

# Table of Contents



# 2022-2024 Catalog and Student Handbook

**Mitchell Technical College**  
1800 E. Spruce Street  
Mitchell, South Dakota 57301

(605) 995-3025  
(800) 684-1969  
Fax: (605) 995-3067  
e-mail: [questions@mitchelltech.edu](mailto:questions@mitchelltech.edu)  
[www.mitchelltech.edu](http://www.mitchelltech.edu)

Mitchell Technical College publishes this catalog/handbook to provide general information regarding program and course offerings. The information is accurate at the time of publication, but changes may occur before the next catalog is printed.

## **Reservation of the Right to Modify**

Materials listed in this document are believed to be accurate at the time of publication. The College reserves the right to make changes that seem necessary or desirable, including course and program cancellations, requirements, financial fees and to add, alter or delete courses and programs. While reasonable efforts will be made to publicize changes, a student is encouraged to seek current information from appropriate offices. Content is subject to change without notice and does not constitute an offer to contract with any person. **It is ultimately the student's responsibility to be aware of current regulations, curriculum, policies and the status of specific programs.**

## **2022-23 School Year Calendar**

## Summer-Semester-2022

|                                                                                        |         |                                                                                                                                                                                 |          |
|----------------------------------------------------------------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| LPN Summer Session Begins                                                              | May 9   | LPN Pinning Ceremony                                                                                                                                                            | July 7   |
| Summer Semester classes begin                                                          | May 16  | Last day to withdraw-no refund, receive W not F grades*                                                                                                                         | July 22  |
| Last day to add a class (by 4:00 PM)                                                   | May 20  | Summer Semester ends                                                                                                                                                            | August 5 |
| Last day to drop a class with a refund (by 4:00 PM)                                    | May 25  |                                                                                                                                                                                 |          |
| Memorial Day (No Classes)                                                              | May 30  |                                                                                                                                                                                 |          |
| No longer able to attend class if bill is not paid in full or on approved payment plan | May 31  |                                                                                                                                                                                 |          |
| Refund of account balance overage/excess financial aid available on/after              | June 9  |                                                                                                                                                                                 |          |
| Juneteenth (No Classes)                                                                | June 20 |                                                                                                                                                                                 |          |
| Mid-Term                                                                               | June 24 |                                                                                                                                                                                 |          |
| Last day to withdraw from Mitchell Tech with partial refund of charges*                | July 1  | *This withdrawal date is for full semester courses only. Shorter course withdrawal dates vary. See the Registrar for details and watch for specific date information on MyTech. |          |
| Independence Day (No Classes)                                                          | July 4  |                                                                                                                                                                                 |          |

## Fall Semester 2022

|                                                                                        |              |
|----------------------------------------------------------------------------------------|--------------|
| Faculty return                                                                         | August 15    |
| New Student Orientation                                                                | August 15-18 |
| Fall Semester classes begin                                                            | August 22    |
| Last day to add a class (by 4:00 PM)                                                   | August 26    |
| Last day to drop a class with a refund (by 4:00 PM)                                    | September 2  |
| Labor Day (No classes-buildings closed)                                                | September 5  |
| All tuition and fees are due. Bill must be paid in full or payment plan set up         | September 6  |
| No longer able to attend class if bill is not paid in full or on approved payment plan | September 9  |
| Alumni Foundation Golf Tournament                                                      | September 19 |
| Refund of account balance overage/excess financial aid available on/after              | September 21 |
| Advising Week                                                                          | Sept. 26-30  |
| Native American Day (No classes, buildings closed)                                     | October 10   |
| Mitchell Tech Ag Internship Fair                                                       | October 13   |
| Mid-Term                                                                               | October 14   |
| Mitchell Tech Scholarship application period opens                                     | October 15   |

|                                                                                  |                         |
|----------------------------------------------------------------------------------|-------------------------|
| Registration period begins for Spring 2022-23 semester (meet with advisor first) | October 24              |
| Last day to withdraw from Mitchell Tech with partial refund of charges*          | October 28              |
| Veteran's Day (No classes, buildings closed)                                     | November 11             |
| Mitchell Tech Scholarship application period closes                              | November 15             |
| No classes                                                                       | November 23             |
| Thanksgiving Break (No classes, buildings closed)                                | November 24 & 25        |
| Last day to withdraw-no partial refund of charges, receive W not F grades*       | November 29             |
| Fall Semester ends                                                               | December 16             |
| Semester Break (No classes)                                                      | Dec. 17 – Jan. 08, 2023 |
| Faculty on break                                                                 | Dec. 23 – Jan. 4, 2023  |

## Spring-Semester-2022-23

|                                                           |            |                                                                                         |                |
|-----------------------------------------------------------|------------|-----------------------------------------------------------------------------------------|----------------|
| Faculty return                                            | January 5  | Last day to drop a class with a refund (by 4:00 PM)                                     | January 23     |
| New Student Orientation                                   | January 5  | All tuition and fees are due. Bill must be paid in full or payment plan set up.         | January 24     |
| Spring Semester classes begin                             | January 9  | No longer able to attend class if bill is not paid in full or on approved payment plan. | January 27     |
| Last day to add a class (by 4:00 PM)                      | January 13 | Refund of account balance overage/excess financial aid available on/after               | February 3     |
| Martin Luther King Jr. Day (No classes, buildings closed) | January 16 | Advising Week                                                                           | February 13-17 |
|                                                           |            | Mitchell Tech Career Fair                                                               | February 16    |
|                                                           |            | President's Day (No classes, buildings closed)                                          | February 20    |
|                                                           |            | Mid-Term                                                                                | March 3        |
|                                                           |            | Spring Break (No classes)                                                               | March 13-17    |
|                                                           |            | Faculty Spring Break                                                                    | March 15-17    |
|                                                           |            | Last day to withdraw from Mitchell Tech with partial refund of charges*                 | March 22       |
|                                                           |            | Registration period begins for Summer and Fall '23 semester (meet with advisor first)   | March 27       |
|                                                           |            | Good Friday (No classes, buildings closed)                                              | April 7        |
|                                                           |            | Easter Monday (No classes)                                                              | April 10       |
|                                                           |            | Last day to withdraw-no refund of charges, receive W not F grades*                      | April 18       |
|                                                           |            | Spring Semester ends                                                                    | May 5          |
|                                                           |            | Graduation                                                                              | May 5          |
|                                                           |            | Faculty on break                                                                        | May 13         |

\*This withdrawal date is for full semester courses only. Shorter course withdrawal dates vary. See the Registrar for details and watch for specific date information on MyTech.

# History

Mitchell Technical College, renamed in July 2020, opened in 1968 in a system of post-high school vocational technical education in South Dakota that included four area institutes and the South Dakota Office of Adult, Vocational and Technical Education. More than 19,000 individuals have graduated from Mitchell Tech since it opened. The central mission of the College is to provide job preparatory programs on a full- or part-time basis to all who can benefit.

Highly visible from Interstate 90, the campus, consisting of four buildings, is situated on 80 acres.

The College is governed by the Board of Education of the Mitchell School District 17-2 and operates under rules and regulations set forth by the South Dakota Board of Technical Education. The College enjoys a close relationship with Mitchell and the James River Valley community. Mitchell Tech has established advisory committees of community and regional representatives who provide program input and support.

Mitchell Tech is accredited by the Higher Learning Commission and received a recommendation for a 10-year renewal of accreditation in 2021. In addition, Mitchell Tech has been recognized as a Top 10 Community College as identified by the Aspen Institute.

Mitchell Tech takes pride in the quality of its technical programs, in the high rate of graduate employment and in the rapid adaptability to business and industry needs by developing new programs and adding new dimensions to existing programs.

Mitchell Tech offers a variety of 100% online programs delivered through an interactive online learning environment.

Mitchell Tech offers general education courses applicable in the technical world. Community and advisory board input enables Mitchell Tech to adapt to changing technologies, employer expectations, student interests and employment opportunities.

Mitchell Tech also strives to meet the needs of the community through Advanced Technical Education and corporate education programs. Programs range from day-long business training to 24 month-long programs.



# Vision Statement

Mitchell Technical College will be an innovative leader in technical education and a valued partner in global workforce development, preparing students for career success and lifelong learning in an ever-changing world.

# Mission Statement

It is the mission of Mitchell Technical College to provide skills for success in technical careers.

## Our Core Values:

- **Learning:** Mitchell Tech provides high-quality Associate of Applied Science degree, diploma and certificate programs which prepare students for successful careers.
- **Life Skills:** Mitchell Tech prepares graduates for lifelong learning by building skills in technology, communication, professionalism, problem-solving, teamwork, and adaptability.
- **Access:** Mitchell Tech provides educational services and quality training to students, alumni, businesses, and the community, both on campus and at a distance.
- **Innovation:** Mitchell Tech integrates state-of-the-art technologies, instructional methods, and facilities to deliver a high-quality, unique educational experience.
- **Excellence:** Mitchell Tech commits to improve student learning and institutional effectiveness through a system of assessment and continuous review.
- **Talent Investment:** Mitchell Tech recruits, develops, and invests in skilled, dedicated, and student-oriented faculty and staff.
- **Community:** Mitchell Tech builds student community through social and recreational activities, counseling support, and a student government structure administered through organized student services.
- **Diversity and Respect:** Mitchell Tech seeks and values a diverse population, and responds to the unique needs of individuals, recognizing the dignity and worth of all people and fostering a climate of respect among its students, faculty, staff and administrators.
- **Advocacy:** Mitchell Tech promotes the value of technical education through the development of relationships with stakeholders and activities that raise awareness of the institute's mission.
- **Equity:** Mitchell Tech strives to address gaps in achievement so that every student receives purposeful, ongoing support and programming to be successful throughout the college experience.

# Institutional Learning Outcomes

Institutional Learning Outcomes (ILOs) are the broad areas of knowledge, skills, and attitudes that students should value, expect to know, and be able to do upon completion of their degrees and programs at Mitchell Technical College. These outcomes are developed both in the classroom and in co-curricular environments. Graduates of Mitchell Technical College will be able to:

- Communicate effectively in the workplace
  - Engage in Standard English practices and proper channels to produce audio, visual, and/or written work.
  - Employ active listening to comprehend, analyze, and respond appropriately to oral, written, and visual information and instructions.
  - Demonstrate professional communication using industry- or discipline-specific vocabulary appropriate for diverse audiences.
  - Establish credibility by using sound reasoning and quality, media-literate research to support a claim
  - Construct clear, logical organization to deliver information, establish protocols, or develop procedures
  - Utilize interpersonal and group communication skills, especially those that promote collaborative problem-solving, shared understanding, and teamwork
- Apply reasoning and critical thinking to solve problems and seek information
  - Identify vital questions, problems, or issues
  - Utilize deductive reasoning to gather reputable information and evaluate data critically
  - Develop options to determine the most effective solution
  - Analyze and assess assumptions, biases, and multiple perspectives to develop a well-informed valid argument
  - Translate problem-solving experiences beyond the classroom
- Demonstrate professionalism in a diverse culture
  - Collaborate responsibly in a team environment
  - Demonstrate dependability & flexibility, manage time effectively, show respect for others
  - Adhere to safety practices
  - Display appropriate dress and present self in a professional manner that aligns with industry standards
- Engage in self-assessment strategies
- Model ethical behavior and integrity
- Approach controversy/conflict with civility to develop creative solutions
- Cultivate civic engagement and social responsibility
  - Engage in community service projects and civic affairs
  - Understand the value of volunteerism and community impact
  - Interact respectfully with individuals of diverse backgrounds, perspectives, beliefs, and values
  - Evaluate the impact of one's actions on others

## General Education Philosophy

General Education is that part of a student's education that goes beyond learning technical skills and allows students to become well-rounded, higher-functioning citizens of the world. As an institute of higher learning, Mitchell Tech is committed to the inherent value of general education and knows that critical thinking ability, communication skills, information literacy, math and problem-solving skills and more, are crucial for graduates' success in their future technical careers.

Mitchell Tech also recognizes that an Associate's degree or diploma at Mitchell Technical College must mean something more than job skills. Students must become lifelong learners with the ability to adapt to a changing world and ever-increasing job expectations. To this end, general education requirements are identified in the South Dakota Administrative Rule 24:59:01:07 as follows:

Each Associate of Applied Science degree program must include a minimum of 15 credit hours of general education courses from a minimum of four of the following categories:

- (1) Communications
- (2) Social sciences
- (3) Mathematics
- (4) Computers
- (5) Arts and humanities
- (6) Natural sciences

Source: 15 SDR 64, effective November 2, 1988; transferred from § 24:10:38:03, 20 SDR 223, effective July 7, 1994; repealed, SL 1995, ch 86, § 6, effective July 1, 1995; readopted, 22 SDR 13, effective August 9, 1995; Readopted from § 24:10:43:03, 44 SDR 184, effective June 25, 2018; 45 SDR 130, effective April 29, 2019.

General Authority: SDCL 13-39A-18.

Law Implemented: SDCL 13-39A-16, 13-39A-18, 13-39A-42.

Mitchell Tech requires all students to take at least one (1) math and one (1) English course to satisfy the general education requirement.

# Accreditation

Mitchell Technical College is accredited by the Higher Learning Commission ([hlcommission.org](http://hlcommission.org)), an institutional accrediting agency recognized by the U.S. Department of Education. The Higher Learning Commission has accredited Mitchell Technical College as an associate degree-granting institution since 1989.

The Medical Laboratory Technology program, offered for the AAS degree, is accredited through October 2026 by:

**The National Accrediting Agency for Clinical Laboratory Sciences**

5600 N. River Rd. Suite 720  
Rosemont, IL 60018-5119  
(773) 714-8880  
[www.naacls.org](http://www.naacls.org)

The Medical Assistant program, offered for the AAS degree, is accredited through Fall 2024 by The Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

**Commission on Accreditation of Allied Health Education Programs**

9355 113th St N, #7709  
Clearwater, FL 33763  
(727) 210-2350  
[www.caahep.org](http://www.caahep.org)

The Radiologic Technology program, offered for the AAS degree, is accredited through Fall 2022 by:

**The Joint Review Committee on Education in Radiologic Technology**

20 N. Wacker Drive, Suite 2850  
Chicago, IL 60606-3182  
(312) 704-5300; Fax: (312) 704-5304  
[www.jrcert.org](http://www.jrcert.org)

The Radiation Therapy program, offered for the AAS degree, is accredited through March 2023 by:

**The Joint Review Committee on Education in Radiologic Technology**

20 N. Wacker Drive, Suite 2850  
Chicago, IL 60606-3182  
(312) 704-5300; Fax: (312) 704-5304  
[www.jrcert.org](http://www.jrcert.org)

The Heating and Cooling Technology program is accredited through Spring 2022 by:

**HVAC Excellence**

PO Box 491  
Mt. Prospect, IL 60056  
(800) 394-5268  
[www.hvacexcellence.org](http://www.hvacexcellence.org)

The Culinary Academy is accredited through Spring 2022 by the American Culinary Federation, Educational Foundation, Accreditation Commission (ACFEFAC):

**American Culinary Federation**

180 Center Place Way  
St. Augustine, FL 32095  
(800) 624-9458  
[www.acfchefs.org](http://www.acfchefs.org)

Membership is maintained with many industrial associations, which provide licensing or certification for students.

## Where Are We Located

Mitchell Tech is located adjacent to Interstate 90 in Mitchell, South Dakota. The campus consists of four buildings: the Campus Center which houses most administrative offices, the Campus Store, The Center for Student Success, food service, and health programs; the Technology Center, home to the Information Technology offices, business programs, computer help desk, general education offices and classrooms, Engineering division programs, the South Dakota Leadership Academy and a student lounge; the Energy Training Center for Energy division programs; and the Nordby Trades Center where students will find programs in the Ag & Transportation Technology and Construction & Manufacturing Technology divisions.

Directions and maps to the campus can be found at:  
<https://www.mitchelltech.edu/campus-map>.

# Student Rights and Responsibilities

As members of the Mitchell Tech community, students have both rights and responsibilities. Students have the following rights:

The most essential student right is the right to competent instruction under conditions conducive to learning. The most important responsibilities are to respect the rights of other members of the community and to conform to standards essential to the purposes and processes of the College. The College should endeavor to provide for students those privileges, opportunities, and protections which best promote the learning process in all its aspects. The following statement outlines those academic rights of students essential in helping Mitchell Tech fulfill this responsibility. These principles are designed to facilitate communication, foster academic integrity, and defend freedoms of inquiry, discussion, and expression among members of the Mitchell Tech community. Such principles should safeguard and enhance conditions conducive to learning, and will serve as a guide for students, faculty, and administrators involved in programs of instruction and classroom activities.

Mitchell Tech is committed to serving a wide spectrum of people. Access to the programs and services of the College should be governed by the following principles: Within the limitations of its facilities, resources, and personnel, the College should be open to all persons who are qualified according to admissions standards. Students should not be refused access to any course of study on the grounds of their beliefs or the possible uses to which they may put the knowledge to be gained in a course. Students are responsible for representing themselves truthfully and accurately at all times. Providing false or misleading information violates this responsibility and may result in forfeiture of a student's rights to academic and support services.

Students have the right to exercise their full rights as citizens without interference or fear of disciplinary action.

Students have the right to be free from discrimination in all programs and activities.

Policies designed to eliminate discriminatory practices have been instituted.

Mitchell Tech does not discriminate in its employment of policies and practices, or in its educational programs on the basis of race, color, creed, religion, age, gender

(including pregnancy), sexual orientation, disability, national origin, or ancestry, military/veteran status, genetic information or any other category protected by law.

Students have the right to be free from sexual harassment on Mitchell Tech property or off school property during a College-related activity.

Students have the right to be free from racial harassment on Mitchell Tech property or off school property during a College-related activity.

Students have the right to have classes conducted under the following provisions:

- Faculty will maintain clear connections between advance descriptions of courses and actual content.
- Faculty will clearly state course goals, testing, and grading which should be intellectually justifiable.
- Faculty will plan and regulate class time with an awareness of its value for every student and will meet with classes regularly.
- Faculty will be available to students and will announce and maintain liberal office hours convenient to students.
- Faculty will model respect for each student as an individual, regardless of race, color, creed, religion, age, gender (including pregnancy), sexual orientation, disability, national origin, or ancestry, military/veteran status, genetic information or any other category protected by law.
- Faculty will strive to generate respect and understanding for academic freedom by students and at the same time protect students from irrelevant and trivial interruptions or diversions.
- Faculty will insure students the right to raise relevant issues, doubts, or alternative opinions during classroom discussion without concern for academic sanctions.
- Faculty will be sensitive to students' personal or political beliefs expressed in a private manner in connection with coursework.
- Faculty will not disclose student grades or class standing in a classroom situation without the student's permission.
- Faculty will serve as academic advisers and will assist students with registration, class schedules, graduation requirements, and will work to assure academic progress with the assistance of a Student

### Success Coach.

Students have the right to a clear statement of their basic rights. They have the right to assist in formulating College policy by representation on various committees. Students also have the right to be represented by a student government.

Other student rights outside the classroom include:

- Students may form, join, and participate in groups which promote the common intellectual, social, economic, political, recreational or cultural life of campus. Mitchell Tech believes group activities to be a positive educational vehicle and recognizes the right of student groups to discuss, express opinions, to assemble, write, and publish within state and federal constitutional guarantees and laws.
- A student group may be authorized to use Mitchell Tech facilities if its officers and a majority of its members are currently enrolled at Mitchell Tech.
- Students who publish student publications have the right to be free from censorship. However, students who publish such documents must observe the recognized canons of responsible journalism, including the avoidance of libel, indecency, undocumented allegations, attacks on personal integrity, and the techniques of harassment and innuendo.
- Students have the right to have access to education records maintained by Mitchell Tech concerning the students. The students may review their own records and challenge the accuracy of the records. Students have the right to have the educational records maintained on a confidential basis with only those employees with a legitimate need to know having access to student educational records.

Students have the following responsibilities:

It is the student's responsibility to comply with the provisions of this publication and the operating policies of the College and the student's department. It is also a student's responsibility to:

- Review and consider all information about the school's program before enrolling.
- Complete all application forms accurately and submit them on time to the appropriate office.

Students have the responsibility for selecting a major field of study, for choosing an appropriate degree program within the discipline, for planning class schedules, and ultimately for meeting the requirements for his/her degree.

Mitchell Tech will provide advisers and Student Success Coaches to assist students in academic planning, but students are responsible for obtaining copies of appropriate academic bulletins and being thoroughly familiar with all academic requirements that must be met for a degree. Students also have the responsibility to take advantage of the educational opportunities presented by the College, to participate in the learning process in a serious and conscientious manner, and to respect the rights of other members of the Mitchell Tech community.

## Student Academic Integrity

Students are expected to do their own work unless advised that collaboration is acceptable. When taking a test, students are expected to keep their eyes on their own tests and protect their tests from being copied by classmates.

To avoid plagiarism when using facts, quotes or ideas from another person or source, students must cite the source they used, even if they rephrase the content in their own words. Failure to use proper citation procedures is considered plagiarism.

Students who engage in academic dishonesty may be subject to assignment and/or course failure.



# Admissions

## Admissions Requirements

Any person 16 years of age or older is eligible to apply for admission, regardless of previous education. Applicants will be accepted into educational programs in which they demonstrate a reasonable prospect for success. The College reserves the right to admit applicants based upon previous academic achievements and life experiences.

To be accepted to Mitchell Tech and placed in a program, students must meet the admissions requirements of the College and the requirements established for each program. College requirements are as follows:

- Applicants must have a **high school diploma or a high school equivalency certificate** (GED) for full-time admission. (High school students requesting full-time dual credit status must receive approval.)
- Applicants must **complete the established application process** as listed.
- Applicants must meet the **requirements of each program**. (Program requirements are found in each program section of this catalog.)
- Applicants must meet **minimum entrance examination scores**. (Remedial courses are offered to students desiring to improve their math and English skills.)

If the program is fully enrolled, students will be placed on a waiting list.

Admission to Mitchell Tech is open to anyone without regard to race, color, ethnicity, creed, religion, age, gender, disability, military status, national origin or ancestry, marital status, pregnancy, actual or perceived sexual orientation, gender identity and expression, status with regard to public assistance, or any other status or condition protected in accordance with federal or state law.

## How to Apply for Admission

Interested persons are invited to call, write, E-mail, or visit Mitchell Technical College. Offices are open Monday through Friday. Campus tours and presentations may be arranged. The staff can provide the necessary forms for admission to the College and the program of your choice.

## Admissions Process

In order to be considered for admission to Mitchell Technical College, an applicant must complete the following requirements:

1. Submit an Application for Admission. The application form is available at most high school guidance offices, at the Mitchell Tech campus and online on the Mitchell Tech website.
2. Send an *official* copy of your academic records (high school transcript, college transcript or high school equivalency certificate). Your high school, the registrar of the last college you attended, or the testing center where you took the General Education Development (GED) test can provide copies of your academic records.
3. In order to be accepted into a full-time program of study, you must meet the required entrance examination scores or submit entrance examination test scores ie. ACT, SAT, ACCUPLACER, etc. All applicants must submit entrance examination scores or schedule an appointment to complete the entrance exam. The admissions test may be waived for students enrolled in fewer than 6 semester credit hours. Test scores from a 5-year period will be accepted.
4. Students in health sciences programs will be required to submit to a criminal background check. The cost is the responsibility of the student.
5. Pay a \$60 non-refundable matriculation fee.
6. After acceptance to a program:
  - A start date will be identified.
  - Students will register for courses.
7. Once a program is full, a tuition deposit of \$150 will be required of all students accepted to that program. This is a tuition deposit and will be applied to the student's tuition the first semester of classes. In the event a student opts not to attend, **the tuition deposit is non-refundable.**

## Students with Disabilities

All enrolled students with disabilities have equal access to all programs and activities at Mitchell Technical College offered in accordance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008.

