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
• Flight Training Option

Building Trades Technology
• Entrepreneurship Option
• Human Resource Associate Option
• Marketing & Management Option
• Photography/Video Option

Community Healthcare Worker

Computer Information Systems
• Networking & Cyber Security Specialist Option
• Programming Specialist Option
• Graphic Design & Digital Communications Specialist Option

Cosmetology
• Auto Body Technician Option
• Diploma Option

Dental Assisting
• Certificate Option

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
Robots

Welding Technology

E-DEGREES (online hybrid programs)

Agriculture
• Agri-Business Option
• Commodity Merchandising Option
• Ranch Management Option

Business Associate
• Entrepreneurship Option
• Human Resource Associate Option
• Marketing & Management Option

Computer Information Systems
Dental Assisting - Certified

Electronics Systems Technology
Emergency Medical Technician - Certification only

Financial Services
Law Enforcement Virtual Academy

Med/Fire Rescue
• Emergency Medical Technician (EMT Basic) Certification – Certification only

Medical Lab Technician
Nursing
Precision Machining

LAKE AREA TECHNICAL INSTITUTE
1201 Arrow Avenue
Watertown, SD 57201
(605) 882-LATI
1-800-657-4344
www.lakeareatech.edu
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 80224.

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

Remediation 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.

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).

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 LATI’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).
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.
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

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

General Education Purpose Statement
The purpose of LATI 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 Education 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 LATI 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.
6. 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.

**Transfer of General Education College Credits**

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

1. 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.
2. 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:

1. Technical studies credits fulfilling the Associate of Applied Science degree or diploma requirements must substantially match Lake Area Tech’s curriculum.
2. The decision to accept specific technical credits will be made at the program level.
3. 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.
4. 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:

1. 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.
2. Any general education credits transferred in must meet the transfer requirements of Lake Area Tech.
3. Technical education courses must meet the requirements of the current program.
4. Transferring credits for enrolled students is subject to current policy.
5. Non-enrolled students will be charged $10 per course for transferring credits.

**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.
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.

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.

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, expressos, lattes, and blended coffee drinks. It features Green Mountain organic, fair-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.
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: 2486
Full-Time: 68.1%
Part-Time: 31.9%
(Out-of-State: 15.6%)
Enrollment by Age:
Under 18 ................. 12.3%
18-19 ..................... 41.2%
20-29 ..................... 39.0%
30-39 ..................... 5.2%
(Age unknown) .... 0.2%
40-49 ..................... 1.5%
50+ ................ ..... 0.6%
Enrollment by Gender:
Males ..................... 51.1%
Females ..................... 48.9%
Diversity Enrollment: ........................ 5.2%
Online E-Degree Enrollment: ........................ 15.2%
Retention: ........................ 84.0%
Two-Year Graduation Rate: ........................ 70.2%
Recruitment Territory:
South Dakota
Southern North Dakota
Western Minnesota
Northwest Iowa
Student/Faculty Ratio: 17:1
Tuition: (per credit hour)
In-State ..................... $116
Out-of-State ..................... $116
*SD will buy down $10 per credit in 2018-19
Financial Aid:
(First-time, full time students) 94% of students receive financial aid
40% of students received a federal Pell Grant
400+ scholarships awarded: $400,000
Employment:
75% of the students work part-time or full-time while attending school
Placement*:
99% of the graduates are employed or continuing their education
81% of graduates choose employment in SD (*2016-2017 graduate survey)
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

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.
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

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
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.
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 troubleshoot 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

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

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.
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.

A laptop is required for this option.
Learn more at 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: superior, comprehensive technical education that changes lives and launches careers.

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

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.
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).

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!

A laptop is required for this program.

Learn more at www.lakeareatech.edu

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: superior, comprehensive technical education that 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
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.

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:
superior, comprehensive technical education that changes lives and launches careers.

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

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

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

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

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
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

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.

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 for the latest updates.

A laptop is required for this option.
Learn more at www.lakeareatech.edu
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

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.
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
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

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.
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/

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

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

**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**

**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.

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, 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 or contact Rebbeca 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.
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
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

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.
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

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!

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.
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.

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!
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

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 Program 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 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 workforce 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 Wissota 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.
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 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

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.
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) 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. 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.

A laptop is required for this program.
Learn more at www.lakeareatech.edu
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) 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
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.

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.

Up on 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. Click here for the 2017 NAACLS program outcomes.

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

Click below to view the Medical Lab Tech Course Outlines

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.

