an opportunity to utilize the skills and applications learned in the classroom. 6 credits
- AGR 265 RISK MANAGEMENT**  
Students will use critical thinking skills to identify risks in your specific operation. After we identify the risk we will also determine how to minimize it. 2 credits
- AGR 266 FARM CONSTRUCTION**  
All production farms rely heavily on structures to house livestock, equipment, and stored commodities. The purpose of this class is to familiarize students with the basics in safety, working with power tools, and general carpentry work. 2 credits
- AGR 267 SWINE ENVIRONMENT AND PRACTICAL MANAGEMENT TECHNIQUES**  
Students will learn to manage the micro and the macro environment of Swine at every production level. 2 credits
- AGR 268 FARROWING, NURSERY, AND FINISHING MANAGEMENT**  
Students will learn to manage reproduction efficiency, as well as growing and marketing hogs. 2 credits



- AGR 269 SWINE HEALTH BIOSECURITY**  
Students will develop and maintain a herd health program based on the prevention and control of infectious and noninfectious swine diseases. 2 credits
- AGR 276 COMMODITY SUPERVISED OCCUPATIONAL EXPERIENCE III (SOE)**  
Students will gain hands-on practical experience through internships provided by members of the agricultural industry. This could include coops, seed dealers, chemical retailers and any other opportunities that offer service to our area producers in the farming community. 6 credits
- ANAT 142 ANATOMY\***  
A study of cells, tissues and organs making up the integumentary, muscular, skeletal, nervous, endocrine, digestive, respiratory, lymphatic and urinary systems of the body. Emphasis is on structure and function of the systems and the relationship of the body structures (anatomy) to their function (physiology). 3 credits \*College transferable.
- AT 100 SAFETY**  
Safety practices in the lab. 1/2 credit
- AT 107 INTRODUCTION TO BRAKE SYSTEMS**  
After completing the reading assignments, review questions, terms, study guide handouts, and chapter tests, the student will be able to identify, describe, and explain the operation of and/or the theoretical principles of the entire automotive brake systems. 3 credits
- AT 108 BRAKE SYSTEMS DIAGNOSTICS**  
After completing the reading assignments, review questions, terms, study guide handouts, and chapter tests, the student will be able to identify, describe, and explain the operation of and/or the theoretical principles of the entire automotive brake systems. 4 credits
- AT 119 INTRODUCTION TO STEERING, SUSPENSION, AND DRIVETRAIN SYSTEMS**  
After completing the reading assignments, review questions, terms, study guide handouts, and chapter tests, the student will be able to identify, describe, and explain the operation of and/or the theoretical principles of the entire automotive steering suspension and drive axle systems. 3 credits
- AT 122 STEERING, SUSPENSION, AND DRIVETRAIN DIAGNOSTICS**  
After completing the reading assignments, review questions, terms, study guide handouts and chapter test, the student will be able to identify, describe, and explain the operation of and/or the theoretical principles of the entire automotive steering suspension and drive axle systems. 4 credits
- AT 146 INTRODUCTION TO HEATING AND AIR CONDITIONING**  
After completing the reading assignments, review questions, terms, study guide handouts and chapter test, the student will be able to identify, describe, and explain the operation of and/or the theoretical principles of the entire automotive HVAC system. 2 credits
- AT 148 HEATING AND AIR CONDITIONING DIAGNOSTICS**  
After completing the reading assignments, review questions, terms, study guide handouts and chapter test, the student will be able to identify, describe, and explain the operation of and/or the theoretical principles of the entire automotive HVAC system. 3 credits
- AT 155 ELECTRICAL/ELECTRONIC SYSTEMS THEORY**  
Reading wiring diagrams and determining diagnostic procedures for the automotive electrical circuits. 3 1/2 credits
- AT 156 ELECTRICAL/ELECTRONIC SYSTEMS DIAGNOSTICS**  
After completing the reading assignments, review questions, terms, study guide handouts and chapter test, the student will be able to identify, describe, and explain the operation of and/or the theoretical principles of the entire automotive Electrical and electronic system. 6 credits
- AT 201 INTRODUCTION TO MANUAL TRANSMISSION/TRANSAXLE**  
This course is designed to help the students understand proper techniques and cognitive skills required to diagnosis, repair, and rebuild manual transmissions. These skills will be demonstrated and tested through both hands on experience in shop and structured lecture in theory. Information delivery for this course is provided through visual, auditory, physical aids. 2 credits
- AT 208 DIAGNOSIS OF MANUAL TRANSMISSIONS/TRANSAXLE**  
This course is designed to develop the student's ability to understand automatic transmission construction and theory of operation, diagnose failures, and make proper repairs. 3 credits
- AT 212 INTRODUCTION TO AUTOMATIC TRANSMISSIONS/TRANSAXLE THEORY**  
This course is designed to develop the student's ability to understand automatic transmission construction and theory of operation, diagnose failures and make proper repairs. 2 credits
- AT 217 DIAGNOSIS OF AUTOMATIC TRANSMISSIONS/TRANSAXLE**  
This course is designed to develop the student's ability to understand automatic transmission construction and theory of operation, diagnose failures and make proper repairs. 3 credits
- AT 221 INTRODUCTION TO ENGINE REPAIR**  
This course is designed to help the students understand proper techniques and cognitive skills required to diagnosis, repair, and rebuild modern and late model engines. These skills will be demonstrated and tested through both hands on experience in lab and structured lecture in theory. Information delivery for this course is provided through visual, auditory, physical aids. 2 credits
- AT 225 ENGINE REPAIR DIAGNOSTICS**  
This course is designed to expose the student to actual engine diagnosis, disassembly, measurements and reassembly. 3 credits
- AT 259 INTRODUCTION TO ENGINE PERFORMANCE**  
After completing the reading assignments and study guide handouts, the student will be able to identify, describe, and explain the operation of and/or the theoretical principles of engine performance. 4 credits
- AT 263 ENGINE PERFORMANCE LAB**  
Diagnosis and repair of driveability concerns. 8 credits
- AVM 100 FEDERAL AVIATION REGULATION PUBLICATIONS**  
Exercise mechanic privileges within limitations; demonstrate ability to read, comprehend, and apply information contained in FAA and manufacturers aircraft maintenance specifications, data sheets, manuals, publications, and related federal aviation regulations, airworthiness directives, and advisory material; read technical data; write descriptions of aircraft discrepancies and corrective actions using typical aircraft maintenance records; complete required maintenance forms, records, and inspection reports. 1 1/2 credits
- AVM 103 APPLIED MATHEMATICS/AIRCRAFT WEIGHT AND BALANCE**  
This course will provide students with the knowledge and skills necessary to pass the FAA GENERAL written, Oral, and Practical tests. Students are encouraged to reference the latest revision of document FAA-S-8081-26A I-C and Section I-H to compare their progress through this course to their capability to pass the FAA certification tests. Students will apply required basic mathematics functions; weigh aircraft; perform complete weight forms, records, and inspection reports, and balance check and record data. 2 1/2 credits
- AVM 106 PHYSICS/AERODYNAMICS**  
This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of the FAA Mechanic General Practical Test Standard FAA-S-8081-26A area J, Basic

Physics to compare their progress through this course to their capability to pass the FAA certification tests. 1 1/2 credits

**AVM 109 GROUND OPERATIONS AND SERVICING**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical General tests for certification as an FAA mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-26A Section I-F to compare their progress through this course to their capability to pass the FAA certification tests. 1 credit

**AVM 112 AIRCRAFT DRAWINGS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-26A Section I-B to compare their progress through this course to their capability to pass the FAA certification tests. Students will use symbols and schematic diagrams; draw sketches of repairs and alterations; use blueprint information; use graphs and charts. 1 1/2 credits

**AVM 115 MATERIALS AND PROCESSES**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-26A Section I-E to compare their progress through this course to their capability to pass the FAA certification tests. Students will identify and select appropriate nondestructive test methods; perform dye penetrant, eddy current, ultrasonic, magnetic, and particle inspection; perform basic heat-treating processes; identify and select aircraft hardware and materials; inspect and check welds; perform precision measurements. 2 credits

**AVM 118 SHOP PRACTICES AND SAFETY**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical GENERAL tests. Students are encouraged to reference the latest revision of document FAA-S-8081-26A to compare their progress through this course to their capability to pass the FAA certification tests. Students will demonstrate safety-wiring bolts; wire a turnbuckle safely, identify and install cotter keys; remove and install a stud; install a helical; manufacture hammer head. 2 credits

**AVM 121 BASIC ELECTRICITY**

During this course you will establish a fundamental working knowledge of electricity that will be a basis for any future learning experience relating to electricity such as airframe electrical, powerplant electrical, ignition and starting systems, and communication/navigation. During this course students will establish a fundamental working knowledge of electricity that will be a basis for any future learning experience relating to electricity such as airframe electrical, powerplant electrical, ignition and starting systems, and communication/navigation. 2 1/2 credits

**AVM 124 WELDING AND TUBULAR STRUCTURES**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Airframe mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-27A Section II-E to compare their progress through this course to their capability to pass the FAA certification tests. Students will weld magnesium, titanium, aluminum and stainless steel; fabricate tubular structures; solder, braze, gas-weld, and arc-weld steel. 1 credit

**AVM 127 CORROSION CONTROL AND CLEANING**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Airframe mechanic. Students are

encouraged to reference the latest revision of document FAA-S-8081-27A Section II-E to compare their progress through this course to their capability to pass the FAA certification tests. Students will identify and select cleaning materials; inspect, identify, remove and treat aircraft corrosion; perform aircraft cleaning. 2 credits

**AVM 130 ASSEMBLY AND RIGGING**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Airframe mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-27A Section IIF to compare their progress through this course to their capability to pass the FAA certification tests. Students will rig rotary-wing aircraft; rig fixed-wing aircraft; check alignment of structures; assemble aircraft components, including flight-control surfaces; balance, rig, and inspect primary and secondary flight control surfaces; jack aircraft. 1 1/2 credits

**AVM 133 AIRFRAME FUELS AND FUEL SYSTEMS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Airframe mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-26A Section I F and FAA-S-8081-27A Section IIP to compare their progress through this course to their capability to pass the FAA certification tests. Students will inspect, service and repair all fuel systems and components; perform fuel management, transfer, and defueling; inspect and repair fluid quantity indication systems; troubleshoot, service, and repair fluid pressure and temperature warning systems. 1 credit

**AVM 136 NON-METALLIC/COMPOSITE STRUCTURES**

This course prepares students for the wood and non-metallic structures requirements of the FAA Airframe written, oral and practical tests. This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Airframe Mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-27A, Section II A, B, and D to compare their progress through this course to their capability to pass the FAA certification tests. 3 credits

**AVM 139 METALLIC STRUCTURES**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Airframe Mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-27A, Section II D to compare their progress through this course to their capability to pass the FAA certification tests. Students will install conventional aircraft rivets; hand-form, lay out and bend aircraft sheet metal; inspect and repair sheet metal aircraft structures. 3 credits

**AVM 142 HYDRAULIC AND PNEUMATIC POWER SYSTEMS/LINES AND FITTINGS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Airframe Mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-27A, Section II L to compare their progress through this course to their capability to pass the FAA certification tests. Students will fabricate, install, inspect, check, troubleshoot, and repair hydraulic and pneumatic power systems. 2 credits

**AVM 145 LANDING GEAR SYSTEMS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Airframe Mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-27A, Section III K to compare their progress through

this course to their capability to pass the FAA certification tests. Students will inspect, check, service and repair landing gear, retraction system, shock struts, brakes, wheels, tires and steering systems. 2 credits

**AVM 148 AIRFRAME ELECTRICAL SYSTEMS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Airframe Mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-27A, Section III Q to compare their progress through this course to their capability to pass the FAA certification tests. Students will repair and inspect aircraft electrical system components. 3 credits

**AVM 151 AIRFRAME INSTRUMENT SYSTEMS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Airframe Mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-27A, Section III N to compare their progress through this course to their capability to pass the FAA certification tests. Students will inspect, check, service, troubleshoot and repair electronic flight instrument systems; install instruments and perform a static-pressure leak test. 1 credit

**AVM 154 COMMUNICATION AND NAVIGATION SYSTEMS**

This course prepares students for the Communication/Navigation requirements of the FAA Airframe written, oral and practical tests. Students will inspect, check, troubleshoot auto-pilot servos and approach-coupling systems; inspect, check and service aircraft electronic communication and navigation systems, including VHF passenger interphones and static-discharge devices, aircraft COR, ILS, omega, flight-management computers, and GPWS. 2 credits

**AVM 157 UTILITY SYSTEMS**

During this course students will study position and warning systems, ice and rain protection systems, and fire protection systems. This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Airframe Mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-27A, Section III R (Position & Warning), S (Ice & Rain Control Systems), and T (Fire Protection Systems) to compare their progress through this course to their capability to pass the FAA certification tests. 2 1/2 credits

**AVM 160 ENVIRONMENTAL SYSTEMS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Airframe Mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-27A, Section III M to compare their progress through this course to their capability to pass the FAA certification tests. Students will inspect, check, troubleshoot, service and repair heating, cooling, pressurization systems, and air cycle machines; air conditioning, oxygen systems. 1 1/2 credits

**AVM 161 PRIVATE PILOT GROUND SCHOOL**

Completion of ground school training is a regulation-required prerequisite to issuance of a private pilot certificate. This course meets all of the aeronautical knowledge requirements of Federal Aviation Regulation Part 61 for anyone pursuing their private pilot certificate and is taught by an FAA-certified ground school instructor. 3 credits

**AVM 163 AIRFRAME INSPECTIONS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Airframe mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-27A, Section II G to compare their progress through this course to their capability to pass the FAA certification tests. Students will perform airframe conformity and airworthiness inspection. 2 credits

**AVM 200 AIRFRAME INDEPENDENT STUDY**

This course will provide you and their instructors an opportunity to review and assess your preparation level for the FAA written, oral, and practical tests for certification as an Airframe mechanic. Students are encouraged to reference all sections of the latest revision of document FAA-S-8081-26A and FAA-S-8081-27A to compare their progress through this course to their capability to pass the FAA certification tests. This course is a final preparation for the FAA Written, Oral, and Practical tests. 1 1/2 credits

**AVM 203 RECIPROCATING ENGINE THEORY**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A Section IV-A to compare their progress through this course to their capability to pass the FAA certification tests. Students will learn how to inspect, check, service and repair reciprocating engines and engine installations. 1 1/2 credits

**AVM 206 RECIPROCATING ENGINE MAINTENANCE AND OVERHAUL**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A Section IV-A & C to compare their progress through this course to their capability to pass the FAA certification tests. Students will inspect and repair radial engines; overhaul reciprocating engines; inspect, check, service, and repair reciprocating engines and engine installations. 3 credits

**AVM 209 ENGINE REMOVAL AND INSTALLATION**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A to compare their progress through this course to their capability to pass the FAA certification tests. Students will install, troubleshoot, and remove engines. 1 1/2 credits

**AVM 212 GAS TURBINE ENGINE TECHNOLOGY**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A Section IV-B to compare their progress through this course to their capability to pass the FAA certification tests. Students will learn how to overhaul turbine engines; inspect, check, service and repair turbine engines and engine installations; unducted fan systems and components; turbine-driven auxiliary power units. 3 credits

**AVM 215 GAS TURBINE ENGINE SERVICE AND MAINTENANCE**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A Section IV-B to compare their progress through this course to their capability to pass the FAA certification tests. This course provides practical application of techniques learned in AVM 212. 3 credits

**AVM 218 LUBRICANTS AND LUBRICATION SYSTEMS**

This course prepares students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A Section V-K to compare their progress through this course to their capability to pass the FAA certification tests. Students will identify and select lubricants; repair engine

lubrication system components; inspect, check, service, troubleshoot and repair engine lubrication systems. 2 credits

#### **AVM 221 FUELS AND FUEL METERING SYSTEMS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A Section V M and N to compare their progress through this course to their capability to pass the FAA certification tests. Students will inspect, check, service, troubleshoot, and repair engine fuel systems and components; troubleshoot, repair and adjust fuel-metering systems and electronic engine fuel controls; overhaul carburetor systems. 2 credits

#### **AVM 224 FIRE PROTECTION SYSTEMS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A Section V-I to compare their progress through this course to their capability to pass the FAA certification tests. Students will inspect, service, troubleshoot, and repair engine fire-detection and extinguishing systems. 1/2 credit

#### **AVM 227 PROPELLER AND ROTOR SYSTEMS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A Section V R to compare their progress through this course to their capability to pass the FAA certification tests. Students will inspect, check, service, and repair propeller-synchronizing and ice-control systems; identify and select propeller lubricants; balance propellers; repair propeller-control system components; install, troubleshoot and remove propellers; repair aluminum-alloy propeller blades. 2 1/2 credits

#### **AVM 230 IGNITION AND STARTING SYSTEMS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A Section 5-L to compare their progress through this course to their capability to pass the FAA certification tests. Students will inspect, service, troubleshoot, and repair reciprocating and turbine-engine ignition systems and components, and turbine-engine pneumatic starting systems. 2 1/2 credits

#### **AVM 233 INDUCTION AND SUPER-CHARGER SYSTEMS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A Section 5-O to compare their progress through this course to their capability to pass the FAA certification tests. Students will inspect, check, troubleshoot, service and repair engine ice and rain-control systems; heat exchangers, superchargers, and temperature-control systems; carburetor air-intake and induction manifolds. 1 credit

#### **AVM 236 POWERPLANT ELECTRICAL SYSTEMS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A Section IV-B to compare their progress through this course to their capability to pass the FAA certification tests. Students will repair engine electrical system components; install, check, and service electrical wiring, controls, switches, indicators, and protective devices. 3 credits

#### **AVM 239 COOLING SYSTEMS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A Section V-P to compare their progress through this course to their capability to pass the FAA certification tests. Students will inspect, check, troubleshoot, service and repair engine cooling systems and components. 1/2 credit

#### **AVM 242 EXHAUST AND THRUST REVERSER SYSTEMS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A Section V-Q to compare their progress through this course to their capability to pass the FAA certification tests. Students will inspect, check, troubleshoot, service, and repair engine exhaust systems, and components; troubleshoot and repair engine thrust-reverser systems and related components. 1/2 credit

#### **AVM 245 POWERPLANT INSTRUMENT SYSTEMS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A Section V-H to compare their progress through this course to their capability to pass the FAA certification tests. Students will troubleshoot, service and repair fluid rate-of-flow indicating systems; inspect, check, service, troubleshoot, and repair electrical mechanical engine-temperature, pressure and RPM indicating systems. 1 credit

#### **AVM 248 POWERPLANT INSPECTIONS**

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference the latest revision of document FAA-S-8081-28A, Section C to compare their progress through this course to their capability to pass the FAA certification tests. Students will perform powerplant conformity and airworthiness inspections. 1 1/2 credits

#### **AVM 254 POWERPLANT INDEPENDENT STUDY**

This course will provide you and their instructors an opportunity to review and assess your preparation level for the FAA written, Oral, and Practical tests for certification as an FAA Powerplant mechanic. Students are encouraged to reference all sections of the latest revision of document FAA-S-8081-28A to compare their progress through this course to their capability to pass the FAA certification tests. Students will complete a particular hands-on training project. 1 1/2 credits

#### **AVM 260 PROFESSIONAL PILOT GROUND SCHOOL**

Completion of ground school training is a regulation-required prerequisite to issuance of the INSTRUMENT or COMMERCIAL pilot certificates. This course meets all of the aeronautical knowledge requirements of the Code of Federal Regulations Part (CFR Part) 61.125(b) for A COMMERCIAL rating AND CFR Part 61.65(b). It is taught by an FAA-certified ground school instructor. 3 credits

#### **AVM 265A PRIVATE FLIGHT TRAINING**

This is a 1 credit course which is based on 28 total flight hours. Students can expect to cover basic aircraft control with emphasis on the requirements to earn a Student Pilot - Airplane Single Engine Land certificate. During this course the student will receive 9 hours of flight instruction in a self-launched glider (\$100/hour), 9 flight hours in a tailwheel equipped single-engine airplane (\$120/hour), and 10 flight hours in a tricycle gear single-engine airplane (\$150/hour). Students registering for AVM 265A will be charged \$3,480 per credit for the flight training. 1 credit

#### **AVM 265B PRIVATE FLIGHT TRAINING**

This is a 1 credit course which is based on 28 total flight

hours. Training will include flight planning and cross-country flight activities, an introduction to aircraft control with flight instruments, and night flying operations. This course uses tricycle gear single-engine airplanes (\$150/hour) exclusively. Students registering for AVM 265B will be charged \$4,200 per credit for the flight training. 1 credit

**AVM 265C PRIVATE FLIGHT TRAINING**

This is a 1 credit course which is based on 28 total flight hours. Flight activities will focus on the basic flight maneuvers and emergency procedures required to earn the Private Pilot - Airplane Single Engine Land certificate. This course uses tricycle gear single-engine airplanes (\$150/hour) exclusively. Students registering for AVM 265C will be charged \$4,200 per credit for the flight training. 1 credit

**AVM 270A INSTRUMENT FLIGHT**

This is a 1 credit course which is based on 28 total flight hours. This training segment further develops cross-country and night operations skills as required for the Instrument Airplane rating. This course uses tricycle gear single-engine airplanes (\$150/hour) exclusively. Students registering for AVM 270A will be charged \$4,200 per credit for the flight training. 1 credit

**AVM 270B INSTRUMENT FLIGHT**

This is a 1 credit course which is based on 28 total flight hours. Students can expect extensive flight control and operations by use of flight instruments. This course uses tricycle gear single-engine airplanes (\$150/hour) exclusively. Students registering for AVM 270B will be charged \$4,200 per credit for the flight training. 1 credit

**AVM 270C INSTRUMENT FLIGHT**

This is a 1 credit course which is based on 28 total flight hours. Training activity will involve participation in the National Air Route Traffic Control System and emergency instrument procedures. Students completing this course are eligible to earn the Instrument Airplane rating. This course uses tricycle gear single-engine airplanes (\$150/hour) exclusively. Students registering for AVM 270C will be charged \$4,200 per credit for the flight training. 1 credit

**AVM 275A COMMERCIAL FLIGHT MULTI-ENGINE AIRPLANE**

This is a 1 credit course which is based on 28 total flight hours. Students will become familiar with multi-engine and complex aircraft operations and emergency procedures. At the completion of this course the student will be eligible to earn either the Multi-Engine rating to a Private Pilot certificate or the initial Commercial Pilot - Multi-Engine Land Certificate if other Commercial Pilot requirements have already been completed. This course uses tricycle gear multi-engine airplanes (\$300/hour) exclusively. Students registering for AVM 275A will be charged \$8,400 per credit for the flight training. 1 credit