Most programs have minimum physical standards that students must meet. Individual program standards can be reviewed with an Admissions representative.

## Placement Testing Policies

1. The tester must have applied to Mitchell Technical College (Mitchell Tech) before testing.
2. The Placement Tests offered at Mitchell Tech are the ACCUPLACER NextGen and the Residual ACT.
  - a. ACCUPLACER NextGen
    - i. All Programs
      1. Writing
      2. Quantitative Reasoning, Algebra and Statistics (QRAS)
      3. Reading
  - b. Residual ACT
    - i. Students applying for Radiologic Technology
3. Cost
  - a. Residual ACT
    - i. Free to prospective Radiologic Technology students
  - b. ACCUPLACER NextGen
    - i. Free for initial placement test
    - ii. Free re-testing for acceptance
    - iii. \$10 per section or \$35 for entire test if retesting to “test-out” of prep class than one week prior to start of school
4. Retesting
  - a. Students must wait 30 days before re-testing
  - b. Students are only allowed to take the ACCUPLACER NextGen twice
5. Transfer/Transcribed Credit
  - a. Transfer/Transcribed credit for ENGL 101 or 110 meets the placement testing requirements for writing and reading
  - b. Transfer/Transcribed credit for MATH 105 meets the placement testing requirements for QRAS
6. Testing for other schools
  - a. ACCUPLACER NextGen
    - i. \$35 for entire test
    - ii. \$10 per section
7. Results mailed to other schools after testing for or attending Mitchell Tech
  - a. \$5 fee
  - b. Must have \$0 balance with Mitchell Tech Business Office

## Required Immunizations

South Dakota state law (SDCL 13-53-47) states that immunizations are required for students entering public or private postsecondary educational institutions in South Dakota. “Public or private postsecondary institution” or “institution,” is any entity permitted to offer postsecondary education credits or degrees in South Dakota. “Student” is any person born after 1956 who is registering for more than one class during an academic term such as a quarter or semester. The term includes any person who meets face-to-face at least once per week to receive instruction. The term does not include any person who receives non-credit-bearing or on-the-job training services.

Any student entering a public or private postsecondary education institution in this state for the first time after July 1, 2008, shall, within forty-five days after the start of classes, present to the appropriate institution 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. As an alternative to the requirement for a physician’s certification, the student may present certification from a licensed physician stating the physical condition of the student would be such that immunization would endanger the student’s life or health; certification from a licensed physician stating the student has experienced the natural disease against which the immunization protects; confirmation from a laboratory of the presence of adequate immunity; or a written statement signed by the student that the student is an adherent to a religious doctrine whose teachings are opposed to such immunizations. If the student is under the age of 18, the written statement shall be signed by one parent or guardian.

Mitchell Tech requires that the documentation from the student be submitted within 45 days after the start of classes.

A student allowed to register while completing the round of required vaccinations who fails to provide satisfactory documentation of his or her immune status or of a medical excuse shall not be permitted to attend classes after the 45th day or, in the case of classes delivered in less than 45 days, to register for or to attend classes beginning in a subsequent term. Every attempt should be made to collect this information at the time of admission. Students who are unable to ascertain their immunization status may obtain, at their own expense, the necessary tests and vaccination from their own physician.

In the event the South Dakota State Department of Health declares an epidemic of measles, mumps or rubella, Mitchell Tech shall provide to the State Department of Health a list of students who have not submitted immunization documentation. Subsequent campus actions shall consider the advice and authority of the South Dakota State Department of Health. Students who have no vaccination or immunity against the required preventable infectious diseases may be dismissed from the campus.

Vaccination for hepatitis B is required for students before they can be admitted to certain health profession programs. Some clinical sites require students to have the COVID-19 vaccination. Each institution will compile information about current program-related vaccination requirements and make this information available to students along with other curricular and registration materials. It will be the responsibility of the department of the specific health profession program to ensure that the vaccination requirement has been met.

Immunization for tetanus, diphtheria, poliomyelitis, varicella and meningitis is recommended, as is a tuberculin test. Vaccination for hepatitis B is also recommended, and an annual influenza vaccination is recommended for students to minimize disruption of routine activities during influenza outbreaks.

## Admissions Guidelines

Admission to Mitchell Tech is granted based on the preceding criteria. In cases where special consideration is needed, the ultimate decision regarding the admission of a student rests with the admissions committee consisting of the Director of Admissions, the Vice President for Enrollment, the Dean of Student Success, the Disabilities Coordinator and an instructor. The committee may consider high school GPA and class rank, a personal interview, college GPA (if applicable), GED test scores (if applicable) and entrance examination scores in determining a candidate's admission status. The goal of the Admissions Committee is to accept students who can master the training and education at Mitchell Tech. Admission criteria is available in the Admissions Office.

Some programs may have added requirements. Students who do not take the ACT test may substitute the ACCUPLACER examination at Mitchell Tech. ACT scores will be reviewed by the Admissions Committee and the Committee will determine if a student needs to complete the ACCUPLACER or if the ACT score will be accepted in lieu of that test.

For students taking the ACT, the college code number for Mitchell Technical College is 4958.

## Non-High School Graduates, Including Home-Schooled Students

Students who are home-schooled may be admitted to Mitchell Tech with evidence of a high-school completion certificate/diploma, or with a GED. Home-schooled students will also be required to meet minimum requirements on the ACCUPLACER. The Admissions Office will work with any home-schooled student to make sure that their Mitchell Tech Application for Admission is complete.

## Home School Entrance Requirements

Home-schooled high school students applying for admission into Mitchell Tech have two options to meet the high school diploma requirement:

1. Provide a home-school high school record of completion and documentation of a completed GED and take the Mitchell Tech's entrance assessment, meeting the required scores for the program  
OR
2. Provide a home-school high school record of completion that has been certified by an accredited outside educational organization and take the ACCUPLACER, meeting the required scores for the program.

## Online High Schools

Students who wish to complete their high school studies online must choose a school carefully. Many online high schools are not legitimate high schools. These schools promise that you can complete your entire high school career in as little as a few weeks for only a small fee. In addition, while they state that they are accredited high schools, their accrediting agencies consist of nothing more than a website and list no employees or contact information. These schools are obviously fraudulent and the diploma you receive is not legitimate and may in fact be illegal to use in many states.

For students who want to complete their secondary education as quickly as possible, Mitchell Tech recommends a GED. The GED is self-paced and you can complete it very quickly if you are so motivated. If you wish to continue your education at a legitimate, postsecondary institution anywhere in the nation, you must complete actual testing at an authorized GED testing center. Information about where and how to get a

GED is available from the Mitchell Tech Admissions Office.

## When to Apply

Mitchell Tech academic semesters start in August and January and May. Most technical programs, however, begin with the fall semester. Application may be made at any time, but students are encouraged to apply by February for the following academic year. It is possible to take general education classes to fulfill program requirements during any academic term. Several popular programs fill early in the school year. Check with the Admissions Office.

## Non-Discrimination Statement

### Non-Discrimination Statement

Mitchell Technical College does not discriminate in its employment of policies and practices, or in its educational programs on the basis of race, color, creed, religion, age, gender (including pregnancy), sexual orientation, disability, national origin, or ancestry, military/veteran status, genetic information or any other category protected by law.

### Sexual Harassment - Title IX (MTC Policy 117)

Title IX is part of a 1972 federal education law that prohibits discrimination on the basis of sex in any federally funded education program or activity. Sexual harassment and sexual violence are forms of sex discrimination. Mitchell Technical College is committed to providing a workplace and educational environment, as well as other benefits, programs, and activities, that are free from sexual harassment. To ensure compliance with federal and state civil rights laws, MTC has developed this policy and related procedures to provide a prompt, fair, and impartial process for those involved in an allegation of sexual harassment as defined by this policy. MTC values and upholds the equal dignity of all members of its community and strives to balance the rights of the parties during what is often a difficult time for all those involved.

**Inquiries concerning discrimination, sexual harassment, and the application of Equal Opportunity, Title IX or Section 504 may be referred to the Mitchell Technical College Title IX Coordinator named below. Reports concerning discrimination, sexual harassment, and the application of Equal Opportunity, Title IX or Section 504 can be made at any time, including non-business hours by using the Title IX Coordinator's**

**listed telephone number or email address, or by any other means that results in the Title IX Coordinator receiving the person's verbal or written report.**

Scott Fossum, Dean of Student Success  
scott.fossum@mitchelltech.edu  
Mitchell Technical College  
1800 E. Spruce St.  
Mitchell, SD 57301  
Phone: (605) 995-7178

OR

US Department of Education  
Office for Civil Rights  
One Petticoat Lane  
1010 Walnut Street, 3rd floor, Suite 320  
Kansas City, MO 64106  
Phone: (816) 268-0550  
Fax: (816) 268-0599  
TDD: (800) 877-8339  
Email: ocr.kansascity@ed.gov

### Materials used to train Title IX personnel:

ATIXA – Title IX Coordinator and Administrator Level One Training & Certification Course Materials

ATIXA – Civil Rights Investigator Level One Training & Certification Course Materials

## Dual Enrollment

Students may enroll in certain courses at Mitchell Technical College without applying for admission to a program. However, the student may need to meet the admissions criteria based on an entrance exam or related coursework. Dual Enrollment does not guarantee acceptance to the college as a full time student at a later time. Dual Enrollment students will receive high school credit along with technical college credit for the Dual Enrollment course. Dual Enrollment students are not eligible for financial aid and must re-register at the beginning of each semester.

- Courses offered are college courses with college-level expectations and standards. Students must keep current on their coursework – assignments, email, student portal, and other related activities. Students will be graded accordingly.
- Grades for Dual Enrollment courses will be provided to the student's local School District. Grades will also be recorded on an official Mitchell Tech transcript. All courses will become part of and remain on the student's permanent record.

- Students must follow Mitchell Tech's academic calendar and be in attendance when Mitchell Tech classes are held. There are certain days that the high schools will have classes and Mitchell Tech will not and vice versa.
- Students will be held to Mitchell Tech's Code of Conduct.
- It is the student's responsibility to directly contact instructors to inform them of absences. Parents should not call the college to excuse students.
- Attendance policies in individual classes are listed on the class syllabus.
- Students are responsible to obtain their own textbooks prior to the first day of class.
- A Windows-based laptop is required for all students taking an on-campus dual enrollment course. Mitchell Tech provides internet access on campus for all students.
- Dual-credit classes taken from Mitchell Tech may or may not be accepted for transfer credit at other colleges or universities. Other colleges may accept Mitchell Tech classes for transfer credit and if a student intends to apply for transfer credit at another institution, it is recommended they first check with the Registrar at that school to determine transferability prior to enrolling in the Mitchell Tech class.
- Completing credits through the dual-enrollment program at Mitchell Tech may affect your full-time status while attending Mitchell Tech which may impact your financial aid. Twelve credits is considered a full-time student. For more information visit: [www.mitchelltech.edu/admissions/financial-aid-options](http://www.mitchelltech.edu/admissions/financial-aid-options).
- Courses are subject to change or cancellation based on meeting minimum enrollment.

# Paying for School

## Tuition and Fees

The tuition is set by the South Dakota Board of Technical Education. There is no difference between resident and non-resident tuition. There is also no difference between face-to-face and online tuition. **For current tuition and fee information, request a copy of the current cost sheet from the Admissions office.**

6.9.1

## Tuition Deposit

Tuition deposits will be required once a program is full. The tuition deposit is \$150 for all full programs. *This is a tuition deposit and will be applied to the student's tuition the first semester of classes.* In the event a student opts not to attend, **the tuition deposit is non-refundable.**

## Additional Expenses

Students are required to purchase designated books, supplies, tools and uniforms as assigned by the instructor in each course. Most programs specify tools and/or uniforms that are characteristic of the occupation for which the student is enrolled. Students should purchase required books through the online bookstore. Students may purchase tools from a separate online vendor. Supplies, school theme items and gift certificates are available in The Campus Store located in the Campus Center.

Students who enroll need to prepare for some initial expenses at the start of the term. Please budget accordingly when making your school plans.

## Laptop Expense

Mitchell Tech programs require a laptop computer so that students can effectively integrate computing skills with their technical education. Many resources that instructors assign are online or require specialty software. To address these needs, Mitchell Tech requires students entering a laptop program to purchase their laptops from Mitchell Tech. Please note that our machines come fully loaded with the required software.

Mitchell Tech laptops are serviced under warranty by

our Technology Help Desk.

## Laptop Return Policy

Laptops purchased from Mitchell Technical College may not be returned unless the student drops from a program within the first ten days of enrollment. Students who drop within the first ten days (official drop/add period) may return the laptop for a full refund. No refunds on laptops will be made after that date. No laptop will be accepted for return until its condition is approved by the Mitchell Tech IT Department.

6.9.1

## Tuition and Fee Payment Due Dates

The tuition and fee payment due date is the first business day following the end of the drop period. The actual fee payment date will be posted on MyTech, and in the Business Office.

It is the student's responsibility to be aware of all policies and regulations regarding registration and cancellation as stated in the catalog. By registering for classes, students are entering into a legal agreement to pay all tuition and fees, including any nonrefundable fees. This agreement between Mitchell Tech and the student means that failure to make the required payment by the due date may result in the inability to register for classes, loss of access to the MyTech educational portal and withholding of transcripts and/or diploma.

Adjustments to student accounts are updated as necessary, due to schedule changes that result from the course add and drop process. Student account information is available online in their MyTech account. Statements can be viewed and printed in MyTech. It is the student's responsibility to check email and MyTech on a regular basis.

## Excess Financial Aid Refunds

Most grants, scholarships and loans are applied directly to student accounts. If financial aid proceeds have not been applied to an account or the amount does not cover 100% of tuition and fees due, the student is responsible to pay the remaining balance. A credit balance on a student account is created when excess financial aid remains after all eligible charges on a student's account

are paid in full, or when an excess payment is made on the account. Refund checks will be issued to students after the payment due date. Students will be notified via email or MyTech if they have a refund. Refunds may be issued in the form of a direct deposit or check in the student's name. Students must present a school or state issued form of identification that includes a photograph, prior to receiving their check.

## Forms of Payment

The Business Office accepts cash, e-checks, Visa/MasterCard/Discover credit cards and personal checks for payments on student accounts. Mitchell Tech reserves the right to refuse checks from individuals who have written a non-sufficient funds check to the college.

See Third Party Account Payments for information about having balances paid by an approved federal or state agency. Employer reimbursements are covered in the third party account section below.

## Returned Checks

A \$30 processing fee will be charged for checks returned by the bank for non-sufficient funds (NSF checks). Any penalties assessed on a student's returned check will be charged directly to the student's account. When a check is returned for non-sufficient funds, the Business Office reserves the right to require payment by cash, credit card or certified funds. Unpaid NSF checks may be forwarded to collections if not paid within 30 days.

## Payment Plan Information

Payment plans are available through the Business Office. A payment plan arrangement will allow students to pay balances over the course of the semester. Students who owe money or are on a payment plan will be allowed to register for classes with the rest of their cohort. However, if their balance is not paid in full one week prior to the beginning of the next semester of enrollment they will be notified of the outstanding balance by Mitchell Tech (Business Office and The Center for Student Success) and their MyTech account will be disabled. In addition, the student will not be allowed to attend class or Mitchell Tech activities until their outstanding balance is paid in full.

NOTE: Students failing to make the agreed upon payments in the current term may be administratively withdrawn. Students will be notified in writing of withdrawal due to failure to pay balances due.

## Past Due Accounts

Students are responsible for reviewing account balances and paying balances that are due. It is the student's responsibility to maintain an accurate billing address with the Registrar. Once an account is past due and placed on hold, if an address is incomplete or inaccurate, the student may not receive an account statement and will pay additional late fees and interest if the account is forwarded to collections.

Prompt filing of financial aid documents is the student's responsibility. Students who do not file promissory notes and qualifying information will not receive financial aid funds in time to pay account balances. Those students will be subject to late fees and interest until loan proceeds are received. Late fees and interest will not be waived for late filings.

Any account that is past due is considered to be in a "Hold" status. Business Office holds will not allow students to receive transcripts, grades or registration material. Students should not ignore financial responsibility. Students unable to pay balances should discuss the reasons with the Financial Aid Office or the Business Office.

## Third Party Account Payments

Organizations that agree to pay any part, or all of a student's account balance, are considered a Third Party payor on the account. The financial obligation to pay an account remains with the student. Students are responsible for filing the proper paperwork with the Business Office to allow Mitchell Tech to bill the Third Party payor, on their behalf. Students are also responsible for knowing the terms of their program and any unpaid balance that may remain. The portion of the balance not covered by the Third Party payor is due at the time of the Tuition and Fee Payment due date.

As long as the proper paperwork has been filed, and the student has paid any remaining portion of the balance that is not to be paid by the Third Party payor, no additional late fees or interest will accrue on the account. If the Third Party payor denies payment on the account for any reason, the student is financially responsible for the balance and all fees and interest that accrue.

Employee tuition reimbursement plans, where the employer reimburses the student based upon their account billing or grades are not subject to Third Party

payor status. The student will need to make arrangements to pay the entire balance by the due date and seek reimbursement according to their employer's policy.

## Student Account Holds

Account balances that remain after the Tuition and Fee Payment due date are considered past due and will be put on a Business Office hold status. Students with a Business Office hold will be unable to receive official transcripts. Access to MyTech may also be disabled if the student hasn't paid the account in full, set up a payment plan with the Business Office, or communicated with the Business Office about extenuating circumstances.

Students should not ignore financial responsibility. If students are unable to pay account balances, they are encouraged to discuss their situation with the Financial Aid Office or the Business Office.

## Applying for Financial Aid

As early as October 1st a student (and their parents based on federal guidelines to determine dependent status) can complete the Free Application for Federal Student Aid (FAFSA) at [www.fafsa.ed.gov](http://www.fafsa.ed.gov), using their prior prior year tax information.

After submitting the FAFSA electronically, the processing center will send a student aid report (SAR). It is used to determine a student's eligibility for need-based financial aid: the Federal Pell Grant, Federal Supplemental Educational Opportunity Grant (SEOG), the Federal Work Study Program, and the Federal Direct Subsidized Student Loan. When the student receives the electronic copy of the Student Aid Report, s/he should check the report for accuracy. If any information is incorrect, the student must make corrections at [www.fafsa.ed.gov](http://www.fafsa.ed.gov).

Upon acceptance to Mitchell Tech, the Financial Aid Office will email an award offer through the student's Mitchell Tech email indicating the amount of financial aid for which the student qualifies and from which specific sources funding will be granted. All students who are the recipient of a Title IV federal student loan for the first time must complete entrance counseling and a Master Promissory Note at [www.studentloans.gov](http://www.studentloans.gov) before they can receive any proceeds from that loan.

Financial aid disbursements are available to students

fourteen days after the first day of classes. To contact the Financial Aid Office at Mitchell Tech, call (605) 995-3052 or (800) 684-1969 toll-free.

## Satisfactory Academic Progress

### Satisfactory Academic Progress

Federal regulations require Mitchell Technical College (Mitchell Tech) to define and evaluate Satisfactory Academic Progress (SAP) for federal student financial aid applicants. The purpose of the review process is to ensure that the federal aid given to a student is used in a constructive manner and that the student is maintaining satisfactory advancement toward achieving a degree.

Although the SAP standards are similar to the Academic standards for all students, the financial aid SAP standards are not exactly the same due to the specific federal requirements. In addition to meeting the academic standard for registration, a student must also meet the requirements of the financial aid SAP in order to be considered eligible to receive federal, state, and need-based institutional financial aid assistance.

Mitchell Tech evaluates Satisfactory Academic Progress at the end of each academic term. If there are late posted grades or grade changes, the SAP status will be recalculated once notification is received from the Registrar's Office of grade changes.

In order for a student to maintain his or her federal financial aid, the student must meet the following standards of academic progress. Students who do not meet Satisfactory Academic Progress standards after one term will initially be issued a financial aid warning, allowing financial aid to continue for one academic term. If the standards of Satisfactory Academic Progress are not met in that following academic term the student will be suspended from receiving federal financial aid. Suspended students can appeal to have financial aid eligibility reinstated by submitting an appeal to the Dean of Student Success. If the appeal is approved, that student will be placed on financial aid probation for the following academic term. The student then has one term in which to meet the standards and regain eligibility for financial aid.

### SAP standards:

#### •Minimum cumulative grade point average (GPA) Qualitative Measure

All students receiving financial aid must maintain the following Mitchell Tech cumulative GPA. The cumulative GPA includes credits earned at Mitchell



Technical College and transfer credits. Students must maintain a cumulative grade point average (GPA) of 2.0 or above.

#### •**Minimum pace of progression (PACE) Quantitative Measure**

All students must successfully complete a minimum 67% of cumulative credits attempted. Pace is calculated by dividing the total number of cumulative credits completed by the total number of cumulative credits attempted.

**Credits completed** = all coursework where credit is earned with a grade A, B, C, D, and P.

**Credits attempted** = all coursework where credits were completed PLUS all coursework with a grade of F, I, and N.

#### •**Maximum timeframe credits attempted to complete degree program**

All students must complete their degree program with credits attempted that are no greater than 150% of the number of credits required to earn the degree. The maximum attempted units is calculated by multiplying the minimum units required for the academic program by 150%. For example, if a degree required a minimum of 64 credits, so that student can attempt a maximum of 96 credit hours before being suspended from financial aid ( $64 \times 150\% = 96$ ). Students can pursue additional academic objectives and receive financial aid as long as they do so within the units allowed for in their primary major.

If you are unable to fulfill the requirements for your degree before reaching this maximum timeframe your aid will be suspended from financial aid. Please see Appeal Process later in this section.

#### **Failure to maintain Satisfactory Academic Progress**

Failure to meet either Qualitative Measure the 2.0 grade point average requirement and/or Quantitative Measure by successfully completing a minimum 67% of cumulative credits attempted will result in the following:

#### **Financial Aid Warning**

Students who are not meeting the standards of Satisfactory Academic Progress at the end of one term of enrollment will be placed on “financial aid warning” and will be notified of this status through their Mitchell Tech email. Note that the financial aid warning only

applies to students who have just completed their first academic term of their program, or who were meeting the standards of Satisfactory Academic Progress in the prior academic term.

During the term of financial aid warning, students will continue to be eligible for federal financial aid. This gives the student time to become compliant with the Satisfactory Academic Progress standards. It is recommended that students who are issued financial aid warning meet with their Student Success Coaches and advisors in order to re-evaluate their course of study and take advantage of the many services available to them at in The Center for Student Success at Mitchell Tech.

#### **Financial Aid Suspension**

Students who fail to meet the Satisfactory Academic Progress standards in the semester after receiving a financial aid warning will be found ineligible to receive federal financial aid and their financial aid will be suspended at that time. Students will receive notification of their federal financial aid suspension through their Mitchell Tech email.

#### **Appeal Process**

Federal regulations limit circumstances for which a suspension of financial aid may be appealed to the following: death of a family member; illness or injury to the student; or other special circumstances beyond the student’s control.

To appeal a financial aid suspension, a student must submit an appeal to the Dean of Student Success. The appeal form must explain why the student failed to meet the Satisfactory Academic Progress standards and what has changed in the student’s situation that will allow the student to meet Satisfactory Academic Progress standards by the next evaluation period. The student may also be required to include documentation to verify the stated circumstance that prevented the student from meeting the Satisfactory Academic Progress standards. Required documentation includes, but is not limited to, the following:

- Death of a family member (a photocopy of a death certificate and/or obituary and the name and relationship of the deceased to you).
- Illness or injury to the student (an explanation of the nature of the illness or injury and the dates you were affected by the illness or injury AND a statement from a physician or health care professional and/or a copy of medical bill or discharge forms).