A laptop is required for this program.
Learn more at www.lakeareatech.edu
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

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.
**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 fieldwork 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. 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)
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

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.
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

Click here to view the Precision Machining Course Outline

Click here to view our Precision Machining Placement Report

Click here to view the Precision Machining Student Learning Outcomes

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

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

Get your Robotics degree online. For more information, go to the Robotics e-degree page.
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.
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. Includes 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 210 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 a 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 126 INTRO TO PESTICIDE SAFETY
Study, review and administer exam for the certification to apply commercial pesticides. 1/2 credit

AGR 127 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 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 (S.O.E.)
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 herdsmanship, 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. 6 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 fluent 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 manufacturers, 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
Students will be provided the opportunity to gain hands-on experience through internships with members of the agricultural industry. This could include feed mills, chemical retailers and 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 on the student's own premises. Structured assignments must be completed. Sixty internship hours must be completed in Animal Health and forage management. Instructors will visit the farm several times during this period. 6 credits

AGR 250 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 251 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 252 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 253 COMMODITY FUTURES AND OPTIONS
Prerequisite: AGR 236. Topics include marketing, financial management and reporting, international business growth, and discussion of career implications. 1 1/2 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 with 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 basics 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 260 LIVESTOCK MARKETING AND EVALUATION
Students will study the marketing 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 261 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 262 RANCH SUPERVISED OCCUPATIONAL EXPERIENCE II (S.O.E.)
Students will gain hands-on, practical experience through a second internship at their own ranch or another ranch that will offer an opportunity to utilize the skills and applications learned in the classroom. 6 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 another ranch that will offer an opportunity to utilize the skills and applications learned in the classroom. 6 credits

AGR 264 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 265 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 266 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 267 FARROWING, NURSERY, AND FINISHING MANAGEMENT
Students will learn to manage reproduction efficiency, as well as growing and marketing hogs. 2 credits
A study of cells, tissues and organs making up the integumentary, ANAT 142 ANATOMY

Students will gain hands-on practical experience through AGR 276 COMMODITY SUPERVISED OCCUPATIONAL EXPERIENCE III (SOE)

Students will develop and maintain a herd health program AT 156 ELECTRICAL/ELECTRONIC SYSTEMS DIAGNOSTICS

After completing the reading assignments, review questions, AT 122 STEERING, SUSPENSION, AND DRIVETRAIN 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 and/or the theoretical principles of the entire automotive steering suspension and drive axle systems. 4 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. 3 credits

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 100 SAFETY

Safety practices in the lab. 1/2 credit

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/TRANAXLE

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 206 PHYSICS/AERODYNAMICS

This course will provide students with the knowledge and skills necessary to pass the FAA written, Oral, and Practical tests. Students are encouraged to reference the latest revision of the FAA Mechanic General Practical Test Standard FAA-S-8081-26A area J, Basic
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-F 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 II-F 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. Students will identify, remove and treat aircraft corrosion; perform aircraft cleaning. 2 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; manufacture hammer head. 2 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
Completion of ground school training is a regulation-required AVM 161 PRIVATE PILOT GROUND SCHOOL 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. 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. 2 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-B 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 Section IV-B 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 V-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
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 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-R to compare their progress through this course to their capability to pass the FAA certification tests. Students will inspect, service, troubleshoot, and repair engine ice and rain-control systems; heat exchangers, super-chargers, and temperature-control systems; carburetor air-intake and induction manifolds. 1 credit

AVM 246 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 247 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-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 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 249 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; overhaul carburetor systems. 2 credits

AVM 250 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 V-Q to compare their progress through this course to their capability to pass the FAA certification tests. Students will inspect, service, troubleshoot, and repair engine RPM indicating systems. 1 credit

AVM 251 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, check, service, troubleshoot, and repair adjust fuel-metering systems and electronic engine fuel controls; overhaul carburetor systems. 2 credits

AVM 252 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 253 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, super-chargers, and temperature-control systems; carburetor air-intake and induction manifolds. 1 credit

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 256 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 257 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 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 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. 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
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
This 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 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 is a 3 credit 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
This 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
This course is designed as an intensive photography class devoted to practicing 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
BSA 128 LIGHTING LAB
BSA 128 is taken in conjunction with BSA 126. 1 credit

BSA 200 VIDEO/MEDIA
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

BSA 202 STUDIO PHOTOGRAPHY
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

BSA 204 EVENT PHOTOGRAPHY
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

BSA 207 STUDIO LAB
This labs is taken in conjunction with Studio Photography/BSA 202. 1 credit

BSA 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

BSA 210 COMPENSATION AND BENEFITS
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

BSA 212 TRAINING AND DEVELOPMENT
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