**AVM 275B COMMERCIAL FLIGHT MULTI-ENGINE AIRPLANE**

This is a 1 credit course which is based on 28 total flight hours. Flight activities during this course can be used to add the Commercial Pilot - Multi-Engine Land Rating or complete an initial Commercial Pilot Multi-Engine Land Certificate. This course uses tricycle gear multi-engine airplanes (\$300/hour) exclusively. Students registering for AVM 275B will be charged \$8,400 per credit for the flight training. 1 credit

**AVM 275C COMMERCIAL FLIGHT MULTI-ENGINE AIRPLANE**

This is a 1 credit course which is based on 28 total flight hours. Attention will focus on operating a multi-engine aircraft in an instructional setting in preparation for the Flight Instructor - Multi-Engine Land Certificate. This course uses tricycle gear multi-engine airplanes (\$300/hour) exclusively. Students registering for AVM 275C will be charged \$8,400 per credit for the flight training. 1 credit

**AVM 280A COMMERCIAL FLIGHT SINGLE ENGINE**

This is a 1 credit course which is based on 28 total flight hours. The primary focus of this training segment is on tailwheel aircraft operations and earning the Airplane Single-Engine

Land tailwheel operations endorsement. During this course the student will receive 10 hours of flight instruction in a self-launched glider (\$100/hour) and 18 flight hours in a tailwheel equipped single-engine airplane (\$120/hour). Students registering for AVM 280A will be charged \$3,160 per credit for the flight training. 1 credit

**AVM 280B COMMERCIAL FLIGHT SINGLE ENGINE**

This is a 1 credit course which is based on 28 total flight hours. The flight training activities of this course will focus on the flight maneuvers specified by the Commercial Pilot - Airplane Single-Engine Land Certificate. During this course the student will receive 10 hours of flight instruction in a self-launched glider (\$100/hour) and 18 flight hours in a tailwheel equipped single-engine airplane (\$120/hour). Students registering for AVM 280B will be charged \$3,160 per credit for the flight training. 1 credit

**AVM 280C COMMERCIAL FLIGHT SINGLE ENGINE**

This is a 1 credit course which is based on 28 total flight hours. During this course the student will be trained in complex aircraft (\$180/hour) meeting the requirements of 14CFR 61.129a(ii) towards completion of a single-engine land commercial rating. Students registering for AVM 280C will be charged \$5,040 per credit for the flight training. 1 credit

**BSA 100 INTRODUCTION TO DIGITAL PHOTOGRAPHY IMAGE PROCESSING**

The class is designed as an Introduction to the DSLR camera and the use of Lightroom/Camera Raw/Photoshop software. Students will be required to bring their cameras and computers to each class meeting. Photography ethics including copyright laws will also be discussed. 3 credits

**BSA 107 INTRODUCTION TO PHOTO STUDIO LAB**

Students will demonstrate their knowledge of camera settings through critiques/analysis of their photography. Students will begin creating a student portfolio. 1 credit

**BSA 108 EMPLOYMENT LAW**

This course introduces the principle laws and regulations affecting public and private organizations and their employees or prospective employees. Topics include fair employment practices, EEO, affirmative action, and employee rights and protections. Upon completion, students should be able to evaluate organization policy for compliance and assure that decisions are not contrary to law. 3 credits

**BSA 114 DESIGN I**

This class is an art course focusing on the elements and principles of design. These are interchangeable pieces of design that can be used in photography, interior design, graphic design, and visual merchandising courses. These elements and principles are found in all visual compositions and their arrangement determines both aesthetic looks and functional use. 3 credits

**BSA 116 ADVANCED IMAGE PROCESSING**

This course focuses on editing and creating images for a variety of purposes including web publication and present media. 3 credits

**BSA 118 ADVANCED DIGITAL PHOTOGRAPHY**

The class is designed as an intensive photography class devoted to advanced photography and processing of images using Adobe Camera Raw and Photoshop. Students will be required to bring their cameras to each class meeting. This course is designed for students who have prior experience in photography. Prerequisites: Intro to Photography and Design 1. 3 credits

**BSA 126 LIGHTING IN PHOTOGRAPHY**

The class is designed as an intensive photography class devoted to practice all lighting techniques. Students will be required to bring their cameras to each class meeting. This course is designed for students who have prior experience in photography. Students must have a digital SLR and a Speedlite. BSA 126 is taken in conjunction with Lighting Lab/BSA 128. Prerequisite: BSA 100. 3 credits

<b>BSA 128</b>	<b>LIGHTING LAB</b> BSA 128 is taken in conjunction with BSA 126. 1 credit	operations, the proper use and maintenance of tools, sizing and description of building materials and construction methods. This course will introduce the Uniform Building Code and basic blueprint knowledge. 3 credits
<b>BSA 200</b>	<b>VIDEO/MEDIA</b> This course will focus on helping students develop skill and learn techniques to take images to be used for corporate promotion and production sales. 3 credits	
<b>BSA 202</b>	<b>STUDIO PHOTOGRAPHY</b> The class is designed as an intensive photography class devoted to practice all studio techniques. Students will be required to bring their cameras to each class meeting. This course is designed for students who have prior experience in photography. Prerequisites: BSA100 and BSA126. This course is taken in conjunction with Studio Lab/BSA 207. 3 credits	<b>BTT 117</b> <b>CONSTRUCTION PRACTICUM I</b> A practical building application to BTT 116 with projects assigned during the semester. This will include the safe and proper use of tools in various construction projects. The semester will conclude with the framing and enclosure of a residential building. 11 credits
<b>BSA 204</b>	<b>EVENT PHOTOGRAPHY</b> The class is designed as an intensive photography class devoted to practice in all types of events. Students will be required to bring their cameras to each class meeting. This course is designed for students who have prior experience in photography. This course will begin to make the transition of working independently as a professional photographer. This course is taken as a prerequisite to Internship/Capstone. Students will research events and “key photos” attend events capturing “key moments” and process images to bring out the emotional story. 3 credits	<b>BTT 125</b> <b>CABINETRY TECHNOLOGY</b> This course will provide the basics in cabinet design and construction, including identifying the parts of cabinets, uses of a variety of cabinets, and safety on equipment used in building cabinets. The students will use the knowledge as they construct a given cabinet project. 1 credit
<b>BSA 207</b>	<b>STUDIO LAB</b> This lab is taken in conjunction with Studio Photography/BSA 202. 1 credit	<b>BTT 126</b> <b>CABINETRY PRACTICUM</b> This course will provide the basics in cabinet design and construction, including identifying the parts of cabinets, uses of a variety of cabinets, and safety on equipment used in building cabinets. The students will use the knowledge as they construct a given cabinet project. 2 credits
<b>BSA 209</b>	<b>PRINCIPLES OF INSURANCE</b> This introductory course covers risk identification and evaluation, the need for insurance, the effects of limited liability, theory of moral hazard, and adverse selection. Both business and personal risk are addressed with emphasis on insurance as a risk management tool. 3 credits	<b>BTT 131</b> <b>INTERIOR FINISHING</b> Upon completion of this course, the student will perform the skills necessary to complete the interior finish for a residential building project. 2 credits
<b>BSA 210</b>	<b>COMPENSATION AND BENEFITS</b> Compensation and benefits programs need to reflect the changing business landscape and unprecedented organizational challenges. Study total compensation and rewards programs that address a range of monetary and nonmonetary options beyond salary compensation and benefits. Learn how to integrate total compensation packages with other basic human resources functions, including recruitment, performance contributions, development, and retention. 3 credits	<b>BTT 147</b> <b>CONSTRUCTION PRACTICUM II</b> Upon completion of this course, the student will perform skills necessary to complete the interior finish for a residential building project. 5 credits
<b>BSA 212</b>	<b>TRAINING AND DEVELOPMENT</b> This course offers an overview of the training and development component of Human Resource development. The course will also focus on providing the student with a working knowledge of the basic skills required to be skilled trainers in a current organizational environment. 3 credits	<b>BTT 156</b> <b>RESIDENTIAL DRAFTING/CAD</b> This course shows how to use architectural drafting and computer aided drafting in defining needs in residential construction. 2 credits
<b>BSA 230</b>	<b>QUICKBOOKS</b> The main purpose of this course is to help develop and implement short through long-range financial objectives. Achieving financial success requires that one practice effective financial management. Students must plan, analyze, and control financial resources to meet their personal financial goals. This involves using knowledge, skills, and software (Quickbooks) in a confident manner. 1 credit	<b>BTT 202</b> <b>SITE PREPARATION AND CONCRETE</b> After completing this unit, the student will have a better understanding of site preparation, site layout, concrete construction. 1 1/2 credits
<b>BSA 232</b>	<b>SOCIAL MEDIA</b> The Social Media class will explore how businesses can use sites like Twitter, Facebook, LinkedIn, etc. as effective marketing tools and as channels to maximize their online presence. 3 credits	<b>BTT 204</b> <b>CONSTRUCTION TECHNOLOGY II</b> After completing this unit, the student will have a better understanding of floor construction, and wall and roof construction. 1 1/2 credits
<b>BTT 112</b>	<b>OSHA/SAFETY</b> This course will cover all aspects of safety for the job site. A written test will be given, as well as a hands-on performance test with the table and portable circular saw. Students may not use any tools or start projects until this safety course is completed. 1/2 credit	<b>BTT 209</b> <b>CONSTRUCTION PRACTICUM III</b> After completing this unit, the student should be able to place, test and finish concrete slabs. The student will demonstrate the ability to lay out and erect all framework and complete the exterior finish on a residential building. 12 credits
<b>BTT 116</b>	<b>CONSTRUCTION TECHNOLOGY I</b> The course will establish safety procedures, shop and site	<b>BTT 220</b> <b>CONSTRUCTION ESTIMATING</b> Upon completion of this unit, the student will be able to prepare a detailed bill of materials sheet for a residential building project. 2 credits
		<b>BTT 235</b> <b>CONSTRUCTION PRACTICUM IV</b> After completing this unit, the student will have the practical experience to perform interior finish procedures to industry standards. 11 credits
		<b>BTT 252</b> <b>ADVANCED CONSTRUCTION TECHNOLOGY</b> After completing this unit, the student will have a better understanding of building codes, advanced stair construction and installation, how ventilation works, what green building is, and light commercial work. 2 credits
		<b>BUS 101</b> <b>INTRODUCTION TO BUSINESS</b> Intro to Business covers all the basic material and principles of business in a changing world and introduces real-world examples of today’s environment. This course will set the foundation for all other business courses. 3 credits
		<b>BUS 120</b> <b>PRINCIPLES OF MARKETING</b> Policies and problems concerned with flow of goods and services

to the consumer, including the study of pricing, advertising, consumer behavior, and the distribution of products. 3 credits

**BUS 122 BUSINESS RELATIONSHIPS**

Why do some businesses make it? And, others don't? Success could be based on relationships, personal and professional. Exceptional customer service, networking, recognition, negotiating and volunteering can help a business be even more successful. This course is designed to enlighten the student's understanding of the importance of positive business relationships in business and customer relationships. These relationships can affect the entire business and the bottom-line. The course will reflect on the human side of business and how to create a positive workplace environment as well as overcoming negativity in the workplace. 3 credits

**BUS 140 BUSINESS LAW**

An important basic course in how laws affect businesses. Students gain broad general knowledge and learn when and where to seek specialized advice and/or legal assistance. 3 credits

**BUS 150 ADVERTISING**

How advertising works; its effectiveness in promoting products, services and ideas. Students will develop real coupon book and be involved in the total process. 4 credits

**BUS 160 PRINCIPLES OF SELLING**

An overview of the sales process: selling, buying, customer relations, strategies, legal and ethical considerations. 3 credits

**BUS 162 RETAILING**

A broad overview: general procedures, career choices, buying behavior, merchandise control and pricing, human resources and productivity, store development and management are some of the topics covered. 3 credits

**BUS 170 HUMAN RESOURCES MANAGEMENT**

This course is an introduction to the concepts of human resource management and an overview of how important human resources management is to business today. 3 credits

**BUS 185 E-BUSINESS**

Students learn the fundamental concepts of electronic commerce with hands-on activities which they can apply to their on-line business. This course introduces students to Web security issues, electronic payment systems, and legal issues needed in creating a functioning on-line store. Prerequisites include a basic understanding of Windows and Web navigation, as well as fundamental Internet concepts. 3 credits

**BUS 200 PRINCIPLES OF BANKING**

This course is designed to give students the history of banking, fundamentals of banking, and a look at banking today. Students will see the whole picture of banking, not just the view from a teller window or bookkeeping desk! To succeed in a banking career, students should become well acquainted with all of the topics in this course and keep up with all the changes that occur in the banking industry. 3 credits

**BUS 209 PRINCIPLES OF INSURANCE**

This introductory course covers risk identification and evaluation, the need for insurance, the effects of limited liability, theory of moral hazard, and adverse selection. Both business and personal risk are addressed with emphasis on insurance as a risk management tool. 3 credits

**BUS 210 SMALL BUSINESS DEVELOPMENT**

How to start a business and manage it successfully. In addition to theory classes, computer-simulated business development will be utilized. Students must have successfully completed Accounting I and Accounting II of Financial Management before enrolling in this course. 3 credits

**BUS 213 MARKETING FINANCIAL SERVICES**

This course provides an overview of marketing concepts,

strategies, and activities. Students are exposed to strategic planning, ethics and social responsibilities, determining target markets, consumer behavior, product and brand development, marketing channels and supply chain management, retailing, advertising and public relations, personal selling and sales management, pricing, and marketing on the Internet, including the use of social networking. To reinforce the content surveyed, students will participate in cases and a behavioral simulation. This class will be fast-paced, involvement-oriented, and should get students off to a good start by providing a strong foundation and appreciation of the importance of marketing in business and society. 3 credits

**BUS 215 BUSINESS ETHICS**

Provides an introduction to business related ethics. Students will receive the foundation and training to deal with ethical challenges and establish ethical business behavior and regulations. Subjects covered include corporate responsibility, corporate compliance, and ethnic sensitivity. 3 credits

**BUS 219 FUNDAMENTALS OF LENDING I**

This course will prepare the student for a job in lending in any business that extends credit. The student will acquire knowledge in the following areas: consumer credit history, consumer credit laws and regulations, the consumer credit market, the types of consumer credit, consumer applications, credit interviews, credit evaluations, and credit granting. 3 credits

**BUS 220 PERSONAL FINANCE**

The main purpose of this course is to help develop and implement short through long-range plans to achieve financial objectives. Achieving financial success requires that one practice effective personal financial management. 3 credits

**BUS 222 FUNDAMENTALS OF LENDING II**

Continuation of BUS 219. Evaluation of credit data, credit decision-making, completion of all documents required for consumer and real estate loans. 3 credits

**BUS 226 WEALTH MANAGEMENT**

The objective of this course is to familiarize the student with general financial principles concerning stocks, bonds, and investments. We will concentrate our studies on stocks, mutual funds, stock markets and the process of buying and selling stocks and mutual funds. 2 credits

**BUS 230 MANAGEMENT POLICY**

A comprehensive introduction to management theory and practice; designed to help the student meet the challenges of managing a contemporary business effectively. 3 credits

**BUS 235 BUSINESS INTERNSHIP**

This course is designed to give the student practical experience of working in a successful business. The structure of the internship is flexible to accommodate the demands of the position and place of business. You must get prior approval on the internship site from your advisor. Please provide place of work, position and job responsibilities to your advisor when requesting approval. Students are expected to find their own internship. Instructor assistance is available for recommendations, leads, professional resources and direction. 6 credits

**BUS 236 FINANCIAL MANAGEMENT**

Emphasis is on determining the time value of money in decision-making, especially as applied to businesses. Students must have successfully completed ACCT 210 before enrolling in this course. 3 credits

**BUS 238 BUSINESS INNOVATION**

This course is designed to give students the opportunity to practice actual marketing business skills. The student will bring together all of the various theories and concepts learned in other business courses. Business Innovation will include community service, business decision making, problem solving, team building, and creative thinking. 3 credits

- BUS 240 BUSINESS INTERNSHIP**  
This course is designed to give the student practical experience of working in a successful business. The structure of the internship is flexible to accommodate the demands of the position and place of business. You must get prior approval on the internship site from your advisor. Please provide place of work, position and job responsibilities to your advisor when requesting approval. Students are expected to find their own internship. Instructor assistance is available for recommendations, leads, professional resources and direction. 3 credits
- BUS 241 AG LENDING**  
Provide students with the basic skills needed to work in the field of ag lending. The class will focus on the key financial statements and ratio analysis for agriculture. Students will gain a basic understanding of loan structuring and documentation, as well as basic ag production and marketing topics. 3 credits
- BUS 244 INTERNATIONAL BUSINESS**  
The importance of studying international business is varied for a number of reasons. The world is becoming increasingly complex and this course will answer any questions you have about business in different cultures, the impact of geography, why products are the same (or different) across cultures, why people have different practices and the effect of the Internet on international business. By examining all these issues we can better understand how interrelated our global economy and competition is. 3 credits
- BUS 246 & 247 INTERNSHIP A & B**  
This course is designed to give the student practical experience of working in a successful business. Depending on the option selected, specific tasks will be outlined to complete within the assigned hours. Students must get prior approval on the internship site from their advisor. 3 credits each
- BUS 265 PHOTOGRAPHY INTERNSHIP/CAPSTONE**  
A capstone project is a multifaceted assignment that serves as a culminating academic and intellectual experience for students. This class is designed for each student to take what they have learned, research their personal interests, apply their research to previous learning, and report/demonstrate what they have learned. 3 credits
- CHEM 106 INORGANIC CHEMISTRY LECTURE (3 credits)\* AND CHEM 106L INORGANIC CHEMISTRY LAB (1 credit)\***  
This course is an introductory course designed to give the student a positive understanding and appreciation of the chemistry in their lives. Basic inorganic topics such as the study of atoms and molecules, chemical reactions, chemical equilibrium, states of matter and nuclear processes will be covered. The course will cover those chemical concepts necessary for the continued study of organic and biochemistry in Chemistry 108. \*College transferable.
- CHEM 108 ORGANIC CHEMISTRY LECTURE (3 credits)\* AND CHEM 108L ORGANIC CHEMISTRY LAB (1 credit)\***  
Course covers organic chemistry and biochemistry. An understanding of the basic concepts is a necessary precursor to the discussion of the more specific topic of biochemistry. Prerequisite: CHEM 106 \*College transferable.
- CIS 100 PC MAINTENANCE**  
This course prepares the student to perform standard PC hardware and software maintenance. The student will be introduced to the fundamentals of PC hardware and software technologies with a hands-on approach. In the labs, you will learn how to disassemble, reassemble, and install PC hardware components, how to properly format and install a typical operating system, and how to connect the PC to a network and the Internet. This course is an introduction to the material necessary for eventual A+ certification. 3 credits
- CIS 102 WINDOWS APPLICATIONS FOR TECHNICIANS**  
Using a Windows-based microcomputer and related software, you will gain an understanding and basic operational knowledge of the Windows 7 operating system, Microsoft Office 2013 word processing, spreadsheet, presentation software, and publishing software. You will demonstrate this knowledge by scoring at least 80% on assignments, related objective and performance tests. 3 credits
- CIS 105 COMPUTER SOFTWARE APPLICATIONS**  
Using a Windows-based microcomputer and related software, you will gain an understanding and basic operational knowledge about the Windows operating systems, Microsoft Office word processing, spreadsheets, database management, and presentation software. You will demonstrate this knowledge by scoring at least 80% on assignments and related objective and performance tests. 3 credits
- CIS 110 A+ CERTIFICATION**  
This course prepares students for the CompTIA A+ certification exam. The student will be introduced to the fundamentals of PC hardware and software technologies with a hands-on approach. In the labs, students will learn how to disassemble, reassemble, and install PC hardware components, how to properly format and install a typical operating system, and how to connect the PC to a network and the Internet. Students will be expected to take the two certification exams for the CompTIA A+ certification. 3 credits
- CIS 125 ADVANCED COMPUTER APPLICATIONS**  
Students will gain advanced skills in word processing, spreadsheet applications, database management, and graphical presentations in the Windows environment. 3 credits
- CIS 132 INTRODUCTION TO COMPUTER PROGRAMMING**  
This course is an introduction to the basic concepts and techniques used in programming using the C# language. Writing, debugging, and testing business applications. 3 credits
- CIS 136 INTRO TO OBJECT-ORIENTED PROGRAMMING**  
This course introduces the student to the Java programming language. Students will examine the concepts behind Object oriented programming and examine the core features of the Java programming language. 3 credits
- CIS 140 DATABASE DESIGN & SQL**  
The study of formalized database design. This course will focus on relational model design and the use of SQL. Students will use a modern relational database to implement designs and learn the basics of data management. 3 credits
- CIS 141 WEB DESIGN AND MAINTENANCE**  
In this course, students will develop the fundamental skills required to create standards-based websites. The technologies include HTML, CSS, and JavaScript using jQuery. 3 credits
- CIS 152 TYPOGRAPHY AND GRAPHIC ART**  
An application of digital design, typographic principles, and type/image integration to communication design projects of moderate and increasing complexity. Emphasis is on development of concepts which communicate persuasively and effectively integrate type, image and layout. 3 credits
- CIS 160 UNIX OPERATING SYSTEM**  
Examines the concepts that are common to any UNIX/Linux system using a hands-on approach to explore the UNIX/Linux file system, commands, application design and programming and an introduction to system management. 3 credits
- CIS 170 WEB 2.0**  
This course explores the use of the three most popular open source web-based content management systems—Wordpress, Joomla, and Drupal—to create dynamic and flexible websites and landing pages. 3 credits
- CIS 173 PRINCIPLES OF DESIGN AND COLOR THEORY**  
This course introduces students to design elements, principles, and theory. Application techniques, emphasizing design relationships and composition will be explored. Basic skills and techniques of visual and oral presentations will be included. 3 credits