- Other special circumstance (a detailed explanation of the specific traumatic event or unexpected circumstance and what you have done to overcome the event or circumstance such that you can go on to meet the standard of Satisfactory Academic Progress AND supporting documentation from a third party, i.e. physician, social worker, counselor, police).

A committee will review the appeal form and notify the student. If a student's appeal is approved, the student will be placed on financial aid probation. This means that the student will be awarded financial aid for the subsequent academic term, contingent upon the student meeting the conditions specified in the appeal approval process.

- Students for whom it is determined that circumstances are such that it is unlikely they will be able to meet the standards by the next evaluation period will need to have a student academic plan put into place in order to demonstrate that the student will meet Satisfactory Academic Progress standards by a specific point in time.
- Students on warning status who succeed at meeting the Standards of Academic Progress during the subsequent academic term will be considered fully eligible for federal student aid.
- Students who, at the end of the warning term, continue to fail to meet the standards for Satisfactory Academic Progress will be suspended from financial aid eligibility. Students who are suspended may submit a new appeal form to the Dean of Student Success.

### **Reinstatement of Eligibility**

Suspended students who subsequently meet all three of the Satisfactory Progress Standards and are in good standing regain their eligibility for federal financial aid. Students whose appeals are denied may consider non-federal sources of student financial aid. Please contact the Mitchell Tech Financial Aid Office if you have any questions.

### **Academic Circumstances that Affect Your Status**

- **Repeating Course Policy for Financial Aid**  
Federal regulation limits the number of times a student may repeat a course and receive financial aid for that course.

If a student gets a 'W' or an 'F' in a course, that student is allowed to repeat the course and receive financial aid (assuming he/she is meeting Satisfactory Academic

Progress) until he/she receives a 'D' or better. Once the student has received a 'D' grade or better, he/she can repeat the course one additional time and still receive federal aid.

When a course is repeated the most recent final grade will be used to determine eligibility. The prior grade is no longer calculated into the GPA at Mitchell Tech, however, the previous hours attempted will be counted as hours attempted when reviewing SAP completion rate and maximum time frame.

- Changes in major or double major may cause you to reach your maximum attempted hours, and lose your eligibility before earning a degree. Students who are pursuing dual degrees are subject to the maximum time frame rules but may be reviewed on a case by case basis by the Financial Aid office and the Dean of Student Success. Mitchell Tech reserves the right to review denied appeals, cumulative GPA's and completion rates on a case by case basis. If a student changes or adds additional programs, the prior credits and grades that do count toward the new program are included in the SAP evaluation.
- Incomplete grades, missing grades, failing grades, course withdrawals all reduce your completion ratio, because they are counted as attempted, but not earned credits. They also count against your maximum attempted hours. An incomplete grade will count as a failing grade until the final grade is posted
- Late posted grades or grade changes. Once notification is received from the Registrar's Office of grade changes, the SAP status will be recalculated.
- Repeated courses count as attempted credit hours each time you register for them. They also count against the allowed maximum. This can also reduce your completion ratio because repeated credits count as earned credits only once. Only the last completed attempt is included in the GPA calculation.
- Transfer credits and credits taken while cross-registered count toward your maximum attempted credits and your completion ratio.
- Remedial and noncredit courses count as attempted and earned credits, but are not included in the GPA calculation.
- Dismissal and Return. Students who are suspended academically or choose not to attend because of SAP failure will not be automatically eligible for financial aid upon their return. Student must meet both qualitative

and quantitative standards of SAP. If below standards, a student must appeal or use means other than financial aid for educational expenses. Absence does not restore eligibility for financial aid. It remains the responsibility of the student to be knowledgeable of their SAP standard when returning to school after dismissal or choosing not to return because of SAP Failure.

- Summer Term Courses.** All hours attempted and completed in the summer terms are treated as any other semester hours in determining SAP status. SAP will be checked following the summer term as well.

- Credits while not receiving Title IV** all credits appearing on student transcripts will be counted in calculations for determining SAP status, including those that may have been during terms in which a student was not receiving Title IV Aid.

#### 6.9.1

### Student Enrollment Status

A full-time student is one who is enrolled in 12 or more credit hours during a semester.

A three-fourths time student is one who is enrolled in 9-11.5 credit hours during a semester.

A half-time student is one who is enrolled in 6-8.5 credit hours during a semester.

A part-time student is one who is enrolled in 5.5 or fewer credit hours during a semester.

Financial aid calculations are determined by enrollment status. Financial aid is pro-rated for students enrolled in fewer than 12 credits in a semester. Courses other than degree- or diploma-fulfillment courses cannot be used in determining the amount of financial aid awarded. See the Financial Aid Office for details.

### Mitchell Tech Refund Policy

The refund schedule listed below is for students who withdraw from their classes entirely and voluntarily. Students must notify The Center for Student Success to initiate the withdrawal process. The percentage listed below indicates the amount of the refund for tuition and fees charged by Mitchell Tech excluding laptop, tools, uniforms, and bookstore charges.

Students receiving Title IV Financial Aid must complete

their exit counseling to ensure receipt of this refund discount. Students may appeal their refund discount percentage to a committee consisting of the Registrar, Dean of Student Success, Dean of Financial Operations/CFO, and the Director of Financial Aid, if extenuating circumstances forced the student to withdraw from Mitchell Technical College.

Administrative withdrawals or unofficial withdrawals do not fall under this refund policy. Administrative withdrawals are initiated by Mitchell Tech personnel due to a student's lack of attendance for on-campus courses and non-activity for online courses. Students receive all failing grades from administrative withdrawals and no refund.

Please contact Business Office for refund schedule.

### Return of Title IV Funds Policy

When a student receiving federal Title IV financial aid withdraws from Mitchell Tech or stops attending classes without formally withdrawing during the enrollment period, the amount of the Title IV funds (not including Federal Work Study) that the student earned during the enrollment period is calculated as of the student's withdrawal date. The student withdrawal date is determined by the student's last date of physical attendance or academic engagement as recorded by their instructors.

If the date a student withdraws from Mitchell Tech is prior to or on the 60th percent point of the semester, Mitchell Tech is required to determine the portion of the aid disbursed that was "earned" by the student before the withdrawal date. The "unearned" Title IV funds must be returned to the respective federal aid programs. Unearned aid is the amount of disbursed Title IV aid that exceeds the amount of Title IV aid earned based on attendance in the enrollment period.

Once the date of withdrawal is determined, the amount of earned federal financial aid is calculated using the completion rate for the enrollment period, multiplied by the total aid that was disbursed or could have been disbursed (aid "could have been disbursed" if the student was eligible to receive it at the time he/she withdrew and may receive it under late disbursement rules in 668.164 [g]). Students who withdraw after completing 60 percent of the payment period will be considered to have earned 100 percent of their federal financial aid unless they are enrolled in modules (see next paragraph). A payment period is the period established by the school for which institutional charges are generally assessed, excluding breaks of five days or

more. Federal financial aid that a student has earned can be applied toward institutional charges.

### Modules

Federal regulations state that students who are enrolled in classes that do not span an entire term are considered to be enrolled in modules. If a student fails to complete all modules scheduled, the student is considered a withdrawal at the time the student ceases attendance, and the financial aid office is required to complete a return of Title IV calculation to determine how much federal financial aid funds were earned and return the amount that was considered unearned. The completion of 60 percent of term does not apply.

For students who fail to officially withdraw when they stop attending classes and are assigned an “F” grade for all courses for the semester, the Return to Title IV Funds policy requires Mitchell Tech to calculate the “earned” aid based on the student’s last date of attendance. Unearned federal aid must be returned as described above.

In accordance with federal regulations and Mitchell Tech policy, if you are eligible for a refund of tuition and fees, and you are a Title IV aid recipient for the enrollment period, the refund will be returned to the student aid programs. Returned Title IV Funds are allocated in the following order:

- Direct Unsubsidized Loans
- Direct Loans (subsidized)
- Federal Perkins Loans
- Direct PLUS Loans
- Federal Pell Grants
- Federal SEOG

### Late or Post-Withdrawal Disbursement

Students may be eligible for a late or post-withdrawal disbursement if they have accepted aid that did not disburse at the time of withdrawal.

If eligible, the Mitchell Tech Financial Aid Office will send notification of the action required to either accept or decline a portion, or all, of the late disbursement. If no response is received within approximately two weeks of notification, the award will be canceled.

### Mitchell Tech’s Responsibilities

Mitchell Tech’s responsibilities in regard to the Return of Title IV funds include:

- providing each student with the Return of Title IV funds policy
- identifying students who are affected by this policy and completing the Return of Title IV Funds

calculation for those students

- returning any Title IV funds that are due to the Title IV programs within 45 days of notification of the withdrawal

### Student Responsibilities

Students who received a credit balance refund of their Title IV aid will be responsible to repay any portion of that aid that is “unearned.”

## Financial Aid Available

### Grants

***The Federal Pell Grant Program*** is a grant program funded by the federal government. The Student Aid Reports (SARs) from the processing center tell the Mitchell Tech Financial Aid Office whether or not you qualify for this grant and, if so, for how much. Award amounts are prorated based upon need calculation from the FAFSA information and enrollment status. If a student with a Pell Grant changes enrollment status during the first ten days of the semester, any refund goes to the student's Pell Grant.

### ***The Federal Supplemental Educational Opportunity Grant Program***

This is also a grant program funded by the federal government. Students who receive Pell Grants have priority for receiving this grant. Funding for this program is limited. Please apply early.

### Federal Work-Study

The federal government funds the Federal Work Study Program. The Financial Aid Office determines eligibility. If you qualify and funds are available, you are allotted an amount of money that you can earn during the academic year. Limited summer jobs during non-enrollment periods are also available. Contact the Financial Aid Office for details.

Off-campus employment opportunities are also available. See the Career Services Office.

### Loans

Student loans are financial aid that must be repaid in the future. All types of loans are disbursed by the semester.

Repayments begin typically six months after you leave

Mitchell Tech.

### ***The Federal Direct Student Loan Program***

This low-interest loan program allows dependent students to borrow up to \$5,500 for their first year and \$6,500 for their second year. Independent students may borrow up to \$9,500 for their first year and \$10,500 for their second year. This program is either subsidized or unsubsidized. If the loan is subsidized, the interest does not accrue while the student is attending Mitchell Tech. If the loan is unsubsidized, interest is charged from the time the loan is disbursed. Your award letter will indicate the type of loan for which you qualify.

### ***Federal Direct Parent Loans (PLUS)***

This program provides an opportunity for parents of dependent students to borrow funds for their student's educational costs. The Financial Aid Office processes applications. The funds come from the U.S. Department of Education. Loan amounts may not exceed educational costs minus other financial aid.

## **Other Off-Campus Agency and Financial Aid Sources**

### ***Temporary Assistance for Needy Families (TANF)***

If you are in this program, check with your TANF coordinator to see what assistance you may receive to attend Mitchell Tech.

### ***Bureau of Indian Affairs (BIA)***

If you qualify for BIA funds, you should start by contacting your local BIA Agency. Paperwork completed early will ensure timely arrival of your funding.

### ***Vocational Rehabilitation***

Financial aid is available for persons with disabilities. Contact your local vocational-rehabilitation office.

### ***Veteran's Benefits***

Contact the Veteran's Center at (888) 442-4551 or the Financial Aid Office at Mitchell Tech to request information about the programs for which you may qualify. Veteran's Affairs website: [www.benefits.va.gov/gibill](http://www.benefits.va.gov/gibill).

### ***National Guard Benefits***

Members of the National Guard may qualify for up to 100% tuition benefits and monthly stipends under the Chapter 1606 program, Federal Tuition Assistance Program, and State Tuition Assistance. Contact your commanding officer, Financial Aid, or the Business Office for more information. Please note that the application and approval need to be done prior to the first day of classes.

### ***Workforce Investment Act (WIA)***

A program funded by the South Dakota Department of Labor and Regulations. Economically disadvantaged students may qualify for grants in certain educational programs. Contact your local DOL office for details.

### ***Scholarships***

The Mitchell Tech Foundation offers a variety of scholarships to students who meet qualifications. Information regarding application deadlines is published periodically and distributed to students. See the Financial Aid Office or the Mitchell Tech Foundation Office for more details. Mitchell Tech also accepts any scholarships from outside sources. If receiving any scholarships from outside sources, you must notify the Financial Aid Office.

# Student Services

## The Center for Student Success

The Center for Student Success supports students in learning the technical and career skills needed to successfully complete their postsecondary degree. The Center serves as a beginning resource for students with questions or concerns about their coursework, degree completion, and overall success at Mitchell Tech. Staff members are available to work with students to find solutions to their academic, personal and career-related questions. The Center also provides:

- Help with academic coursework, including tutoring, study aids, research databases, and electronic media
  - Disability and learning services
  - Diversity services
  - Assistance with monitoring academic progress toward graduation, changing programs, or withdrawing from a program
  - Information about Mitchell Tech's Student Representative Board and other Mitchell Tech clubs and activities
  - Computer access, including internet, email, MyTech and application software
  - Printing, copying, and scanning services
  - Guidance on where to access important campus services, such as Financial Aid, Business Office, Registrar, Career Services, Scholarships, etc.
  - Information about off-campus resources, such as housing, counseling, transportation, financial sources, childcare and other support services.
- 10.1.1

## Student Activities

Mitchell Tech offers a wide variety of organized student activities including intercollegiate-sanctioned college rodeo and trap. Other on-campus activities are sponsored by the Student Rep Board in cooperation with Student Services. Activities include intramural sports, social events, picnics, musical events, entertainment, etc. Additionally, each Mitchell Tech student has 24/7 access to our Student Lounge and on-campus Fitness Center.

## Diversity Services

Mitchell Tech has a dedicated staff member who

conducts outreach, advising, student services and career coaching to students who belong to underrepresented groups. Students who need assistance are encouraged to contact The Center for Student Success.

## Tutoring

Tutoring is available at no cost to Mitchell Tech students in The Center for Student Success. Group study table sessions are held throughout the week for some general education courses and select programs. Program participation varies from semester to semester and depends on availability of qualified study table leaders and student need. Private one-on-one tutoring sessions are available upon request.

Contact The Center for Student Success to learn more about tutoring services.

8.7.3

## Career Services

Mitchell Tech's Career Services & Advising Director offers assistance to students by providing employment leads and, in some instances, bringing employment interviewers to campus. Several workshops and job seeking-related activities are sponsored each year.

The Career Services & Advising Director maintains a comprehensive website for students and employers. For more information or job search assistance, contact the Career Services & Advising Director in The Center for Student Success.

8.7.3

## Student Printing

You will need to have your student ID card any time you wish to print to a Mitchell Tech campus printer. When you are ready to print, simply print the document and then go to ANY print station on campus. Tap your ID card on the card reader. Once the screen comes up, you can choose to print, view jobs in the queue, or cancel the job. There are printers in every building on campus. Color printers are located in the Campus Center and in the Technology Center. All other printers are black and white.

To keep costs down, students and staff are encouraged to print all draft copies and all other documents in black and white. Only when you are ready to print your final document should you use the color printer.

Your job will remain in the queue for 60 minutes. If you forget, it will simply time out and delete. Your printing allotment is only deducted when you print on paper.

Your account provides you with print security. No prints can be made from your account without your card.

Each semester Mitchell Tech will allow you to print a predetermined number of copies. When you have reached your allotment, you must deposit money into your print account through the Mitchell Tech Business Office. Minimum deposit is \$5.00. At the beginning of the subsequent semester, you will receive another allotment of copies.

Like any campus technology issue, if you cannot retrieve your printed document, complete a Help Desk ticket and someone will work to help you resolve your issue.

## Research and Library Resources

Students at Mitchell Tech need current information in all academic and technical disciplines. In today's rapidly changing information-based society, Mitchell Tech has found that a traditional "library" is not the best use of our resources. Instead, we have focused on providing electronic access to information. All students have Internet access in The Center. South Dakota's Internet-based library resources provide access to academic research databases.

For additional library resources, there is a formal agreement between Mitchell Tech, the Mitchell Public Library, and the Dakota Wesleyan University libraries for student access to these facilities. A student must show a student ID card and proof of residency to be eligible for public library and DWU library privileges. In addition, The Center will also order materials from libraries statewide through the state's interlibrary loan system at no charge to students.

## Student Computer and Laptop Use

Students who purchase computers from Mitchell Tech for use in their programs have access to service and support through the Mitchell Tech Technology Office. Laptops are distributed and supported by the Mitchell Tech Technology Office.

Students who purchase laptops as a program requirement may contact the Mitchell Tech Technology Office for technical support. The Mitchell Tech Technology Office Help Desk is located in the Muth Electric Technology Center.

The campus IT department will not provide technical support to students using laptops/tablets not purchased and managed through Mitchell Tech beyond network connectivity to our Wi-Fi network. Students must seek support through their vendor or a commercial computer support service.

Student access to computers is also available in The Center for Student Success. All enrolled students must follow the computer and email usage policies. Violation of those policies will result in disciplinary action.

## Student Email Accounts

Each student will be issued a Mitchell Tech email account for official communication and personal use.

## Food Service/Café Cash

Meals are served in the Campus Center for a charge. Students are encouraged to use the Café Cash cashless payment system. Funds may be loaded into a student's account allowing them to make food purchases from the Chef's Cafe. The student makes the purchase with a student ID card. Any balance at the end of the fall semester will be transferred to the spring semester. Any balance remaining at the end of the spring semester will be forfeited. Refunds may be issued to students who withdraw from school in the first ten days of the semester in which the Café Cash was purchased. More information is available in The Center for Student Success and online.

## Housing

Although Mitchell Tech does not own any student housing, the Campus Tech apartments, adjacent to the Mitchell Tech Technology Center on the campus, are available to Mitchell Tech students. The Admissions Office also maintains a list of available housing in the Mitchell area. Students are urged to be aware of their tenant rights and responsibilities.

## Insurance

**Mitchell Technical College DOES NOT carry insurance on students. Health insurance is the responsibility of each student and Mitchell Tech**

**urges each student to carry some type of health insurance. Injuries sustained while in class or lab are the responsibility of the student.**

Students have the responsibility to communicate with their individual health insurance providers to make sure that coverage requirements are met.

Students are also encouraged to obtain renter's insurance from their provider.

## **Campus Store**

Students may purchase supplies, school themed items, and gift certificates at the Campus Store located in the Campus Center. The Campus Store is open during regular business hours throughout the year. Cash, check, or credit card can be used for purchases at the Campus Store.

Students may purchase required tools at the Campus Store or online through the link provided on the Mitchell Tech website.

Students may purchase required books through the Online Bookstore.

Student in programs with specific laptop requirements, must purchase the laptop from the Online Bookstore.

Financial aid can be used for supplies, textbooks, laptops, and tools once it has been applied to student accounts.

If the student participates in any program that includes the cost of course materials (Workforce Investment Act [WIA], Bureau of Indian Affairs [BIA], Vocational Rehabilitation, GI Bill, etc.), the student should check with the Business Office to verify what items are covered.



# Student Life

## General Student Conduct

Students are expected to conduct themselves in a responsible and courteous manner. It is understood that students who enroll agree with the mission and purpose of the College and accept and follow its policies, regulations, and operational procedures. Students are expected to comply with federal, state, and local laws and regulations. Student behavior which, after due process, is found to be disruptive to classes or interferes with the rights of others or causes damage to property may result in probation or suspension.

The College retains the authority to withdraw any student from an internship, clinical area, or observation whose grades, work conduct, or health may have a detrimental effect on themselves, the College, customers, clients, or patients of the cooperating agency.

Students should conduct themselves in a manner consistent with the College's educational mission. The following specifically, but not limited to, will result in disciplinary action. Disciplinary action will vary depending on the degree of severity of each situation.

- Academic dishonesty, including plagiarism and academic cheating
- Forgery, alteration, or misuse of College documents, records, or identification
- Knowingly furnishing false information to the College
- Obstruction or disruption of College operations
- Obstruction or disruption of College-authorized activities on property owned or supervised by the College
- Violent physical or verbal abuse of any person on property owned by the College or at any functions sponsored by or supervised by the College
- Conduct that threatens or endangers the health, safety, or property of any person, including oneself, on property owned by the College or at functions sponsored by or supervised by the College.
- Theft or damage to College property
- Unauthorized entry to College facilities or property
- Unauthorized use or misuse of College property, including attempting to leave the library with materials which have not been properly borrowed, unauthorized use of computers, equipment or tools,

or misuse of College telephones

- Violation of College regulations or campus policies
- The possession, use, manufacture, or distribution of illegal drugs, alcohol, or controlled substances including cannabis used or possessed for medical purposes on property owned by or supervised by the College
- Lewd, indecent, or obscene speech or conduct on property owned by the College, at functions sponsored by or supervised by the College, or as a representative of Mitchell Tech in a public setting, verbal harassment of any Mitchell Tech employee, or violation of any College regulation or policy pertaining to such conduct
- Intimidating behavior directed toward any student, faculty member, staff member, or administrator
- Failure to comply with the directions of an College official acting in the performance of his/her duties
- Unauthorized possession or use of firearms, other dangerous weapons, explosives, or fireworks on property owned by the College or at functions sponsored by or supervised by the College
- Knowingly circulating a false report or false warning that property under College control or supervision may be subject to a bombing, fire, crime, emergency, or other catastrophe
- Smoking or the use of any tobacco or smoking-type product in any area except the Campus Designated Smoking Areas
- Failure to report to the Mitchell Tech Administration Office or local sheriff and/or police agencies, any knowledge of or criminal activity on campus: i.e., murder, rape, robbery, aggravated assault, burglary, or motor vehicle theft. Such a report shall be provided in a manner that is timely and that will aid in the prevention of similar occurrences.

## Emergency Procedures

It is the student's responsibility to become familiar with the building and plans for emergencies. Instructors are in charge of emergency plans for each classroom, shop or laboratory. An Emergency Procedures flier is posted in each classroom, shop or lab and provides brief instructions for a variety of emergency situations.

## General Information

### Pregnancy Birth or Adoption of a Child

Title IX of the Education Amendments of 1972 (Title IX) prohibits discrimination on the basis of pregnancy and parental status in educational programs and activities. As a pregnant or parenting student, you have certain rights under Title IX as outlined at <https://www2.ed.gov/about/offices/list/ocr/docs/dcl-know-rights-201306-title-ix.html>. Additional MTC guidelines to support the birth or adoption of a child are outlined below.

Enrolled students may elect to take a leave of absence for up to two (2) weeks for the birth or adoption of a child. The leave term may be extended with proper medical documentation due to extenuating circumstances or medical necessity. Students taking a leave of absence under this policy should provide notice of the intent to take leave to the Dean of Student Success 30 calendar days prior to the initiation of leave but it is understood that certain circumstances will not allow for a 30-day notice. The “Pregnancy, Birth, or Adoption of a Child Leave of Absence” form can be found in MyTech under Forms.

Intermittent leave for bed rest, doctor appointments, etc. may be taken prior to the leave of absence with proper documentation submitted to the Dean of Student Success.

The student is encouraged to complete coursework prior to the excused absence and stay as current as possible with the coursework during the excused absence. However, during the excused absence, the student will not be penalized for missing class and will be allowed to make up all missed work including points given for class attendance, class projects, class activities, extra credit, etc. Upon returning to class, a schedule to complete any missing coursework will be determined.

### General Conduct

Students attending Mitchell Tech are expected to abide by the rules and regulations as set forth in this publication and as prescribed by individual departments. Additionally, students are expected to uphold local,

state, and federal laws.

Students may have their enrollment status suspended at Mitchell Tech for academic deficiencies (unsatisfactory progress), nonpayment of fees, and when their presence in the College causes disruption in the teaching/learning process or delivery of classes. The suspension process includes the right to due process as outlined in the student grievance procedure.