BSA 230 QUICKBOOKS
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

BSA 232 SOCIAL MEDIA
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

BTT 112 OSHA/SAFETY
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

BTT 116 CONSTRUCTION TECHNOLOGY I
The course will establish safety procedures, shop and site 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

CONSTRUCTION PRACTICUM I
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

BTT 125 CABINETY TECHNOLOGY
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

BTT 126 CABINETY PRACTICUM
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

BTT 131 INTERIOR FINISHING
Upon completion of this course, the student will perform the skills necessary to complete the interior finish for a residential building project. 2 credits

CONSTRUCTION PRACTICUM II
Upon completion of this course, the student will perform skills necessary to complete the interior finish for a residential building project. 5 credits

RESIDENTIAL DRAFTING/CAD
This course shows how to use architectural drafting and computer aided drafting in defining needs in residential construction. 2 credits

BTT 202 SITE PREPARATION AND CONCRETE
After completing this unit, the student will have a better understanding of site preparation, site layout, concrete construction. 1 1/2 credits

BTT 204 CONSTRUCTION TECHNOLOGY II
After completing this unit, the student will have a better understanding of floor construction, and wall and roof construction. 1 1/2 credits

BTT 209 CONSTRUCTION PRACTICUM III
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

BTT 220 CONSTRUCTION ESTIMATING
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

CONSTRUCTION PRACTICUM IV
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

ADVANCED CONSTRUCTION TECHNOLOGY
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

INTRODUCTION TO BUSINESS
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

PRINCIPLES OF MARKETING
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 ethical 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 supervision 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 prerequisite 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 INTO 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 115 HAIRSTYLING
Classroom instruction given on the procedures used in the
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, recordkeeping, 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/cause & 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
Successfully operate sprayer equipment with proper technique and demonstrate the industrial refinish process. 3 credits

CPF 116 intro to collision estimating

80
Students will identify how to read and write a basic automotive collision estimate or repair using the specified Crash Book. 1/2 credit

CPF 200 AUTOBODY MINOR COLLISION
Remove dents, adjust exterior panels, remove clips, repair damage, refinish and reassemble to industry standards. 3 credits

CPF 203 TINTING AND BLENDING
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

CPF 205 AUTOBODY MAJOR COLLISION
Students will analyze and reverse damage, disassemble and repair and/or replace anything to do with extensive damage to vehicle including refinish and detailing to industry standards. 3 credits

CPF 207 AUTOBODY STRUCTURAL REPAIR
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

CPF 209 WATER-BORNE PAINTING
Students will be able to mix, spray, and troubleshoot problems dealing with waterborne products to industry standards. 3 credits

CPF 212 FABRICATION
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

CPF 214 TRI-COAT FINISHES
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

CPF 219 METAL FINISHING TECHNOLOGY
This course covers the proper methods of filing, metal picking, and use of power grinders to properly finish metal surfaces. 3 credits

CPF 221 PLASTIC REPAIR AND PAINT
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

CPF 223 AUTOMOTIVE GLASS INSTALLATION
Safely operate tools and perform correct removal and installation of auto glass. 2 credits

CPF 224 SOLVENT BLENDING
Students will analyze and repair an accident-damaged vehicle back to pre-accident condition using solvent-based paint. 2 credits

CPF 226 COMPUTERIZED ESTIMATING
Students will identify how to read and write a basic automotive estimate collision or repair using computerized software. 1 credit

CPF 228 BODY AND PAINT PRODUCTION
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 ADVANCED AUTO GLASS INSTALLATION
Students will safely operate tools and perform correct removal and installation of auto glass. 1 credit

CPF 241 TIG WELDING
Students will set up a Tig welder and weld 20 guage metal and also perform six welds to be graded. 1 credits

 CPF 250 AIR-BRUSHING & SPECIAL EFFECTS
Students will learn and demonstrate proper air brush techniques and complete projects with special effects. 1 credit

CPR 110 CPR/AED FOR THE PROFESSIONAL RESCUER
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

CPR 112 BASIC LIFE SUPPORT (BLS) FOR HEALTHCARE WORKERS
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

CSC 100 COMPUTER CONCEPTS
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. Students will demonstrate knowledge of these units by scoring at least 80% on assignments, related objective and performance tests. 1 credit

DA 105 PRECLINICAL SCIENCE
The study of microorganisms and diseases pertaining to dentistry and the techniques necessary to prevent the transmission of disease. 2 credits

DA 110 DENTAL AND ORAL ANATOMY
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

DA 115 MEDICAL TERMINOLOGY
The study of medical terminology including building, spelling, and defining medical terms used in the health field. 1 1/2 credits

DA 120 ORAL HEALTH
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

DA 126 INTRODUCTION TO PATIENT CARE
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