- CIS 175 PHOTOGRAPHY FOR VISUAL COMMUNICATIONS**  
This course provides an introduction to visual concepts, basic still image capture, lighting, and camera functions. Knowledge of shooting in different environments, how to control those environments and understanding what makes and how to create a composition that is aesthetically pleasing will be learned. Photography ethics including copyright laws will also be discussed. 3 credits
- CIS 180 COMPUTER PROGRAMMING I**  
This course is an introduction to the C family of programming languages and will cover the creation, compilation, and execution of C programs. Students will write and understand C language constructs, syntax, logic, and semantics. 3 credits
- CIS 215 CYBER SECURITY/ETHICAL HACKING**  
This hands-on course will introduce students to many aspects of network security. Students will learn the skills necessary to perform and present network intrusions on a variety of different computing platforms. 3 credits
- CIS 220 COMPUTER PROGRAMMING II**  
This course covers the principles of programming using C++. Students will use the object oriented programming language C++ to design, implement, and utilize classes and various other data structures. 3 credits
- CIS 235 COMPUTER CRIME INVESTIGATION**  
Includes the policies, procedures, and technology necessary to gather and analyze digital information in an authentic, accurate, and complete form for presentation as evidence in a business environment or a court of law. 3 credits
- CIS 238 ADVANCED OBJECT ORIENTED PROGRAMMING**  
More advanced features of OOP are covered as well as Java's networking, database and web capabilities. 3 credits
- CIS 240 MOBILE APPLICATION DEVELOPMENT**  
Students will create apps for today's popular mobile devices including the iPad, iPhone, and iPod as well as Android phones and tablets. 3 credits.
- CIS 241 ADVANCED WEB DESIGN**  
This project-based course will investigate the concepts of Responsive Web Design, Search Engine Optimization and other advanced design techniques. 3 credits
- CIS 251 MOTION GRAPHICS AND COMPOSITING**  
The focus will be putting graphics into motion and merging a variety of media such as live-action, raster images, vector art and visual FX into a cohesive whole. An efficient workflow using numerous software titles and hardware must be demonstrated to create high quality projects for but not limited to film, broadcast, and the web. 3 credits
- CIS 252 VIDEO AND AUDIO PRODUCTION**  
Through a combination of theory and applied practices, this course will provide a variety of opportunities to learn and demonstrate methods of video and audio planning, production and editing. 3 credits.
- CIS 253 GRAPHIC EDITING AND MANIPULATION**  
This course is an all-inclusive look into the tools and techniques used in image editing and manipulation. Covers the manipulation of graphics to convey meaning, strategies for idea generation and development of unique concepts, and the designer's role as visual storyteller and guide. Applied use of compositing, adjusting, enhancing and publishing techniques learned in this course are core to future media creation and multimedia software usages. 3 credits
- CIS 255 APPLICATION SECURITY**  
This course is an introduction course addressing the security risks caused by web applications. The primary focus will be on web applications but many of the concepts can be applied to desktop applications. 3 credits
- CIS 260 UNIX OS ADMINISTRATION**  
An in-depth study of the UNIX/Linux operating system and topics related to the administration and installation of a UNIX/Linux computer system. Students will learn the necessary steps to administer the system, programs, and users. 3 credits
- CIS 265 VIRTUALIZATION**  
An exploration and comparison of several types of hardware virtualizations utilizing VMware, VirtualBox and Microsoft virtualization products for operating systems, appliances, and virtual desktop environments. 3 credits
- CIS 270 INTRO TO DATABASE PROGRAMMING**  
Using SQL development tools, students gain experience in creating views, stored procedures, triggers, and functions to use in database applications. 3 credits
- CIS 272 CLIENT SERVER PROGRAMMING**  
Students will access data from a database server and incorporate it into client programs. PDAs, touch screens, card-readers, speech synthesis, and recognition are also incorporated into various applications. 3 credits
- CIS 273 WEB APPLICATIONS - ASP**  
Students will gain experience in creating web-based, database-driven applications using Active Server Pages technology. 3 credits
- CIS 276 WEB APPLICATIONS - PHP**  
This course is a step-by-step introduction to Web Development using PHP and MySQL. The course will first look at PHP and MySQL as individual products and then combine the two to create dynamic web pages. 3 credits
- CIS 280 WINDOWS SERVER ADMINISTRATION**  
This course prepares students for the real-world challenges of a Microsoft networking professional. 3 credits
- CIS 285 SERVER SECURITY**  
Students will learn basic security practices in installing and setting up a server. Specifically the hardening techniques for Linux and Windows servers will be addressed. 3 credits
- CIS 290 SYSTEMS ANALYSIS AND DESIGN**  
The student will learn to define and describe the five phases of the systems development life cycle. The student will work in a team to create a case study demonstrating their knowledge of this technique. 3 credits
- CIS 298/299 INTERNSHIP**  
This course provides the opportunity for the student to apply knowledge gained in the classroom. Internship consists of 240 hours at the job site. 3 or 4 credits
- COMM 101 CONTEMPORARY COMMUNICATIONS**  
Emphasis on the essentials of written and oral communication; also covers effective communication during the job search process. 3 credits
- COMM 105 BEGINNING SIGN LANGUAGE**  
In this course, students will gain an understanding of basic sign language skills. 1 credit
- COS 100 SAFETY/SANITATION**  
Promotion of good health and safety control measures in the beauty salon. 1 1/2 credits
- COS 103 SALON MANAGEMENT**  
Study of the small business enterprise. Topics include business planning, basic bookkeeping, record keeping, sales and service, inventory control, public relations and payroll records. 1/2 credit
- COS 106 PERMANENT WAVING**  
Instruction in the proper use of equipment and the reactions of chemicals in the waving process. Study with methods and techniques of waving hair. 2 3/4 credits
- COS 112 HAIRCUTTING**  
Classroom instruction on hair cutting techniques and the use of equipment in the hair cutting process. 2 1/2 credits
- COS 115 HAIRSTYLING**  
Classroom instruction given on the procedures used in the

- styling of hair. 8 credits
- COS 121 SCIENTIFIC CONCEPTS**  
Study of scientific concepts such as chemistry, bacteriology, anatomy, and physiology. 1 1/4 credits
- COS 127 SAFETY/SANITATION**  
Promotion of good health and safety control measures in the beauty salon. 1 credit
- COS 130 SALON MANAGEMENT**  
Study of the small business enterprise. Topics include business planning, basic bookkeeping, recordkeeping, sales and service, inventory control, public relations and payroll records. 1 1/2 credits
- COS 133 PERMANENT WAVING**  
Instruction in the proper use of equipment and the reactions of chemicals in the waving process. Study with methods and techniques of waving hair. 3 credits
- COS 136 HAIRCOLOR**  
Instruction in the proper use of coloring in the hair. Includes types of coloring as related to differences in hair and hair texture, progressing from temporary to highlighting and special effects. 4 credits
- COS 139 HAIRCUTTING**  
Classroom instruction given on hair cutting techniques and the use of equipment in the hair cutting process. 4 credits
- COS 145 ESTHETICS**  
Study of the skin, its disorders and diseases that occur as a result of improper care. Includes the proper techniques used in facials and make-up procedures. Also offers exclusive training in use of facial firm machinery. 2 1/2 credits
- COS 148 MANICURE**  
Instruction on the fingernail and toenail, including growth, disease and care, as well as nail sculptures, tips and nail art. 1/2 credit
- COS 151 CHEMICAL RELAXING**  
Instruction on the difference of a base and no-base relaxer and safety methods. 1 credit
- COS 154 ELECTRICITY**  
Basic electrical terms and benefits of electro-therapy, electrolysis, and thermolysis and high-frequency. 1/2 credit
- COS 203 SALON MANAGEMENT**  
Study of the small business enterprise. Topics include business planning, basic bookkeeping, record keeping, sales and service, inventory control, public relations and payroll records. 1 1/2 credits
- COS 206 ESTHETICS**  
Study of the skin, its disorders and diseases that occur as a result of improper care. Includes the proper techniques used in facials and makeup procedures. Also offers exclusive training in use of facial firm machinery. 1 1/4 credits
- COS 209 MASSAGE**  
Study of massage manipulation to include head, scalp, neck, hands, legs, arms, and feet. 1 1/4 credits
- COS 212 HAIRCUTTING**  
Classroom instruction given on hair cutting techniques and the use of equipment in the hair cutting process. 1 1/4 credits
- COS 215 HAIRSTYLING**  
Classroom instruction given on the procedures used in the styling of hair. 2 credits
- COS 218 ESTHETICS**  
Study of the skin, its disorders and diseases that occur as a result of improper care. Includes the proper techniques used in facials and make-up procedures. Also offers exclusive training in use of facial firm machinery. 2 1/4 credits
- COS 221 MANICURE**  
Instruction on the fingernail and toenail, including growth, disease and care, as well as nail sculptures, tips and nail art. 2 1/2 credits
- COS 224 PRE-CLINICAL**  
Practical experience in the shop setting with preliminary practice on mannequins and other students. Eventually, students will focus on working with patrons with an emphasis being placed on speed and workmanship. The end of the pre-clinical experience will place an emphasis on preparation for the South Dakota Cosmetology Commission's National Practical Examination. 4 3/4 credits
- COS 227 LAWS**  
Introduction and review of the state laws and regulations set by the State Board of Cosmetology 1/2 credit
- COS 230 HAIRCOLOR**  
Instruction in the proper use of coloring in the hair. Includes types of coloring as related to differences in hair and hair texture, progressing from temporary to highlighting and special effects. 1 1/4 credits
- COS 235 COSMETOLOGY EMPLOYABILITY**  
This course will focus on career search and relational skills for cosmetologists. 1/2 credit
- CPF 100 BASIC SHEET METAL REPAIR**  
This course ReviewS shop safety when working on steel and aluminum, identifies characteristics of automotive sheet metal, and analyzes sheet metal damage and practice repair procedures. 4 credits
- CPF 101 REFINISH PREP AND MASKING**  
Students will Understand the procedures of surface prep and how solvents are used in the refinish industry. Also identify types of masking material and proper technique. 2 credits
- CPF 103 BODY DAMAGE REPAIR**  
This course will review shop safety when working with air tools and abrasives. Students will understand surface preparation and panel repairs using body fillers. 2 credits
- CPF 104 SAFETY**  
Students will practice shop safety in an auto body and painting environment. Safety is a must to protect individuals and co-workers from injury or harm. 1 credit
- CPF 105 UNDERCOATS AND SPRAY TECHNIQUES**  
Students will safely operate refinish equipment with proper technique and understand the refinishing process. 3 credits
- CPF 107 AUTOMOTIVE PAINTING**  
Students will review and fully understand the application of under coats and understand the top coat process. 3 credits
- CPF 108 INDUSTRY AND VEHICLE INTRODUCTION**  
Students will gain an understanding of the auto body industry and become familiar with vehicles and the specialty tools involved in the disassembly and assembly process. 1 credit
- CPF 109 TWO-TONE AND TRI-COAT FINISHES**  
This course covers the basic procedure of a multi-coat finishing system. 1 credit
- CPF 111 PAINT DEFECTS/CAUSES & CURES**  
Students will identify paint defects and understand methods of prevention. 2 credits
- CPF 113 FINAL DETAILING**  
Students will safely and effectively operate shop equipment and gain complete knowledge of the paint detailing process. 2 credits
- CPF 115 INDUSTRIAL PAINTING**  
Safely operate spray equipment with proper technique and demonstrate the industrial refinish process. 3 credits
- CPF 116 INTRO TO COLLISION ESTIMATING**

	Students will identify how to read and write a basic automotive collision estimator repair using the specified Crash Book. 1/2 credit		Students will learn and demonstrate proper air brush techniques and complete projects with special effects. 1 credit
CPF 200	<b>AUTOBODY MINOR COLLISION</b> Remove dents adjust exterior panels, remove clips, repair damage, refinish and reassemble to industry standards. 3 credits	CPR 110	<b>CPR/AED FOR THE PROFESSIONAL RESCUER</b> At the completion of this course, the student will be able to provide the skills needed to respond appropriately to breathing and cardiac emergencies. This includes the use of an automated external defibrillator (AED), resuscitation masks, bag-valve mask resuscitators (BVMs) and emergency oxygen. 1 credit
CPF 203	<b>TINTING AND BLENDING</b> Students will be able to mix a color on a mixing bank and tint it to a blend able to match to the instructor's satisfaction. 3 credits	CPR 112	<b>BASIC LIFE SUPPORT (BLS) FOR HEALTHCARE WORKERS</b> This course is designed to train participants to save lives of victims in cardiac arrest through high-quality cardiopulmonary resuscitation (CPR) and know how to perform CPR in and out of hospital settings. Students will train to recognize cardiac arrest, give high-quality chest compressions, deliver appropriate ventilations, and provide early use of an automated external defibrillator (AED). The course also teaches how to relieve choking and includes adult, child, and infant rescue techniques. 1/2 credit
CPF 205	<b>AUTOBODY MAJOR COLLISION</b> Students will analyze and reverse damage, disassemble and repair and/or replace anything to do with extensive damage to vehicle including refinishing and detailing to industry standards. 3 credits	CSC 100	<b>COMPUTER CONCEPTS</b> Using a Windows-based microcomputer and related software, you will gain an understanding and basic operational knowledge about the Windows 10 operating system, Microsoft Office 2016 word processing, spreadsheet, and presentation software. Student will demonstrate knowledge of these units by scoring at least 80% on assignments, related objective and performance tests. 1 credit
CPF 207	<b>AUTOBODY STRUCTURAL REPAIR</b> Students will analyze vehicle damage of the frame or unibody and identify how to repair or replace damaged parts. Students will also identify the difference between body pulls and frame pulls on frame rack. 3 credits	CSS 100	<b>CAREER SEARCH STRATEGIES</b> Students will gain crucial job seeking skills, including training and experience with resume writing, letters of application, interviews, career search, networking and more. 1/2 credit
CPF 209	<b>WATER-BORNE PAINTING</b> Students will be able to mix, spray, and troubleshoot problems dealing with waterborne products to industry standards. 3 credits	DA 105	<b>PRECLINICAL SCIENCE</b> The study of microorganisms and diseases pertaining to dentistry and the techniques necessary to prevent the transmission of disease. 2 credits
CPF 212	<b>FABRICATION</b> Students will be able to use shop supplied tools safely to shape sheet metal. Students will be able to use straight edge, contour gauge, and scribe to map out sheet metal; along with miscellaneous hammers, dollies and anvils to shape sheet metal. 1 credit	DA 110	<b>DENTAL AND ORAL ANATOMY</b> Study of the types of teeth, anatomical features, embryonic development and histology of the teeth and oral structures. Also covers the identification of the bones, muscles associated with oral structures, nerves and blood vessels of the head and neck region. Also discusses systems of the body and functions. 3 credits
CPF 214	<b>TRI-COAT FINISHES</b> This course covers basic procedures of a tri-coat finish and how to apply it to a project. Students will also identify flash times before tape is applied for a two-tone finish. 1 credit	DA 115	<b>MEDICAL TERMINOLOGY</b> The study of medical terminology including building, spelling, and defining medical terms used in the health field. 1 1/2 credits
CPF 219	<b>METAL FINISHING TECHNOLOGY</b> This course covers the proper methods of filing, metal picking, and use of power grinders to properly finish metal surfaces. 3 credits	DA 120	<b>ORAL HEALTH</b> The study of oral health with emphasis on the identification of common dental emergencies, description and prevention of dental caries, periodontal disease, and other oral pathologic conditions through patient education in plaque removal, good oral habits, fluoride therapy and nutritional counseling as it relates to oral health. 3 credits
CPF 221	<b>PLASTIC REPAIR AND PAINT</b> Students will repair a gouge and/or cut in a plastic bumper, cover with repair compound, or plastic welder and refinish to industry standards 2 credits	DA 126	<b>INTRODUCTION TO PATIENT CARE</b> This course will provide an overview of the dental profession. It begins with a look at dentistry through the ages, introduces the members of the dental healthcare team, and discusses the legal and ethical standards expected of a dental professional. This will also include the skills and knowledge needed to gather patient information, obtain vital signs, and to assist in and document the information gained during an oral exam. 2 credits
CPF 223	<b>AUTOMOTIVE GLASS INSTALLATION</b> Safely operate tools and perform correct removal and installation of auto glass. 2 credits	DA 135	<b>DENTAL MATERIALS</b> A study of the various impression materials, dental waxes, and laboratory gypsum and resins. Emphasis will be on the manipulation of these materials in the fabrication of diagnostic and working models, custom trays and polishing prosthesis. 3 credits
CPF 224	<b>SOLVENT BLENDING</b> Students will analyze and repair an accident-damaged vehicle back to pre-accident condition using solvent-based paint. 2 credits	DA 138	<b>CLINICAL SKILLS</b>
CPF 226	<b>COMPUTERIZED ESTIMATING</b> Students will identify how to read and write a basic automotive estimate collision or repair using computerized software. 1 credit		
CPF 228	<b>BODY AND PAINT PRODUCTION</b> Students will review and understand production body shop practices that involve, the tracking of pre-repair vehicle inspections, assigning Repair Order (RO) numbers, reading estimates and ordering parts needed to complete the vehicle repair, cycle times and pre customer delivery inspections. 5 credits		
CPF 230	<b>ADVANCED AUTO GLASS INSTALLATION</b> Students will safely operate tools and perform correct removal and installation of auto glass. 1 credit		
CPF 241	<b>TIG WELDING</b> Students will set up a Tig welder and weld 20 gauge metal and also perform six welds to be graded. 1 credits		
CPF 250	<b>AIR-BRUSHING &amp; SPECIAL EFFECTS</b>		

A study of the dental office and assisting to the delivery of treatment to include transferring instruments and maintaining moisture control. A study of the physical properties and manipulation of dental cement, liners, bonding and restorative materials as used in assisting to clinical dentistry. 4 credits

- DA 141 PHARMACOLOGY AND MEDICAL EMERGENCIES**  
Through this course, the student will become familiar with commonly prescribed drugs used in dentistry and will recognize the various classifications of drugs, their indications, contraindications and potential side effects. Instruction will include requirements for administration and monitoring of nitrous oxide in South Dakota. The student will also identify the medically compromised patient and assist in emergency situations as needed. 2 credits
- DA 148 ADVANCED CLINICAL SKILLS**  
This course is designed to provide the student instruction in the advanced clinical skills in the specialty areas of dentistry. Advanced functions include coronal polishing, pit and fissure sealants, placement of rubber dam, fabrication of temporary crowns and bridges, retraction cord, cementing of prosthesis, removal of cement, suture removal, and placement/ removal of perio packs. This course will also better prepare the student for the Dental Assisting National Board exam. 4 credits
- DA 156 DEVELOPING PROFESSIONAL SKILLS**  
The student will be assigned to a general dental office and perform operative dental assisting duties, will have the opportunity to observe in specialty practices and gain techniques in providing care for the developmental disabled under the direction of clinical supervisors. The student will also provide community service and attend other professional functions. 2 credits
- DA 165 DENTAL RADIOGRAPHY I**  
This course will provide information needed to understand radiation physics, equipment, characteristics, and safety. Students will be instructed in exposing, processing/scanning, and mounting diagnostically acceptable radiographs on mannequins and patients. Procedures to verify quality in radiography will also be included. 2 1/2 credits
- DA 167 DENTAL RADIOGRAPHY II**  
This course will provide information needed to understand radiation physics, equipment, characteristics, and safety. Students will be instructed in exposing, processing/scanning, and mounting diagnostically acceptable radiographs on mannequins and patients. Procedures to verify quality in radiography will also be included. 2 credits
- DA 176 DENTAL OFFICE ADMINISTRATION**  
Manual and computerized methods of record keeping, appointment scheduling, billing, insurance, collections and upkeep of dental records. 1 1/2 credits
- DA 190 ORTHODONTICS**  
Orthodontics offers more opportunities for expanded auxiliary practice than any other specialty area. At the completion of this course the student will understand why as well as how to perform many of the orthodontic functions routinely delegated to "Advanced Dental Assistants" in the state of South Dakota. 2 credits
- DA 210 CLINICAL PRACTICE**  
At the completion of this course, the student will perform all duties designated to a chairside assistant in a variety of general dentistry and/or specialty practices. Emphasis is on all aspects of clinical chairside assisting and performance of expanded functions. 4 credits
- DCAT 110 CAT ENGINE FUNDAMENTALS**  
At the completion of this course, the student will be able to identify and inspect major diesel engine components and understand the principle of operation of diesel engines and there systems. 4 credits
- DCAT 111 INTRODUCTION TO CAT SERVICE**

At the completion of this course, the student will be able to identify and perform different service procedures used in Caterpillar shops including service procedures, contamination control, parts and service information program operation. 2 credits

- DCAT 112 FUNDAMENTALS OF HYDRAULICS**  
At the completion of this course, the student will have working knowledge of Caterpillar fuel systems. Using the appropriate service literature the student will be able to; identify the components specific to each type of fuel system, explain their system operation and perform testing and adjusting procedures as outlined in this course. 3 credits
- DCAT 113 CATERPILLAR FUEL SYSTEMS**  
At the completion of this course, the student will be able to identify and perform different service procedures used in Caterpillar shops including service procedures, contamination control, parts and service information program operation. 2 credits **DT 107 WELDING TECHNOLOGIES**  
Hands-on practice using gas and arc welding equipment. 1 credit
- DCAT 114 FUNDAMENTALS OF ELECTRICITY**  
At the completion of this course, the student will be able to understand basic electrical/electronic fundamentals and properly diagnose and repair basic and complex electrical systems on Caterpillar Machines. 3 credits
- DCAT 115 FUNDAMENTALS OF AIR CONDITIONING**  
At the completion of this course, the student will be able to describe the basic parts of an air conditioning systems and the theory of its operation. 2 credits
- DCAT 116 FUNDAMENTALS OF TRANSMISSIONS AND TORQUE CONVERTERS**  
At the completion of this course, the student will be able to demonstrate basic power train components and operation, identify and explain operation of flywheel clutches, torque converters, torque dividers, manual transmissions, power shift transmissions, transmission control systems, and disassemble and assemble all mentioned components. 3 credits
- DCAT 150 INTERNSHIP I**  
The student will be assigned a mentor and will work with them closely to observe and demonstrate proper troubleshooting, inspection, disassembly, assembly, and service procedures. 5 credits
- DCAT 151 INTERNSHIP II**  
The student will be assigned a mentor and will work with them closely to observe and demonstrate proper troubleshooting, inspection, disassembly, assembly, and service procedures. 5 credits
- DCAT 200 UNDERCARRIAGE/FINAL DRIVES**  
At the completion of this course, the student will be able to demonstrate the use and disassembly and assembly of differentials, differential steering, steering clutches and brakes, undercarriage components there wear and operation, track and shoe options, final drives, and chain drives and tires. 3 credits
- DCAT 201 CAT MACHINE ELECTRONICS**  
At the completion of this course, the student will be able to explain and test electronic components in Caterpillar electronic control systems, identify components and explain the operation of Caterpillar electronically controlled engines, connect Cat ET to a machine or engine to view system status, perform diagnostic tests and calibrate, and use DataView for machine diagnostics. 3 credits
- DCAT 202 ENGINE PERFORMANCE**  
At the completion of this course, the student will be able to use Caterpillar service literature and diagnostic tooling to trouble shoot diesel engine problems. Students will be able to select proper oil grades, measure and evaluate temperatures and pressures throughout the oil and air systems, calculate coolant temp and pressure differentials, evaluate horsepower and fuel

rates, the effects of changing fuel settings, and measure and adjust dynamic timing. 2 credits

**DCAT 203 DIAGNOSTIC TESTING**

At the completion of this course, the student will be able to use Caterpillar service literature and diagnostic tooling to troubleshoot and repair problems in the following machine systems: power trains, hydraulic and electrical systems. 2 credits

**DCAT 204 MACHINE SPECIFIC SYSTEMS**

At the completion of this course, the student will have a working knowledge of chosen Caterpillar Machine Specific Systems. 3 credits

**DCAT 206 AED CERTIFICATION TESTING (ASSOCIATION OF EQUIPMENT DEALERS)**

At the completion of this course, the student will successfully complete their AED certification testing in the areas of diesel engines, hydraulics, electrical, powertrains, HVAC and safety. 1 credits

**DCAT 210 MACHINE HYDRAULICS SYSTEMS**

At the completion of this course, the student will be able to inspect, test, service, and diagnose Caterpillar hydraulic systems and components. Students will conduct testing and adjusting procedures on Caterpillar equipment. 3 credits

**DCAT 235 APPLIED FAILURE ANALYSIS**

This course teaches students to think in a consequential and organized manner so that they learn to work in a consequential and organized manner. Failure Analysis is the thoughtful review of product and environment facts which leads to identification of root causes of failures. 1 credit

**DCAT 250 INTERNSHIP III**

The student will be assigned a mentor and will work with them closely to observe and demonstrate proper troubleshooting, inspection, disassembly, assembly, and service procedures. 5 credits

**DCAT 251 INTERNSHIP IV**

The student will be assigned a mentor and will work with them closely to observe and demonstrate proper troubleshooting, inspection, disassembly, assembly, and service procedures. 5 credits

**DT 107 WELDING TECHNOLOGIES**

This course will provide hands-on practice using gas and arc welding equipment. 1 credit

**DT 108 CONSUMER PRODUCTS**

This course will introduce shop safety, hand tools, precision measurement, and basic engine theory and design. These skills are frequently used in a typical truck or farm equipment shop. These skills can also be used in vocational student organizations. Students will disassemble engines, measure components for wear, reassemble, run, and troubleshoot various brands of small engines. 1 1/2 credits

**DT 116 METALLURGY**

At the completion of this course, the student will be able to name and use different types of welding techniques related to the truck and agricultural/construction shops such as soldering, oxyacetylene, brazing, arc and mig welding. 2 credits

**DT 117 SHOP MANAGEMENT**

An introduction to the time service management technique and procedures used by a service manager in managing time in a service department dealership. 3 credits

**DT 119 HYDRAULICS**

This course will introduce hydraulic theory, any components that might be found in a hydraulic system, their purpose, and how they work. Students will also gain hands-on experience with hydraulic systems and their individual components. These skills are frequently used in a typical truck or farm equipment shop and can also be used in a vocational student organization. 3 credits

**DT 122 POWER TRAINS I**

This course covers the theory of operation of mechanically controlled and operated power trains used on light/medium duty trucks, heavy duty trucks, farm equipment, and construction equipment. Students will learn the proper procedures used to diagnose, inspect, and overhaul mechanical power trains including transmissions, differentials, and final drives. 3.5 credits.