### Books

Students who enroll need to prepare for some initial expenses at the start of the term. Students may charge the cost of books against their financial aid IF the award amount exceeds the total due. In order to do this, the financial aid process needs to be completed and the Business Office must approve the charge. Please budget accordingly when making your school plans.

### Tools and Supplies

Tools and supplies to be used in programs may be purchased from the Campus Store. Students may purchase tools from sources other than the school provided they meet the standards of the department. Students are expected to have a complete set of tools available during all laboratory activities.

### Sname

### Bulletin Boards

All bulletin board items, posters, etc., must be approved prior to being posted. Approval may be obtained in the Center for Student Success. Items are preapproved for display for up to one month. Any item left after that date may be destroyed. All boards will be cleared at the end of each semester.

### Cell Phones/Telephones

Cell phone use is inappropriate in classrooms and laboratories. Most departments have policies regarding cell phones. Personal calls should be made outside of classroom/lab areas. Instructional and administrative office telephones are not for student use. Emergency phone calls will only be relayed to the student if the caller has identified him/herself and the nature of the call.

## Change of Address/Phone

The address and telephone number a student provides at the time of application will be considered the current address and phone number of the student. It is the student's responsibility to notify the Registrar if the address or telephone number changes from that provided at application. For federal compliance purposes, Mitchell Tech will determine the location of its distance education students using the current address provided to Mitchell Tech. Students attending classes on campus will be assumed to be residing in South Dakota.

## Classroom and Laboratory Use

Student use of classrooms and laboratories will only be allowed when a supervisor is present.

## Financial Aid Regulations

Students should pay special attention to and accurately complete applications for student financial aid. Errors can result in long delays in receipt of financial aid. Intentional misreporting of information on application forms for federal financial aid is a violation of law and is considered a criminal offense subject to penalties under the U.S. Criminal Code. Please pay particular attention to the following:

- Return all additional documentation, verification, corrections, and/or new information requested by either the financial aid office or the agency to which the application was submitted.
- Read and understand all forms signed and keep copies of them.
- Accept responsibility for all agreements signed.
- If a student has a loan, the lender must be notified of changes in name, address, or school status.
- Perform the work that is agreed upon in accepting a Work Study award.
- Know and comply with the deadlines for application or reapplication for aid.
- Know and comply with the school's refund procedures.

## Food and Beverage Consumption

Food and beverages should be consumed in the commons areas. Due to the nature of the technology located in Mitchell Tech classrooms and labs, students are strongly discouraged from consuming food or beverages outside of the commons areas. Cooperation in keeping the commons areas clean at all times is requested.

## Food Service

Meals are served for a charge during the hours students are in attendance. Mitchell Tech has implemented a payment system called Café Cash. You can put money into your Café Cash account and use your student ID card to make food purchases. More information is available from The Center for Student Success or from the Business Office.

## Illness, Accidents or Injuries

Accidents, injuries, or illnesses occurring during classroom or laboratory time or during a school-sponsored activity, must be reported to an instructor or school official. Each accident must be reported in writing to the Vice-President of Operations within twenty-four (24) hours of the incident. Liability regarding accidents is not assumed by the school. Students who fail to adhere to safety practices may be terminated from the program. Mitchell Tech will contact health care personnel when necessary at the expense of the student.

## Insurance

Mitchell Tech DOES NOT carry insurance on students. Health insurance is the responsibility of each student and Mitchell Tech urges each student to carry some type of health insurance. Injuries sustained while in class or lab are the responsibility of the student. Students have the responsibility to communicate with their individual health insurance providers to make sure that coverage requirements are met. Dropping classes or withdrawing from school can have an impact on insurance coverage. Students and their parents should be aware of these issues.

## Student Laptop Computers on Campus

### *Mitchell Tech-Issued Laptop Required by Program*

Students who purchase computers from Mitchell Tech for use in their programs will have full use of the campus network services. The laptops are distributed and supported by the Mitchell Tech Technology Office.

### *BYOD Programs*

Students enrolled in some programs are required to bring their own device (laptop) at their own expense. Students may choose to purchase a laptop from Mitchell Tech.

### *Student Technical Support*

Students who purchase laptops as a program requirement may contact the Help Desk for technical support. The Help Desk is located in the Technology Center.

The campus Help Desk will not provide technical support to students using laptops/ tablets not purchased and managed through Mitchell Tech beyond network connectivity to our Wi-Fi network. Students must seek support through their vendor or a commercial computer support service.

## **Lockers**

Lockers provided for students' use are the property of the school. It is the student's responsibility to provide a padlock. Mitchell Tech is not responsible for the contents of student lockers.

## **Lost and Found**

Any items found in the school should be turned in to the Center for Student Success. Lost articles may be reclaimed after proper identification.

## **Mail Service**

Mitchell Tech does not forward personal mail received at the school. Please do not use Mitchell Tech as a mailing address.

## **Parking and Driving On Campus**

Parking signs are large and visible, with VISITOR PARKING clearly designated. All loading and unloading zones will be identified with signs.

Students parking in fire lanes will be ticketed and fined. Students parking in non-designated areas may have vehicles towed away and are responsible for towing expenses.

The speed limit on campus is 10 mph unless otherwise posted.

Traffic violations will be handled at Mitchell Tech in cooperation with the Mitchell Department of Public Safety.

## **Payment of Bills**

Any student having unpaid bills at Mitchell Tech will not be allowed to attend classes in any new term during the period in which that bill remains unsettled. Indebtedness includes unpaid amounts for tuition, books, fees, shop/laboratories charges, and any other

charges incurred by the student and owed to the College. Official transcripts, diplomas, degrees, and certificates will not be issued until the indebtedness is settled.

## **Personal Property**

Mitchell Tech does not assume responsibility for loss of or damage to personal property of students.

## **School Property**

The facilities of Mitchell Tech are modern and up-to-date. Students must take proper care of equipment and respect the property of others. Students will be required to pay for school property that they have lost or damaged. Theft of property will be referred to the appropriate authorities.

## **Service Dogs on Campus**

Service animals are defined as dogs that are individually trained to do work or perform tasks for people with disabilities. Examples of such work or tasks include guiding people who are blind, alerting people who are deaf, pulling a wheelchair, alerting and protecting a person who is having a seizure, reminding a person with mental illness to take prescribed medications, calming a person with Post Traumatic Stress Disorder (PTSD) during an anxiety attack, or performing other duties.

Service animals are working animals, not pets. The work or task a dog has been trained to provide must be directly related to the person's disability.

Under the ADA, service animals must be harnessed, leashed, or tethered, unless these devices interfere with the service animal's work or the individual's disability prevents using these devices. In that case, the individual must maintain control of the animal through voice, signal, or other effective controls.

Dogs whose sole function is to provide comfort or emotional support do not qualify as service animals under the ADA and as such are not allowed in Mitchell Tech classrooms or labs.

## **Student Email Accounts**

Each student will be issued an Mitchell Tech email account for official communication and personal use. Students will be charged \$5.00 to change lost or forgotten passwords.

**Student ID Cards**

Each student will be issued a photo identification card. Replacement cards are issued at the Help Desk for \$30.

**Transportation**

Students are required to furnish their own transportation to and from school. When training requires students to be off campus, students must make their own transportation arrangements. Students wishing to car pool should contact The Center for Student Success.

**Weather-Related School Closings**

It can be assumed that Mitchell Tech classes will be held as scheduled. Students should use their own best judgment regarding road conditions. If weather is threatening, students are not advised to jeopardize their safety by traveling in from outlying communities. Weather-related messages will be sent via the campus alert system (MTECH) and will be broadcast on Mitchell radio stations. Local television stations will also be notified.

# Academic Information

## Academic Advising

Academic advising helps students choose courses and fulfill graduation requirements. Academic Advisors are assigned to each student. Advising dates are scheduled each semester.

## Registration

New students to Mitchell Tech will be notified of the process and timeline of registering for classes by their Admissions representatives. Returning students will be notified of the registration process by the Registrar's office and by academic advisors.

## Preparatory Courses

090-level preparatory, review courses will be offered for pass/no credit ("P"/"N"). Preparatory credits count toward course load, but are not figured in grade point averages or graduation requirements.

## Independent Study

The program of independent study must be approved, in writing, by the instructor overseeing the project. A detailed outline of the study project, including material to be covered, written work to be submitted, etc., must be developed. The plan must be submitted to the Vice-President for Academics. In general, students may not take required courses by independent study. In cases of special circumstances, a student may request to take independent study in place of a normally offered course. Students should be aware that Mitchell Tech tries to avoid such arrangements so that as many students as possible benefit from classroom and lab instruction.

## Cancellation of Courses

Mitchell Tech reserves the right to cancel a course or combine class sections due to insufficient enrollment or other related factors. Students will be notified and the Registrar's office will work with the students to assist with re-scheduling.

## Course Numbering System

The following numbering system is used for all courses:

1. The two- to four-letter prefix designates the

department or program area. A department may use more than one prefix.

2. The three-digit course number generally indicates the level of instruction. Courses numbered 090-099 are developmental and do not fulfill any requirements for any degrees or diplomas offered.

090-099            Preparatory/Review Level

100-199            Introductory Courses

200-299            Intermediate Courses

## Course Sequence

Unless otherwise noted, courses in this catalog must be completed in the sequence listed.

## Credit Hour System

The credit hour is the academic unit used at Mitchell Tech. Mitchell Tech defines a credit hour on the basis of the Carnegie unit. This defines a semester unit of credit as equal to a minimum of three hours of work per week for a semester. Thus, a unit of credit at Mitchell Tech equates to three hours of student work per week for a minimum 15 weeks.

All credits require assimilation of specified knowledge and skills comparable to and consistent with learning objectives established for similar courses and levels at other accredited institutions of higher learning.

## Lecture Courses

For a lecture course, one credit is considered to be one 50-minute period of lecture class time and two hours of outside of class work per week.

## Lab Courses

For a lab course, one credit is considered to be a minimum of 150 minutes of lab time per week. The 150 minutes may be a combination of time in the lab with faculty supervision and time the student spends on projects or activities on his or her own.

## Internships

An internship or externship credit involves a minimum of 40 hours working at an assigned job location. The student will be working for an employer under the supervision of a qualified instructor.

## Distance Education Courses

Courses that do not have the required face-to-face contact time (for example, hybrid, online, or correspondence) must also meet the credit hour standard of three hours of work per week for 15 weeks. A distance education course meets this standard if the course covers the same material in the same depth as a face-to-face version of the same course. If no face-to-face version exists at Mitchell Tech, the course credit hour assignment is based on the total learning time the instructor developing or teaching a course would expect for a student to satisfactorily complete the work of the course.

## Grading Scale

Mitchell Tech uses the four-point grading system. Final letter grades are assigned to represent levels of accomplishment.

|    |                  |      |
|----|------------------|------|
| A  | Excellent        | 4.0  |
| B  | Above Average    | 3.0  |
| C  | Average          | 2.0  |
| D  | Below Average    | 1.0  |
| F  | Unsatisfactory   | 0.0  |
| I  | Incomplete       | None |
| P  | Pass             | None |
| N  | No Credit        | None |
| W  | Withdrawal       | None |
| WP | Withdraw Passing | None |
| WF | Withdraw Failing | 0.0  |
| CR | Credit           | None |

## Full-Time Student

A full-time student is one who is enrolled in twelve or more credit hours during a semester. Courses other than degree-fulfillment courses cannot be used in financial aid full-time status calculations. See the Financial Aid Office for details.

## Part-Time Student

A part-time student is one who is enrolled in less than twelve credits per semester. Part-time students wishing to attend courses, but not seeking a diploma or degree, must complete a Limited Enrollment registration form which is available in the Admissions Office or

Registrar's Office.

## Student Academic Load

The maximum load to be carried during any semester by a student (including both face-to-face and online courses) is 21 credit hours or the number of hours specified in the curriculum for the particular semester, whichever is greater. A student who has attained a grade-point average of 2.5 on a load of at least 15 credit hours for the preceding semester may be permitted by the Vice-President for Academics to carry extra credit hours.

## Internships

Internships are educational programs that allow students to receive practical work experience and academic credit while working in governmental, community or business settings. Internships are a requirement for graduation in several programs. Students must maintain a minimum cumulative GPA of 2.0 and meet additional program-specific requirements. If requirements are not met, the student will not be able to enroll in an internship. Students denied internship registration may appeal.

Internships at Mitchell Tech are designed with intentional learning goals to assure that the experience will promote the academic, personal and career development of students. Mitchell Tech will work with the site sponsor to support the success of the internship experience. ***Students share the responsibility in locating potential internship opportunities.*** No commitments should be made, however, until the internship has been approved by the program internship coordinator. After approval of an internship site is granted by a program's internship coordinator, the student must register for the internship course with the Registrar. All tuition and fees apply.

Additional information regarding internships at Mitchell Tech may be obtained in the Mitchell Tech Internship Guide or by speaking with a program's internship coordinator.

## Course Schedule Changes Adds/Drops/Withdrawals

### Course Add/Drop Period

Until the drop period ends, Mitchell Tech may determine a student is not active and may be dropped from classes. After the drop period ends, any changes in

a student's registration (including adding or dropping a course) must be completed on a Course Change Form. A course is not dropped by simply discontinuing attendance. Fall and spring semester courses may be added through the 5th day of a semester or with the approval of the course instructor. Courses may be dropped through the 10th day of classes each semester. Students will not be charged for courses dropped within the first ten days of the semester. Courses dropped during the first ten days of the semester will not be recorded on a student's transcript. Courses scheduled in the summer term and shorter modules may be added or dropped through the equivalent prorated day from the course start date of such classes.

Adding and/or dropping a course after the 10th day requires approval signatures of the student and the course instructor. If the proper drop/add procedure is not followed, the student will fail the course. Courses dropped after the semester's drop period has expired are NOT eligible for a refund unless the student is withdrawing from school entirely. (Refer to Tuition Refunds section (p. 42).)

#### 6.9.1

### Withdrawing From a Course

A student who withdraws from a course after the 10th day will be issued a grade of "W" to indicate official withdrawal from the course. (A "W" grade is not computed in the student's grade point average.) Students who stop attending a class are not automatically withdrawn from the course. Students who quit attending class and have not completed the official withdrawal process will receive a grade of "F." Students will not be allowed to withdraw from courses after the 85% date of the term.

85% dates will be published annually on the Mitchell Tech website.

No registration change is official until the properly approved form is filed with the Registrar's Office; the official date of the withdrawal is the date the form is filed in the Registrar's Office. No refunds are issued to students who withdraw from a course.

#### 6.9.1

### Withdrawing From School Entirely

Students planning to withdraw from school entirely are

required to complete a "Withdrawal Form" available in the Center for Student Success. On rare occasions, when completing the form is not possible for the student, then a formal notification to The Center for Student Success must be made either by phone call or Mitchell Tech-issued email account. **A student is not officially withdrawn from the College until the proper withdrawal form is filed.**

The process for officially withdrawing from school is:

1. Complete a withdraw form available in the Center for Student Success..
2. Complete an exit interview with Student Success Center staff.
3. Complete an exit interview with the Financial Aid Office.
4. Complete appropriate forms with the Business Office

Refunds for Official Withdrawals, if any, are calculated by the student's last date of attendance. A Return of Title IV funds will be calculated and federal funds will be sent back to the Department of Education. Mitchell Tech has the right and will bill the student for any federal funds that are sent back to the Department of Education. Students who officially withdraw and who receive an earned grade for any course during the semester are not eligible for a refund for that course. (See the Business Office for a refund schedule.)

Students withdrawing entirely from school, wishing to re-enroll at a later date, are required to complete a new Application for Admission.

### Administrative Withdrawal/Inactive Students

Students who have not demonstrated academic activity in all courses for a minimum of 10 consecutive school days are considered "Administrative Withdrawals." Students who are considered Administrative Withdrawals will receive all failing grades marked as a "FN" on the transcript for any classes in which they are registered and their withdrawal date will be considered the last date of attendance.

A Return of Title IV funds will be calculated and federal funds will be returned to the Department of Education. **Please note:** When an Administrative Withdrawal is applied, Mitchell Tech has the right and will bill the student for any federal funds that are returned to the Department of Education. Mitchell Tech will not issue a refund for tuition and fees charged by Mitchell Tech.



## Academic Engagement Defined

For students to receive federal financial aid, students must demonstrate academic engagement. If academic engagement is not confirmed in each class, federal financial aid will be cancelled or reduced based upon the classes where academic engagement is confirmed. After 10 consecutive school days of inactivity, a student may be administratively withdrawn from all courses.

The United States Department of Education defines Academic Engagement as “active participation by a student in an instructional activity related to the student’s course of study” that includes --

- Attending a synchronous class, lecture, recitation, or field or laboratory activity, physically or online, where there is an opportunity for interaction between the instructor and students;
- Submitting an academic assignment;
- Taking an assessment or an exam;
- Participating in an interactive tutorial, webinar, or other interactive computer-assisted instruction;
- Participating in a study group, group project, or an online discussion that is assigned by the institution; or
- Interacting with an instructor about academic matters.

Academic Engagement is NOT:

- Logging into an online class or MyTech without any further participation
- Meeting with an academic advisor or student success coach

Attendance and active engagement in all courses is considered critical at Mitchell Tech. Academic success and student learning are closely related to attendance and participation. A student may be administratively withdrawn from a course after 20 consecutive school days of inactivity.

## Medical Withdrawal

A Medical Withdrawal is requested when a student is suffering from a medical condition that prevents the completion of the semester. If a student is approved for Medical Withdrawal, a refund of tuition and fees is also approved. The student receives a “W” which indicates on the academic record that the student was withdrawn from classes. If the student was aware of the medical condition at the time of registration, the petition will be denied. Medical Withdrawals are for all courses that the

student is registered in for the semester.

Only illness or injuries, as related to the student, of extended duration are normally considered for a Medical Withdrawal. Consideration will be given only when an illness or injury makes it impossible to complete a term. A Medical Withdrawal requires withdrawal from all classes for that term. Medical Withdrawals will not be approved if the difficulty resulting from the injury or illness was present when the student enrolled for the term.

The following forms will be required to file for a Medical Withdrawal and should be returned to the Dean of Student Success:

1. Medical Withdrawal Request—The Medical Withdrawal Request is a request to be medically withdrawn from Mitchell Tech and should be returned to the Center for Student Success. If you have any type of financial assistance from the Office of Financial Aid, you must have them sign the form before turning it in.
2. Medical Release—The Medical Release form is to be signed, witnessed and returned, along with the Medical Withdrawal Request form by the student.
3. Health/Medical Provider Report—The Health/Medical Provider Report is a form which must be completed by the student and the student’s physician(s) and must be returned directly to the Center for Student Success by the health/medical provider(s).
4. Letter of Explanation—The Letter of Explanation is a statement from the student regarding the severity of his/her medical condition, explaining why he/she is unable to complete the semester due to the medical condition.

## Administrative Removal for Subsequent Semesters

A student registered for a subsequent (future) semester may be administratively removed from the future semester if the student has an outstanding account balance from the current semester or if the student is serving an academic or financial aid suspension. A student may register after his/her account is paid in full or the suspension has expired.

## Military Activation

Students who are members of the National Guard or reserves who are on active duty at the beginning of the semester or activated during the semester and are

required to miss 25% or less of the semester because of their military obligation will be allowed to complete all work assigned during the time of activation.

Students who are members of the National Guard or reserves who are activated and have attended classes for 75% of the semester during which they are called to active duty, will be allowed to receive the grade they have earned and given full credit for the class/course, providing the grade earned is a C or better. Students who are activated prior to 75% of a complete semester will receive a "W".

Current students must submit a copy of their orders to the Dean of Student Success or designee and contact their instructors prior to leaving for active duty. Incoming students must submit a copy of their orders to the Dean of Student Success or designee.

## Tuition Refunds

Mitchell Tech realizes that students may find it necessary to withdraw from school entirely before a semester ends. The following applies to all students who withdraw entirely from Mitchell Tech. The process is effective for all terms (including summer) and applies whether a student is a full-time student or a part-time student.

Students must complete an Enrollment Termination Form and submit it to the Center for Student Success in order to terminate enrollment. The student's last day of attendance will determine the calculation for return of Title IV financial aid funds.

Students withdrawing entirely from all coursework *during* the drop/add period (first 10 days of semester) will receive a 100% refund on tuition and fees. Students withdrawing entirely from all coursework after the drop/add period has expired will have refunds of tuition and fees calculated based upon their last date of attendance. Laptop, tools, uniform and Bookstore charges are NOT included in the refund. Students receiving Title IV financial aid must complete their exit counseling to ensure receipt of the refund.

## Attendance

Enrollment in Mitchell Tech assumes maturity, seriousness of purpose and self-discipline. Every student is expected to attend each meeting of all classes for which he/she is registered, to arrive on time and to stay for the full class period. Mitchell Tech recognizes that absences occur as a result of circumstances beyond a student's control, as well as from a student's failure to

accept responsibility for attending class regularly.

Mandatory attendance requirements may be required in specific programs.

Each instructor will include on the course syllabus the attendance requirements for that class. Because courses differ in design, delivery, and requirements, the effect of absences on a student's grade may vary.

## Defining Course Types

**Traditional:** Courses that meet face-to-face requiring student attendance on campus for the full semester.

**Blended:** A course that blends online and face-to-face delivery. Typically a substantial proportion of the content is delivered online, uses online discussions, and has some face-to-face meetings.

**Online:** All of the content is delivered online. Typically there are no face-to-face meetings; however, some online courses may have a requirement of a campus-based meeting. If a student registered for a course and is unable to come to campus due to extenuating circumstances, alternative arrangements may be made.

## President's List

A full-time student will be named to the President's List by achieving a term GPA of 3.5 or higher. The President's List is published each fall and spring semester. Students receiving an incomplete grade ("I") in any class are not eligible for the President's List.

## Midterm Grades

Each semester instructors submit mid-term grades. Mid-term grades are available to students through MyTech and will be shared with Student Success staff and academic advisors to monitor the academic progress of students.

## Final Grades

Final grades are due from instructors two to three business days after the final day of classes in a semester. Final grades are available to students through MyTech within three to five business days after the final day of classes in a semester.

## Incomplete Grades

Students with incomplete grades (“I”) at the end of a semester should arrange for the completion of the course with the instructor. A student has 4 weeks from the end of the semester to complete an “I” grade. Failure to complete the course within the 4 weeks may result in a failing grade (“F”) for the class. The student and the instructor should complete the Incomplete Class form which is available from the Registrar.

6.9.1

## Grade Appeal

A student who believes that he/she received an inaccurate final grade should contact the course instructor immediately and attempt to resolve the grade dispute. If the grade is found not to be a clerical error, and the student feels the grade was awarded in a manner inconsistent with the criteria stated in the course syllabus, the student may appeal the grade by submitting a statement of reason for the appeal to the Vice-President for Academics. The statement of appeal must be received within four calendar weeks of the subsequent term. The decision of the Vice-President for Academics is final.

## Academic Warning

All students accepted into a program of study and who have not maintained a cumulative 2.0 grade point average (GPA), will be placed on academic warning.

Students may attend Mitchell Tech for one semester on academic warning. While on academic warning, the student will be required to meet with a Student Success Coach on a regular basis. If the student fails to achieve a cumulative 2.0 GPA during the warning semester, the student will be placed on academic suspension. During a warning semester, students may continue to receive financial aid as long as all financial aid requirements have been met.

In order to assure satisfactory progress, students on academic warning should carefully monitor their GPAs. Any student whose GPA drops below 2.0 should meet with a Student Success Coach immediately to evaluate the probability of achieving the necessary GPA of 2.0 needed to graduate.

## Suspension

There are three types of suspension: Academic, Non-Academic and Financial Aid.

### Academic Suspension

Students may attend Mitchell Tech for one semester on academic warning. If the student fails to achieve a cumulative 2.0 GPA during the warning semester, the student will be placed on academic suspension. During a warning semester, students may continue to receive financial aid as long as all financial aid requirements have been met.