DA 135 DENTAL MATERIALS
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 prostheses. 3 credits

DA 138 CLINICAL SKILLS
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
perioc 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 developmentally 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
dedicated 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 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 112  FUNDAMENTALS OF HYDRAULICS
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, and service information program operation. 2 credits

DCAT 113  CATERPILLAR FUEL SYSTEMS
The student will be assigned to a mentor and will work with them
closely to observe and demonstrate proper troubleshooting,
inspection, disassembly, assembly, and service procedures. 5 credits

DCAT 114  FUNDAMENTALS OF ELECTRICITY
At the completion of this course, the student will be able to
demonstrate basic electrical/electronic fundamentals and
recognize the various classifications of drugs, their indications,
contraindications and potential side effects. Instruction will
including 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

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,
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 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 202  ENGINE PERFORMANCE
At the completion of this course, the student will be able to use
Caterpillar service literature and diagnostic tooling to troubleshoot
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
This course will introduce hydraulic theory, any components and procedures used by a service manager in managing time.

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

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

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

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

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

The student will become familiar with the basic parts of air and air conditioning (HVAC) systems; which are frequently used in a typical farm equipment shop. These skills can also be used in vocational student organizations. 3 1/2 credits.

This course provides the student with practical “hands on” learning experiences in hydraulic brake systems and their individual components function and operation. 1 credit

This course provides the students with the basic knowledge dealing with the fundamentals of how a diesel engine operates 3 credits

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

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

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.

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.

This course provides the student with practical “hands on” learning experiences in hydraulic brake systems and their individual components function and operation. 1 credit

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.

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.

This course provides the students with the basic knowledge dealing with the fundamentals of how a diesel engine operates 3 credits

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

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

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

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  *College transferable.

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; pollutants 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 equipment used in Electronics. 1/2 credit

**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 workplace. 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

**ET 130 BASICValves**
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 scissors 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 students 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
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  EARTHEMOVING 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 dentify 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
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPEM 100</td>
<td>ENGINE REPAIR THEORY</td>
<td>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.</td>
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<tr>
<td>HPEM 105</td>
<td>ENGINE REPAIR DIAGNOSTICS</td>
<td>This course is designed to expose the student to actual engine diagnosis, disassembly, measurements and reassembly.</td>
<td>2</td>
</tr>
<tr>
<td>HPEM 107</td>
<td>BASIC ENGINE TUNE-UP</td>
<td>This course covers the true functions of a carburetor, its operating principles, and calibration requirements. Students will gain hands on experience rebuilding carburetors, setting ignition timing, as well as a handful of tests to ensure engines will run at peak performance.</td>
<td>3</td>
</tr>
<tr>
<td>HPEM 109</td>
<td>BASIC ENGINE PERFORMANCE</td>
<td>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.</td>
<td>3</td>
</tr>
<tr>
<td>HPEM 110</td>
<td>LATHE AND MILL OPERATIONS I</td>
<td>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.</td>
<td>3</td>
</tr>
<tr>
<td>HPEM 200</td>
<td>INTRO TO HIGH PERFORMANCE ENGINE MACHINING</td>
<td>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.</td>
<td>3</td>
</tr>
<tr>
<td>HPEM 205</td>
<td>HIGH PERFORMANCE MACHINING THEORY</td>
<td>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.</td>
<td>3</td>
</tr>
<tr>
<td>HPEM 210</td>
<td>HIGH PERFORMANCE MACHINING DIAGNOSTICS</td>
<td>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.</td>
<td>5</td>
</tr>
<tr>
<td>HPEM 215</td>
<td>HIGH PERFORMANCE BASIC HEAD PORTING</td>
<td>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.</td>
<td>2</td>
</tr>
<tr>
<td>HPEM 220</td>
<td>LATHE AND MILL OPERATIONS II</td>
<td>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.</td>
<td>3</td>
</tr>
<tr>
<td>HPEM 225</td>
<td>DYNO TUNING AND ENGINE ANALYSIS</td>
<td>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.</td>
<td>2</td>
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<tr>
<td>HPEM 230</td>
<td>ADVANCED HIGH PERFORMANCE ENGINE MACHINING THEORY</td>
<td>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.</td>
<td>3</td>
</tr>
<tr>
<td>HPEM 235</td>
<td>ADVANCED HIGH PERFORMANCE ENGINE MACHINING LAB</td>
<td>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.</td>
<td>5</td>
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<tr>
<td>HST 101</td>
<td>ORIENTATION TO HUMAN SERVICES</td>
<td>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.</td>
<td>1</td>
</tr>
<tr>
<td>HST 108</td>
<td>GUIDING CHILDREN'S BEHAVIOR</td>
<td>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.</td>
<td>3</td>
</tr>
<tr>
<td>HST 114</td>
<td>LITERATURE, CREATIVITY AND IMAGINATION</td>
<td>Development of preschool activity file. Materials and activities to include selecting stories, making flannel board characters and puppets and exploring art activities.</td>
<td>3</td>
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<tr>
<td>HST 116</td>
<td>EDUCARE OF INFANTS AND TODDLERS</td>
<td>Students will become familiar with the essentials of Early Childhood Education and will develop a portfolio containing a variety of infant/toddler activities.</td>
<td>2</td>
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<tr>
<td>HST 117</td>
<td>MEDICAL TERMINOLOGY</td>
<td>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.</td>
<td>1 1/2</td>
</tr>
<tr>
<td>HST 119</td>
<td>GROUP TECHNIQUES</td>
<td>This course will provide an opportunity for the students to plan and carry out group activities for a wide range of people.</td>
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</tr>
<tr>
<td>HST 125</td>
<td>ON-THE-JOB TRAINING I</td>
<td>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.</td>
<td>2 1/2</td>
</tr>
<tr>
<td>HST 127</td>
<td>PERSONAL CARE ASSISTANT (NUTRITIONAL DIET)</td>
<td>This course will train the students in the appropriate techniques for providing excellent, compassionate care to clients with very specific dietary needs.</td>
<td>2</td>
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</tbody>
</table>
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.