**DT 126 MULTI-CYLINDER ENGINE OVERHAUL**

The student will develop skills appropriate to industry and ASE/VSO standards. These skills will include operational theory of multi-cylinder engines and associated components. Including engine rebuilding and cylinder head reconditioning. 3 credits.

**DT 134 HYDRAULIC BRAKES**

This course provides the student with practical "hands on" learning experiences in hydraulic brake systems and their individual components function and operation. 1 credit

**DT 140 ELECTRICAL SYSTEMS**

Students will develop skills appropriate to industry/ASE/VSO standards and examine the principles of basic electricity including the theory of operation of batteries, starting systems, charging systems. These skills will include servicing and troubleshooting batteries, starting systems, and charging systems; which are frequently used in a typical farm equipment or truck shop. 3 1/2 credits.

**DT 152 POWER TRAINS II**

This course provides the student with practical "hands on" learning experiences in the proper procedures used to diagnose, inspect, and overhaul hydraulic power trains including hydraulic assist transmissions, torque converters, and hydrostatic transmissions. 2 credits

**DT 165 HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)**

The student will become familiar with the basic parts of air conditioning systems and the theory of its operation. The student will also become competent in reclaiming, evacuating, charging, and performance testing air conditioning systems. These skills are frequently used in a typical truck or farm equipment shop. These skills can also be used in vocational student organizations. 3 1/2 credits

**DT 179 DIESEL ENGINES I**

This course provides the students with the basic knowledge dealing with the fundamentals of how a diesel engine operates 3 credits

**DT 182 TECHNICIAN SOFTWARE**

The student will develop skills appropriate to industry and ASE/VSO standards. These skills will include basic understanding of technician software including electronic service manuals, electronic parts manuals, and electronic troubleshooting programs being used in diesel industry. 2 credits

**DT 210 DIESEL ENGINES II**

The student will understand how to disassemble and assemble diesel engines and discuss all the component parts and how they can be reconditioned, replaced, or adjusted. Students will also disassemble and assemble a diesel engine, understand what the component parts that make up the engine, and make all the required measurements of component parts. 3 credits

**DT 216 TRUCK SUSPENSION AND STEERING**

This course provides the student with the information needed to inspect, diagnose, and repair problems with steering gears, front axles, alignment, suspensions, wheels and wheel bearings, tires, fifth wheels, and related components used on medium to heavy-duty trucks. 4 credits

**DT 217 TRUCK BRAKE SYSTEMS**

This course provides the student with the information needed to adjust, diagnose, and repair truck brake systems. 4 credits

- DT 229 ELECTRONIC ENGINE CONTROLS**  
This course provides the student with the information needed to test, diagnose, and repair electronic controlled fuel systems. 4 credits
- DT 231 TRUCK DRIVE TRAINS**  
The course provides the student with the information needed to inspect, diagnose, and repair clutches, transmissions, drive shafts, and drive axles used on medium to heavy-duty trucks. 2 credits
- DT 235 APPLIED FAILURE ANALYSIS**  
Upon completion of this course students will be able to identify the major causes of engine failure. Students will learn how to perform the eight steps of failure analysis that are applicable to all forms of mechanical repair. 1 credit
- DT 237 TUNE UP AND FUEL SYSTEMS**  
This course is designed to enable the student to become skilled at testing, adjusting and diagnosis of diesel fuel injection system components. The students will perform actual "hands-on" fuel system adjustments on various diesel engines. In addition, the student will perform valve adjustment and injection timing on five (5) different diesel engines. 3 credits
- DT 238 ELECTRICAL TESTING**  
This course provides the student with practical "hands on" learning experiences in testing, diagnosing, and repairing truck and tractor electrical systems 3 credits
- DT 244 PREVENTIVE MAINTENANCE**  
This course explains the value of a good maintenance program, covers various state and federal inspection procedures, and describes the various lubricants used in PM programs. This course also provides the student with practical "hands-on" learning experience and to assist the learner in developing the skills necessary to become a successful technician. These skills are frequently used in a typical truck or farm equipment shop. These skills can also be used in vocational student organizations. 4 credits
- DT 245 HYDRAULIC SYSTEM DIAGNOSTICS**  
Given handouts, demonstration and slide presentation, the student will become familiar with the operation and hook up of a flow meter, gauge set, electronic analyzer, and the correct method of diagnosing and repairing hydraulic system malfunctions. The students will then be able to test and adjust all parts of the hydraulic system. 4 credits
- DT 246 HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)**  
The student will become familiar with the basic parts of air conditioning systems, the theory of its operation, and diagnosing problems associated with HVAC systems. The student will also become competent in reclaiming, evacuating, charging, and performance testing air conditioning systems. These skills are frequently used in a typical truck or farm equipment shop. These skills can also be used in vocational student organizations. 1 credit
- DT 265 ASE CERTIFICATION TESTING**  
This course provides the student with information on how to navigate through an ASE computer based test, interpret and analyze questions based on reviewing and discussing sample test questions. 1 credit
- DT 278 COMBINE HYDRAULIC AND ELECTRICAL FAMILIARIZATION**  
Given one each of modern combines, the student will become familiar with the location of hydraulic test ports, hydraulic component location, electrical component location and proceedings for testing new combines. 1 credit
- DT 282 TRACTOR SHOP PRODUCTION**  
The practical application of technical skills demonstrated by reconditioning production (customer owned) equipment, including engine and power train rebuilding. 7 credits
- DT 291 TRACTOR ELECTRONIC CONTROLS/GLOBAL POSITIONING SYSTEMS AND AUTO STEER**  
This course is designed to provide the student with information and diagnostic techniques that will enable them to test and diagnose global positioning systems, auto steer, and electronic control systems on Ag equipment. 3 credits
- ECON 105 LEADERSHIP IN THE GLOBAL WORKPLACE**  
The study of traditional theories of leadership, as well as the most recently developed leadership philosophies. This course will focus on the application of leadership concepts through critical thinking and the development of critical leadership skills needed in the global workplace. Leadership traits, ethics, changing demographics, workforce diversity, and financial planning are also included. Upon successful completion of this course, the student will be able to relate to the importance of leadership both personal and professional. 3 credits
- ECON 201 PRINCIPLES OF MICROECONOMICS I\***  
Studies the basic economic concepts as they relate to consumer, worker and business decisions. Emphasis is given to satisfaction maximizing behavior by individuals and profit maximization by firms. Market structures are thoroughly analyzed regarding their effect on price, output and competitiveness. 3 credits \*College transferable
- ECON 202 PRINCIPLES OF MACROECONOMICS II\***  
Principles of macroeconomics considers the economy as a whole, how its sectors interact and how monetary and fiscal policy can influence output, inflation, interest rates, unemployment, poverty, debt and other factors. 3 credits \*College transferable
- ELL 090 ENGLISH LANGUAGE LEARNER**  
Coursework provides knowledge and practice of academic reading, grammar, listening/speaking and composition for English Language Learners as well as provides guidance on study and life skills to support student success in technical programs. 1 credit
- EMT 100 EMERGENCY MEDICAL TECHNICIAN (EMT BASIC)**  
The EMT Basic class is a South Dakota approved training course consisting of 100 hours of classroom/practical training and 20 hours of clinical observation. The training focuses on caring for life threatening and non-life threatening situations and conditions, as well as other issues related to the sick and injured. Ultimately, the course is designed to prepare students for successful completion of the National Registry Exam. 6 credits
- EMT 110 PHYSIOLOGY**  
Lectures, lab work and demonstrations of human physiological processes both normal and abnormal. 4 credits
- EMT 115 PHARMACOLOGY**  
The study of drugs, methods of administration and dosage computation. It provides information on classifications, therapeutic action and side effects of drugs. Students have experience giving medications throughout the program. 1 credit
- EN 100 PRACTICAL WRITING**  
Practical Writing is an introduction to basic writing skills needed for successful academic writing. This course is designed to prepare students for ENGL 101 by helping them become more capable, confident writers. Students will gain the skills and knowledge necessary to write clear, interesting, and accurate sentences and to write developed and coherent paragraphs. These skills will prepare students to write college-level essays. 3 credits
- ENG 206 PRINT/PLAN READING WITH SPECIFICATIONS**  
This course introduces the student to the process of reading and understanding a set of plans and specification. 3 credits
- ENGL 101 COMPOSITION\***  
This course concentrates on all phases of the writing/

- communication process. Prewriting, drafting, revising and editing are used to help students develop clear, concise and unified writing styles that will serve them well in their chosen career areas. (Pre-requisite: EN 100 with a "C" or higher, an English ACT score 18+, and/or an ACCUPLACER score in Sentence Skills of 86+) 3 credits \*College transferable.
- ENGL 201 TECHNICAL WRITING**  
This course will include instruction in the writing of procedural manuals, administrative reports, scientific papers, and pre-employment materials. 1 credit
- ENGL 202 WRITING FOR THE REAL WORLD**  
This class is to prepare students for successful communication: effective organization; respect for the reader; critical thinking; easy and effective research; the ability to evaluate ideas; solving problems; informative and persuasive writing; and confident, accurate, simple, effective, thoughtful writing. 3 credits
- ENGL 203 READING TECHNICAL MANUALS**  
Students will learn and apply technical reading skills to analyze the structure of technical and reference manuals, using manuals appropriate to the class. They will locate specific information, using the skills they have mastered. 1 credit
- ENGL 210 INTRODUCTION TO LITERATURE**  
Reading topics selected by individual instructors, used as a basis for student writing. 3 credits
- ENT 100 ENTREPRENEURSHIP ESSENTIALS**  
Topics covered in this course are definition of entrepreneurship, are you an entrepreneur, how to develop entrepreneur skills, and defining your dream business. 3 credits
- ENT 102 INTRODUCTION TO BUSINESS PLANNING**  
Students will create a business plan from start to finish which will focus on the business concept and marketplace section. 3 credits
- ENT 120 BUSINESS ENTERPRISE**  
Students will discuss Total Quality Management (TQM) and how it specifically relates to building their dream business. 3 credits
- ENT 130 FINANCING/SMALL BUSINESS FUNDING**  
This course covers how small businesses receive financing and how to go about getting it. Students will develop the financial section of their business plan. Guest speakers in the banking/financing profession will speak about lending practices and what they expect from small business owners starting out. 3 credits
- ENT 135 COMPETITIVE ANALYSIS**  
This course covers Complete Competitive Analysis-evaluation of regional competition, market analysis and odds for survival-for their dream business and final submission of their business plan. 2 credits
- ENT 205 STRATEGIC ELEMENTS**  
Students will be preparing their business plan to be entered in the Giant Vision competition. 3 credits
- ENT 210 ENTREPRENEURSHIP CAPSTONE**  
This course entails-reviewing your business plan with professionals, identifying weaknesses, competing in Giant Vision, finalizing business plan, and launching it. 3 credits
- ENT 220 BUSINESS TEAM DEVELOPMENT**  
A strong business team and entrepreneurial leadership will determine how far your vision goes. This course trains students in effective decision-making and leadership skills, the art of guiding and motivating employees, and how to build a team-environment. 3 credits
- ENV 100 WATER QUALITY**  
This course includes the study of basic water properties, characteristics, and pollution as they relate to ponds, lakes, rivers, and aquifer systems. Introduction to basic hydrology and hydrogeology affecting water quality issues. 3 credits
- ENV 102 INTRODUCTION TO ENVIRONMENTAL TECHNOLOGY**  
Includes the study of basic concepts and practices involved in environmental technology, as well as applying that knowledge in critical thinking and problem solving. 2 credits
- ENV 105 INSTRUMENTATION**  
This course includes the study of common laboratory instrumentation used by technicians in related fields. Safety, use of microscopes, calculations, pH meters, scales, nephelometers, pipetting, titration, and other wet chemistry instrumentation, spectrophotometry, colorimeters, and an introduction to basic field testing kits. 1 credit
- ENV 110 SOIL SCIENCE**  
This course will investigate soil and water interactions, soil classifications; pollutions issues related to soils, and measures to prevent contamination both agricultural and industrial. 3 credits
- ENV 115 ENVIRONMENTAL ANALYSIS I**  
This course will investigate various introductory issues and topics as they pertain to Environmental Technology. 3 credits
- ENV 120 INTERNSHIP I**  
300 hours (seven weeks) of training at a wastewater treatment facility, or in a water-quality monitoring laboratory, or in a field-service setting. 5 credits
- ENV 203 ECOLOGY**  
Discussion of ecology, land-use management, biodiversity and wildlife conservation, as well as related economics, policy, planning, and administration. 3 credits
- ENV 204 GEOGRAPHY**  
This course will describe the spatial aspects of interactions between humans and the natural world and will develop an understanding of the dynamics of geology, meteorology, hydrology, biogeography, and geomorphology, as well as the ways in which human societies conceptualize the environment. 4 credits
- ENV 207 PERMITS AND GRANT WRITING**  
An introductory course of basic permits and grant writing currently used in government and industry related to environmental issues and projects. 1 credit
- ENV 209 STATISTICS**  
A study of descriptive and inferential statistics especially related to research problems and quality control/assurance in the laboratory or field. 1 credit
- ENV 210 ENVIRONMENTAL ANALYSIS II**  
This course is a continuation of ENV 115-Environmental Analysis I. Environmental Analysis II will continue to investigate issues and topics as they pertain to Environmental Technology. 3 credits
- ENV 220 WATER AND WASTEWATER TECHNOLOGY**  
This course will discuss the development, design, and operation of water treatment systems and pollution-control facilities. 3 credits
- ENV 230 INTERNSHIP II**  
360 hours (nine weeks) of training in advanced testing and control techniques at a treatment facility or water-quality monitoring laboratory or in a field-service setting. 5 1/2 credits
- ENV 235 REGULATORY COMPLIANCE I**  
Introductory course dealing with the Federal regulations pertaining to environmental health and safety. Regulations looked at include fire protection, confined space entry, personal protective equipment, grain handling, fall protection and emergency action plans. 2 credits.

- ENV 237 REGULATORY COMPLIANCE II**  
This course is a continuation of ENV 235-Regulatory Compliance I. ENV 237 will continue to study rules and regulations pertaining to Environmental Health and Safety. 2 credits.
- ENV 240 CAPSTONE PROJECT**  
A self-study project demonstrating the educational and personal development received at Lake Area Tech. Credit assigned by instructor. 1 credit
- EO 100 INTRODUCTION TO PROCESS TECHNOLOGY**  
This course provides an introduction to process plant operations including ethanol plants, chemical and refinery plants, natural gas facilities, gasification operations, combined cycle and food processing operations. 2 credits
- EO 103 FUNDAMENTALS OF ENERGY OPERATIONS, PRODUCTION, AND DISTRIBUTION**  
A basic introduction to the field of energy operations. 3 credits
- EO 110 FUNDAMENTALS OF THERMODYNAMICS THEORY AND LAB**  
The objective of this course is to explain the principles and basic concepts of thermodynamics and its relevance in the energy production and processing industries. 3 credits
- EO 200 BOILER OPERATIONS**  
Provides a comprehensive study of industrial manufacturing plant boilers and furnaces, and supporting auxiliary systems. Students will study typical process plant boiler, oxidizer and furnace types, their operation, safe firing theory, troubleshooting techniques, and typical maintenance. 2 credits
- EO 201 POWER PLANT EQUIPMENT**  
This course is intended to give students a fundamental understanding of the various types of equipment used in the production of electricity, including pumps, valves, air compressors, coal pulverizers, fans, cooling towers, condensers, and heat exchangers 2 credits
- EO 202 INTRODUCTION TO THE ELECTRIC INDUSTRY**  
This course is intended to give students an in-depth look at the rapidly evolving electric industry including an overview of U.S. and global electricity usage and some history on how we've gotten to where we are today. Students will study electric market structures and explore how these market participants are organized and interact. Regulation and deregulation is studied as well as how participants attempt to make money and manage risk. 3 credits
- EO 204 DISTILLATION AND REFINERY OPERATIONS**  
A comprehensive study of processes associated with refining and petrochemical distillation. This course will also focus on equipment designs, operation requirements and technician responsibilities associated with the operation of typical distillation facilities. 3 credits
- EO 205 GAS TURBINE AND COMBINED CYCLE OPERATIONS**  
This course provides a comprehensive overview of the all the elements that make up a gas turbine and a combined cycle generating unit. This course also covers the safe and efficient operation of gas turbines and heat recovery steam generators and different applications for combined cycle and cogeneration units. Turbine operation, combustion, safety, emission control equipment, troubleshooting techniques and maintenance will be covered along with efficiency measures. This is a hybrid course using a combination of classroom presentation, textbook reading and assignments, and online presentations. 4 credits
- EO 206 GAS PROCESSING**  
This course introduces students to the fundamental steps of natural gas processing. Course content will include properties of fluids, absorption, demethanation, refrigerated absorbers and associated equipment utilized in the gas processing industry. 3 credits
- EO 208 ETHANOL BIOFUELS PRODUCTION**  
The objective of this course is to study the design, operation, equipment, and process flows of ethanol plants and biofuel facilities. 3 credits
- EO 211 POWER GENERATION, TRANSMISSION AND DISTRIBUTION**  
This course is intended to give students a fundamental understanding of large, interconnected electrical power systems with regard to terminology, electrical concepts, design considerations, construction practices, industry standards, and control room operations for both normal and emergency conditions. Maintenance duties, power consumption, telecommunications, and safety techniques will also be covered within the framework of our energy operations curriculum. 3 credits
- EO 212 BOILER OPERATIONS & REFRIGERATION**  
The objective of this course is to explain the principles and basic concepts involved in the operation, maintenance, and safety of boilers. 3 credits
- EO 214 INSTRUMENTATION AND CONTROLS SIMULATIONS**  
Students will use specifically designed computerized software simulations to run control systems involved with the operation of energy facilities. 3 credits
- EO 215 PLANT OPERATIONS AND TROUBLESHOOTING**  
Students will gain the knowledge necessary to comprehend overall power plant operations and respond to abnormal operating conditions. Students will also participate in root cause analysis exercises while troubleshooting different operating scenarios. 2 credits
- EO 216 INTERNSHIP/CAPSTONE PROJECT**  
This course provides relevant field experience that integrates theory and practice while providing opportunities to develop skills, explore career options and network with professionals and employers in the energy field. This course is a required course in the Energy Operations / Energy Technology degree programs. 5 credits
- EST 103 DC ELECTRONICS**  
The student will be introduced to the study of electronics through this introductory class. Voltage, current and resistance will be defined in theory and practiced in lab experiments. The use of test equipment related to DC measurement is applied. 4 credits
- EST 109 AC ELECTRONICS**  
Students will apply the theory associated to DC electronics and recognize its changes in an AC environment. The introduction to inductors, capacitors transformers and power supplies will be presented in the classroom and practiced in lab situations. 4 credits
- EST 115 ELECTRONICS SYSTEMS**  
This course will take DC/AC Theory to the next level combining both theories used in transistor amplifiers. The application of transistors in switching circuits, inductors and capacitors being used together as filters and the wide variety of common semi-conductors are also introduced and practiced in lab experiments. 6 credits
- EST 121 DIGITAL SYSTEMS**  
This course will provide students with hands-on and research experience in the application of Digital Electronics; binary counting, logic gates, encoding, decoding, seven-segment displays and flip-flops. 6 credits
- EST 175 BASIC MOTOR CONTROLS**  
Basic Motor Controls provides an overview of electric motor operation, selection, installation, control and maintenance. Students will learn basic Electrical Code references applicable to the installation of new control systems and motors, as well as information on maintenance and troubleshooting techniques. Topics covered range from motor types and controls to



installing and maintaining conventional controllers, electronic motor drives and programmable logic controllers. 3 credits

**EST 219 COMPUTER CONTROL SYSTEMS**

Computer Control Systems is a project based course. Students will be building a 3D printer, soldering the control board, flashing the bios, programming the board, setting up the software, and printing 3D objects. This is the introductory into axis controlled machines. 1 1/2 credits