All students accepted into a program of study who fail to achieve a cumulative GPA of 1.0 during their first semester of enrollment will be suspended with no academic warning. This type of suspension MAY NOT be appealed.

Students who have been suspended must wait at least one semester of full time enrollment before applying for re-enrollment. Students who re-enroll after suspension will be automatically placed on academic warning. Students may be suspended from a program twice. Registration will not be accepted a third time.

Students who have attended two consecutive semesters may appeal academic suspension. The appeal process is initiated by the student who must complete a Suspension Appeal Form available from the Dean of Student Success by the date specified on their notification of academic suspension. If the suspended student's appeal is successful, the student will be placed on academic warning and will remain enrolled at Mitchell Tech for the following semester. The student on appeal will be required to meet with Student Success staff on a regular basis.

### Non-Academic Suspension

Students may be suspended for other reasons including, but not limited to failed drug tests, disciplinary reasons, policy violations, etc.

### Financial Aid Suspension

A student will be placed on Financial Aid Suspension who does not satisfactorily remove himself/herself from Financial Aid Warning and does not complete a term of acceptable academic work. See **Satisfactory Academic Progress; Financial Aid Warning, Financial Aid Suspension, and Appeal Process in the Paying for School** section.

## Repeating a Course

Students who have failed a course may need to repeat it to meet graduation requirements. Students may also choose to repeat a course in an attempt to raise an undesirable grade. **Financial aid restrictions may apply.** In the event a student repeats a course, both grades are recorded on the student's academic record. The higher grade of the attempts will be calculated into the student's GPA.

## Residency Considerations

Prospective or current students in a program leading to a certification or licensure who live in or plan to relocate to a state other than South Dakota should discuss their plans with their admissions representative, advisor or program director to assess any potential impact on their course of study or future ability to attain licensure or certification in that state. Students who live in or relocate to a state or country in which their respective program is not currently authorized or if it is unknown if the program is currently authorized may not be able to pursue licensure or certification in their desired profession in that state. It is a student's responsibility to seek guidance from his/her advisor or program director prior to living or relocating to a state other than South Dakota. It is Mitchell Tech's responsibility to notify students if it determines that the program does not meet the educational requirements for licensure or certification, or that Mitchell Tech has been unable to make a determination of whether the program meets educational requirements, in the state in which a student is located.

## Change of Academic Program

Students may request a change of program within the College by completing a "Request for Change of Academic Program" form in The Center for Student Success. After a review of the admissions requirements and determination of program capacity, a change in program may be granted. After a student has been granted the change of program, earned credits will be applied to the new program. Only grades of "C" or better in comparable, required technical courses may be transferred. Students changing programs will have the normal time frame to complete the new program. Program requirements follow the catalog requirements of current academic year. Those on academic probation will remain on probation in the new program. Financial aid restrictions may apply.

The student may apply for Grade Forgiveness for prior

coursework that is not a requirement of the new program. See Grade Forgiveness policy.

## Grade Forgiveness

Students who have transferred to a new program may apply for Grade Forgiveness. Grade forgiveness applies to previous coursework completed at Mitchell Tech that is not a requirement for the new program. It is the student's responsibility to apply for grade forgiveness after successfully completing at least 12 credit hours in the new program with a minimum GPA of 2.0. The grades from the technical courses of the former program will remain on the student's transcript, but will not be used in any GPA calculation (grade forgiveness). Grade forgiveness has no impact on financial aid eligibility.

Students who return to Mitchell Tech after seven years of non-attendance may apply for Grade Forgiveness. Grade forgiveness applies to previous coursework completed at Mitchell Tech that is not a requirement for the current program or no longer offered at Mitchell Tech. It is the student's responsibility to apply for grade forgiveness after successfully completing at least 12 credit hours with a minimum GPA of 2.0. The grades from the grade-forgiven courses will remain on the student's transcript but will not be used in any GPA calculation. Grade forgiveness has no impact on financial aid eligibility.

## Readmission (Reinstatement)

Students who have left school in good standing will need to complete the application process if they wish to return. No application fee will be charged for readmission.

Previous technical courses must have been taken within five (5) years or applicants must provide evidence that their respective knowledge and skills fulfill current standards and requirements.

Students who have left school for reasons of unsatisfactory progress, nonpayment of fees, or suspension will need to do the following for re-admission into Mitchell Tech:

1. Pay all past bills in full.
2. Receive approval from the Dean of Student Success.
3. If students need financial aid, such as Veterans benefits, Pell grant, etc., they will also need approval from the Director of Financial Aid or the respective agency.

Students who leave the College on academic suspension

must wait one semester before applying for readmission.

## Receiving Transferred Credits

Transfer credits from other accredited post-secondary institutions will be individually evaluated to determine courses needed to ensure students complete all requirements to earn a Mitchell Technical certificate, diploma or degree. A transfer student may have previous coursework accepted to fulfill Mitchell Tech course and graduation requirements according to the following criteria:

1. Official transcripts shall be submitted for use in assessing courses and credits for transfer from accredited institutions. It is the student's responsibility to have his or her transcript validated by the Registrar.
2. A grade of C or better (2.0 on a 4.0 scale) shall be required in each course accepted in transfer. Transfer credits do not count toward a cumulative GPA. The grade recorded on the student's academic record will be "CR" (credit). Courses in the major area of study completed more than five years previously may not be accepted for transfer.
3. Technical courses shall be reviewed by the appropriate department(s) and the Registrar to determine course equivalence and acceptance. Partial credit may be awarded for courses that do not meet all competencies of an Mitchell Tech course. Courses outside of Mitchell Tech's requirements will not be accepted for transfer.
4. The Registrar will determine course equivalencies to meet Mitchell Tech's general education requirements.
5. Transfer students must complete a minimum of 25% of their coursework credits at Mitchell Tech to earn a degree, diploma, or certificate.
6. To transfer credit, a student must be accepted before credits will be transcribed.

## Transferring Credits to Other Institutions

Students who wish to transfer to another institution should contact the Registrar at that school for an evaluation of their Mitchell Tech transcript. Whether or not to accept credits is at the discretion of the receiving institution. Mitchell Tech does not guarantee the transfer of its credits to other post-secondary institutions.

## Transcripts

Transcripts are copies of academic records. Official transcripts will be issued on the following basis:

1. Copies of official transcripts cost \$5.25 each.
2. All requests for transcripts are made through the National Student Clearinghouse.
3. Official transcripts include academic information of all completed and in-progress courses to date, grade point average, and degree(s) earned. Official transcripts are mailed in a sealed, labeled envelope upon request.
4. Grade reports (unofficial transcripts), labeled as "Issued to Student," are available at no cost.
5. Walk-in unofficial transcript requests will be accepted during regular office hours. A photo ID is required.
6. Students can obtain an unofficial transcript by logging into their MyTech account.

Except in unusual circumstances, Mitchell Tech will not make copies of source documents (high school or college transcripts) that originated at another agency or institution.

## Credit for Prior Learning

Prior learning, sometimes called experiential learning, is knowledge that is obtained outside the college setting prior to entering or returning to college.

This nontraditional learning is generally acquired through work experience, travel, workshop or conference participation, advanced high school courses, volunteer work, in-service training, military training, adult or continuing education, recreational activities or hobbies, self-initiated reading and study, and involvement in professional organizations. In other words, prior learning describes the skills and knowledge you've acquired while living your life that may earn you credits towards your degree or diploma at Mitchell Tech.

Mitchell Tech does not award credit for experience alone. Credit for prior learning is awarded for verifiable skills and learning gained through the experience. Achievements can be evaluated by completing standardized tests, challenging courses or completing a prior learning portfolio with accompanying documentation.

## Credit for Prior Learning Policies

- Students must complete a minimum of 25% of their coursework credits at Mitchell Tech to earn a degree, diploma, or certificate. Credits earned through any combination of transfer college credit or any type of prior learning may not exceed 75% of the program's total requirements.
- Academic credit may only be awarded for those courses directly applicable to curriculum requirements in the student's declared certificate, diploma, or degree program as outlined in the Mitchell Tech catalog and website.
- All credit awarded for prior learning will be given a grade of CR on the student's academic record (transcript). Prior learning credits do not count toward a cumulative GPA at Mitchell Tech.
- Academic credit may only be awarded for learning directly related to the course identified and publicized learning outcomes.
- All work assessed for prior learning credit must meet a minimum proficiency for all of the course competencies.
- Credits awarded for prior learning satisfy prerequisite requirements in the same manner that their course equivalencies do.
- Students requesting credit for prior learning must be enrolled in a specific degree, diploma, or certificate program at Mitchell Tech.
- All documentation, including portfolio materials, challenge examinations, or other materials utilized in the credit for prior learning process become property of, and are maintained, by Mitchell Tech. The documentation will become part of the student's academic record.
- The credit for prior learning process must be initiated by the student requesting credit.
- A student may not request credit for prior learning past the add/drop date for a course in which they are currently enrolled.
- A student may not request credit for prior learning for a course that they have audited.
- Partial credit may be awarded if prior learning meets some, but not all, of the course learning outcomes. In such cases, students will be required to enroll in and complete the full course. However, tuition and fees will only be charged for the remaining credits not awarded through the credit for prior learning process.
- To receive prior learning credit for Student Success (SSS100), a student must have
  - a. completed any degree program, associates or higher, OR
  - b. Served Active Duty in the military, OR
  - c. Have previously attended college and meet all the following criteria
    - GPA of 3.0 or higher at previous college
    - Completed a minimum of 12 credits
    - C or better in a "Freshman Experience" course
    - Coursework must be completed within the last 5 years
    - Courses must be taken after graduating from high school
- Students may appeal the decision on awarding credit for prior learning. To appeal a decision regarding credit for prior learning, students should follow Mitchell Tech's standard formal appeal process as outlined in Mitchell Tech Policy 1045 and Policy 1046.

## Advanced Placement (AP) Examination

Advanced Placement Exams are administered primarily in the high schools. Mitchell Tech does not administer AP exams. However, credit may be awarded to students who achieve a minimum score on an AP exam. A credit type of PL will be used to transcribe credit earned through AP exams.

Students must provide proof of a minimum score on the AP test in the form of an official AP score report or ACE transcript.

- To have an AP score sent to Mitchell Tech, designate Mitchell Tech to receive the scores when registering for an AP test. Mitchell Tech's school code is 7038.
- If students have taken an AP exam but did not designate Mitchell Tech as a recipient, an AP transcript may be requested by contacting:
  - Phone: (212) 632-1780
  - Email: [apstudents@info.collegeboard](mailto:apstudents@info.collegeboard)
  - College Board website: <https://apscore.collegeboard.org/scores/#/>
- To order an ACE transcript, see <https://www2.acenet.edu/credit/?fuseaction=transcripts.main>.

Mitchell Tech does not charge fees to students for the credits they earn through AP exams.

## College-Level Examination Program (CLEP)

Mitchell Tech does not administer the College Level Examination Program (CLEP). However, CLEP credits earned for courses may be accepted by Mitchell Tech. Before taking any CLEP examination, students should consult with their academic advisor and the registrar to assure transfer of the CLEP credit. A credit type of PL will be used to transcribe credit earned through CLEP exams.

Students must provide proof of a minimum score on the CLEP test in the form of an official CLEP score report or ACE transcript.

- To have a CLEP score sent to Mitchell Tech, designate Mitchell Tech to receive the scores when registering for a CLEP test. Mitchell Tech's school code is 7038.
- If students have taken a CLEP exam but did not designate Mitchell Tech as a recipient, a CLEP transcript may be requested by contacting:
  - Phone: (212) 237-1337 or (800) 257-9558
  - Email: [clep@info.collegeboard](mailto:clep@info.collegeboard)
  - College Board website: <https://secure-media.collegeboard.org/digitalServices/pdf/clep/clep-transcript-request-form.pdf>
- To order an ACE transcript, see <https://www2.acenet.edu/credit/?fuseaction=transcripts.main>

Mitchell Tech does not charge fees to students for the credits they earn through CLEP exams.

## DSST/Prometric Exam

The nationally recognized DSST Program allows students to receive college credits for learning acquired outside the traditional classroom. Information on taking DSST tests is available at [http://getcollegecredit.com/test\\_takers/](http://getcollegecredit.com/test_takers/)

A credit type of PL will be used to transcribe credit earned through DSST exams.

A DSST transcript may be requested online at [www.getcollegecredit.com](http://www.getcollegecredit.com). Transcripts should be sent to Mitchell Technical College Registrar's Office, 1800 E Spruce Street, Mitchell, SD 57301. Mitchell Tech does not charge fees to students for the credits they earn through DSST exams.

## Professional Certifications

Mitchell Tech awards credit for professional

certifications on a case-by-case basis. A credit type of PL will be used to transcribe credit earned for certifications. The registrar and department will determine specific credit awards. Mitchell Tech awards credit for prior learning if:

- There is adequate proof of the certification and its currency.
- The certification is equivalent to the learning outcomes in the appropriate Mitchell Tech course(s).

There is no fee to the student to receive credit for applicable certifications earned prior to attending Mitchell Tech.

## Military Experience

You may receive credit for selected military training or experience. To do so, you must furnish Mitchell Tech with a copy of your Joint Services transcript or similar official documents. ACE has evaluated many courses and schools completed within military service. Mitchell Tech follows the credit recommendation of ACE found in the Guide to the Evaluation of Educational Experiences in the Armed Services to award academic credit for these courses and schools. A credit type of PL (prior learning) will be used to transcribe credit earned for military training.

A student can receive prior learning credit for Student Success (SSS100) with proof of active duty service.

For Army, Navy, Marines, and Coast Guard military experience, students should submit an online request at <https://jst.doded.mil/smart/signIn.do> to send Mitchell Tech a Joint Services transcript.

For Air Force experience, students should order an official transcript from the Community College of the Air Force to be sent to Mitchell Tech. Order transcripts online at <http://www.au.af.mil/au/ccaf/transcripts.asp#trans> or call (334) 649-5000.

Mitchell Tech does not charge fees to students for the credits they earn through military experience.

## American Council on Education (ACE)

Courses and programs offered through many organizations (AT&T, GE, AIB, Police Academy, etc.), including CLEP, AP, DSST, and military training, have been evaluated for credit by the American Council on Education (ACE). Mitchell Tech accepts the recommended ACE credits when applicable to general education and technical courses offered at Mitchell

Tech. A credit type of PL will be used to transcribe all credit transcribed from an ACE transcript.

If you have more than one type of prior learning (CLEP, AP, and military, for example), you may be able to save money by ordering a consolidated ACE transcript with all of your test scores.

To order an ACE transcript, see <https://www2.acenet.edu/credit/?fuseaction=transcripts.main>

Mitchell Tech does not charge fees to students for the credits they earn through ACE transcripts.

### **Established Mitchell Tech Tests for Credit**

Students may be allowed to receive credit by taking an exam (“test out”) for specifically identified courses. Within the first ten days of class, an instructor will notify students if a test out option is available for the course. A Test for Credit Form is available in the Center for Student Success and must be filed in the CSS with a receipt documenting the test out fee paid to the Business Office prior to the student taking the test.

The non-refundable testing fee is \$50 for up to three credits, plus \$10 for each additional credit.

Students must score 80% or higher on the exam to receive credit for the course. A credit type of EX will be used to transcribe the credit earned from a test out and does not count toward a student’s cumulative GPA. A test out may not be repeated.

Students considering testing out of a class should check with Financial Aid to determine how the test out might affect financial aid or scholarship status.

6.9.1

### **Prerequisite Waiver**

Depending on background or experience, you may be allowed to take some courses without first taking a prerequisite course. To take a course without first taking the prerequisite, you must obtain the approval of the head of the appropriate academic department.

Complete the Prerequisite Waiver Request Form and submit it to the Registrar’s Office. A \$20 per course fee will be charged to apply for waiver of prerequisites not taken.

### **Individualized Prior Learning Portfolios**

Credit for prior learning experience may also be awarded in some cases to students with verifiable work experience, including military experience and training, when no formal transcript, certification, or exam score is available. A portfolio may be submitted to demonstrate that your knowledge is equivalent to what you would have learned in a comparable Mitchell Tech course. The written component of the portfolio provides an opportunity for you to highlight your personal experience and to affirm that your skills and learning equate to the course you are challenging.

A prior learning portfolio is a detailed narrative and documentation illustrating college-level learning. The documentation provided will vary by course and may include samples of your work; awards and honors; employer letters of endorsement; certificates showing completion of workshops or seminars offered by business and industry; and any other relevant evidence of what you have learned. Preparation and content of the portfolio are the responsibility of the student and must be of sufficient breadth and depth to validate the student’s stated learning.

The portfolio must include the following sections:

1. Course syllabus (available from the instructor or the registrar), including course description and learning objectives
2. Credit for Prior Learning Portfolio Form signed by student and business office staff
3. Academic Honesty Statement signed by student
4. Current resumé
5. Course specific prior learning narrative detailing your personal experience and learning that equates to the course learning objectives
6. Documentation to demonstrate learning of course objectives (work samples, awards, employer letters, etc.)

Once the portfolio is submitted, it is evaluated to determine if the student has submitted sufficient documentation to demonstrate attainment and mastery of the specific course learning outcomes and/or technical competencies. A personal interview or hands-on demonstration of skills may be requested by the instructor as part of the evaluation.

More than one prior learning portfolio may be submitted by the student if more than one course is appropriate to their knowledge and skills.

A credit type of 'PL' will be used to transcribe credit



earned through submitted portfolios.

## Course Audits

Courses may be audited for no credit. There is a \$50 per course fee to audit a course. Lab classes will charge additional lab fees which vary by department. A Class Audit form is available in the Registrar's Office. In some situations, Mitchell Tech instructors and administration may require a student to audit a class the student successfully completed in the past. This generally occurs when a student had discontinued their education or is in need of a skills refresher. Financial Aid is not available for audited courses and these courses do not count toward full-time status. Audited courses do not meet graduation requirements. Students enrolled as auditors are not eligible for student services. Students enrolled for credit have first priority for space available in any Mitchell Tech course.

Individuals not accepted to a program may audit a class, but restrictions apply. Contact the Registrar's Office for details.

## The Family Education Rights and Privacy Act of 1974

The Family Education Rights and Privacy Act of 1974 protects the privacy of students' educational records. The statute governs access to records maintained by educational institutions and the release of educational information. The College is in compliance with the Family Educational Rights and Privacy Act of 1974.

The statute provides students access to their permanent files and an opportunity for a hearing to challenge the records if they are inaccurate or otherwise inappropriate. Permission must be obtained from a student before releasing personally identifiable data from the records.

As of January 3, 2012, the U.S. Department of Education's FERPA regulations expand the circumstances under which your education records and personally identifiable information (PII) contained in such records — including your Social Security Number, grades, or other private information — may be accessed without your consent. First, the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, or state and local education authorities ("Federal and State Authorities") may allow access to your records and PII without your consent to any third party designated by a Federal or State Authority to evaluate a federal- or state-supported education program. The evaluation may relate to any program that

is "principally engaged in the provision of education," such as early childhood education and job training, as well as any program that is administered by an education agency or institution. Second, Federal and State Authorities may allow access to your education records and PII without your consent to researchers performing certain types of studies, in certain cases even when we object to or do not request such research. Federal and State Authorities must obtain certain use-restriction and data security promises from the entities that they authorize to receive your PII, but the Authorities need not maintain direct control over such entities. In addition, in connection with Statewide Longitudinal Data Systems, State Authorities may collect, compile, permanently retain and share without your consent PII from your education records and they may track your participation in education and other programs by linking such PII to other personal information about you that they obtain from other Federal or State data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service and migrant student records systems.

## Directory Information

Mitchell Tech acts in accordance with the Family Educational Rights and Privacy Act (FERPA) guidelines as set forth by the Department of Education. FERPA allows Mitchell Tech to release "Directory Information" to third parties without student consent.

No information other than directory information shall be released without permission from the student. Permission is valid for the current academic year. Student release forms must be electronically submitted annually. Parents/legal guardians showing proof that the student is listed as a dependent on the family's most recent tax return may have access to the student records. At no time shall any information other than directory information be released over the telephone because the caller's identification cannot be determined. (Policy MTC 1061)

The College provides students with the opportunity to request nondisclosure of information. Students who wish to request nondisclosure of directory information must contact the Registrar's Office to complete a Privacy-Nondisclosure Request Form.

Although directory information is public, Mitchell Tech personnel are encouraged to use professional discretion in the release of this information. Mass information requests of directory information for solicitation purposes will not be granted.

- Information classified as directory information includes:
- Student's name, address, phone, email
- Major field(s) of study
- Dates of enrollment
- Degree and awards received
- Participation in officially recognized activities and sports
- Information which denotes accomplishments or achievements
- Individual or group photographs

## Exceptions to the Basic Policy

No one other than Mitchell Tech personnel shall have access to, nor will the school disclose, any information from the student's educational records (other than Directory Information noted previously) without the written consent of the student except as follows:

1. Providers of financial aid
2. Accrediting agencies carrying out accreditation functions
3. A judicial order
4. An emergency situation as determined by the President, Vice-Presidents, Registrar, or designee
5. As of January 3, 2012, the U.S. Department of Education's FERPA regulations expanded the circumstances under which student education records and personally identifiable information (PII) contained in such records — including Social Security Numbers, grades, or other private information — may be accessed without the student's consent. First, the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, or state and local education authorities ("Federal and State Authorities") may allow access to student records and PII without student consent to any third party designated by a Federal or State Authority to evaluate a federal- or state-supported education program. The evaluation may relate to any program that is "principally engaged in the provision of education," such as early childhood education and job training, as well as any program that is administered by an education agency or institution. Second, Federal and State Authorities may allow access to student education records and PII without student consent to researchers

performing certain types of studies. Federal and State Authorities must obtain certain use-restriction and data security promises from the entities that they authorize to receive students' PII, but the Authorities need not maintain direct control over such entities. In addition, in connection with Statewide Longitudinal Data Systems, State Authorities may collect, compile, permanently retain and share without student consent PII from education records and they may track students' participation in education and other programs by linking such PII to other personal information about students that they obtain from other Federal or State data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service and migrant student records systems.

### 6.9.1

## Student Access to Records

Students who wish to review a copy of their educational records (materials which contain information directly related to the student and maintained by the college) must present valid identification to the Registrar. A written request to the Registrar's office is required to receive a copy of the student's educational records. A one-week turnaround is necessary in most cases. The college is not required to provide a copy and fees may apply.

The process for students wishing to receive an official or unofficial transcript can be found at <https://www.mitchelltech.edu/academics/registrar/transcript-request>.

## Student Communications

Mitchell Tech's student email accounts are the "official" means of communication with students by Mitchell Tech staff. Students are expected to check their official Mitchell Tech email accounts each day for messages from Mitchell Tech administration and faculty. Students are responsible for the information shared or requested in the email notification.

## **Mitchell Tech Federal Compliance**

### **Student Right to Know and Completion Rates**

Federal law requires Mitchell Tech to disclose information on its graduation or completion rates for students who enroll at Mitchell Tech. Student Right to Know and Completion Rates are posted here

<https://www.mitchelltech.edu/about/your-right-to-know>.

### **Annual Security Report**

In compliance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, and the Violence Against Women Act, Mitchell Tech publishes an Annual Security Report (ASR). This report documents campus crime statistics, security policies and procedures, and information on the basic rights for victims of sexual assault. Mitchell Tech makes this report available on the Your Right to Know page on the Mitchell Tech website under the About link. An email with the link to this report is sent to all current students and employees. A paper copy of the report is available upon request.

### **Notice of Availability of Institutional and Financial Aid Information**

The Higher Education Act of 1965 (HEA), as amended by the HEOA, requires colleges to disclose certain consumer information to the public. Mitchell Tech has created a Your Right to Know page on the Mitchell Tech website under the About where HEA-required disclosure information is accessible to consumers, including students. Students may also request assistance in obtaining institutional or financial aid information by contacting the Mitchell Tech Administrative offices.