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
LE 220 CRIMINAL INVESTIGATIONS
This course is designed to familiarize the student in the investigation, recording information in their notes and later evaluating such evidence. 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 capsicum (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
This course provides a brief historical survey of crime investigation, recording information in their notes and later evaluating such evidence. 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 capsicum (OC) spray. 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...
This course builds on 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 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 student progresses 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 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 previous course topics. 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
MFR 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. 4 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, pulmonaryology, 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: PREGNATAL 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 lifelong 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 MATCHINE 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
This course allows time for the student to use the CNC milling
PM 227 ADVANCED CNC THEORETICAL
This course introduces the student to the theory and design of stamping die sets. 1 credit
PM 226 DIE-MAKING THEORY
This course introduces the student to basic construction, components, and design of stamping die sets. 1 credit
PM 225 DIE-MAKING LAB
This course introduces the student to basic construction, components, and design of stamping die sets. 3 credits
PM 220 INTRODUCTION TO PRECISION MACHINING
This course is an introductory course covering the basic hand toolmaking processes. 4 credits
PM 219 COORDINATE MEASURING MACHINE
This course introduces the student to the coordinate measuring machine and geometric dimensioning and tolerancing. 1 credit
PM 218 BASIC MOLDING PROCESSES
This course introduces the student to the basic molding processes and design. 1 credit
PM 217 BASIC MOLDING OPERATIONS
This course provides the student time to design, manufacture and run an injection mold. 3 credits
PM 216 ADVANCED CNC THEORY II
This is an introductory course into the theory on advanced skill sets on CNC milling and turning centers. 1 credit
PM 215 ADVANCED CNC THEORY I
This course provides the student time to gain more machining experience thru a final project. 2 credits
PM 102 FUNDAMENTALS OF NURSING PRACTICE I
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
PM 103 FUNDAMENTALS OF NURSING PRACTICE II
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
PM 104 FOUNDATIONS IN NURSING
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
PM 105 NUTRITION
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
PM 106 MEDICAL TERMINOLOGY
This course prepares nursing students with the essential information necessary to build, define, recognize, and utilize medical terminology used in nursing practice. 1 credit
PM 107 MATERNITY NURSING
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 care of the newborn infant will also be included. 2 1/2 credits
PN 112 NURSING CARE OF CHILDREN
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 NURSING CARE OF THE ADULT I
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 NURSING CARE OF THE ADULT II
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 115 NURSING CONCEPTS C
This is an introduction to human growth and development from infancy to adolescence. Health problems of each age group are included. The role of the LPN in meeting the health needs of children in a variety of settings is included. 4 1/2 credits
PN 116 NURSING CONCEPTS D
(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 117 NURSING CONCEPTS E (Independent Study)
(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 118 PHARMACOLOGY
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 119 APPLIED CLINICAL PRACTICE
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 120 PROFESSIONAL CONCEPTS IN NURSING
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
This course includes classroom instruction and discussion. This course will introduce students to the field of physical therapist assisting. 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 draped 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, Guillain 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 student to observe and implement physical 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
PLCs 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 completer 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 pathophysiologial 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.
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  
*  ENGL 210  Intro to Literature  
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
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!