**EST 246 CIRCUIT BOARD DESIGN AND LAYOUT**

Circuit Board Design requires the use of symbols, components and soldering skills learned in prior classes. Students create schematic drawings that are used to design circuit boards containing through-hole and SMT components. 3 credits

**EST 247 MICROCONTROLLERS**

Microcontrollers is a C base programming class. Students will learn to program Arduino microcontrollers. Using basic programming skills, libraries, and extensions students will be able to program their microcontrollers. Students will also start their robot design for Robotic Engineering by designing and programming the Arduinos for their controllers 4 credits

**EST 262 ADVANCED DIGITAL SYSTEMS**

This course will provide students with hands-on and research experience in the application of Digital Electronics; binary counting, logic gates, encoding, decoding, seven-segment displays and flip-flops. 4 credits

**EST 267 REWORK, REPAIR AND SURFACE MOUNT SOLDERING**

This course will instruct students to proper care of soldering equipment used in Electronics. Proper IPC handling and soldering procedures will be introduced and practiced with surface and through-hole technology. 2 credits

**EST 271 ADVANCED ELECTRONIC SYSTEMS**

Advanced Electronic Systems will introduce many new components and technology used in today's circuitry. Students will work with OP Amps, Oscillators, different amplifier configurations and receiver circuits. 4 credits

**ET 105 OSHA/SAFETY**

This course will cover OSHA laws, rules and regulations for the industrial construction industry. Possible hazards in the work place. Preventive measures that can be taken to ensure your safety, and the safety of those around you. 1/2 credit

**ET 107 TORQUE CERTIFICATIONS**

Torque certification is necessary for a variety of industries such as wind power, automotive repair, and manufacturing. This course will instruct on torque techniques, bolting applications, and tool set-up. All certifications are implemented by Snap-On, Inc and are obtained from schools which are authorized as Snap-On Certification Training Centers. 1/2 credit

**ET 110 PLANT BLUEPRINTS AND DRAWING**

This course will cover basic knowledge of heavy commercial construction plans and drawings to help build and maintain industrial plants. 1 1/2 credits

**ET 120 MACHINE TOOL TECHNOLOGY**

This course investigates precision measuring, blue print reading, pedestal grinder use, basic hand tool usage, basic milling/turning theory and basic milling/turning operations. 4 credits

**ET 125 INTERPRETING MECHANICAL DRAWINGS**

This course is developed around the latest technology standards accepted throughout industry and will cover the theory and practical applications students need to communicate technical concepts in an international marketplace. Starting with the basics, each topic being introduced will build on knowledge from the last. An understanding of these topics is developed through the use of practical exercises focusing on the new information. 1 1/2 credits

**87 ET 130 BASIC VALVES**

Students will learn about the different types, styles, sizes, and shapes of valves used in an industrial plant. Students will study the different design functions and learn the proper use of the valve's intended service. They will also learn basic valve maintenance. 1/2 credit

**ET 135 MANLIFT AND FORKLIFT OPERATION**

Students will learn the safe and correct operating procedures for scissor type man-lifts, rough terrain/boom type man-lifts, straight mast forklifts, and rough terrain extended reach forklifts. Students will learn and employ safe and correct rigging practices to be used with forklifts and cranes. 1/2 credit

**ET 140 PIPE AND STAINLESS STEEL WELDING**

Students will learn pipe and stainless steel welding positions and welding procedures including shielded metal arc welding, gas tungsten arc welding, and gas metal arc welding, definitions, and related information. 3 credits

**ET 150 MECHANICAL DRIVES AND PUMPS**

This course will enable students to understand the safety procedures, components, and applications of mechanical drives and pump systems. 3 credits

**ET 155 BASIC PIPE FITTING**

This course covers the basics in piping systems, the different types of materials used and their application. The student will also learn to take measurements, figure cut lengths, cut and prep pipe, fabricate fittings, and layout and cut various pipe intersections. 3 credits

**ET 165 HYDRAULICS THEORY AND MAINTENANCE**

This course will cover the topic of science and engineering dealing with the mechanical properties of liquids and the discipline of fluid power including concepts such as pipe flow, design, fluidics and fluid control circuitry, pumps, turbines, hydropower and fluid dynamics. 1 credit

**ET 175 BASIC MOTOR CONTROLS**

This course will cover the basic principles and applications of motor controllers, three phase power, and the tools for controller hook up. 3 credits

**ET 180 INTERNSHIP (300 hours)**

Work-based learning. With instructor approval, students are placed in an energy related career field which allows the opportunity to apply knowledge gained in the classroom. 5 credits

**ET 185 FLUID POWER**

This course will enable students to understand the components, applications and physical properties of hydraulic and pneumatic systems. 3 credits

**ET 204 BASIC PIPE FITTING**

This course investigates piping schematics and isometric drawings, determining cut lengths, and understanding the different connections and fittings associated with pipe fitting operations. 3 credits

**ET 205 TURBINE THEORY AND MAINTENANCE**

Students will be introduced to the aspects of the industry standards, requirements and issues that are a part of working with turbines. Course content will include reporting requirements, documentation, use of technical manuals, controllers and monitoring systems, other pertinent content. This course will also instruct the students on gearboxes and other mechanical systems that make up subsystems of the turbine. 4 credits

**ET 210 POWER PLANT, WIND AND NUCLEAR ENERGY FUNDAMENTALS**

Students will be introduced to power plant, wind and nuclear energy concepts and will learn the technical and safety aspects of operations, the responsibilities of operators, and the mechanical technology needed for working in related industrial operations. 1 credit

**ET 215 PLANT OPERATION AND TROUBLESHOOTING**

The objective of this course is to understand the importance

- of troubleshooting and learn how a typical maintenance organization works. Students will study and use the four (4) main troubleshooting aids. They will also learn the correct methods of communicating with co-workers. 2 credits
- ET 220 ETHANOL BIOFUELS PRODUCTION**  
Instructs in the design, operation, equipment and process flows of ethanol plants and biofuels facilities -including biodiesel plants. Provides the ability to interpret basic flow diagrams and understand related terminology. The equipment design and operation used in these facilities will be a focus as well as safety, typical maintenance, and startup/shutdown procedures. 2 credits
- ET 235 INTERMEDIATE ELECTRICAL WIRING**  
This course will instruct students in the principles of insulated conductors used to carry electricity, and associated devices. Students will learn about codes, wiring methods and electrical panels. 3 credits
- ET 255 INTERMEDIATE MECHANICAL DRIVES**  
This course will enable students to understand the safety procedures, components, and applications of mechanical drives and pump systems. 3 credits
- ET 265 PIPE FITTING AND WELDING**  
The instruction of pipe fit-up and welding techniques for pipe fittings and pipe weld joints. Students will also learn about stainless metallurgy and the selection of proper electrodes. Students will perform stainless steel welds and set up welding equipment for making stainless steel welds as well as the procedures for making flat, horizontal, vertical, and overhead stainless steel welds. 3 credits
- HAZ 100 HAZARDOUS MATERIALS SAFETY**  
Hazardous materials safety covers identifying types of hazardous material, demonstrating personal protective equipment, and identifying blood borne pathogens. 1/2 credit
- HEO 100 HEAVY EQUIPMENT OPERATIONS I**  
This course provides an overview of heavy equipment operation, operator responsibilities, and basic operating principles and functions. Also covered in this course are procedures used in preventative maintenance of heavy equipment, identification of the most commonly used pieces of heavy equipment in the construction industry before leading into individual equipment and their proper use. 3 credits
- HEO 105 EQUIPMENT OPERATIONS**  
Students will learn to identify the major types of heavy equipment and describe safe usage, as well as explore the foundational responsibilities of an operator and recognize successful characteristics. 3 credits
- HEO 110 SITE ENGINEERING AND LAYOUT THEORY**  
Students will be introduced to construction site land surfaces including soil types, slope, and terrain as it relates to the work site area. 2 credits
- HEO 115 HEAVY EQUIPMENT OPERATOR SAFETY**  
Students will gain a comprehensive overview of safety requirement on job sites with emphasis on OSHA requirements. The course also presents basic safety requirements for personal protection on the job site, on and off the equipment, along with HAZCOM. This course also includes safety techniques required for heavy equipment operators, with emphasis on organizing and conducting safety meetings, performing safety inspections/ investigations, and proper inspection reporting. 1 credit
- HEO 120 SITE MODIFICATION**  
The objectives for this course include a study of soil composition, soil types, maps, test boring, soil compaction, asphalt compaction, soil and erosion control practices, and the equipment required for heavy construction equipment operations. Students will also gain an understanding of government regulations at the federal, state, and county levels as related to construction sites. 4 credits
- HEO 125 COMMERCIAL DRIVER'S LICENSURE** 1 credit
- HEO 130 MSHA CERTIFICATION** 1 credit
- HEO 135 GPS FOR FIELD MACHINES**  
Students will gain an understanding of the theory of the Global Positioning System (GPS) in relation to heavy construction equipment, installation, operation, and troubleshooting of site vision on the machine. 2 credits
- HEO 140 BACKHOE AND FRONT END LOADER**  
At the completion of this course, students will learn to properly operate this equipment; be able to operate a truck; be able to work as a team; and move materials in the proper manner. Some simulators will be involved. 3 credits
- HEO 145 EARTHMOVING BLUEPRINTS AND GRADE STAKES THEORY**  
This course will introduce the basic skills of reading blueprints. Students will practice problem-solving at job sites, utilizing these blueprint reading skills. Student will also learn and demonstrate the grade staking process for job sites. 2 credits
- HEO 150 EQUIPMENT PREVENTIVE MAINTENANCE**  
This course provides the students with knowledge related to preventive maintenance. 2 credits
- HEO 155 EXCAVATORS AND FINAL GRADING OPERATIONS**  
This course includes the use of excavators and various types of heavy equipment to finish and trim grades and slopes of roads, ditches, and other structures. Specifications used for grading and procedures for checking the final grade will also be included. 4 credits
- HEO 160 ELECTRICAL SYSTEMS**  
This course provides HEO students with the basic information to test major electrical components and make simple electrical repairs to heavy equipment. 1 credit
- HEO 163 EQUIPMENT OPERATIONS II**  
Students will learn to identify grading systems and will complete a grading project. 2 credits
- HEO 165 INTERNSHIP I** 4 credits
- HEO 200 BASE AND ROVER FOR CONSTRUCTION I**  
2 credits
- HEO 205 GRADER OPERATIONS**  
3 credits
- HEO 207 INDUSTRY INTERNSHIP**  
3 credits
- HEO 210 DEMOLITION AND ESTIMATING THEORY**  
1 credit
- HEO 215 GPS FOR FIELD MACHINES**  
This course will provide the students with the knowledge of the installation procedure, terminology, component identification, set up and operations of GPS on construction equipment. 2 credits
- HEO 230 BUDGETING FOR SEASONAL WORKERS**  
1 credit
- HEO 235 BASE AND ROVER FOR CONSTRUCTION II**  
This course expands HEO students' knowledge of Trimble Data Collector TSC-3, and SCS 900 software. It is highly recommended for the student to have their own computer. 1 credit
- HEO 237 HYDRAULIC SYSTEMS**  
This course provides HEO students with the basic information for proper care and maintenance of hydraulic systems used on heavy equipment. 1 credit
- HEO 242 PROJECT MANAGEMENT**  
2 credits
- HEO 250 INTERNSHIP II**  
4 credits

**HPEM 100 ENGINE REPAIR THEORY**

This course is designed to develop the student's ability to understand engine construction and theory of operation, to diagnose failures and make proper repairs. 2 credits

**HPEM 105 ENGINE REPAIR DIAGNOSTICS**

This course is designed to expose the student to actual engine diagnosis, disassembly, measurements and reassembly. 2 credits

**HPEM 107 BASIC ENGINE TUNE-UP**

This course covers the true functions of a carburetor, its operating principles, and calibration requirements. Students will gain hands on experience re-building carburetors, setting ignition timing, as well as a handful of tests to ensure engines will run at peak performance. 3 credits

**HPEM 109 BASIC ENGINE PERFORMANCE**

This course covers the basic functions of each component in an engine and its operating principles. Students will learn hands on how to properly teardown, inspect, and clean a performance engine. Students will fine tune their skills in how to properly use precision measuring tools when inspecting and rebuilding an engine. Upon completing this course students will be able to properly assemble a performance engine and fire it on a test stand. 3 credits

**HPEM 110 LATHE AND MILL OPERATIONS I**

Students will learn how to do precision measuring, basic milling and turning theory, blueprint reading, pedestal grinder use, basic hand tool usage, and basic milling and turning operations. 3 credits

**HPEM 200 INTRO TO HIGH PERFORMANCE ENGINE MACHINING**

Students will learn hands-on how to safely and properly run all types of machines used in engine re-building and re-conditioning. Students will be able to affectively re-condition most major components in an automotive engine. 3 credits

**HPEM 205 HIGH PERFORMANCE MACHINING THEORY**

This course is designed to develop the student's ability to understand engine construction and theory of operation, to properly diagnose and recognize any machining or manufacturing errors when building a stock engine. 3 credits

**HPEM 210 HIGH PERFORMANCE MACHINING DIAGNOSTICS**

Students will learn hands-on how to safely and properly run all types of machines used in engine re-building and re-conditioning. Students will be able to effectively re-condition most major components in an automotive engine. 5 credits

**HPEM 215 HIGH PERFORMANCE BASIC HEAD PORTING**

This course covers the basic functions of a flow bench, valve grinder, die grinder, cylinder head machine, cylinder head resurfacer and their proper use. Students will learn the basic procedures of porting and how port shape affects air flow through a cylinder head. Machining tolerances of the cylinder head will be closely monitored for accuracy by the instructor. Each student will become proficient at re-conditioning, modifying and flowing cylinder heads. 2 credits

**HPEM 220 LATHE AND MILL OPERATIONS II**

Students will learn how to do precision measuring, basic milling and turning theory, blueprint reading, pedestal grinder use, basic hand tool usage, and basic milling and turning operations. 3 credits

**HPEM 225 DYNO TUNING AND ENGINE ANALYSIS**

This course is designed to introduce students to engine and chassis dynos, how to effectively and safely operate them. Students will learn hands on how to operate and tune engines they built during their second year, which includes setting timing, fuel curve, valve lash and experimenting with different power adders to see what combination works best for their specific application. 2 credits

**89 HPEM 230 ADVANCED HIGH PERFORMANCE ENGINE MACHINING THEORY**

This course is designed to develop the student's ability to understand engine construction and theory of operation, to properly diagnose and recognize any machining or manufacturing errors when building a high performance engine. Safety is always strongly emphasized when students first learn how to operate engine machining equipment. 3 credits

**HPEM 235 ADVANCED HIGH PERFORMANCE ENGINE MACHINING LAB**

Students will fine-tune their engine re-building skills and be held to higher tolerances while machining and building a high performance engine. Safety and attendance are strongly emphasized while in their final semester of school. Students will be able to safely and proficiently operate all machines used to rebuild a high performance engine. 5 credits

**HPEM 240 ADVANCED HIGH PERFORMANCE HEAD PORTING**

This course covers the basic functions of a flow bench, valve grinder, die grinder, cylinder head machine, cylinder head resurfacer and their proper use. Students will learn the basic procedures of porting and how port shape affects air flow through a cylinder head. Machining tolerances of the cylinder head will be closely monitored for accuracy by the instructor. Each student will become proficient at re-conditioning, modifying and flowing cylinder heads. 2 credits

**HST 101 ORIENTATION TO HUMAN SERVICES**

This course will provide an introduction for the students to the philosophy of Human Services, the various professions involved in Human Services, and the role of the technician in these disciplines. 1 credit

**HST 108 GUIDING CHILDREN'S BEHAVIOR**

Students will become proficient in recognizing the natural progression of children's emotional and social behavior, become proactive in teaching children the skills needed to develop self-control and problem solving abilities in accordance with their developmental level, learn and practice the skills needed to teach children to develop socially appropriate behavior in order to allow them to develop self-esteem, develop strong friendships and treat others with dignity and respect throughout their lifetime. 3 credits

**HST 114 LITERATURE, CREATIVITY AND IMAGINATION**

Development of preschool activity file. Materials and activities to include selecting stories, making flannel board characters and puppets and exploring art activities. 3 credits

**HST 116 EDUCARE OF INFANTS AND TODDLERS**

Students will become familiar with the essentials of Early Childhood Education and will develop a portfolio containing a variety of infant/toddler activities. 2 credits

**HST 117 MEDICAL TERMINOLOGY**

This course represents a study of basic medical terminology. Prefixes, suffixes, word roots, combining forms, special endings, plural forms, abbreviations, and symbols are included in the content. 1 1/2 credits

**HST 119 GROUP TECHNIQUES**

This course will provide an opportunity for the students to plan and carry out group activities for a wide range of people. 1 credit

**HST 125 ON-THE-JOB TRAINING I**

This course is designed to provide hands on experience for students entering the human services field. This second hands-on course is designed to be a more in-depth experience with a specific employer or in a similar job setting the student may wish to work upon graduation. 2 1/2 credits

**HST 127 PERSONAL CARE ASSISTANT (NUTRITIONAL DIET)**

This course will train the students in the appropriate techniques for providing excellent, compassionate care to clients with very

- different needs. 2 credits
- HST 129 LESSON PLANNING AND EARLY CHILD CURRICULUM**  
Instruction in planning educational units for young children, preparation of materials for use with children that are developmentally appropriate. Emphasis will be on dramatic play, water play, science in the preschool, pre-math activities, and modeling materials. 3 credits
- HST 131 HEALTH, SAFETY AND NUTRITION**  
This course will discuss the basic nutritional needs and safety of infants, toddlers and preschoolers, as well as current trends and concerns in early childhood education. 3 credits
- HST 132 SEXUAL OFFENDING AND PEOPLE WITH DISABILITIES**  
This is a course that will discuss a myriad of topics relating to sexual offenders who have developmental disabilities including causes, treatments for, and self care for health service professionals who choose to work with sexual offenders. It may include material that some people would find offensive and/or disturbing. Students concerned that this may pose a difficulty, please discuss the concerns with the instructor within the first week of class. 2 credits
- HST 134 CHILD GROWTH AND DEVELOPMENT**  
This course will allow students to explore the developmental process of children pre-birth-12. 2 credits
- HST 135 PRINCIPLES AND PRACTICES OF EARLY CHILDHOOD EDUCATION**  
Students will review and master Early Childhood Education skills completing their preparation to succeed in the Early Childhood industry. 3 credits
- HST 136 MEDICATION ADMINISTRATION**  
This course will provide an introduction to the skills needed to safely administer medications under the supervision of a licensed nurse. Students will be required to demonstrate dosing up skills and to be knowledgeable of basic medication safety. 1/2 credit
- HST 137 FAMILIES**  
Topics covered will include family dynamics, birth order, abuse and neglect, adoption and foster parenting and poverty in the field of human services. 2 credits
- HST 138 MENTAL HEALTH SEMINAR**  
This course is designed to allow the students to direct their interests and research into a mental health topics that are relevant to the client population they intend to service upon graduation. 1 credit
- HST 139 DEATH AND DYING**  
The student will develop skills in caring physically and mentally for the dying and their family. 1 credit
- HST 141 CHILDREN WITH SPECIAL NEEDS**  
Students will learn to work effectively with young children with disabilities or special needs. They will learn to apply the developmental behavioral approach to make their classroom management effective and positive and to arrange optimal learning activities at both the individual and group level. Students will understand the importance of including and communicating with the parents or caregivers to maintain the optimum learning experience for the children in their care. 2 credits
- HST 143 DEVELOPMENTAL DISABILITIES**  
Developmental Disabilities will provide the student with a thorough background in the types, causes and classifications of developmental disabilities, cognitive disabilities, psychiatric disabilities as well as various physical disabilities. 2 1/2 credits
- HST 146 DISABILITIES SEMINAR**  
A variety of topics within the field of disabilities will be studied in depth. 1 credit
- HST 149 BEHAVIOR SUPPORT TRAINING**  
This course will provide the student with a basic understanding of behavior intervention techniques, behavior supports, positive and negative reinforcement, behavior analysis and baseline measurement procedures. An emphasis will be placed on verbal de-escalation techniques in order to decrease the need for physical interventions. 3 credits
- HST 156 ON-THE-JOB TRAINING II**  
Actual experience working with children at various sites. 2 1/2 credits
- HST 159 DIVERSITY STUDIES**  
This course is designed to expose the student planning a career in the human services field to race, cultural, religious, gender, sexuality and other biases generally held by society. 2 credits
- HST 160 CLINICAL EXPERIENCE**  
This course is designed to provide hands on experience in a variety of settings for students entering the human services field. 2 credits
- HST164 PROGRAM PLANNING**  
This course is designed to enhance professionalism in a student through exposure to the team process, evaluation/assessments of various populations, and developing and monitoring a plan while adhering to human rights procedures. 2 credits
- HST 165 SELECTED TOPICS IN ABNORMAL PSYCHOLOGY**  
This course is designed to educate the students on common mental illness diagnosis and appropriate skills to work with people who have a mental illness diagnosis. 1 credit
- HST 173 SPECIAL TOPICS IN HUMAN SERVICES**  
Current events and topics of special interest to the student will be researched and presented. 1 credit
- HST 176 CASEWORK SKILLS AND RESOURCES**  
This course will provide the students with a working knowledge of the case management process, from referral to termination, within various populations served by a human services worker. Both the theory of case management as well as hands on practice will be experienced. 3 credits
- HST 177 ETHICS AND ISSUES IN HUMAN SERVICES**  
This class will cover topics to include confidentiality, ethical treatment, rights and responsibilities, appropriate care, professional liability, and any other topics relating ethical behaviors in the field of human services. 2 credits
- HST 179 INTRODUCTION TO CRIMINAL JUSTICE**  
This course will provide the student with a basic understanding of the Criminal Justice System and their functions. This course will also explore the constitutional rights of offenders within the Criminal Justice System. We will discuss the process of arrest, court proceedings and sentencing, which will include the police, court as well as the rehabilitation of offenders from Probation, Prison and Parole. 3 credits
- HST 183 JUVENILE DELINQUENCY**  
Introduces the student to challenges facing adolescents in today's world and the potential outcomes when there is a lack of support in the home and community. 3 credits
- HST 188 CHEMICAL DEPENDENCY**  
This course will address the fundamentals of addiction to both natural and manufactured chemicals. It will also address treatment and prevention. 3 credits
- HST 195 LIFESPAN DEVELOPMENT**  
Topics covered will include development of middle childhood, adolescence, early adulthood, middle and late adulthood. 3 credits
- HST 192 POLICE ACADEMY**  
This course is offered in conjunction with the Watertown Police Department. Students participate interactively on topics such as department investigations, Internet crimes, patrol operations,