# Graduation Requirements

## Degree, Diploma and Certificate Requirements

Mitchell Technical College awards Certificates, Diplomas and Associate of Applied Science Degrees. Specific program requirements and course sequences are described by program. It is the responsibility of each student to monitor his or her academic progress. The student is expected to know the graduation requirements pertinent to his or her program, to be cognizant of his or her grade point average, to make appropriate elective course selections and to add/drop courses to best facilitate attainment of his or her educational goals. To assist in making these important decisions, students should consult with their academic advisors. To earn a Certificate, Diploma or AAS Degree, students must:

1. Complete the requirements of each program as specified in the current Mitchell Tech Catalog and Student Handbook.
2. Achieve a minimum cumulative grade point average of 2.00 (C).
3. Have on file an official high school transcript or high school equivalency certificate.
4. File a Request to Graduate form with the Registrar's Office.
5. Complete the General Education requirements as defined by the program of study's curriculum:

### A. Certificate

No General Education requirements

### B. Diploma Requirements

1. 3.0 credits in Communications
2. 3.0 credits in Mathematics
3. 1.0 credit in Student Success

### C. Associate of Applied Science Degree

A minimum of 16.0 credits from a minimum of four of the following categories which must include 3.0 credits in Communications and 3.0 credits in Mathematics:

1. Communications
2. Computers
3. Mathematics
4. Social Sciences
5. Arts & Humanities
6. Natural Sciences
7. Student Success (1 credit)

6. Complete at least 25% of coursework at Mitchell Tech.

Students are required to fulfill all financial obligations to Mitchell Tech. Certificates, diplomas and transcripts will be held until financial obligations are fulfilled.

Students are required to comply with the policies and regulations of this publication during their enrollment at Mitchell Tech.

## Conferring of Degrees, Diplomas and Certificates

Degrees, diplomas and certificates are officially conferred at the conclusion of each semester in December, May and August. Public commencement exercises are held only in the spring.

Students who plan to receive a certificate, diploma or degree must apply for graduation by filing a Request to Graduate form with the Registrar's Office. The form must be received in the Registrar's Office prior to registration of the student's final spring semester. It is the student's responsibility to confirm that all graduation requirements, including required coursework, are met.

To be eligible to participate in the annual spring graduation ceremony, students must be able to complete their remaining graduation requirements by the end of the subsequent semester.

A note about posthumous awards: Mitchell Tech awards posthumous degrees to deceased students who were currently enrolled at the time of death and who completed 50% of their program.

## Honors Designation

To earn an Honors Designation at graduation, the student must be an AAS candidate and earn a minimum cumulative GPA calculated from all coursework at Mitchell Tech. High Honors are awarded to those with a cumulative GPA of 3.75 or higher. Honors are awarded to those students with a cumulative GPA of 3.50 - 3.74. Honors are not calculated per individual program. For the purpose of the commencement ceremony, honors will be based on the student's cumulative GPA after the fall semester that immediately precedes the ceremony. Final honors designation will be determined by the cumulative GPA after all required coursework is

complete.

## **Upgrading a Diploma to an AAS Degree**

Mitchell Tech may grant the AAS degree to students who have received a diploma in a two-year program from Mitchell Tech within the last five years and who have subsequently completed the technical and AAS requirements in their respective field. The following guidelines will be used to determine an applicant's eligibility to receive the AAS degree:

1. Courses counted toward the degree shall have been taken within the seven years prior to granting the degree, or there is satisfactory evidence that the applicant's respective knowledge and skills fulfill current standards and requirements.
2. The respective department(s) shall review an applicant's transcript and recommend approval for the AAS degree.
3. The student has met the additional general education requirements necessary to earn an AAS degree for a chosen major.
4. Students must complete a Request to Graduate form.

The student will be charged a \$50 records processing fee.

## **Replacement Diplomas**

Replacement diplomas are issued at a cost of \$30 each. Allow two weeks for reprinting.

# General Education

General Education is that part of our students' education that goes beyond learning technical skills and allows students to become well-rounded, high-functioning citizens of the world. As an institute of higher learning, we are committed to the inherent value of general education and know that critical thinking, communication skills, information literacy, math and problem solving skills and more, are crucial for our graduates' success in their future technical careers. We also recognize that an associate's degree or diploma at Mitchell Tech must mean something more than job skills. Our students must become lifelong learners with the ability to adapt to a changing world and ever-increasing job expectations.

## *Mitchell Tech General Education Learning Outcomes*

### Mathematics

Students will apply essential processes and analysis through performing computations and demonstrating knowledge and application of measurement, formulas, and problem-solving.

### Technology

Students will use computer technology to access, organize and communicate information.

### Communications

Students will write effectively and responsibly and will understand and interpret the written expressions of others, as well as communicate orally through listening and speaking.

### Social and Behavioral Sciences

Analyze differences and commonalities across multicultural perspectives to work successfully in a diverse society.

### Student Success

Student success provides a foundation for a successful transition to higher education and the world of work.

Both diploma and Associate of Applied Science degree candidates at Mitchell Tech are required to successfully complete general education courses as designated by the technical department. Please see your advisor or the registrar for more details.

### Preparatory Courses

Some students may be required, depending upon placement test scores, to complete a preparatory course in math or English before enrolling in degree-level

courses.

### Diploma Track

Students pursuing a Diploma are required to complete 7 credits in general education.

|         |                         |   |
|---------|-------------------------|---|
|         | Communications Elective | 3 |
|         | Math Elective           | 3 |
| SSS 100 | Student Success         | 1 |

### AAS Degree

Students pursuing the Associate of Applied Science degree are required to complete 16 credits in a minimum of four subject areas. Individual departments may require additional or specific credits. See program descriptions for options.

Communications (3 credits required)

|           |                          |   |
|-----------|--------------------------|---|
| ENGL 101* | English Composition      | 3 |
| ENGL 110* | Workplace Communications | 3 |
| SPCM 101  | Fundamentals of Speech   | 3 |

\*ENGL 110 and ENGL 101 satisfy the Written Communications Elective requirement

Math (3 credits required)

|          |                        |   |
|----------|------------------------|---|
| MATH 103 | Mathematical Reasoning | 3 |
| MATH 130 | Business Math          | 3 |
| MATH 162 | Digital Math           | 3 |

Computer Literacy

|         |                           |   |
|---------|---------------------------|---|
| CIS 101 | Computer Concepts         | 3 |
| CIS 105 | Introduction to Computers | 3 |
| CIS 107 | Spreadsheet Concepts      | 3 |
| CIS 167 | IT Essentials             | 3 |

Behavioral Science

|          |                              |   |
|----------|------------------------------|---|
| COMM 210 | Interpersonal Communications | 3 |
| CHRD 130 | Human Development            | 3 |
| PSYC 101 | General Psychology           | 3 |

Social Science

|          |                           |   |
|----------|---------------------------|---|
| COMM 151 | Mass Media and Culture    | 3 |
| SOC 100  | Introduction to Sociology | 3 |
| ECON 101 | Microeconomics            | 3 |

Natural Sciences

|        |              |   |
|--------|--------------|---|
| ML 240 | Microbiology | 6 |
|--------|--------------|---|

Student Success (1 credit required)

|         |                  |   |
|---------|------------------|---|
| SSS 100 | Student Success  | 1 |
| SSS 101 | Online Seminar I | 1 |

**Preparatory Courses**

Some students may be required, depending upon placement test scores, to complete a preparatory course in math or English before enrolling in degree-level courses.

# Mitchell Tech Policies and Administrative Rules

## Board Policies

The South Dakota Board of Technical Education and the Mitchell School Board of Education are the governing boards of Mitchell Tech. Policies are approved by the board and apply to all students, administrators, and employees of the college. Many policies are referred to in this publication; they are readily accessible in their entirety on the Mitchell Tech website under the About link.

## Mitchell Tech Catalog and Student Handbook

Many practices and procedures affecting students are found within this document. This publication is updated annually and is available on the Mitchell Tech website. Students are informed that they are responsible for the content of the Catalog and Student Handbook and it is their responsibility to comply with the provisions therein. (See Policy MTC 1003.)

## Nondiscrimination Statement

Policies designed to eliminate discriminatory practices have been instituted.

Mitchell Tech does not discriminate in its employment of policies and practices, or in its educational programs on the basis of race, color, creed, religion, age, gender (including pregnancy), sexual orientation, disability, national origin, or ancestry, military/veteran status, genetic information or any other category protected by law.

## Freedom of Expression

Mitchell Tech employees and students, as well as groups or individuals not affiliated with the college, may use campus public areas to engage in freedom of expression activities, so long as those activities are not substantially disruptive to the operations, functions, and activities of the college. [See Policy MTC 111.]

## Sexual Harassment Title IX

Mitchell Tech is committed to providing a workplace and educational environment, as well as other benefits, programs, and activities, that are free from sexual

harassment. To ensure compliance with federal and state civil rights laws, MTC has adopted Policy MTC 117 and related procedures to provide a prompt, fair, and impartial process for those involved in an allegation of sexual harassment as defined by this policy. MTC values and upholds the equal dignity of all members of its community and strives to balance the rights of the parties during what is often a difficult time for all those involved. For further information, see Policy MTC 117.

## Student Complaints

Mitchell Tech recognizes that there may be conditions that are in need of improvement and that students and others should have some means by which their concerns may be effectively expressed, considered, and dealt with fairly. Such means can do much to maintain harmonious relationships between the College and the students, employees, and community.

Mitchell Tech desires that all types of complaints be handled informally at the level closest to the origin of the complaint, but also, that channels be provided for filing official complaints when resolution is not achieved. Mitchell Tech will follow approved policies and procedures for handling complaints. (Students wishing to file an official complaint or appeal with the College should refer to Policy MTC 1045. Students wishing to file a grievance alleging a violation of federal or state civil rights laws, rules, and regulations should refer to Policy MTC 1046.)

For all complaints, the first course of action must be to try to resolve the complaint directly with MTC through informal or formal processes. To formally file a complaint, please submit the Complaint Intake Form, <https://www.mitchelltech.edu/complaint-intake-form>.

### 6.9.1

## Student Due Process

All students are entitled to due process when they are subjected to disciplinary actions such as suspension or expulsion. See Policy MTC 1044. The Board and Mitchell Tech officials have the legal authority to deal with disruptive students and student misconduct. Due process, for most situations, shall be met when:



1. The student is given oral or written notice of the charges against him/her;
2. The student is given an oral or written explanation of the facts that form the basis of the proposed suspension disciplinary action;
3. The student is allowed to have an advisor present during any proceedings, including interviews with Mitchell Tech officials; and
4. The student is given an opportunity to present his/her version of the incident.

The student may appeal the imposed disciplinary action as specified in Policy MTC 1045.

## Weapons on Campus

Students are not permitted to carry, possess, use, store, distribute, transfer, or transport a weapon on any school property, vehicle, or premises, except as explicitly stated in Policy MTC 1033. Students in violation of this policy may be subject to sanctions in accordance to Mitchell Tech's Non-academic Probation, Suspension, and Expulsion policy. (See Policy MTC 1036.)

## Copyright

Mitchell Tech encourages students to familiarize themselves with copyright law and the Fair Use Guidelines. MTC Policy 551 provides guidelines on adhering to Fair Use Guidelines.

Mitchell Tech also has policies in place that prohibit the illegal downloading of copyrighted material. See MTC Policy 744. Furthermore, in compliance with requirements of the Higher Education Opportunity Act of 2008, Mitchell Tech is required to inform students and staff of further civil and criminal penalties that could be applied towards individuals who engage in the practice of illegally downloading copyrighted material, as follows:

Summary of Civil and Criminal Penalties for Violation of Federal Copyright Laws - Copyright infringement is the act of exercising, without permission or legal authority, one or more of the exclusive rights granted to the copyright owner under section 106 of the Copyright Act (Title 17 of the United States Code). These rights include the right to reproduce or distribute a copyrighted work. In the file-sharing context, downloading or uploading substantial parts of a copyrighted work without authority constitutes an infringement.

Penalties for copyright infringement include civil and criminal penalties. In general, anyone found liable for

civil copyright infringement may be ordered to pay either actual damages or "statutory" damages affixed at not less than \$750 and not more than \$30,000 per work infringed. For "willful" infringement, a court may award up to \$150,000 per work infringed. A court can, in its discretion, also assess costs and attorneys' fees. For details, see Title 17, United States Code, Sections 504, 505. Willful copyright infringement can also result in criminal penalties, including imprisonment of up to five years and fines of up to \$250,000 per offense. For more information, please see the Web site of the U.S. Copyright Office at [www.copyright.gov](http://www.copyright.gov), especially their FAQ's at [www.copyright.gov/help/faq](http://www.copyright.gov/help/faq).

## Mitchell Tech Name and Logo

Mitchell Tech places great value on its name and logo. These represent the College and all the staff and students within. Therefore, students and members of the public should be aware that they need to secure permission from the Mitchell Tech Marketing Office in order to use the College trademark which includes all names (Mitchell Technical College, Mitchell Tech, etc.), logos, and trademarks. Unauthorized use of any of the above may result in legal action against all persons involved in the production, design, manufacture, sales, or distribution of items. This includes T-shirts, jackets, and all other material. (See Policy MTC 105.)

## Fundraising

Fundraising may be approved to supplement Mitchell Tech funds where the President or the Dean of Student Success feels it is appropriate to meet the educational needs of students. Such fundraising programs or activities shall have prior approval of the President or the Dean of Student Success, have a Mitchell Tech advisor overseeing the fundraising efforts, serve the educational goals of Mitchell Tech and be used for the direct benefit of the students or Mitchell Tech programs. In addition, the Student Organization Fundraising Application must be completed and submitted to the Dean of Student Success for approval at least two weeks prior to the event. (See MTC Policy 1084.)

## Distance Education

Mitchell Tech believes that distance education courses can be an effective means of instruction for students, providing increased accessibility and flexibility in the delivery of instruction. Programs and courses delivered online will be consistent with Mitchell Tech's instructional goals, curriculum frameworks and assessments, and will meet program standards. Mitchell

Tech expects that a student's submitted work (assignments, quizzes, tests, reports, etc.) will be that of the student's own work. Mitchell Tech will assure the integrity of its distance education coursework through the methods of proctored testing, secure log-ins, and/or pass codes. These processes will protect the student's privacy and assure that the students who register in such courses are the same students that participate in, complete, and receive credit for the courses. See Policy MTC 977.

## Smoking/Tobacco Use/Vaping

Mitchell Tech is a tobacco and vape free campus in all buildings, building interior and exterior entrances, and Mitchell Tech vehicles. Outside designated smoking areas are provided throughout campus. These are the only locations where tobacco, smoking, or vaping is permitted. Disciplinary action may result for students who do not follow this regulation. (See Policy MTC 518.)

## Drug and Alcohol Conduct Guidelines

Mitchell Tech is a Drug-Free Workplace. It is the goal of Mitchell Tech to provide a drug and alcohol-free environment. Mitchell Tech students shall not be involved with the use, possession, or sale of drugs, alcohol, or any controlled substances including cannabis used or possessed for medical purposes in any manner that may impair any person's ability to perform assigned tasks or otherwise adversely impact their behavior. Furthermore, no student shall possess the previously mentioned substances in the workplace, classroom, laboratory, vehicle, or at any intramural sports event, class trip, or campus function or consume alcoholic beverages in association with said places during working, classroom, laboratory, or vehicle operating hours or at any time prior to performing safety-sensitive functions which may impair that person's ability to perform their duties.

It is the policy of the Mitchell Tech that the unlawful manufacture, distribution, dispensation, possession, use, or being under the influence of a controlled substance on property of Mitchell Tech or while a student of Mitchell Tech is engaged in an activity assigned as part of his/her involvement with Mitchell Tech is prohibited unless said controlled substance is used as prescribed by a doctor. A description of applicable legal sanctions is listed in Policy MTC 1035. For purposes of this section, a prescription does not include a written certification for use of medical marijuana, pursuant to SDCL 34-20G-1(23). Students who use medical marijuana pursuant to a validly issued written

certification when not on property controlled by the College may subsequently report to class or participate in activities as long as such use does not cause impairment or disrupt academic or campus activities.

Financial aid may be affected if violations occur. Students convicted of the possession of illegal drugs while receiving Title IV financial aid may have their financial aid suspended for one year. If a student is convicted of selling drugs, they may have their financial aid eligibility suspended for two years. Additional convictions will add at least two years to the above suspensions.

These guidelines will be interpreted, administered, and amended by Mitchell Tech as necessary within its discretion.

### 6.9.1

## Reasonable Suspicion

Mitchell Tech practices zero tolerance for drug or alcohol use by students while in classrooms, labs, or safety-sensitive areas. When an instructor, supervisor or administrator observes a student with behavior or an appearance that is characteristic of alcohol or drug use, the student will be required to submit to drug or alcohol testing. The student will be immediately suspended from school until test results are received. *The College is responsible for the cost of this test.*

## Positive Test Results after Reasonable Suspicion

A student with a positive test result will meet with the Dean of Student Success or designee to determine disciplinary and treatment options that the student must follow in order to be reinstated into school. Mitchell Tech's intent is to establish a positive environment in which these problems can be addressed locally in a helpful and supportive manner rather than a punitive way.

If a student tests positive for alcohol (0.02 or higher), the student will be removed from classes and taken home. A breath alcohol test administered the following day must be considered negative for alcohol concentration before the student may return to classes. If a student tests positive for alcohol in a subsequent follow-up test, the student will be referred to a

substance abuse professional (SAP) and must complete a prescribed treatment plan and follow-up testing in order to remain enrolled in the program at Mitchell Tech. The student can continue to attend classes until such time as they can meet with the SAP as long as they test negative on alcohol tests that will be administered daily. *The student is responsible for the cost of the initial referral to a SAP. The student will be responsible for the cost of any follow-up counseling or treatment and any follow-up drug testing.*

If a student tests positive for drug use, the student will be immediately suspended from school until Mitchell Tech receives results from the review by the medical review officer. Based on the medical review officer's report of a positive drug test, the student will be required to meet with a substance abuse professional (SAP) to determine the counseling or treatment plan the student must follow to remain enrolled at Mitchell Tech. The student would also be subject to unannounced follow-up testing as determined by the SAP in order to remain in classes. *The student is responsible for the cost of the initial referral to a SAP. The student will be responsible for the cost of any follow-up counseling or treatment and any follow-up drug testing.*

*Cannabidiol (CBD) use is not a legitimate medical explanation for a laboratory-confirmed marijuana or tetrahydrocannabinol (THC) positive result. Therefore, Medical Review Officers will verify a drug test confirmed at the appropriate cutoffs as positive, even if the person being tested states he or she only used a CBD product.*

All positive tests for drug use (refusal to submit to a test or an altered specimen is considered a positive test result) will be reviewed by a medical review officer who is a licensed physician with knowledge of substance abuse disorders. The medical review officer will interpret and evaluate the results of each test, along with relevant medical information, including possession of a medical marijuana card, about each student, to determine whether or not a positive test resulted. If the result of the test is positive, the medical review officer will also determine if the student was impaired at the time of the test because of drug use. (Students who use medical marijuana pursuant to a validly issued written certification when not on property controlled by the College may subsequently report to class or participate in activities as long as such use does not cause impairment or disrupt academic or campus activities.) The medical review officer will contact the student whose test is positive or whose test has been altered or refused. Mitchell Tech will also be notified of a positive test result.

Based on the medical review officer's review of a positive drug test, the student will be required to meet with a substance abuse professional (SAP) to determine the counseling or treatment plan the student must follow to remain enrolled at Mitchell Tech. The student would also be subject to unannounced follow-up testing as determined by the SAP in order to remain in classes. The student is responsible for the cost of the initial referral to a SAP. The student will be responsible for the cost of any follow-up counseling or treatment and any follow-up drug testing.

When the student has completed the treatment plan as outlined by the substance abuse professional, the student's name will be returned to the selection pool for random drug testing as long as the student remains enrolled in the program.

If the results of a positive drug test are confirmed by a medical review officer and are not the result of medication currently prescribed to the student, the student will be dismissed from any zero-tolerance program which currently includes the Power Line Construction & Maintenance and Electrical Utilities & Substation Technology programs. The zero-tolerance policy is consistent with industry standards and is recommended by industry. For purposes of this section, a prescription does not include a written certification for use of medical marijuana, pursuant to SDCL 34-20G-1(23).

#### 6.9.1

### Community Alcohol and Drug Resources

AA (Alcoholics Anonymous)  
424 E. 9th Ave.  
Mitchell, SD 57301  
605.996.8264

Dakota Counseling Institute  
910 W. Havens  
Mitchell, SD 57301  
605.996.9686

Stepping Stones  
901 S. Miller  
Mitchell, SD 57301  
605.995.8180

### Rules for Programs with Required Drug and Alcohol Testing

Students who are enrolled in programs with required

drug and alcohol testing will be subject to pre-screen and random drug testing according to Mitchell Tech administrative rules herein described. These rules will be interpreted, administered, and amended by Mitchell Tech as necessary within its discretion.

### **Pre-Screening Requirement**

Mitchell Tech requires that a pre-screening for controlled substances be administered to all students who are enrolled in programs with required drug and alcohol testing. Mitchell Tech will make arrangements for all students enrolled in these programs to be pre-screened using a urine test during the first ten days of school. *The cost of the pre-screen test is included in the students' fees.*

Any student who refuses to submit to the pre-screening test will be dismissed from the program.

### **Random Testing**

Students enrolled in programs with required drug and alcohol testing will be subjected to random urine drug testing and breath alcohol testing throughout their enrollment in the program. After the pre-screen is conducted, the students' names will be entered into a selection pool for random testing; the students' names will remain in the pool while enrolled in the program. Random selection is done without bias and includes all persons whether previously tested or not. All students in the selection pool are subject to repeat testing.

Mitchell Tech has presently contracted with a private entity for random selection and testing. Random selections will be completed each quarter, and an appointed contact person within the College will be notified of the date for random testing. All random testing will be unannounced and reasonably spread throughout the year. Testing will be completed as soon as possible after the student is notified of a pending test. A student will never receive prior notice of the testing date and time. Any medical condition restricting the student's ability to perform a urine drug test or breath alcohol test must be documented by a medical physician and recorded in that student's file.

### **Test Procedures**

Urine specimens will be used to test for drugs using a standard 10 panel drug test. The drug test will look for amphetamines, barbiturates, benzodiazepines, cocaine metabolite, opiates, phencyclidine, methadone, methaqualone, propoxyphene, marijuana metabolite, and creatinine. Specimen collection, handling, and testing procedures will be conducted according to the

U.S. Department of Health and Human Services (DHHS) and the National Institute for Drug Abuse (NIDA) guidelines. To ensure the accuracy of drug test results, the College will utilize a third party laboratory that conforms to DHHS and NIDA guidelines. A breath alcohol test will be used to test for alcohol use.

### **Positive Test Results After Random Testing**

A student with a positive test result will meet with the Dean of Student Success or designee to determine disciplinary and treatment options that the student must follow in order to be reinstated into school. Mitchell Tech's intent is to establish a positive environment in which these problems can be addressed locally in a helpful and supportive rather than a punitive way.