- crime scene investigations, K-9 operations, SWAT, domestic violence and DUI investigations. 1 credit.
- HST 201 ON-THE-JOB TRAINING IN THE DEVELOPMENTAL DISABILITIES SETTING**  
This course is designed to provide an extended hands on experience in one area of human services in order to fully appreciate the process of delivery. 2 1/2 credits
- HST 203 ON-THE-JOB TRAINING IN THE MENTAL HEALTH SETTING**  
This course is designed to provide an extended hands on experience in one area of human services in order to fully appreciate the process of delivery. 2 1/2 credits
- MA 105 INTRODUCTION TO MEDICAL ASSISTING I**  
This course introduces medical office administrative procedures. Topics include written and oral communications, medical records management, filing systems, maintaining the office environment, patient orientation, and safety. Upon completion, students should be able to perform basic administrative skills in the office. 2 credits
- LE 100 FITNESS FOR LIFE I**  
Students will gain an understanding of how to apply methods for managing and evaluating their physical fitness for a healthy lifestyle necessary for safely and effectively performing the duties of a law enforcement professional. There will be pre- and post-physical fitness assessments. The pre and post fitness tests may consist of any of the following activities: 1 1/2 mile run, flexibility, one minute sit-ups, one minute pushups, blood pressure, pulse, body composition, and waist circumference measurement. Students will engage in class fitness activities throughout LATI Law Enforcement and required standards of performance will be reviewed weekly. 1 credit
- LE 105 FIRST RESPONDER**  
This course will provide students with the basic knowledge and skills needed to assess injuries, provide first aid for acute medical problems, and ensure on-scene safety for rescue personnel. 2 credits
- LE 110 INTRO TO LAW ENFORCEMENT**  
An introductory course into the history of policing in America and basic functions of law enforcement in America. This course will also provide the student with information and tools to aid them in making the proper decision when faced with an ethical dilemma. 3 credits
- LE 115 DIVERSITY TRAINING**  
This course will provide students with an understanding of the need for Law Enforcement professionals to recognize and respect the complexities of cultural diversity and to develop skills necessary for identifying and responding to our changing communities. The student will gain an understanding of illegal profiling and the characteristics of professional law enforcement. 1 credit
- LE 120 MECHANICS OF ARREST**  
The course will introduce students to lawful detention, arrest and search procedures that support successful prosecutions. Students will gain an understanding of the Response to Resistance Continuum and proper handcuffing and transportation procedures for detainees. 1 credit
- LE 125 TECHNOLOGY IN LAW ENFORCEMENT**  
Students will be introduced and exposed to Zuercher Technologies Public Safety Software to include Computer Aided Dispatch, Computer Aided Dispatch Mapping, Records Management System, Mobile and E-Ticketing which is used by law enforcement personnel to combat crime, the fear of crime, to maintain civil order, and to enhance the quality of life in their communities. Students will learn the significance of aligning information systems to support community policing initiatives and proactive problem solving. Advancements in technology will be integrated into the class as it evolves in the world of law enforcement. 1 credit
- LE 130 CONSTITUTIONAL LAW**  
The student will gain an understanding of the U.S. Constitution, Declaration of Independence, and provisions of the Bill of Rights which pertain to criminal justice. Topics include: historical overview of Constitutional Law and our legal system, the Supreme Court, guarantees of the Constitution to citizens, impact of specific amendments on the criminal justice system. covered are studies of Supreme Court decisions. 3 credits
- LE 135 CRIMINAL LAW PROCEDURES**  
The student will gain an understanding of the origins of current law in relationship to the role of law enforcement today. The criminal code 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. 3 credits
- LE 140 FITNESS FOR LIFE II**  
The student will gain an understanding of how to apply methods for managing and evaluating their physical fitness for a healthy lifestyle necessary for safely and effectively performing the duties of a law enforcement professional. There will be pre- and post-physical fitness assessments. The pre and post fitness tests may consist of any of the following activities: 1 1/2 mile run, flexibility, one minute sit-ups, one minute pushups, blood pressure, pulse, body composition, and waist circumference measurement. Students will engage in class fitness activities throughout LATI Law Enforcement and required standards of performance will be reviewed weekly. 1 credit
- LE 145 PATROL PROCEDURES I**  
Students will gain an understanding of a police officer's role in the community which includes working in partnership with community members to resolve or reduce problems for the benefit of those who live, visit, and work there. Students will also obtain certification in National Incident Management System training. 3 credits
- LE 150 INTERROGATION AND DOCUMENTATION**  
Students will gain an understanding of how to interview victims, witnesses and suspects. Students will learn the legal issues that define the interviewing of subjects, either in consensual encounters or in custody, and various techniques to enhance information obtained including analysis of verbal and non-verbal actions and how they relate to truth or deception of persons during the interview process. Documentation of encounters to include field interviews will be addressed. Students will also receive lecture and engage in practical exercises concerning proper report/statement writing skills. Emphasis is placed on the gathering and documentation of pertinent information and construction of report narratives using clear, concise language. 3 credits
- LE 155 JUVENILE METHODS**  
Students will gain an understanding of the policies, programs and services that comprise the juvenile justice system. The course will provide the student with a comprehensive overview of the processing and treatment of juvenile offenders, descriptions and definitions of offender types and the subsystems that play a role in the care and control of juvenile delinquents. 2 credits
- LE 160 VIRTUAL ACADEMY**  
1 credit
- LE 200 FITNESS FOR LIFE III**  
Students will continue to enhance their understanding of how to apply methods for managing and evaluating their physical fitness for a healthy lifestyle necessary for safely and effectively performing the duties of a law enforcement professional. There will be pre- and post-physical fitness assessments. The pre and post fitness tests may consist of any of the following activities: 1 1/2 mile run, flexibility, one minute sit-ups, one minute pushups, blood pressure, pulse, body composition, and waist circumference measurement. Students will engage in class fitness activities throughout LATI Law Enforcement

and required standards of performance will be reviewed weekly.  
1 credit

**LE 205 LAW ENFORCEMENT SURVIVAL**

This course is designed to familiarize the student in the escalation of force model and in basic offender confrontation concepts. Students will be introduced to tactical techniques to include professional communication skills. Students will gain an understanding of how to deal with physical situations and the ability to respond with swift and efficient solutions whether physical or verbal. Students will be required to properly demonstrate arrest, handcuff, control techniques, and how to conduct a safe and thorough search incident to arrest of compliant and non-compliant suspects. Techniques covered will include the proper use of handcuffs, police baton, and oleoresin capicum (OC) spray. 3 credits

**LE 210 ACCIDENT INVESTIGATIONS**

Students will gain an understanding of how to effectively investigate and manage traffic collision scenes to ensure their safety, the safety of others, and protect the integrity of the collision scene. This course is designed to create the ability within each student to understand the basics of proper and lawful investigations of accidents. This will include the students being taught the applicable laws that pertain to accidents of a general nature and specifically as it relates to the laws of the state of South Dakota. This course will include a segment on accident reconstruction. 2 credits

**LE 215 FIREARMS TRAINING**

Students will gain an understanding of why a law enforcement officer must know and practice all procedures for the safe handling of all firearms while on and off duty to include: identifying the capabilities, and limitations of ammunition and firearms in order to operate them safely and effectively; demonstrating how to properly inspect, clean, and care for their firearms to ensure that they function safely and effectively; and successfully mastering and demonstrating the fundamental skills of firing firearms to be effective in reactive and precision situations during live fire exercises. 2 credits

**LE 220 CRIMINAL INVESTIGATIONS**

This course gives an in depth examination of the complex, sophisticated field of criminal investigation. Students will gain an understanding of the investigative aspect of police work. Students will learn to identify the major goals in a criminal investigation and understand the fundamentals of preliminary and follow-up investigations. Students will be responsible for learning the importance of conducting a thorough criminal investigation, recording information in their notes and later taking the notes and turning them into a narrative that can be used to prosecute the suspect. 3 credits

**LE 225 EVIDENCE**

This course provides a brief historical survey of crime scene investigation as well as familiarizes students with the methodologies and skills of crime scene evaluation, evidence collection, documentation, and preservation, as well as various forensic techniques used by investigators and lab analysts to evaluate such evidence. 2 credits

**LE 230 FITNESS FOR LIFE IV**

Students will continue to enhance the understanding of how to apply methods for managing and evaluating their physical fitness for a healthy lifestyle necessary for safely and effectively performing the duties of a law enforcement professional. There will be pre- and post-physical fitness assessments. The pre and post fitness tests may consist of any of the following activities: 1 1/2 mile run, flexibility, one minute sit-ups, one minute pushups, blood pressure, pulse, body composition, and waist circumference measurement. Students will engage in class fitness activities throughout LATI Law Enforcement and required standards of performance will be reviewed weekly. 1 credit

**LE 235 PATROL PROCEDURES II**

Students will gain an understanding of how to safely and effectively fulfill their duties of public protection and service as police officers. Students will learn to develop appropriate law enforcement patrol strategies under a wide variety of circumstances and conditions. 3 credits

**LE 240 ADVANCED FIREARMS TRAINING**

Students will demonstrate and practice all procedures learned during firearms training for the safe handling of all firearms while on and off duty, to include: knowing the workings, the capabilities, and limitations of firearms in order to operate them safely and effectively; knowing the capabilities and limitations of the ammunition they use in their firearms to operate them safely and effectively; knowing how to properly inspect, clean, and care for their firearms to ensure that they function safely and effectively; and comprehending and practicing the fundamental skills of firing firearms to be effective in reactive and precision situations during live fire exercises. 2 credits

**LE 245 EMERGENCY VEHICLE OPERATIONS**

Students will learn the importance of defensive driving principles and techniques in order to develop safe driving habits. Students will learn to recognize that emergency response driving demands a high level of concentration and instant reactions. Students will learn that law enforcement emergency vehicles must recognize that even though the purpose of pursuit driving is the apprehension of a suspect who is using a vehicle to flee, the vehicle pursuit is never more important than the safety of officers and the public. Students will complete an EVOC course and demonstrate proficiency in the operation of the vehicle, and know the dynamic forces at work to include: proper steering control, throttle control, speed judgment, and brake use. 3 credits

**LE 250 CORRECTIONS**

Students will gain an understanding of Institutional and Community Corrections systems, the operation of jails and prisons, contemporary national and state issues and practices in probation, parole and community corrections alternatives. Students will be introduced to the history of corrections and its competing purposes of retribution and protection of the public. 3 credits

**LE 255 LAW ENFORCEMENT PRACTICUM**

This course is designed to allow students the opportunity to participate in hands-on experiences with various law enforcement/criminal justice agencies covering a variety of duties. Each student will attend at least two shifts per week for a period of several weeks at the direction of the instructor. Students may be assigned a variety of law enforcement tasks working with officers during their duty shifts. Additionally, students will receive 12 hours of Domestic Violence instruction and 8 hours of Basic Radar instruction. 2 credits

**LE 260 CERTIFICATION**

Students will prepare for and take the State Boards to become a certified Law Enforcement Officer. 1 credit

**LE 265 LAW ENFORCEMENT SPANISH**

This course will provide students with basic communication skills in Spanish that will enable them to communicate with the Spanish-speaking population they may encounter through their daily work in law enforcement. 1 credit

**LE 270 ISSUES IN POLICING**

Students will be introduced and exposed to a variety of issues in policing to includes but not limited to: liability areas of policing; building trust with the community; excessive use of force by the police; sexual misconduct by the police; perjury by the police; drug and alcohol misuse by police; police and suicide; other unethical behaviors by the police; and maneuvering successfully in the political environment. Students will be introduced to new issues as they evolve in modern day policing. 2 credits

**LE 275 DOMESTIC VIOLENCE CERTIFICATION**

This course will provide students with tools and strategies about the dynamics of domestic violence, laws pertaining to domestic

- violence, officer and victim safety, holding the perpetrator accountable, and forming a community coordinated response. 1/2 credit
- LE 280 RADAR CERTIFICATION**  
1/2 credit
- MA 105 INTRODUCTION TO MEDICAL ASSISTING I**  
This course introduces medical office procedures. Topics include the roles and responsibilities of the medical assistant, oral and written communication process in the office setting and the use and maintenance of office equipment. 2 credits
- MA 106 KEYBOARDING**  
This course is designed to develop and increase speed and accuracy as well as provide the correct keyboarding techniques and procedures. 2 credits
- MA 115 MEDICAL TERMINOLOGY**  
This course presents a study of basic medical terminology which will be helpful as the students progress in their course of study. Prefixes, suffixes, word roots, combining forms, special endings, plural forms, abbreviations, and symbols are included in the content. A programmed learning word building systems approach is used to learn word parts for constructing or analyzing new terms. This provides students the opportunity to decipher unfamiliar terms and check their spelling. Emphasis is placed on spelling, definition, usage, and pronunciation. Abbreviations are introduced as related terms and presented with each unit. 1 1/2 credits
- MA 125 MEDICAL LAW AND ETHICS**  
This course explains how to navigate the numerous legal and ethical issues that health care professionals face every day. Topics are based upon real-world scenarios and dilemmas from a variety of health care practitioners. 3 credits
- MA 136 ANATOMY AND PATHOLOGY I**  
This course includes the study of the basic structures and functions of the human body including organization of the body, integumentary, skeletal, muscular, circulatory, and respiratory systems. It is also designed to examine the various body systems, diseases and disorders affecting them. 3 credits
- MA 138 ANATOMY AND PATHOLOGY II**  
This course includes the study of the basic structures and functions of the body including lymphatic, nervous, urinary, reproductive, digestive, endocrine and the senses. It is also designed to examine the various body systems, diseases and disorders affecting them. 3 credits.
- MA 150 INTRODUCTION TO MEDICAL ASSISTING II**  
This course builds on medical office procedures. Topics include communication and techniques, appointment scheduling, medical record documentation, patient accounts, banking, and accounts payable and accounting procedures. 2 credits
- MA 155 MEDICAL OFFICE TRANSCRIPTION**  
This course introduces the student to a variety of medical documents and how to set them up and type with accuracy. The student will develop the necessary skills to transcribe with emphasis on speed and accuracy. 2 credits
- MA 165 PHARMACOLOGY**  
This course focuses on basic drugs, their uses and effects on each body system. This course will also cover different modes of drug administration and dosage calculations. 2 credits
- MA 167 MEDICAL CODING**  
This course focuses on learning the code rules for coding CPT, ICD-10, and Level II (HCPCS) coding systems and applying the rules to code patient services. 3 credits
- MA 171 MEDICAL LABORATORY PROCEDURES**  
This course consists of the study of the need for safety at all times and the use of the microscope and glassware. Once these basic techniques are learned, the student will perform tests in the areas of hematology, chemistry, microbiology, immunology, blood banking, and urinalysis. 2 1/2 credits
- MA 175 CLINICAL OFFICE PROCEDURES I**  
This course includes instruction in patient preparation, obtaining and recording information, assisting the physician with examinations, and caring for the examination room before and after patient care. The course is also designed to familiarize the student with various types of microorganisms found around us, their usefulness as well as their disease producing abilities, including methods to control microscopic agents and methods of health promotion and disease prevention. 2 credits
- MA 205 CLINICAL OFFICE PROCEDURES II**  
This course includes patient preparation, draping, obtaining and recording information, assisting the physician with examinations and caring for the examination room. 2 credits
- MA 212 INSURANCE IN THE MEDICAL OFFICE**  
This course emphasizes the medical billing cycle. Studying this cycle shows how administrative and medical assistants must first collect accurate patient information and then be familiar with the rules and guidelines of each health plan in order to submit proper documentation and follow up on payments. This ensures that offices receive maximum, appropriate reimbursement for services provided. 2 credits
- MA 214 EMERGENCY PREPAREDNESS**  
This course focuses on the role taken during an emergency, volunteering effectively, and how to be confident and safe responders. 2 credits
- MA 215 ADMINISTRATION OF MEDICATIONS**  
This course includes an advanced study of pharmacology with emphasis on the different methods of the administration of medication. 1 credit
- MA 220 DIAGNOSTICS AND THERAPEUTIC PROCEDURES**  
This course includes the study of radiology, nutrition, physical therapy and electrocardiography as they apply to diagnosis. 1 credit
- MA 227 PRACTICE MANAGEMENT AND THE ELECTRONIC HEALTH RECORD**  
This course introduces the electronic health record (EHR) that integrates theory with practice management (PM) software. Practice management software will provide tasks in eligibility checks, scheduling, documentation and claims submission. The electronic medical record introduces tasks in clinical data and prioritizes items that require attention. 3 credits
- MA 240 ADMINISTRATIVE AND CLINICAL EXTERNSHIP**  
Students are placed in the medical facilities of Watertown and the surrounding area for continued education and work experience. The student is required to be in attendance during the normal working hours of the medical facility on Monday through Friday. Students are under the immediate supervision of the training facility, do not receive remuneration and are periodically evaluated by the training facility and the supervisor. 240 hours, 4 credits
- MATH 100 APPLIED GENERAL MATH**  
This course will provide emphasis on the ability to understand and apply math skills to solve problems in the world of work. 3 credits
- MATH 101 INTERMEDIATE ALGEBRA**  
This course will enhance students' problem-solving skills and prepare them for mathematical problems to be faced in future courses and careers. 3 credits
- MATH 102 COLLEGE ALGEBRA\***  
Equations and inequalities polynomial functions and graphs, exponents, radicals, zeros of polynomials; exponential, logarithmic and inverse functions, applications and graphs. Other topics selected from sequences, series and complex numbers. (Pre-requisite: MATH 101 with a "C" or higher, a Math ACT score of 20+ and/or an ACCUPLACER score in elementary algebra of 76+) 3 credits \*College transferable.
- MATH 117 FOUNDATIONS OF TRIGONOMETRY**

The practical application of trigonometry as it applies to the shop setting. 1 credit

**MED 105 INTRODUCTION TO HEALTH PROFESSIONS**  
This course will feature a variety of different topics and speakers. It has been designed to give first-year students exposure to the various health professions offered at LATI. 1 1/2 credits

**MFR 100 PATIENT ASSESSMENT**  
This course will expand upon the knowledge and skill set learned in Trauma Assessment & Treatment. Students will start with patient history and proceed into physical exam and assessment techniques. Students will analyze and assess clinical decision making, communications, and documentation for the EMS occupation. 3 credits

**MFR 105 AIRWAY/IV MANAGEMENT**  
This class addresses two of the most important skills required by paramedics. Students will learn the art of intravenous (IV) placement, drug therapies, medical mathematics and drug dose calculations. Also covered in the class is advanced airway management and ventilation, where the student will learn methods used to control a patient's airway and breathe for them. 4 credits

**MFR 110 TRAUMA ASSESSMENT AND TREATMENT**  
This class focuses on the subject that causes an adrenaline rush in virtually every paramedic, "TRAUMA." If you like the CSI shows on TV, this will be your favorite class. Students learn about the different types and classes of injuries, as well as related problems, allowing them to put the pieces of the puzzle together, enabling them to administer life saving treatments. 3 credits

**MFR 120 CLINICAL OBSERVATION I**  
This observation period is designed to meet the requirements set by the State of South Dakota. This observation/interaction time will take place in an approved hospital, in an emergency department, critical care unit, operating room and an obstetrics unit. Students are encouraged to utilize the knowledge and skills developed in other classes to use as much as possible, but most important, students will see first-hand how sick and injured patients benefit from high quality care and that what they do can and will make a difference in the lives of others. 1 credit

**MFR 125 MEDICAL ASSESSMENT AND TREATMENT**  
This class will focus on solving problems and treating those things that make people "SICK." Students will learn the anatomy, physiology and pathophysiology of the human body, which makes it function and what causes it to fail, from head to toe, and inside/outside. Some of the subjects included in this class include cardiology, pulmonology, endocrinology, neurology, toxicology and environmental emergencies. 4 credits

**MFR 130 CLINICAL OBSERVATION II**  
This observation period is designed to meet the requirements set by the State of South Dakota. This observation/interaction time will take place in an approved hospital, in an emergency department, critical care unit, operating room and an obstetrics unit. Students are encouraged to utilize the knowledge and skills developed in other classes to use as much as possible, but most important, students will see first-hand how sick and injured patients benefit from high quality medical care and that what they do can and will make a difference in the lives of others. 5 credits

**MFR 135 CERTIFICATIONS**  
This class consists of three specialized training sessions taught by outside instructors. The three areas provide student certification in Advanced Cardiac Life Support (ACLS), Pre-Hospital Trauma Life Support (PHTLS), and Pediatric Education for Pre-Hospital Professionals (PEPP). This provides excellent benchmarks to gauge mastery of knowledge and skills, but also produces credibility for students and their education through examination and certification from skilled professionals outside the MFR staff. 2 credits

**MFR 200 MED/FIRE RESCUE**  
This class will focus on ambulance operations, incident management, crime scene awareness and rural EMS. Since the world around us continues to become increasingly complex, this class will also address issues related to rescue awareness and operations, hazardous materials incidents, as well as responding to terrorist incidents. 1 credit

**MFR 205 FIREFIGHTER I**  
Through classroom and hands-on experience, students will learn the essentials of firefighting. Beginning with an overview of the history and traditions associated with the fire service, students will progress into developing the knowledge and skills associated with behavior, safety and personal protective equipment. From there, the next step will involve water supplies and equipment, building construction, ladders and ropes. Students will then move into rescue operations, forcible entry and ventilation techniques, fire suppression, firefighter survival, as well as fire prevention, education and incident planning. Another area and perhaps the most important is the need for students physical and mental health. 5 credits

**MFR 210 HAZARDOUS MATERIALS AWARENESS AND COMPLIANCE**  
HAZMAT teams are rapidly becoming a basic component of every fire department in the United States and the initial certification required for these teams is the awareness level. This class is designed to provide the knowledge and skills required to allow students to function as an integral part of a HAZMAT team. Subjects covered in the class include recognition and identification, information resources, personal protective equipment, protective actions, product control and air monitoring and terrorism awareness. 3 credits

**MFR 215 CLINICAL OBSERVATION III**  
This observation period is designed to meet the requirements set by the State of South Dakota. This observation/interaction time will take place in an approved hospital, in an emergency department, critical care unit, operating room and an obstetrics unit. Students are encouraged to utilize the knowledge and skills developed in other classes to use as much as possible, but most important, students will see first-hand how sick and injured patients benefit from high quality medical care and that what they do can and will make a difference in the lives of others. 4 credits

**MFR 220 FIREFIGHTER II**  
Through classroom and hands-on experience, students will learn the essentials of firefighting. Beginning with an overview of the proud history and traditions associated with the fire service, students will progress into developing the knowledge and skills associated with fire behavior, safety and personal protective equipment. From there, the next step will involve water supplies and equipment, building construction, ladders and ropes. At this point, students will move into rescue operations, forcible entry and ventilation techniques, fire suppression, firefighter survival, as well as fire prevention, education and incident planning. Another area and perhaps the most important subject addressed in this class, as well as every other class in the program, is the need for students to actively pursue current and life-long physical and mental health. 5 credits

**MFR 225 AIRPORT RESCUE FIREFIGHTING "ARFF"**  
Every type of fire has its own characteristics, concerns and methods of control. Building upon knowledge gained in Firefighter I and II, students will learn basic airport awareness, airplane construction and fuels, fire suppression, occupant protection and extrication, as well as crash truck operation and tactics. 3 credits

**MFR 235 PARAMEDIC PREPARATION**  
Paramedic Preparation is an introduction into the world of advanced pre-hospital care. Topics included in the class include the well being of the paramedic, roles and responsibilities of the paramedic, illness and injury prevention, as well as ethical



and legal issues related to modern medicine and pre-hospital care. 2 credits

**MICRO 231 GENERAL MICROBIOLOGY\***

Study of microorganisms emphasizing structure, metabolism, diseases, disease prevention and cure, immune systems and microbial ecology. 4 credits \*College transferable.

**MLT 101 INTRODUCTION TO MEDICAL LABORATORY**

This course focuses on the basic principles and procedures used in all laboratory courses. Areas such as safety, equipment usage, areas of the lab and testing involved, quality control/quality assurance, lab math, professionalism, employment opportunities, self exploration and career goals are covered. 2 credits

**MLT 105 URINALYSIS AND BODY FLUIDS**

This course consists of the study of urinalysis to include the physical, chemical and microscopic examination of urine and the special screening tests that may be employed for the detection of metabolic or renal disorders. Body fluids such as amniotic, serous, seminal, synovial and cerebral spinal fluid will be covered. The student will be able to analyze and interpret lab data results. 3.5 credits

**MLT 115 HEMATOLOGY**

This course involves a study of blood cells (quantitative and qualitative) and includes a study of development, recognition of normal and abnormal cell morphology, alterations present in disease, studies of anemias and leukemias, studies of platelet and coagulation factors, the coagulation mechanism, and tests employed in the hematology and coagulation laboratory. 4 credits

**MLT 117 MOLECULAR BIOLOGY**

This course studies the function of DNA and RNA, the purpose for DNA analysis and its importance. Various tests will be performed to lead to a better understanding of genetics and how molecular biology is used in the clinical lab setting. The course will culminate in a student presentation of a molecular instrument currently used in medical labs. 2 credits

**MLT 125 SEMINAR**

This course will broaden the perspective of the second year MLT student as they prepare for their clinical internship and continue with their career of choice. Topics covered will include HIPAA, professionalism, educational methodology, teaching others, and the importance of sharing their profession through a K-12 classroom presentation. Various speakers will give presentations throughout the semester. 1/2 credit

**MLT 135 PRINCIPLES OF PHLEBOTOMY**

Student instruction will include type of tube utilized for phlebotomy based on the additive in each, supplies required for the phlebotomy, proper technique to maintain sample integrity and prevent preanalytical errors. The student will practice venipuncture and capillary puncture techniques on classmates and volunteers. This will prepare them for their applied phlebotomy and clinical practicum experiences. 1 credit

**MLT 201 IMMUNOLOGY**

The student will learn of the human immune response (both cellular and humoral). Students will focus on antigens and antibodies and their importance in lab testing and patient diagnosis. The theory of each type of test will be covered, patient specimens tested and results interpreted. Infectious diseases detected in immunology and the various disorders of the immune system such as the autoimmune response, hypersensitivity, and transplant immunology will also be covered. 4 credits

**MLT 205 APPLIED PHLEBOTOMY**

Students will spend 30 hours in an assigned clinical facility collecting blood from patients. 1 credit

**MLT 210 CLINICAL MICROBIOLOGY**

This course involves the classroom and laboratory study of microorganisms that may cause clinical infections including staining, culturing, incubation, isolation, identification,

sterilization and media preparation. This course includes a study of viruses and fungi and techniques employed in clinical laboratories for their identification. 4 credits

**MLT 215 CLINICAL CHEMISTRY**

This course includes didactic and laboratory instruction on the chemical constituents of blood in health and disease. The methods of analysis for the chemicals, principles of these methods, correlation of abnormal findings with disease, basic mathematics, and quality control/quality assurance are stressed. 4 credits

**MLT 221 IMMUNOHEMATOLOGY (Blood Banking)**

The Immunohematology course consists of tests of blood and serum to determine patient blood type, detection and identification of antibodies, autocontrol, crossmatch and problem solving, all of which are required to find units of blood compatible for patient transfusion. 4 credits

**MLT 226 PRACTICUM I: GENERAL LAB PRACTICE, PHLEBOTOMY, HEMATOLOGY, CHEMISTRY, URINALYSIS**

The student will spend approximately 9 weeks in the chemistry, hematology, urinalysis and phlebotomy sections of the laboratory at a hospital or clinic laboratory during this clinical training period. 6 credits

**MLT 231 PRACTICUM II: MICROBIOLOGY, IMMUNOLOGY, IMMUNOHEMATOLOGY**

The student will spend approximately 9 weeks in the microbiology, immunohematology and immunology sections of the laboratory during the clinical training period. This practicum includes training at LATI's Microbiology and Immunohematology SIM Lab. 6 credits

**MLT 236 CLINICAL CORRELATION**

This course will be taken throughout the student's practicum experience. It will help the student relate the theory of the lab tests and the results obtained. This will be accomplished through quizzes, student forums including weekly reports/sharing and student case studies. 1 credit

**NET 111 NETWORKING FOR HOME & SMALL BUSINESS**

Students will perform hands-on activities and labs in PC installation, Internet connectivity, wireless connectivity, file and print sharing, and the installation of peripheral devices. Students will gain experience in computer networking using tools and hardware commonly found in home and small business environments. 3 credits

**NET 115 INTRODUCTION TO NETWORKS**

The goal of this course is to introduce fundamental networking concepts and technologies. In this course, students will learn both the practical and conceptual skills that build the foundation for understanding basic networking. 3 credits

**NET 121 ROUTING & SWITCHING ESSENTIALS**

The goal of this course is to introduce fundamental networking concepts and technologies. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. 3 credits

**NET 131 SCALING NETWORKS**

The focus of this course is on the architecture, components, and operations of routers and switches in a larger and more complex network. You will learn how to configure routers and switches for advanced functionality. 3 credits

**NET 141 CONNECTING NETWORKS**

The focus of this course is on the WAN technologies and network services required by converged applications in a complex network. In this course, you will learn the selection criteria of network devices and WAN technologies to meet network requirements. 3 credits

**NET 215 CCNA SECURITY**

The goal of this course is to develop a detailed understanding of network security principles as well as the tools and configurations available. The course materials will assist you in developing the skills necessary to design and support network security. 3 credits

**NET 275 ADVANCED NETWORKING TECHNOLOGIES**

Students will learn how to plan, configure, and verify the implementation of complex enterprise LAN and WAN router and switching solutions. This course expands upon the concepts covered in the first year, taking the students into the CCNP objectives. Students will also work through trouble tickets to correct misconfigurations on routers and switches. Extensive labs emphasize hands-on learning and practice to reinforce configuration and troubleshooting techniques. 6 credits

**OTA 100 FOUNDATIONAL CONCEPTS FOR THE OCCUPATIONAL THERAPY ASSISTANT**

This course introduces and examines the profession of Occupational Therapy, the role of the student in the learning process and the use of technology within the program and profession of Occupational Therapy. In addition, international healthcare issues, related professional discipline roles, and teaching and learning strategies are addressed. 3 credits

**OTA 105 ACTIVITY ANALYSIS**

Occupation and activities are introduced to the student as treatment techniques and are analyzed using current activity analysis techniques and AOTA's Practice Framework: Domain and Process. The student develops the knowledge and skills of adaptation and gradation for achieving therapeutic use of activities and for learning and teaching styles through reinforcement and participation. 2 1/2 credits

**OTA 111 KINESIOLOGY/NEUROLOGY FOR THE OCCUPATIONAL THERAPY ASSISTANT**

This course addresses basic kinesiological and neurological structures and principles involved in occupational performance related to "normal movement," assessment of joint range of motion and instructional use of exercise as an adjunct to intervention. 5 credits

**OTA 120 HUMAN DEVELOPMENT: PRENATAL THROUGH ADOLESCENCE**

This course emphasizes developmental theories and issues from birth through adolescence. By providing exposure to basic physical, motor, psychosocial, moral and communication development of infants, toddlers, pre-school-age children, school-age children and adolescents it will focus on the sequence of normal development 2 credits

**OTA 125 OCCUPATIONAL THERAPY APPLICATION I - PEDIATRIC PRACTICE**

This course addresses issues related to occupational therapy services provided for individuals from birth through adolescence. 4 credits

**OTA 131 ADAPTATIONS FOR DAILY TASKS**

This course exposes students to clinical skills, remediation and adaptation of various areas of occupation (ADL, IADL, work, play, leisure and social participation) through exposure to and practice with medical equipment, adaptive equipment and alternative techniques. This course emphasizes average performance procedures prior to applying therapeutic adaptation strategies. Respect for the client, safety and adherence to universal precautions are emphasized. 3 credits

**OTA 133 DOCUMENTATION FOR THE OCCUPATIONAL THERAPY ASSISTANT**

This course exposes students to the introductory documentation skills expected of an Occupational Therapy Assistant. Progress note documentation and intervention planning using AOTA's Practice Framework will be emphasized. 1 credit

**OTA 135 DYNAMICS OF INTERACTION**

This course will address the principles of group dynamics and interpersonal skills used with groups. The fundamentals of

therapeutic communication techniques and observation skill will be emphasized. 2 credits

**OTA 140 ETHICS AND ISSUES IN OCCUPATIONAL THERAPY**

This course includes classroom instruction and discussion of legal and ethical decision-making and other imperative issues facing the Occupational Therapy Assistant practitioner within the healthcare environment. 2 credits

**OTA 145 OCCUPATIONAL THERAPY APPLICATIONS III - PSYCHOSOCIAL PRACTICE**

This course presents theories of mental health practice as well as the use of many Occupational Therapy frames of reference in treatment of occupational performance deficits in individuals diagnosed with mental health impairment. It will familiarize students with assessment tools, intervention strategies, medication side effects and safety techniques utilized in various settings. 3 credits

**OTA 150 FIELDWORK I-A**

A one-week fieldwork placement will be completed to allow students to observe and apply critical thinking skills based on previous academic information obtained and to apply observations to future academic courses. 1/2 credit

**OTA 155 FIELDWORK I-B**

Out of the classroom experiences will be completed with the geriatric and mental health populations to allow students to observe and apply critical thinking skills based on previous academic information obtained and to apply observations to future academic courses. 1/2 credit

**OTA 160 BEGINNING SIGN LANGUAGE**

Introduction to signed exact English. Students will learn words and use them to communicate. 1 credit

**OTA 200 HUMAN DEVELOPMENT: ADULT TO DEATH**

This course will present theories of physical, cognitive, social and emotional development for the young adult to death. Cultural, ethnic, socioeconomic and sexual diversity will be discussed. Also, concepts and theories of death and dying will be presented. 1 credit

**OTA 205 OCCUPATIONAL THERAPY APPLICATIONS II - ADULT PRACTICE**

This course addresses documentation skills and builds on previous documentation experience. Assessments used and settings in which adult populations may receive occupational therapy services will be presented and remediation techniques for sensory, motor, perceptual and cognitive deficits will be explored. 3 credits

**OTA 210 CONDITION-SPECIFIC EVIDENCED-BASED INTERVENTION**

This course will present the pathophysiology, etiology, clinical signs and management strategies for various pathological diseases. Emphasis will include Occupational Therapy rehabilitation and adaptation intervention modalities incorporating activity analysis and equipment research. 2 1/2 credits

**OTA 220 OCCUPATIONAL THERAPY APPLICATIONS IV - REHABILITATION PRACTICE**

The course presents theories and application of intervention techniques used in physical disabilities practice. It will familiarize students with rehabilitation equipment and tools utilized with specific physical disabilities diagnoses. The importance of continued professional competency and its relation to the student's future career will be discussed. 5 credits

**OTA 231 ENTERING THE OCCUPATIONAL THERAPY ASSISTANT PROFESSION**

This course will address professional advocacy to state or federal legislators and the promotion of occupational therapy services to the general public. Students will also investigate their own personality type to determine how communication

is affected “on the job” while participating in Fieldwork Level II. Students will also describe department responsibilities of the occupational therapy assistant while in real life situations and reflect on the importance of communication with the dying client and the issue of continued competency and life-long learning. 1 credit

- OTA 236 FIELDWORK II-A**  
Following successful completion of all academic courses, the student will complete two eight-week fieldwork placements at different sites, which allows them to apply theory and skills acquired during their education at Lake Area Tech. 5 1/2 credits
- OTA 241 FIELDWORK II-B**  
Following successful completion of all academic courses, the student will complete two eight-week fieldwork placements at different sites, which allows them to apply theory and skills acquired during their education at Lake Area Tech. 5 1/2 credits
- PHGY 210 INTRODUCTION TO HUMAN PHYSIOLOGY\***  
Physiology teaches fundamental chemical and physical concepts that explain the workings and regulation of all body functions in animals from molecular to organism level. The course examines the coordinated activities within the hierarchy of body organization and how these activities contribute to the overall homeostasis of the internal environment of the body. 4 credits \*College transferable.
- PM 101 MACHINE TOOL THEORY**  
This course is an introductory course covering the basic hand tools and machine tools used to support manufacturing and toolmaking processes. 1 credit
- PM 106 BLUEPRINT READING**  
This course introduces the student to the basics of interpreting working drawings, blueprints, and tolerances. 1 credit
- PM 110 PRECISION MEASURING**  
This course will cover a variety of tools used for measuring or inspecting a part. The course will include inspection and measuring fractions, decimal, and metric. 1 credit
- PM 117 APPLIED TRIGONOMETRY**  
This course expands the use of trigonometry to determine measurements, tool paths, and machine set-up coordinates. 1 credit
- PM 118 TURNING/MILLING THEORY**  
This course introduces the student to basic engine lathes and manual milling machines. Their safety, components, operations, and techniques will be covered. 1 credit
- PM 131 LATHE AND MILL OPERATIONS I**  
This course provides the student with hands-on experience in basic machine controls, set up, operation, and maintenance of manual milling machines and engine lathes. 3 credits
- PM 133 LATHE AND MILL OPERATIONS II**  
This course provides the student with hands-on experience in basic machine controls, setting up, operation, and maintenance of manual milling machines and engine lathes. 2 1/2 credits
- PM 134 MACHINE TOOL FUNDAMENTALS**  
This course provides hands-on shop time to develop safe work habits using general shop tools and equipment; also basic competency on pedestal grinders. 1 credit
- PM 138 LATHE AND MILL OPERATIONS I WITH LAB**  
This course is a basic class on safety, machine setup, operations of lathes, milling machines and grinders. The lathe section covers safety, precision turning, knurling, drilling, treading, feeds and speeds. The milling section consists of safety, machine operation, setup, and calculating feeds and speeds. 5 1/2 credits
- PM 139 LATHE AND MILL OPERATIONS II WITH LAB**

Students will expand on the concepts and hands-on operations learned in PM 138. 3 1/2 credits

- PM 152 ADVANCED LATHE AND MILL THEORY**  
This course expands on operation of engine lathe, vertical and horizontal milling machines. 1 credit
- PM 160 ADVANCED LATHE AND MILL OPERATIONS I**  
This course provides the student with hands-on experience in operating and setting up engine lathes and vertical milling machines, for advanced operations. 3 credits
- PM 162 ADVANCED LATHE AND MILL OPERATIONS II**  
This course provides the student with hands-on experience in operating and setting up engine lathes and vertical milling machines, for advanced operations. 3 credits
- PM 167 INTRODUCTION TO COMPUTER NUMERICAL CONTROLS (CNC)**  
This course introduces the student to the operation and programming of computer numerically controlled lathes and mills, using G & M Codes. 1 credit
- PM 168 PRECISION GRINDING**  
This course introduces precision grinding, use and care of horizontal-spindle surface grinders, and includes basic operations such as grinding parallel and perpendicular surfaces flat. 2 credits
- PM 172 FRYER CNC TURNING CENTER**  
This course expands students' knowledge of turning center programming and introduces students to full-scale production turning centers: set up, programming, and operation of the Fryer Easy Turn 14.3 credits
- PM 185 MILLTRONICS COMPUTER NUMERICAL CONTROL (CNC) OPERATIONS**  
This course introduces the student to Milltronics “Partner”: programming (G&M code), operations, and setup. 3 credits
- PM 200 PRECISION GRINDING THEORY**  
Students will develop basic grinding skills including grinding flat surfaces, angles and form grinding. 1 credit
- PM 202 PRECISION GRINDING LAB**  
Hands-on grinding exercises will be performed in the lab following classroom theory. 1 credit
- PM 204 LATHE TURNING CENTER**  
This course introduces basic lathe applications consisting of identifying lathe components and controls and understanding turning safety. 1 1/2 credits
- PM 206 LATHE TURNING CENTER LAB**  
Students will perform basic lathe turning applications as learned in lathe turning theory. 1 1/2 credit
- PM 207 ADVANCED COMPUTER NUMERICAL CONTROL (CNC) THEORY I**  
This course exposes the student to in-depth programming techniques on the CNC milling and turning centers. 2 credits
- PM 208 ADVANCED COMPUTER NUMERICAL CONTROL (CNC) OPERATIONS I**  
This course allows time for the student to practice in-depth programming techniques on the CNC milling and turning centers. 2 1/2 credits
- PM 212 CAD CAM**  
This course introduces the student to Virtual Gibbs Cad or possible multiple cam software systems. 1 credit
- PM 217 INTRO TO ELECTRICAL DISCHARGE MACHINES**  
This course provides the student with theory and basic operations of sinker EDM machines. 1 credit
- PM 218 ADVANCED ELECTRICAL DISCHARGE MACHINES**  
This course provides the students with the theory and basic operations of the wire EDM machines and Mitsubishi 4 Axis Wire EDM. 1 credit

PM 221	<b>FIXTURE MAKING THEORY</b> This course introduces the student to basic jig and fixture design and concepts. 1 credit		
PM 222	<b>FIXTURE-MAKING APPLICATIONS</b> This course provides the student the opportunity to apply principles of jig and fixture design, construction, and application by designing and constructing jigs or fixtures themselves. 2 credits		
PM 226	<b>DIE-MAKING THEORY</b> This course introduces the student to basic construction, components, and design of stamping die sets. 1 credit		
PM 227	<b>DIE-MAKING LAB</b> This course introduces the student to basic construction, components, and design of stamping die sets. 3 credits		
PM 228	<b>INTRODUCTION TO PRECISION MACHINING</b> This course is an introductory course covering the basic hand tools and machine tools used to support manufacturing and toolmaking processes. 4 credits		
PM 236	<b>COORDINATE MEASURING MACHINE</b> This course introduces the student to the coordinate measuring machine and geometric dimensioning and tolerancing. 1 credit		
PM 261	<b>BASIC MOLDING PROCESSES</b> This course introduces the student to the basic molding processes and design. 1 credit		
PM 267	<b>BASIC MOLDING OPERATIONS</b> This course provides the student time to design, manufacture and run an injection mold. 3 credits		
PM 272	<b>ADVANCED CNC THEORY II</b> This is an introductory course into the theory on advanced skill sets on CNC milling and turning centers. 1 credit		
PM 274	<b>ADVANCED CNC OPERATIONS II</b> This course allows time for the student to use the CNC milling and turning centers 3 credits		
PM 277	<b>PRECISION MACHINING CAPSTONE PROJECT</b> This course provides the student time to gain more machining experience thru a final project. 2 credits		
PN 102	<b>FUNDAMENTALS OF NURSING PRACTICE I</b> This course introduces the student to the profession of nursing. Healthcare delivery systems, the career as a profession, health promotion, and communication are emphasized. The students participate in an independent clinical setting with the focus on communication skills. 2 credits		
PN 103	<b>FUNDAMENTALS OF NURSING PRACTICE II</b> This course is a study of nursing skills and the fundamental principles for providing direct patient care using a nursing lab setting and a hospital setting. 6 credits		
PN 106	<b>FOUNDATIONS IN NURSING</b> This course introduces the student to several different topics. Alternative medicine is introduced along with the aging process. Ethics in nursing is studied as well as an introduction to the Board of Nursing and legalities. Diagnostics, the surgical patient, and mental health are all presented. 2 credits		
PN 108	<b>NUTRITION</b> A study of nutrients, choose my plate, water electrolytes, and pH, with emphasis on how good nutrition is essential in promoting physical and mental health. 1 credit		
PN 110	<b>MEDICAL TERMINOLOGY</b> This course prepares nursing students with the essential information necessary to build, define, recognize, and utilize medical terminology used in nursing practice. 1 credit		
PN 111	<b>MATERNITY NURSING</b> The student will be introduced to the physiology of pregnancy, labor and delivery, and the puerperium; and to the nursing		needs and care of the mother prenatally following and during the postpartum period. A study of fetal growth and development, and the needs and nursing care of the newborn infant will also be included. 2 1/2 credits
		PN 112	<b>NURSING CARE OF CHILDREN</b> This is an introduction to human growth and development from infancy to adolescence. Health problems of each age group are explored. The role of the LPN in meeting the health needs of children in a variety of settings is included. 2 credits
		PN 113	<b>NURSING CARE OF THE ADULT I</b> This course will introduce the student, in theory and practice, to the physical, emotional, cultural, and spiritual needs of clients with common health conditions. The role of the practical nurse will be described in relation to meeting the basic needs of those clients in all stages of health and illness. Integrated throughout the course are basic concepts of nutrition and drug therapy used in the treatment/management of different disease processes. Clinical practice in various settings provides the student with the opportunity to gain competence in skills and nursing care. 5 credits
		PN 114	<b>NURSING CARE OF THE ADULT II</b> This course is an extension of PN 113. The focus is the clinical practice where students complete some of the clinical independently in various settings. The student has the opportunity to enhance their skills and to progress towards the role of the nurse in various settings. 6 credits
		PN 116	<b>NURSING CONCEPTS C</b> This is an introduction to human growth and development from infancy to adolescence. Health problems of each age group are explored. The role of the LPN in meeting the health needs of children in a variety of settings is included. 4 1/2 credits
		PN 121	<b>NURSING CONCEPTS D</b> (Care of the Adult Client) This course will introduce the student, in theory and practice, to the physical, emotional, cultural, and spiritual needs of clients with common health conditions. The role of the practical nurse will be described in relation to meeting the basic needs of those clients in all stages of health and illness. Integrated throughout the course are basic concepts of nutrition and drug therapy used in the treatment/management of different disease processes. Clinical practice in various settings provides the student with the opportunity to gain competence in skills and nursing care. 11 1/2 credits
		PN 123	<b>NURSING CONCEPTS E (Independent Study)</b> (Online) This course provides nursing skills remediation for students retaking any nursing course with a clinical component/experience except for those retaking PN103. 2 credits
		PN 130	<b>PHARMACOLOGY</b> This course will provide the student an overview of drug therapy, the principles of safe drug administration, and classifications of drugs. Correct dosage computation, common abbreviations for drug administration, and equivalencies are stressed. PN 103 or Concurrent with PN 103. 1 credit
		PN 201	<b>APPLIED CLINICAL PRACTICE</b> The course is a continuation of PN 113, PN 114 in the clinical setting. It will provide student exposure to increasingly complex nursing situations with assignments of groups of clients. A long-term care preceptorship will accompany this course. 5 credits
		PN 203	<b>PROFESSIONAL CONCEPTS IN NURSING</b> This course is a study of personal, educational and professional responsibilities including legal, ethical, spiritual and cultural aspects. Conflict management in the workplace is studied as

well as leadership. This course occurs in the last semester of the program. Pre-requisites include PN 102, PN 103, PN 106, PN 108, PH 113, PN 114, and PN 130. 1 credit

**PSYC 100 PSYCHOLOGY OF HUMAN RELATIONS**

Human relations is a practical course that presents the interpersonal “people skills” that are important in the modern workplace. Topics include communicating effectively, assertive behavior, teamwork, conflict resolution, and work ethics. Students will gain awareness of their individual work styles and how to work effectively with people with different styles in a diverse workplace. Specific techniques for coping with job stress and managing anger will also be emphasized. Class activities and assignments will stress practical application of skills. Course is also applicable in personal settings, such as family, social, and school. 3 credits

**PSYC 101 GENERAL PSYCHOLOGY\***

This course is an introduction survey to 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. 3 credits  
\*College transferable.