If a student tests positive for alcohol (0.02 or higher), the student will be removed from classes and taken home. A breath alcohol test administered the following day must be considered negative for alcohol concentration before the student may return to classes. If a student tests positive for alcohol in a subsequent follow-up test, the student will be referred to a substance abuse professional (SAP) and must complete a prescribed treatment plan and follow-up testing in order to remain enrolled in the program at Mitchell Tech. The student can continue to attend classes until such time as they can meet with the SAP as long as they test negative on alcohol tests that will be administered daily. *The student is responsible for the cost of the initial referral to a SAP. The student will be responsible for the cost of any follow-up counseling or treatment and any follow-up drug testing.*

If a student tests positive for drug use, the student will be immediately suspended from school until Mitchell Tech receives results from the review by the medical review officer. Based on the medical review officer's report of a positive drug test, the student will be required to meet with a substance abuse professional (SAP) to determine the counseling or treatment plan the student must follow to remain enrolled at Mitchell Tech. The student would also be subject to unannounced follow-up testing as determined by the SAP in order to remain in classes. *The student is responsible for the cost of the initial referral to a SAP. The student will be responsible for the cost of any follow-up counseling or treatment and any follow-up drug testing.*

Cannabidiol (CBD) use is not a legitimate medical explanation for a laboratory-confirmed marijuana or tetrahydrocannabinol (THC) positive result. Therefore, Medical Review Officers will verify a drug test confirmed at the appropriate cutoffs as positive, even if the person being tested states he or she only used a CBD

product.

All positive tests for drug use (refusal to submit to a test or an altered specimen is considered a positive test result) will be reviewed by a medical review officer who is a licensed physician with knowledge of substance abuse disorders. The medical review officer will interpret and evaluate the results of each test, along with relevant medical information, including possession of a medical marijuana card, about each student, to determine whether or not a positive test resulted. If the result of the test is positive, the medical review officer will also determine if the student was impaired at the time of the test because of drug use. (Students who use medical marijuana pursuant to a validly issued written certification when not on property controlled by the College may subsequently report to class or participate in activities as long as such use does not cause impairment or disrupt academic or campus activities.) The medical review officer will contact the student whose test is positive or whose test has been altered or refused. Mitchell Tech will also be notified of a positive test result.

Based on the medical review officer's review of a positive drug test, the student will be required to meet with a substance abuse professional (SAP) to determine the counseling or treatment plan the student must follow to remain enrolled at Mitchell Tech. The student would also be subject to unannounced follow-up testing as determined by the SAP in order to remain in classes. The student is responsible for the cost of the initial referral to a SAP. The student will be responsible for the cost of any follow-up counseling or treatment and any follow-up drug testing.

When the student has completed the treatment plan as outlined by the substance abuse professional, the student's name will be returned to the selection pool for random drug testing as long as the student remains enrolled in the program.

If the results of a positive drug test are confirmed by a medical review officer and are not the result of medication currently prescribed to the student, the student will be dismissed from any zero-tolerance program which currently includes the Power Line Construction & Maintenance and Electrical Utilities & Substation Technology programs. The zero-tolerance policy is consistent with industry standards and is recommended by industry. For purposes of this section, a prescription does not include a written certification for use of medical marijuana, pursuant to SDCL 34-20G-1(23).

## Zero Tolerance Programs

The Power Line Construction & Maintenance and Electrical Utilities & Substation Technology programs at Mitchell Tech are zero-tolerance programs regarding a positive drug test. If the results of a positive drug test are confirmed by a medical review officer and are not the result of medication currently prescribed to the student, the student will be dismissed from the program. The zero-tolerance policy is consistent with industry standards and is recommended by industry. For purposes of this section, a prescription does not include a written certification for use of medical marijuana, pursuant to SDCL 34-20G-1(23).

## Threats of Terrorism (South Dakota Codified Law)

**22-8-12. Act of Terrorism, Felony:** Any person who commits a crime of violence, as defined by subdivision 22-1-2(9), or an act dangerous to human life involving any use of chemical, biological, or radioactive material, or any explosive or destructive device, with the intent to do any of the following:

1. Intimidate or coerce a civilian population;
2. Influence the policy or conduct of any government or nation;
3. Affect the conduct of any government or nation by assassination or kidnapping; or
4. Substantially impair or interrupt public communications, public transportation, common carriers, public utilities, or other public services;

is guilty of making a terrorist threat. A violation of this section is a Class 5 felony.

**22-8-13. Terrorist Threat, Felony:** Any person who threatens to commit a crime of violence, as defined by subdivision 22-1-2(9), or an act dangerous to human life involving any use of chemical, biological, or radioactive material, or any explosive or destructive device, with the intent to:

1. Intimidate or coerce a civilian population;
2. Influence the policy or conduct of any government or nation;
3. Affect the conduct of any government or nation; or
4. Substantially impair or interrupt public communications, public transportation, common carriers, public utilities, or other public services;

is guilty of making a terrorist threat. A violation of this section is a Class 5 felony.

**22-14A-26. Persons Convicted of Certain Crimes May Be Ordered to Make Restitution:** The court may, after conviction or adjudication of any violation of § 22-11-9.2, 22-14A-24, or 22-14A-25, conduct a hearing to ascertain the extent of costs incurred, damages, and financial loss suffered by local, county, or state public safety agencies, and the amount of property damage caused as a result of the crime. A person found guilty of violating § 22-11-9.2, 22-14A-24, or 22-14A-25, may upon conviction, be ordered to make restitution to the local, county, or state public service agency for any cost incurred, damages, and financial loss or property damage sustained as a result of the commission of the crime.

**22-14A-27. No Cause of Action Against Good Faith Response to Terrorist Act:** The provisions of § 22-11-9.2, 22-14A-24, or 22-14A-25 may not be construed to create any cause of action against any person based upon or arising out of any act or omission relating to any good faith response to a felonious threat or an attempted felonious threat.

## Appropriate Use of Information Technology Resources

The Mitchell Tech community understands that information technology has become an integral resource in fulfilling our mission of teaching, learning, research, public service, and administrative responsibilities. The College therefore encourages students, faculty, and staff to acquire computer literacy and technological skill. Computers and networks empower us openly to find, consider, and disseminate information developed at Mitchell Tech and elsewhere; to communicate and collaborate with others near and far; and to build the technological skills base on which the twenty-first century depends. With this empowerment, however, comes commensurate responsibility. Each of us is obliged to support and abide by the ethical and legal standards that apply to information technology, including rights of authorship, confidentiality, privacy, and dissemination. In doing so, we respect the codes of honesty, integrity, and intellectual freedom upon which institutions of higher learning rely.

### Usage Consistent with Law

Usage of Mitchell Tech computing resources shall be consistent with local, state, and federal law.

### Copyright Law

It is the policy of Mitchell Tech to respect the ownership of all intellectual material protected by copyright laws.

Users shall not make or use illegal copies of copyrighted materials, store such copies on College systems, or transmit them over College networks.

### Summary of Civil and Criminal Penalties for Violation of Federal Copyright Laws

Copyright infringement is the act of exercising, without permission or legal authority, one or more of the exclusive rights granted to the copyright owner under section 106 of the Copyright Act (Title 17 of the United States Code). These rights include the right to reproduce or distribute a copyrighted work. In the file-sharing context, downloading or uploading substantial parts of a copyrighted work without authority constitutes an infringement.

Penalties for copyright infringement include civil and criminal penalties. In general, anyone found liable for civil copyright infringement may be ordered to pay either actual damages or “statutory” damages affixed at not less than \$750 and not more than \$30,000 per work infringed. For “willful” infringement, a court may award up to \$150,000 per work infringed. A court can, in its discretion, also assess costs and attorneys’ fees. For details, see Title 17, United States Code, Sections 504, 505. Willful copyright infringement can also result in criminal penalties, including imprisonment of up to five years and fines of up to \$250,000 per offense.

For more information, please see the Web site of the U.S. Copyright Office at [www.copyright.gov](http://www.copyright.gov), especially their FAQ’s at [www.copyright.gov/help/faq](http://www.copyright.gov/help/faq).

### Systems Security

Compliance with policies that ensure the security and integrity of all campus information systems is mandatory and critical to ensure continuing provision of computer resources to the entire Mitchell Tech community.

### User Accounts

The College owns the computer facilities, resources, and accounts. The Office of Technology must approve all access to central computer systems, including the issuing of passwords. Access to administrative systems is limited.

All Mitchell Tech students and employees are eligible to receive a computer system account. Members of employees’ families, who are not members of one of the above categories, are not eligible for computer system accounts.

Only the Dean of Technology may grant others access to Mitchell Tech electronic resources and then only in

those cases where the activity will significantly benefit the College as a whole.

Users shall not provide false or misleading information to obtain access to computing resources or facilities.

### **Confidentiality and Privacy**

Users of Mitchell Tech's electronic resources should not consider this usage to be confidential. Electronic communications are in many cases archived with federal law and are subject to review by administration or their designee. Mitchell Tech does require confidentiality in regard to the public release of certain information under FERPA, HIPAA, and other legal requirements and local policy.

### **Interception of Network Traffic**

Users shall not intercept network traffic for any purpose unless engaged in authorized network administrative duties.

### **Damage or Disruption**

Users may not damage computer systems or knowingly cause disruptions in its operations or use. Users shall not use the network to disrupt network users, services or equipment. Disruptions include, but are not limited to, distribution of unapproved advertising, propagation of computer "worms" and viruses, and sustained high volume network traffic that substantially hinders others in their use of the network.

### **Personal Gain**

Users shall not use the computer systems for personal gain such as selling access to a USER ID or by performing work for profit with College resources in a manner not authorized by the College.

### **Billable Services**

Users shall assume responsibility for any charges associated with billable services unless appropriate authorization has been obtained.

### **Acceptable Uses of Electronic Mail**

Electronic mail may be used for a wide variety of on- and off-campus communication. Examples include professional communications, notices of College activities, personal correspondence, scheduling of committee, administration and board activities, announcement of College policies, schedules and announcements.

### **System-Provided Mailing Lists**

Only messages relating to Institute activities should be sent to the system-provided mailing lists, e.g., All Users, All Faculty, All Staff, etc. Such mailing lists are

for notification of Institute events, communication of official Institute messages, and notification of bulletin board discussions. System-provided mailing lists shall not be used for "classified ads" (e.g., "For Sale," "For Lease," etc.) or "free items" (e.g., free kittens, free books, etc.). Users shall not use the system-provided mailing lists for commercial or partisan political purposes.

### **Guidelines**

To determine if sending to a mailing list is appropriate please refer to these questions. If your answer is NO, the e-mail should not be sent to an Mitchell Tech distribution group. If you cannot answer the questions, please contact the Dean of Technology for further guidance.

1. Does the e-mail pertain to all Mitchell Tech employees or students?
2. Is the e-mail or event sponsored by or directly supported by Mitchell Tech?

Also, remember that the distribution system may not be used to sell items or to solicit monetary donations unless the event is sponsored by or directly supported by Mitchell Tech.

Students are not allowed access to College distribution lists without permission from the Dean of Technology.

### **User-created Mailing Lists**

Users may also create their own mailing lists. When creating and using a mailing list, users shall ensure that everyone on the list agrees to be included on the list.

### **Unacceptable Uses of Electronic Mail**

Electronic mail is not to be used for the following:

- commercial ventures
- personal profit
- solicitations for contributions for non-College sponsored entities
- chain letters
- pyramid schemes
- any activity inconsistent with Mitchell Tech policies
- or any illegal activity or unlawful purpose. Users shall not use email to harass or intimidate another person. (See Policy MTC 115 for the full harassment policy.)

### **Cyber Bullying**

Cyber bullying is a form of harassment over the Internet or other forms of electronic communications and social media, including cell phones. Students and staff will refrain from using communication devices or Mitchell

Tech property to harass or stalk one another. Mitchell Tech's computer network and the Internet, whether accessed at school or away from school, during or after school hours, may not be used for the purpose of cyber bullying. All forms of cyber bullying are unacceptable and viewed as a violation Mitchell Tech's acceptable computer use policy and procedures.

Users are responsible for the appropriateness of the materials they transmit. Hate mail, harassment, discriminatory remarks, or other anti-social behaviors are expressly prohibited.

Cyber bullying includes, but is not limited to the following misuses of technology: harassing, teasing, intimidating, threatening, or terrorizing another person by sending or posting inappropriate and hurtful e-mail messages, instant messages, text messages, digital pictures or images, or website postings, including blogs. It is also recognized that the author (poster or sender) of the inappropriate material is often disguised (logged on) as someone else.

Students and community members, who believe they have been victims of such misuses of technology, as described in this policy, should not erase the offending material from the systems. A copy of the material should be brought to the attention of the Mitchell Tech Title IX Coordinator in the Mitchell Tech Administrative office.

Malicious use of Mitchell Tech's computer system to develop programs or to institute practices that harass other users to gain unauthorized access to any entity on the system and/or change the components of an entity on the network is prohibited.

### **Intellectual Freedom**

Mitchell Tech recognizes the right of all users to use resources of their choosing. Computer resources are available for the interest, information, and enlightenment of the Mitchell Tech community. Information will not be proscribed, censored, or removed by the College because of partisan or doctrinal disapproval. In compliance with Child Internet Protection Act, Mitchell Tech does provide a content filtering system that prevents the viewing of pornographic material and reserves the right to block peer to peer file sharing that consumes bandwidth required for instructional purposes.

### **Respect for Rights of Others**

Computer users at Mitchell Tech have a responsibility to be aware of materials that may be objectionable to others when using computers in public areas. Monitors

and printers in public areas, such as open access computer labs and offices that more than one person may share, should not be used to display or print materials that might be defined as harassing or disruptive. Users are reminded that any state and federal laws dealing with these or related matters apply to Mitchell Tech facilities and are encouraged to use good judgment.

### **Enforcement and Penalties**

The Dean of Technology is responsible for administering and enforcing these regulations. Questions should be directed in writing to the Dean of Technology.

Violations should be reported in writing to the Dean of Technology. When potential damage to College computing resources or data is immediate, the Dean of Technology may suspend the alleged violator's access to such resources immediately. Notice of such suspension shall be communicated to the alleged violator. Ordinarily the Dean of Technology will discuss the alleged violation with parties involved and/or the individual's supervisor, instructor, or dean, as appropriate. If the problem cannot be resolved, the Dean of Technology may refer alleged violations of this policy to the appropriate administrator or judicial body.

If a Web page mounted on a College computing resource, in the opinion of the Dean of Technology, violates this Appropriate Use Policy or the Web Page Policy, access to that Web page may be temporarily suspended pending prompt adjudication of the matter as described in the paragraph above.

Any violations of the regulations included in this document may result in penalties as described below. Students may face review for disciplinary actions. These may include, but are not limited to, the suspension of or loss of access to campus computer resources, suspension or expulsion from the College, and referral to law enforcement.

Faculty and staff may face review for disciplinary action as described in the Mitchell Tech Faculty & Non-Faculty Personnel Handbooks. These may include, but are not limited to, the suspension of or loss of access to campus computer resources, and other penalties listed in the handbooks, including possible termination of employment by the College. Appeals from penalties assessed under this policy will follow the appropriate grievance procedure as stated in the handbooks.

### **Student Laptop Computers on Campus**

Required by Program – Full Access



Students who purchase computers from Mitchell Tech for use in their programs will have full use of the campus network services. This includes, but is not limited to, wireless network connectivity, printing, and other services provided by Mitchell Tech. The laptops are distributed and supported by the Mitchell Tech Information Technology Office.

### **Bring your own Device – Full Access**

Students enrolled in programs that require a laptop but are not provided by Mitchell Tech gain access to our network through our Cisco Network Access Control (NAC) client. The client is self-service and can be installed at your leisure. Current system updates and current anti-virus definitions are required to have full network access. Systems that do not meet these requirements will not be accepted onto the network until those conditions are met.

The Mitchell Tech Acceptable Computer Use policy applies to all laptop computers used on the Mitchell Tech network.

### **Mitchell Tech Student E-mail**

E-mail is considered an official method for communication at Mitchell Tech because it delivers information in a convenient, timely, cost effective, and environmentally aware manner.

For the majority of the student population, this Mitchell Tech Student E-mail Policy does not represent a change from current practice. However, the policy does ensure that all students have access to this important form of communication. Furthermore, it ensures that students can be accessed through a standardized channel by faculty and other staff of the College as needed.

### **Appropriate Use of E-mail**

E-mail is an official method for communication at Mitchell Tech. The College may send communications to students via e-mail. Students are responsible for the consequences of not reading in a timely fashion Institute-related communications sent to their official Mitchell Tech student e-mail account. Mitchell Tech utilizes automated technologies to protect the network. It is possible that those technologies may block legitimate messages. It is the recipient's responsibility to follow up on any undelivered any e-mail that is expected, but has been blocked by the filter.

### **Application for Student Email Accounts**

All students taking classes at Mitchell Tech campus are required to obtain an official Mitchell Tech student e-

mail account. A student e-mail account created by the Office of Technology is the official e-mail address to which the College will send e-mail communications. This official address will be recorded in the College's electronic directories and records for that student.

### **Expectations Regarding Student Use of Email**

Students are expected to check their Mitchell Tech official e-mail on a frequent and consistent basis in order to remain informed of College-related communications. The College recommends checking e-mail every day.

### **Responsibility for Security of Accounts**

An account is given to an individual for the exclusive use by that individual. It is against College policy for a user to give someone his or her password or allow others to use his or her account. However, this is not to preclude others temporarily assisting a user in the performance of his or her College functions (for example faculty helping a student with a computer project; associates showing a new feature of the computer system) while supervised by the user. Users are responsible for all activity on their accounts.

Attempting to discover another user's password or attempts to gain unauthorized access to another person's files or mail is prohibited. The only exception will be when technology personnel are working on the security of the computer system.

In the event a student loses or forgets a password, there will be a \$5.00 charge to change a password. All password changes will be made by the Office of Technology.

### **Faculty Expectations and Educational Uses of E-mail**

Since faculty members determine how email is used in their classes, faculty can require students to check their email on a specific or more frequent basis. Messages sent to College-provided aliases of official Mitchell Tech student email addresses are also considered official communication.

### **Appropriate Use of Student Email**

In general, email is not appropriate for transmitting sensitive or confidential information.

All use of email will be consistent with other College policies, including the Mitchell Tech Policy on the Appropriate Use of Information Technology Resources.

All use of email will be consistent with local, state, and federal law, including provisions of the Family Educational Rights and Privacy Act of 1974 (FERPA) and all subsequent amendments to the original act.

Communications sent to a student's official Mitchell Tech email address may include notification of College-related actions.

### **Redirecting Email**

Students may elect to redirect (autoforward) messages sent to their Mitchell Tech official student email address. Students who redirect email from their official address to another address (such as Gmail, Yahoo, Hotmail, or any email server other than the official Mitchell Tech servers) do so at their own risk. Having email lost as a result of redirection does not absolve a student from the responsibilities associated with communication sent to his or her official email address. The College is not responsible for the handling of email by outside vendors or unofficial servers.

Changes to this policy will be authorized by approval of the administrators of the College. Questions or comments about this policy should be directed to the Director of Technology.

### **Withdrawing from School**

When withdrawing from Mitchell Tech, access to the Microsoft Office Suite of products (Word, Excel, Access and PowerPoint) and Mitchell Tech e-mail will be terminated.

# Program Offerings

## Accounting, AAS Degree

Mitchell Tech's Accounting program is designed to provide the skills needed for manual and computerized accounting and general office work. The purpose of the program is to expose students to accounting principles and practices as they prepare for business-related careers in a wide variety of areas.

The program includes instruction in general accounting, accounting principles and practices, posting transactions to accounts, record-keeping systems and a variety of accounting software packages. Students will learn efficient work practices and basic occupational skills and competencies.

Students will find numerous job options after obtaining an Associate of Applied Science degree in two years, or may choose to further their education and obtain a four-year baccalaureate degree at one of Mitchell Tech's university partner schools.

***Note: Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.***

### Award: AAS Degree

#### First Semester

|          |                            |   |
|----------|----------------------------|---|
| ACCT 110 | Principles of Accounting I | 4 |
| BUS 101  | Introduction to Business   | 3 |
| BUS 122  | E-Commerce                 | 3 |
| BUS 143  | Document Production        | 3 |
| MATH 130 | Business Math              | 3 |
| SSS 100  | Student Success            | 1 |

Total Semester Hours: 17

#### Second Semester

|          |                             |   |
|----------|-----------------------------|---|
| ACCT 111 | Principles of Accounting II | 4 |
| BUS 120  | Principles of Marketing     | 3 |
| BUS 140  | Business Law                | 3 |
| BUS 204  | Customer Service            | 3 |
|          | General Education Elective  | 3 |

Total Semester Hours: 16

#### Third Semester

|          |                           |   |
|----------|---------------------------|---|
| ACCT 212 | Intermediate Accounting I | 3 |
| ACCT 214 | Cost Accounting I         | 3 |
| ACCT 218 | Tax Accounting I          | 3 |
| ACCT 230 | Government & Nonprofit    | 3 |
| BUS 216  | Spreadsheet Applications  | 3 |
| ECON 101 | Microeconomics            | 3 |

Total Semester Hours: 18

#### Fourth Semester

|          |                                 |   |
|----------|---------------------------------|---|
| ACCT 213 | Intermediate Accounting II      | 3 |
| ACCT 221 | Quickbooks                      | 3 |
| ACCT 242 | Federal Taxation                | 3 |
| ACCT 245 | Managerial Accounting           | 3 |
| BUS 217  | Database Applications           | 3 |
|          | Written Communications Elective | 3 |

Total Semester Hours: 18

**Total Credits Required to Graduate: 69**

**Award: AAS Degree**

# Entrepreneurship

## Award: AAS Degree

The Entrepreneurship program consists of courses designed to develop strategic thinking and planning, professional selling, leadership, and project management. Students will be equipped with the necessary skillset and mindset to launch a business or manage an existing technical business. The curriculum is focused on real-world applications and skills.

### First Semester

|                          |                            |   |
|--------------------------|----------------------------|---|
| ENTR 200                 | Strategic Thinking         | 3 |
| ENTR 205                 | Business Model Development | 3 |
| ENTR 210                 | How to Build a Startup     | 3 |
| ENTR 215                 | Professional Selling       | 3 |
| LDR 201                  | Principles of Leadership   | 3 |
| LDR 206                  | Leadership Development     | 3 |
| Total Semester Hours: 18 |                            |   |

### Second Semester

|                          |                                   |   |
|--------------------------|-----------------------------------|---|
| ENTR 225                 | Business Plan Development         | 3 |
| ENTR 230                 | Market Analysis                   | 3 |
| ENTR 235                 | Advisory Boards                   | 3 |
| ENTR 240                 | Customer Development              | 3 |
| LDR 221                  | Project Management                | 3 |
| LDR 226                  | Strategic Leadership and Planning | 3 |
| Total Semester Hours: 18 |                                   |   |

**Total Semester Hours: 36**

## Agricultural Business, AAS Degree

The business of agriculture is varied and complex. Mitchell Tech's highly qualified instructional staff and reputable program will prepare graduates for a variety of ag business careers.

Beginning with basics like farm accounting and commodity marketing, students will also be exposed to fundamentals of animal science and agronomy in order to learn how those areas relate to the financial bottom line.

During the second year, students will take courses in management, sales and service, ag law, finance, insurance and e-commerce. A variety of guest speakers, case studies, and hands-on activities will reinforce concepts and prepare students for many occupational options.

Graduates will find a wide variety of employment opportunities in areas like management, sales, claims processing, analysis, grain management, lending, marketing or many other areas.

Any student who enrolls in Commercial Driver training must obtain a South Dakota driver's license in order to complete the CDL training course. A Class A CDL is a graduation requirement for this program.

Mitchell Tech recommends that applicants to the Ag Business program obtain a physical examination for their safety and protection.