**PSYC 111 APPLIED PSYCHOLOGY**

This course helps a student learn how to be a team member in a work environment. 1 credit

**PSYC 251 ABNORMAL PSYCHOLOGY**

A comprehensive study of abnormal personality behavior. Detailed examination of the origin, symptoms and treatments of psychological disorders. 3 credit

**PTA 100 INTRODUCTION TO PHYSICAL THERAPIST ASSISTING**

This course will introduce students to the field of physical therapy. Topics will include history of the physical therapy profession, role and scope of PT/PTA, professional organization, educational and job opportunities, career decisions, confidentiality, licensure, physical therapy terminology, basic research procedures, multi-disciplinary team approach, communication within the health-care fields, reimbursement, professionalism and service learning, as well as current issues affecting the field of physical therapy. 1 credit

**PTA 106 KINESIOLOGY**

This course includes classroom and laboratory instruction on basic kinesiological and biomechanical principles related to normal movement and their importance in understanding and implementing treatment programs. The course will provide an in-depth anatomy review with emphasis placed on laboratory application of musculoskeletal and neuromuscular relationships and function. 3 credits

**PTA 110 FUNDAMENTALS OF PHYSICAL THERAPIST ASSISTING**

This course will include lecture and classroom instruction on the fundamental skills of physical therapist assisting required for patient care and treatment. These skills include documentation of patient care; aseptic/sterile techniques as well as a review of universal precautions; preparation of the patient, treatment areas, and equipment; posture and body mechanics; patient transfers; gait training with or without assistive devices; wheelchairs and wheelchair mobility; architectural barriers, and activities of daily living. The primary focus of this class will be the lab; most of the skills are hands-on. 3 credits

**PTA 116 ETHICS AND ISSUES IN PHYSICAL THERAPY**

This course includes classroom instruction and discussion in ethics and important issues facing the physical therapy profession and health care in general. Topics will include medical law and ethics, multi-disciplinary team approach, standards for practice and ethical conduct, professional liability, medical malpractice, confidentiality, quality assurance, employment issues, fiscal considerations, and third-

party payers, bio ethics, professional duty and standards. 2 credits

**PTA 120 OBSERVATION AND MEASUREMENT**

This course will include classroom and laboratory instruction on the basic examination skills necessary for monitoring patient progress and safety, and for making recommendations for treatment modification. Examination techniques include goniometry, manual muscle testing, segmental length, girth and volume, skin and sensory examination and environmental examination. 3 credits

**PTA 125 PHYSICAL AGENTS AND MASSAGE**

This course will include classroom and laboratory instruction on the theory and techniques of applying physical therapy modalities including therapeutic heat and cold, ultrasound, hydrotherapy, phototherapy, massage, intermittent compression pump, and traction. Students will also be exposed to proper positioning and draping techniques for treatment to various body regions. This course will also introduce the topics of universal precautions, sterile techniques, wound care, burn care, dressings, and bandaging of burns and wounds. 4 credits

**PTA 136 ELECTROTHERAPY**

This course will include classroom and laboratory instruction on the theory and application of therapeutic electrical current and biofeedback for pain modulation and neuromuscular facilitation and re-education as well as the use of electrical stimulation in combination with other therapeutic agents. 2 credits

**PTA 145 THEORIES OF THERAPEUTIC EXERCISE**

Includes classroom and laboratory instruction on the theory and technique of basic therapeutic exercises. Students will receive instruction in theories, stretching, strengthening and select orthopedic conditions 1 1/2 credits

**PTA 150 PATHOLOGY FOR THE PTA**

This course will provide students with the basic knowledge of diseases of the human body. Emphasis will be put on the description, etiology, clinical manifestations, treatment, prognosis and prevention of pathology. The primary focus will be the implications that each pathology has on physical therapy treatments. 2 credits

**PTA 216 APPLICATIONS IN THERAPEUTIC EXERCISE**

This course will include classroom and laboratory instruction on the theory and technique of basic therapeutic exercises and equipment used for the treatment of musculoskeletal disorders. 2 credits

**PTA 220 MUSCULOSKELETAL DISORDERS AND TREATMENT**

This course will consist of classroom and laboratory instruction on the management of common musculoskeletal disorders with emphasis on physical therapy treatment protocols. This course will also include a review of basic assessment and treatment procedures. 4 credits

**PTA 228 NEUROANATOMY AND NEUROLOGICAL DYSFUNCTION**

This course includes classroom instruction on basic neuroanatomy, review of sensory and motor systems, higher cognitive processes, autonomic nervous systems, and adult neurological disorders. 3 credits

**PTA 229 HUMAN DEVELOPMENT AND PEDIATRIC DISORDERS**

This course includes classroom instruction on: embryology, neurodevelopmental sequences, reflexes, critical competencies and pediatric disability. Students will become familiar with normal and abnormal development. This course will give students an opportunity to interact with children and understand the importance of play. 1 1/2 credits

**PTA 231 SPECIAL TOPICS**

This course includes classroom and laboratory instruction in a variety of topics considered specialties in the practice of physical therapy. Students will be exposed to the following: orthotics, kinesiotaping and instrument assisted soft tissue mobilization, geriatric disease processes and PT management, cardiopulmonary disease processes and PT management and business management practices. 1 1/2 credits

**PTA 241 CLINICAL AFFILIATION I**

Designated Clinical Instructor from the community-based physical therapy setting, who has a minimum of one year of clinical experience and LATI Academic Coordinator of Clinical Education will supervise student learning in the clinical setting. 3 credits

**PTA 242 REHABILITATION PROCEDURES**

This course includes classroom and laboratory instruction on rehabilitation procedures used specifically for CVA, amputee, Multiple Sclerosis, Parkinson's disease, brain tumors, cerebellar disorders, Guillian Barre', and peripheral neuropathies. We will discuss specific techniques for head injury and spinal cord injury, as well. 4 credits

**PTA 245 CLINICAL AFFILIATION II**

This course is a clinical practicum learning experience that takes place in a community-based physical therapy setting over a period of six consecutive weeks. It occurs after the completion of the first and second year of coursework and the Clinical Affiliation I. The student attends the clinic setting each day for a full workday. While in the clinic setting, the student practices physical therapist assistant procedures necessary for patient care. The clinical instructor provides opportunities for the student to observe and implement physical therapist assistant standards of practice. 4 credits

**PTA 250 CLINICAL AFFILIATION III**

This course is a clinical practicum learning experience that takes place in a community-based physical therapy setting over a period of six consecutive weeks. It occurs after the completion of the first and second year of coursework and Clinical Affiliations I and II. The student attends the clinic setting each day for a full workday. While in the clinic setting, the student practices physical therapist assistant procedures necessary for patient care. The clinical instructor provides opportunities for the students to observe and implement therapist assistant standards of practice. 4 credits

**RBTC 200 MECHANICAL DESIGN AND 3-D MODELING**

This course will cover print reading skills for individuals who will enter into the world of manufacturing. Emphasis is placed in the areas of orthographic views, isometric views and detailed and assembly prints. Engineering and Technical Designing using Autodesk Inventor will be introduced. 3 credits

**RBTC 202 ROBOTIC ENGINEERING**

Robotic Engineering is the capstone project for Robotics and Electronic Systems Technology students. Student teams must design, build, and program a robot to complete specific tasks. 3 credits

**RBTC 205 PROGRAMMABLE LOGIC CONTROLLERS**

PLC's is the introduction to programming for students. Students will learn networking skill, logical programming, and reading ladder diagrams. 3 credits

**RBTC 207 FLUID POWER**

Students will learn symbols to help in construction of hydraulic/pneumatic circuits. Students will use different valves and actuators to help calculate forces using fluid power. 1 1/2 credits

**RBTC 210 MECHANICAL SYSTEMS**

Students will learn the basics of mechanics. Students will learn safety around mechanical equipment, lockout/tag out procedures, ratios, alignment, tensioning, and motor installation. 2 credits

**RBTC 217 PROCESS CONTROL SYSTEMS**

Process control systems provide precise control of liquids and gases in a wide variety of industrial applications. Students will learn 3 types of controllers: relay control, the standard, and PID controls. The labs will have students using a wide variety of transducers and control valves, enabling students to study a full range of process instrumentation technology. 2 credits

**RBTC 219 PLC INTEGRATION**

Robot Operation and Programming will use some of the same robot programming as used in process class. Students will now learn how the vision systems tie into the robots control and programming. The last project will incorporate robot programming, vision systems, PLCs, and HMIs. 3 credits

**RBTC 227 ROBOT OPERATION AND PROGRAMMING**

Robotic Operation and Programming is the basics of programming for different robots that students could encounter out in industry. This course is designed to build off of previously learned material. 2 credits

**RBTC 233 INTERNSHIP**

The purpose of this course is to work in industry and learn what it will take to be a full time technician. The students will have opportunities to enhance their communication skills, demonstrate professionalism and teamwork. 3 credits

**RBTC 238 ADVANCED ROBOT OPERATION AND PROGRAMMING**

Advanced Robot Operation and Programming will have students doing multiple projects with robotic systems. Students will use vision, hmi, plc, and robot programming knowledge to complete tasks in an automated line. 2 credits

**RN 206 PROFESSIONAL CONCEPTS IN NURSING**

This course introduces the student to the professional career as an RN. The course is designed to expand the knowledge and skills of the LPN as they transition to the role of the RN. The course provides an overview of the role of an RN, including the professional nurse responsibilities such as delegation, health promotion, informatics, and utilizing evidence-based teamwork to improve communication among healthcare professionals. 0.5 credits

**RN 223 HEALTH PROMOTION AND CLINICAL CONCEPTS IN NURSING**

This course focuses on the advanced assessment and health promotion for the adult client. The course will accentuate the assessment of objective and subjective indicators of common acute and chronic health conditions while providing a foundation for nursing care. This course will introduce a holistic perspective of the pathophysiological process of nursing care of adult clients who experience common disorders of various body systems. Students will provide care to clients in complex situations using an understanding of holism, advanced assessment, and basic pathophysiology. Evidence based practice is used to support appropriate assessments and safe and effective nursing interventions. 4 credits

**RN 227 NURSING CARE OF THE CHILD AND FAMILY**

This course focuses on the special health care needs of the childbearing family and the pediatric client. The student will have the opportunity to integrate prior learning about obstetrics and pediatric care with an increased knowledge of family dynamics and cultural influences. Course content includes antepartal, intrapartal, and postpartal care, complications of pregnancy, newborn care, human growth and development, pediatric care, and selected pediatric alterations. Nutrition, pharmacology, use of technology, communication, critical thinking, and application of the nursing process are integrated throughout this course. Upon completion of this course,

students will be able to provide and manage care for maternal and pediatric clients in a variety of settings. 3 credits

**RN 228 NURSING IN THE COMMUNITY**

This course is the study of the dynamics of clients in the community. The students will gain an understanding of community resources and the health care needs of those with illness and end of life concerns from a home and community setting. The student will study the functions of all facets of public health and will partner with the community in prevention practices and serve those at risk. Multidisciplinary collaboration will be visited. This course complements the course, RN 240 Applied Pathophysiology in Clinical Nursing, to provide an inclusive understanding of disease processes. 1 credit

**RN 230 PHARMACOLOGY FOR THE REGISTERED NURSE**

This course expands the nursing student's knowledge on the concepts of pharmacology and medication administration, with an emphasis on clinical applications within the context of the nursing process. This course covers major drug classifications, including indications, modes of actions, effects, contraindications, and drug interactions. Pharmacology concepts are integrated throughout the course relevant to cultural, ethical, population considerations, medication safety, and dosage calculations. 1 credit

**RN 236 MENTAL HEALTH NURSING**

This course studies the understanding and the application of nursing and psychiatric-mental health concepts. It has a focus on promoting the mental wellness of individuals and groups. The course is designed to increase awareness in nursing of issues in mental health with an emphasis on psychiatric disorders. 1.5 credits

**RN 240 APPLIED PATHOPHYSIOLOGY IN CLINICAL NURSING**

This course is designed to build and expand on current knowledge of nursing care and pathophysiology related to various complex medical-surgical conditions/illnesses. The course will emphasize the etiology, pathophysiology and the nursing care of adult clients experiencing common disorders of body systems. Students will provide care to clients in complex situations using an understanding of the pathophysiology of such conditions. Evidenced based practice is used to support appropriate assessments and safe and effective nursing interventions. Understanding the client as a whole person will be emphasized. 4 credits

**RN 242 APPLIED NURSING CONCEPTS**

Emphasis is placed on utilization of the nursing process to assist with clinical judgment when caring for individuals in all stages of development as they progress along the wellness-illness continuum. An understanding of the pathophysiology of conditions, application of knowledge in complex and or unstable nursing situations, communication skills, delegation, cultural awareness, and utilization of technology are integrated throughout this course. 4 credits

**SCT 100 SOLAR CAR TEAM**

This elective class will be a cross-discipline team-based course where the goal is to design and fabricate a solar car, which will eventually be used for national competition. The class is a hybrid class with on-line theory and hands-on weekly labs. Solar Car Team project is open to any student and credits are offered for those in related programs. 6 credits

**SOC 100 INTRODUCTION TO SOCIOLOGY\***

Comprehensive study of society, with analysis of group life and other forces shaping human behavior. 3 credits \*College Transferable.

**SOC 110 SOCIAL ISSUES**

This course will cover the various dynamic and complex social issues that the provider and their clientele may encounter in the human service industry and provide a deeper understanding of

this subject matter. 3 credits

**SOC 118 SOCIOLOGY IN HEALTHCARE**

This course will consist of classroom instruction and discussion on topics such as qualities of a leader, therapist/patient/family response to illness/disability, cultural and age related considerations, death and dying, the grieving process, and appropriate interaction between the PTA and the patient/family. Discussion of professional traits and behaviors will reinforce the student's understanding of their role in healthcare. 3 credits

**SPCM 101 FUNDAMENTALS OF SPEECH\***

Students will gain an understanding of the effective use of the English language, which is essential to success in school and in the world. Students will learn to read and listen critically and to write and speak thoughtfully, clearly, coherently, and persuasively. 3 credits \*College Transferable.

**SPSH 100 SPANISH FOR THE HEALTHCARE WORKER**

Students will learn fundamentals of the Spanish language that will be helpful when encountering Spanish-speaking individuals in a medical setting. 1/2 - 3 credits

**WLD 100 INTRODUCTION TO WELDING**

Review and understand all safety precautions affiliated with the welding process. Perform the welding procedure on automotive sheet metal as required. 3 credits

**WLD 105 OXYACETYLENE SAFETY**

Safety with oxyacetylene equipment and set-up. 1 credit

**WLD 110 PROPER USE OF THE CUTTING TORCH**

This course covers safety, identification of equipment and hands-on skills. 1/2 credit

**WLD 111 SHOP ORIENTATION MAINTENANCE & SAFETY**

Introduction, general shop safety, and fire safety. 1 credit

**WLD 113 SHIELDED-METAL ARC WELDING I**

Includes safety involving SMAW, identification of equipment, and hands-on skills for striking and maintaining an arc. 1 1/2 credits

**WLD 114 FERROUS METALLURGY**

Identification of different ferrous and non-ferrous metals. Determine proper alloys and heat ranges to apply to different ferrous materials. 1/2 credit

**WLD 115 SHIELDED METAL ARC WELDING II**

Includes advanced instruction and hands-on training in shielded-metal arc welding. 3 credits

**WLD 120 METAL FABRICATION**

Students will become familiar with the basic operation of fabrication equipment, equipment safety, and preventive maintenance. 1 credit

**WLD 122 GAS METAL ARC WELDING I**

Includes safety involving GMAW, identification of equipment used in GMAW, and information about how to set up equipment and accessories. With this information, students will be able to weld five different joints in four different positions. 6 credits

**WLD 123 BLUEPRINT READING**

Students will identify components of a blueprint, interpret the welding symbol, and interpret the welding prints. 1 credit

**WLD 125 POSITION WELDING**

Provides knowledge about current adjustment and positioned and out-of-position welding skills. 6 credits

**WLD 135 GAS METAL ARC WELDING II**

Contains demonstrations involving GMAW and hands-on skills required for positioned and out-of-position welding. 5 3/4 credits

**WLD 140 FLUX-CORED ARC WELDING**

Includes identification of equipment used, identification of consumables used, and hands-on skills required for FCAW.

1 credit

- WLD 141 GAS METAL ARC WELDING A**  
Students will demonstrate safety techniques/procedures involving GMAW, identify equipment used in GMAW, and produce quality welds in all position on all weld joints. 1 1/2 credits
- WLD 143 GAS METAL ARC WELDING B**  
Students will demonstrate safety techniques/procedures involving GMAW, identify equipment used in GMAW, and produce quality welds in all position on all weld joints. 3 credits
- WLD 145 GAS METAL ARC WELDING C**  
Students will demonstrate safety techniques/procedures involving GMAW, identify equipment used in GMAW, and produce quality welds in all position on all weld joints. 3 credits
- WLD 147 GAS METAL ARC WELDING D**  
Students will demonstrate safety techniques/procedures involving GMAW, identify equipment used in GMAW, and produce quality welds in all position on all weld joints. 4 1/4 credits
- WLD 151 SHOP MATH**  
The student will learn the use of measuring tool and the use of formulas. 2 credits
- WLD 161 GAS TUNGSTEN ARC WELDING**  
Includes safety involving GTAW, identification of equipment and hands-on skills. 2 1/2 credits
- WLD 165 AIR CARBON ARC GOUGING**  
Includes safety involving air-carbon arc gouging, identification of equipment and hands-on skills. 1/4 credit
- WLD 200 PIPE WELDING**  
Orientation to pipe welding and joint descriptions. 3 credits
- WLD 203 ADVANCED ARC WELDING TECHNOLOGIES I**  
Students will learn to choose the correct welding process, demonstrate welding capstone projects, examine welds for quality, and prepare welded joints before welding. 3 credits
- WLD 207 ADVANCED ARC WELDING TECHNOLOGIES II**  
Students will learn to choose the correct welding process, demonstrate welding capstone projects, examine welds for quality, and prepare welded joints before welding. 3 credits
- WLD 210 ADVANCED GAS TUNGSTEN ARC WELDING**  
Students will learn to prepare the pipe and 1G roll out, 2G, 5G, 6G, 2F, 4F, 5F, to be welded uphand. 3 credits
- WLD 212 WELDING CAPSTONE PROJECT I**  
Students will begin and process through a welding capstone project. The goal is for students to address a practical, real world project using the skills and knowledge they have gained throughout the program of study. 3 credits
- WLD 215 WELDING CAPSTONE PROJECT II**  
The capstone project is an opportunity for students to complete their Associate of Applied Science degree for Welding Technology. The goal of the project is to demonstrate fluency with the tools of the trade in the welding field, an ability to independently plan and carry out a piece of work, and an ability to present the work in written and oral formats. The capstone project can take many forms, depending on the interests of the student. 3 credits
- WLD 232 WELDING PROCESS**  
Instruction and hands-on exposure to basic welding. 2 credits
- WLDR 100 ROBOTIC MAINTENANCE AND SAFETY**  
Students will learn to operate the robot safely and be able to maintain maintenance. 1 credit
- WLDR 105 BASIC ROBOTICS PROGRAMMING**  
Students will learn to make a simple program on a basic part. 3 credits

## General Education Requirement Courses

In programs indicated, students will select a course in each of the areas listed to meet general education requirements. Courses marked with an asterisk can be transferred directly to the South Dakota university system under the terms of articulation agreements.

### Behavioral Science

- \* PSYC 101 General Psychology  
PSYC 100 Psychology of Human Relations

### Communications

- \* SPCM 101 Fundamentals of Speech  
\* ENGL 101 Composition  
COMM 101 Contemporary Communication

### Mathematics

- MATH 100 Applied General Math  
MATH 101 Intermediate Algebra  
\* MATH 102 College Algebra

### Social Science

- \* ECON 201 Principles of Microeconomics I  
\* ECON 202 Principles of Macroeconomics II  
\* SOC 100 Introduction to Sociology  
ECON 105 Leadership in the Global Workplace

### Additional Transferrable Courses

- PHGY 210 Introduction to Human Physiology  
ANAT 142 Anatomy  
CHEM 106 Inorganic Chemistry  
CHEM 106L Inorganic Chemistry Lab - 1 credit  
CHEM 108 Organic Chemistry  
CHEM 108L Organic Chemistry Lab - 1 credit  
MICRO 231 General Microbiology

## Click to view our Faculty and Staff





# Locator Map

1201 Arrow Ave. Watertown



Visitors are always welcome at Lake Area Tech.

Office hours are Monday through Friday  
from 7:30 a.m. to 5:00 p.m. It is recommended that you contact Lake Area Tech  
at 605-882-5284 prior to your visit to arrange an appointment with our admissions team.

Visitor parking is located on the south side of the campus.  
Enter through the doors facing Arrow Avenue and the Admissions Office is to your left.

We are looking forward to your visit at Lake Area Tech!



[www.lakeareatech.edu](http://www.lakeareatech.edu)