### Please Note:

- ***Students enrolled must possess a Class A CDL license before the end of the 10th day of their first semester of enrollment or be registered for TRAN 100 during their first semester.***
- ***Students must pass the Commercial Applicator's License exam in order to graduate.***
- ***Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.***
- ***Students are required to achieve a grade of 2.0 (C) in technical courses in order to satisfy graduation requirements.***
- ***Students are required to complete at least one internship to satisfy graduation requirements.***

### Award: AAS Degree

#### First Semester

|          |                               |   |
|----------|-------------------------------|---|
| AGT 101  | Animal Science I              | 3 |
| AGT 102  | Weeds & Herbicides            | 3 |
| AGT 104  | Ag Chemicals                  | 2 |
| AGT 120  | Soil Science I                | 3 |
| AGT 211  | Farm Accounting               | 3 |
| TRAN 100 | Industrial Transportation CDL | 1 |
| CIS 105  | Introduction to Computers     | 3 |
| SSS 100  | Student Success               | 1 |

Total Semester Hours: 19

#### Second Semester

|         |                       |     |
|---------|-----------------------|-----|
| AGT 110 | Crop Science I        | 3   |
| AGT 112 | Fertilizers           | 3   |
| AGT 160 | Commodity Marketing I | 3   |
| AGT 190 | Internship I          | 6   |
| AGT 214 | Ag Law                | 3   |
| CPR 100 | First Aid, CPR AED    | 0.5 |

Total Semester Hours: 18.5

#### Third Semester

|         |                              |   |
|---------|------------------------------|---|
| AGT 103 | Machinery Management         | 2 |
| AGT 260 | Advanced Commodity Marketing | 3 |
| AGT 261 | Ag Sales & Service           | 3 |

|         |                 |   |
|---------|-----------------|---|
| AGT 291 | Land Management | 1 |
|         | OR              |   |
| AGT 295 | Beef Management | 1 |

|  |                            |   |
|--|----------------------------|---|
|  | Communications Elective    | 3 |
|  | Math Elective              | 3 |
|  | General Education Elective | 3 |

Total Semester Hours: 18

#### Fourth Semester

|         |                                  |   |
|---------|----------------------------------|---|
| AGT 215 | Ag Finances                      | 3 |
| AGT 218 | Principles of Ag Bus, Management | 3 |
| AGT 263 | Fundamentals of Insurance        | 2 |
| AGT 290 | Internship II                    | 6 |
| BUS 122 | E-Commerce                       | 3 |
|         | General Education Elective       | 3 |

Total Semester Hours: 20

**Total Credits Required to Graduate: 75.5**

## Agronomy, AAS Degree

Agronomists are individuals who are experts in planting, cultivating and harvesting food for an ever-expanding global market. Mitchell Tech's program has an excellent reputation and will provide graduates with many career options.

Students will learn about different methods to increase soil organic matter and improve the overall soil health. They will study crop growth stages for the top four crops produced in South Dakota: corn, soybeans, small grains, and alfalfa, and discuss management options available at certain crop stages. Disease and insect identification are also key factors involved with today's crop production efforts. Weeds that are common to this region will be observed and control strategies will be discussed. Crops also depend on a balanced fertilizer source; students will look at soil test and tissue test results and help make sound environmental recommendations.

Students will also gain experience with ag chemicals and will test for their chemical applicator's license. Hands-on activities with machinery, small engines and other areas that will expand the student's experience will be integrated into a variety of courses.

A featured component of this program is the Mitchell Tech Land Lab. The program farms 85 acres of land near Mitchell. Mitchell Tech Ag students and instructors manage all aspects of crop production including government programs. The land lab gives students exposure to precision technologies including auto-steer, geo-referenced data management and variable rate technologies. Students gain experience in all areas of the operation: budgeting, planning, planting, spraying, fertilizing, harvesting and marketing.

Graduates will find work in all areas of agriculture from production to sales and service, agronomy, working with cooperatives or in management.

Any student who enrolls in Commercial Driver training must obtain a South Dakota driver's license in order to complete the CDL training course. A Class A CDL is a graduation requirement for this program.

Mitchell Tech recommends that applicants to the Agronomy program obtain a physical examination for their safety and protection.

### Please Note:

- *Students enrolled must possess a Class A CDL license before the end of the 10th day of their first*

*semester of enrollment or be registered for TRAN 100 during their first semester.*

- *Students must pass the Commercial Applicator's License exam in order to graduate.*
- *Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.*
- *Students are required to achieve a grade of 2.0 (C) in technical courses in order to satisfy graduation requirements.*
- *Students are required to complete at least one internship to satisfy graduation requirements.*

### Award: AAS Degree

#### First Semester

|          |                               |   |
|----------|-------------------------------|---|
| AGT 101  | Animal Science I              | 3 |
| AGT 102  | Weeds & Herbicides            | 3 |
| AGT 104  | Ag Chemicals                  | 2 |
| AGT 120  | Soil Science I                | 3 |
| AGT 211  | Farm Accounting               | 3 |
| TRAN 100 | Industrial Transportation CDL | 1 |
| CIS 105  | Introduction to Computers     | 3 |
| SSS 100  | Student Success               | 1 |

Total Semester Hours: 19

#### Second Semester

|         |                       |     |
|---------|-----------------------|-----|
| AGT 110 | Crop Science I        | 3   |
| AGT 112 | Fertilizers           | 3   |
| AGT 160 | Commodity Marketing I | 3   |
| AGT 190 | Internship I          | 6   |
| AGT 214 | Ag Law                | 3   |
| CPR 100 | First Aid, CPR AED    | 0.5 |

Total Semester Hours: 18.5

#### Third Semester

|         |                            |   |
|---------|----------------------------|---|
| AGT 103 | Machinery Management       | 2 |
| AGT 212 | Ag Chem Equipment          | 3 |
| AGT 220 | Soil Science II            | 2 |
| AGT 261 | Ag Sales & Service         | 3 |
| AGT 291 | Land Management            | 1 |
|         | Communications Elective    | 3 |
|         | Math Elective              | 3 |
|         | General Education Elective | 3 |

Total Semester Hours: 20

#### Fourth Semester

|         |                            |   |
|---------|----------------------------|---|
| AGT 158 | Small Engines for Ag       | 3 |
| AGT 210 | Crop Science II            | 3 |
| AGT 263 | Fundamentals of Insurance  | 2 |
| AGT 290 | Internship II              | 6 |
| PAT 102 | Principles of GPS/GIS      | 2 |
|         | General Education Elective | 3 |

Total Semester Hours: 19

**Total Semester Hours: 76.5**





## Animal Science, AAS Degree

Producers whose livelihoods depend upon the production of animals that are safe and healthy for consumption are a vital part of today's modern food culture. Students who study Animal Science will learn the most efficient ways to breed and manage herds to ensure the sustainability of the animals and the environment.

Mitchell Tech's highly qualified instructors, including a Doctor of Veterinary Medicine, will teach a variety of classes including management, breeding, genetics, nutrition, disease, growth and feed stuff production. Students will also become proficient in related areas like accounting, ag law, insurance, finance and other areas that will help them succeed.

Another feature of this program is an animal lab available to students. This working beef production facility allows students access to cattle from birth to sale and helps students learn not only the hands-on labor needed to maintain a beef herd, but also the marketing process for making a profit.

Graduates will find work in many areas of agriculture including farms, ranches, feedlots, genetics and breeding, sales, marketing and livestock handling.

Any student who enrolls in Commercial Driver training must obtain a South Dakota driver's license in order to complete the CDL training course. A Class A CDL is a graduation requirement for this program.

Mitchell Tech recommends that applicants to the Animal Science program obtain a physical examination for their safety and protection.

### Please Note:

- *Students enrolled must possess a Class A CDL license before the end of the 10th day of their first semester of enrollment or be registered for TRAN 100 during their first semester.*
- *Students must pass the Commercial Applicator's License exam in order to graduate.*
- *Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.*
- *Students are required to achieve a grade of 2.0 (C) in technical courses in order to satisfy graduation requirements.*

- *Students are required to complete at least one internship to satisfy graduation requirements.*

### Award: AAS Degree

|                       |                               |    |
|-----------------------|-------------------------------|----|
| First Semester        |                               |    |
| AGT 101               | Animal Science I              | 3  |
| AGT 102               | Weeds & Herbicides            | 3  |
| AGT 104               | Ag Chemicals                  | 2  |
| AGT 120               | Soil Science I                | 3  |
| AGT 211               | Farm Accounting               | 3  |
| TRAN 100              | Industrial Transportation CDL | 1  |
| CIS 105               | Introduction to Computers     | 3  |
| SSS 100               | Student Success               | 1  |
| Total Semester Hours: |                               | 19 |

|                       |                       |      |
|-----------------------|-----------------------|------|
| Second Semester       |                       |      |
| AGT 110               | Crop Science I        | 3    |
| AGT 112               | Fertilizers           | 3    |
| AGT 160               | Commodity Marketing I | 3    |
| AGT 190               | Internship I          | 6    |
| AGT 214               | Ag Law                | 3    |
| CPR 100               | First Aid, CPR AED    | 0.5  |
| Total Semester Hours: |                       | 18.5 |

|                       |                            |    |
|-----------------------|----------------------------|----|
| Third Semester        |                            |    |
| AGT 240               | Livestock Reproduction     | 3  |
| AGT 242               | Livestock Diseases         | 3  |
| AGT 245               | Animal Nutrition           | 2  |
| AGT 295               | Beef Management            | 1  |
|                       | Communications Elective    | 3  |
|                       | Math Elective              | 3  |
|                       | General Education Elective | 3  |
| Total Semester Hours: |                            | 18 |

|                       |                            |    |
|-----------------------|----------------------------|----|
| Fourth Semester       |                            |    |
| AGT 130               | Livestock Selection        | 2  |
| AGT 215               | Ag Finances                | 3  |
| AGT 241               | Feed Utilization           | 2  |
| AGT 263               | Fundamentals of Insurance  | 2  |
| AGT 290               | Internship II              | 6  |
| AGT 296               | Calving Management         | 1  |
|                       | General Education Elective | 3  |
| Total Semester Hours: |                            | 19 |

**Total Credits Required to Graduate: 74.5**

# Architectural Design & Building Construction, AAS Degree

*attending Mitchell Tech..*

Beginning with a firm foundation in drafting with instruments and followed with an introduction to computer-aided design (CAD), students learn to conceptualize the building process. Using the latest construction methods and under close supervision, they construct a residence inside the Mitchell Tech building lab where the weather is always nice.

In the second year of the program, students working in construction units build a student-designed house in the Mitchell community. Students learn about concrete work as they construct the foundation, rough-finish a basement and finish a three-bedroom home.

Additionally, students will be exposed to many techniques and skills required in the area of commercial construction: steel, welding, commercial construction equipment operation and more. Valuable experience will be gained during a construction internship.

## What makes this program special?

- Our program has Certified Green Professional Instructors
- Our houses are built using Residential Energy Services Network & Home Energy Rating Standards of Practice (RESNET)
- We focus on energy efficient building practices
- All students are members of NAHB (student chapter)
- Emphasis on commercial construction
- Bottom line - We are teaching students how to design/ build the buildings of the future

Graduates from this program find employment with lumberyards, building contractors, architectural firms and commercial construction companies. Skills in drafting/design, carpentry, construction point layout, estimating, cabinetry, commercial construction practices and green building technologies make the students who graduate from this program valuable employees in the building trades industry.

## Award: AAS Degree

### First Semester

|          |                               |   |
|----------|-------------------------------|---|
| AD 101   | Building Design               | 2 |
| AD 151   | Architectural Drafting Design | 4 |
| BC 103   | Construction Equipment        | 1 |
| BC 110   | Framing and Exterior Finish   | 3 |
| BC 115   | Building Methods              | 2 |
| BC 121   | Material Takeoff              | 2 |
| OSHA 101 | OSHA 10 Training              | 1 |
| SSS 100  | Student Success               | 1 |

Total Semester Hours: 16

### Second Semester

|         |                           |     |
|---------|---------------------------|-----|
| AD 102  | Building Materials        | 2   |
| AD 117  | Project Timeline and Cost | 2   |
| AD 152  | 3D Architectural Design   | 2   |
| BC 124  | Green Building            | 2   |
| BC 125  | Building Envelope         | 2   |
| BC 130  | Casework                  | 3   |
| BC 162  | Post Frame                | 1   |
| CIS 101 | Computer Concepts         | 3   |
| CPR 100 | First Aid, CPR AED        | 0.5 |

Total Semester Hours: 17.5

### Third Semester (Summer)

|        |                       |   |
|--------|-----------------------|---|
| BC 290 | Commercial Internship | 6 |
|--------|-----------------------|---|

### Fourth Semester (Fall)

|        |                                   |   |
|--------|-----------------------------------|---|
| AD 221 | Advanced Building Principles      | 2 |
| AD 242 | Building Information Modeling     | 2 |
| AD 272 | Commercial Construction Documents | 2 |
| BC 210 | Advanced Wood Framing             | 2 |
| BC 212 | Drywall, Tape and Texture         | 2 |
| BC 221 | Footings and Foundations          | 2 |
|        | Written Communications Elective   | 3 |
|        | General Education Elective        | 3 |

Total Semester Hours: 18

### Fifth Semester (Spring)

|         |                                     |   |
|---------|-------------------------------------|---|
| BC 225  | Commercial Structures               | 3 |
| BC 230  | Interior Finish                     | 4 |
| BC 271  | Construction Contracting Leadership | 3 |
| WLD 103 | Basic SMAW                          | 1 |
|         | Math Elective                       | 3 |
|         | General Education Elective          | 3 |

Total Semester Hours: 17

**Total Semester Hours: 74.5**

## Please Note:

- *Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is*

# Automation Controls/SCADA, AAS Degree

Supervisory Control & Data Acquisition, known in the industry as SCADA, is emerging as one of the fastest expanding areas of industry today. This program teaches students to use computers to collect management data and to design, build and repair automated systems. Industries are placing greater emphasis on remotely controlling machines, gathering accurate inventory data, managing the operation of electrical devices, measuring and metering electrical systems and automating routine tasks.

The successful student in this program will demonstrate a variety of skills and abilities including reasoning, both inductive and deductive; research skills; visual color discrimination; communication through various means like telephone, written documents, email and in person; repair and maintain electronic equipment; and keep up to date with new knowledge.

SCADA technicians will find employment in electric power utilities, gas companies, water systems, security systems, building automation, manufacturing automation, food processing and in industrial automation applications. Graduates will install and maintain advanced automated equipment and communication devices, or operate computer networks to control remote machines over the Internet.

Students may elect to enroll in a third-year Automated Engineering option and earn a second AAS degree with one additional year of coursework.

***Note: Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.***

## Award: AAS Degree

### First Semester (Fall)

|          |                             |   |
|----------|-----------------------------|---|
| CIS 107  | Spreadsheet Concepts        | 3 |
| EC 105   | Data Cabling                | 3 |
| EC 121   | AC/DC Analysis              | 4 |
| IST 156  | Information Security I      | 2 |
| MATH 162 | Digital Math                | 3 |
| SD 100   | Introduction to Programming | 2 |
| SSS 100  | Student Success             | 1 |

Total Semester Hours: 18

### Second Semester (Spring)

|          |                                   |   |
|----------|-----------------------------------|---|
| EC 113   | Electronic Theory                 | 3 |
| SD 135   | Introduction to Ethernet Networks | 3 |
| SD 136   | Programming for SCADA             | 3 |
| SD 142   | Control Circuit Analysis          | 4 |
| SD 157   | SCADA Electronics Lab             | 3 |
| OSHA 100 | OSHA 10 Training                  | 1 |

Total Semester Hours: 17

### Third Semester (Summer)

|        |                                |   |
|--------|--------------------------------|---|
| SD 120 | Introduction to Motor Control  | 3 |
| SD 159 | Programmable Logic Controllers | 3 |
| SD 160 | Industrial Wiring              | 3 |
|        | Communications Elective        | 3 |

Total Semester Hours: 12

### Fourth Semester (Fall)

|         |                                    |   |
|---------|------------------------------------|---|
| IST 230 | Data Visualization                 | 4 |
| SD 225  | Intro To SCADA Software            | 4 |
| SD 229  | Networking Concepts I              | 3 |
| SD 259  | Adv Programmable Logic Controllers | 4 |
|         | Social Science Elective            | 3 |

Total Semester Hours: 18

### Fifth Semester (Spring)

|        |                                |   |
|--------|--------------------------------|---|
| SD 205 | Process Controls               | 3 |
| SD 239 | Advanced Industrial Networking | 3 |
| SD 270 | SCADA Testing Control Lab      | 7 |
|        | Behavioral Science Elective    | 3 |

Total Semester Hours: 16

**Total Semester Hours: 81**

## Optional Third-Year Automation Engineering AAS:

### Sixth Semester (Fall)

|         |                                    |   |
|---------|------------------------------------|---|
| WMT 201 | Quality & Productivity Improvement | 2 |
| WMT 230 | Welding Robotic Lab                | 3 |
| WMT 231 | Manual Machining Lab               | 3 |
| WMT 240 | Manuf Programming & Installation   | 3 |

Total Semester Hours: 11

### Seventh Semester (Spring)

|         |                           |     |
|---------|---------------------------|-----|
| WMT 250 | Laser Cutting Technology  | 3   |
| WMT 251 | CNC Machining Station Lab | 3   |
| WMT 260 | Advanced Machining        | 4   |
| CPR 100 | First Aid, CPR AED        | 0.5 |

Total Semester Hours: 10.5

# Automation Engineering Technology, AAS Degree

Automation Engineering technicians are experts who have the ability and knowledge to design, develop, and manage systems within the manufacturing industry. The technician ensures quality, efficiency, and consistency through quality control analysis. They also provide maintenance and operational support, troubleshooting and problem resolution, install new equipment, implement control strategies and assist in commissioning and debugging complex machine applications.

The Automation Engineering Technology high-demand program combines current curriculum from both the existing and successful Automation Controls and Data Acquisition (SCADA) and Welding and Manufacturing programs. Graduates of the Associate of Applied Science degree may return for a third year and earn an additional degree in either Machining and Manufacturing or SCADA.

***Note: Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.***

## Award: AAS Degree

### First Semester (Fall)

|                          |                                    |   |
|--------------------------|------------------------------------|---|
| WMT 201                  | Quality & Productivity Improvement | 2 |
| WMT 230                  | Welding Robotic Lab                | 3 |
| WMT 231                  | Manual Machining Lab               | 3 |
| WMT 240                  | Manuf Programming & Installation   | 3 |
| SSS 100                  | Student Success                    | 1 |
| Total Semester Hours: 12 |                                    |   |

### Second Semester (Spring)

|                            |                           |     |
|----------------------------|---------------------------|-----|
| WMT 250                    | Laser Cutting Technology  | 3   |
| WMT 251                    | CNC Machining Station Lab | 3   |
| WMT 260                    | Advanced Machining        | 4   |
| CPR 100                    | First Aid, CPR AED        | 0.5 |
| Total Semester Hours: 10.5 |                           |     |

### Third Semester (Fall)

|                          |                                    |   |
|--------------------------|------------------------------------|---|
| EC 105                   | Data Cabling                       | 3 |
| IST 230                  | Data Visualization                 | 4 |
| SD 225                   | Intro To SCADA Software            | 4 |
| SD 229                   | Networking Concepts I              | 3 |
| SD 259                   | Adv Programmable Logic Controllers | 4 |
| Total Semester Hours: 18 |                                    |   |

### Fourth Semester (Spring)

|                          |                                |   |
|--------------------------|--------------------------------|---|
| SD 205                   | Process Controls               | 3 |
| SD 239                   | Advanced Industrial Networking | 3 |
| SD 270                   | SCADA Testing Control Lab      | 7 |
| Total Semester Hours: 13 |                                |   |

In addition to the technical courses required in the program, the student seeking an AAS degree must also complete:

|                             |   |
|-----------------------------|---|
| Computer Elective           | 3 |
| Math Elective               | 3 |
| Communications Elective     | 3 |
| Behavioral Science Elective | 3 |
| Social Science Elective     | 3 |
| OSHA Training               | 1 |

**Total Credits Required to Graduate: 69.5**

# Business Management, AAS Degree

The goal of the Business Management program is to provide students with the foundation needed to launch a rewarding business career.

This broad-ranging AAS degree program prepares you with valuable knowledge and skills in business management, marketing, finance, and other practical areas that apply to real-world business settings. In addition, you'll enhance your skills in communication, motivation, and other key business traits.

Graduates of the program can build a business career by helping businesses earn more profit. Many types of organizations are in need of employees with sound business skills. You'll find job opportunities in many employment sectors or you can even prepare to operate your own business.

***Note: Students are required to use a laptop or notebook computers for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.***

## Award: AAS Degree

### First Semester

|          |                            |   |
|----------|----------------------------|---|
| ACCT 110 | Principles of Accounting I | 4 |
| BUS 101  | Introduction to Business   | 3 |
| BUS 122  | E-Commerce                 | 3 |
| BUS 143  | Document Production        | 3 |
| MATH 130 | Business Math              | 3 |
| SSS 100  | Student Success            | 1 |

Total Semester Hours: 17

### Second Semester

|          |                                 |   |
|----------|---------------------------------|---|
| ACCT 111 | Principles of Accounting II     | 4 |
| BUS 120  | Principles of Marketing         | 3 |
| BUS 140  | Business Law                    | 3 |
| BUS 204  | Customer Service                | 3 |
|          | Written Communications Elective | 3 |
|          | General Education Elective      | 3 |

Total Semester Hours: 19

### Third Semester

|          |                                  |   |
|----------|----------------------------------|---|
| BUS 170  | Entrepreneurship & Small Bus Mgt | 3 |
| BUS 214  | Principles of Insurance          | 2 |
| BUS 216  | Spreadsheet Applications         | 3 |
| BUS 238  | Finance                          | 3 |
| SPCM 101 | Fundamentals of Speech           | 3 |
|          | General Education Elective       | 3 |

Total Semester Hours: 17

### Fourth Semester

|          |                                    |   |
|----------|------------------------------------|---|
| ACCT 221 | Quickbooks                         | 3 |
| BUS 210  | Principles of Selling              | 3 |
| BUS 217  | Database Applications              | 3 |
| BUS 218  | Intro to Human Resource Management | 3 |
| BUS 246  | Digital Marketing                  | 3 |
| BUS 290  | Business Internship                | 3 |

Total Semester Hours: 18

**Total Semester Hours: 71**

## Culinary Academy, Diploma or AAS Degree

The Culinary Academy of South Dakota has a long and honored tradition in the upper Midwest. Placement opportunities for graduates have been excellent. This program combines traditional campus instruction with apprenticeship training in other South Dakota communities, including major convention centers and hotels.

Learning to cook in the Mitchell Tech kitchens, students master the techniques of food preparation, sanitation and service in a large operation. Fulfilling all the positions in a modern food service operation, students move easily from cook to waiter, learning as they work. The program provides daily food service to Mitchell Tech students, staff and guests, short order service and elegant Oak Room dining in Mitchell Tech's prestigious on-campus restaurant.

After two semesters on campus, students are prepared to enter the food service industry with a one-year diploma. Students also have the option of enrolling in a second year and completing an Associate of Applied Science (AAS) degree. The two-year option also requires an internship experience. AAS graduates have experience in cooking, but equally important, are prepared for management positions in the food service industry.

***Please Note: This program requires students to be able to perform several physical tasks including lifting 50 pounds; standing for a minimum of 90 minutes at a time; ability to stoop, bend and stretch; to read small print on order tickets, recipes and labels; and to withstand very hot and cold working conditions.***

***Note: Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.***

### Award: One-year Diploma or AAS Degree

#### First Semester (Fall)

|         |                               |     |
|---------|-------------------------------|-----|
| CA 107  | Customer Service              | 4   |
| CA 110  | Mis en Place                  | 1   |
| CA 134  | Professional Baking Concepts  | 4   |
| CA 140  | Fundamentals of Prof. Cooking | 4   |
| CA 145  | ServSafe                      | 1   |
| CA 165  | Culinary Math                 | 2   |
| CPR 100 | First Aid, CPR AED            | 0.5 |
| SSS 100 | Student Success               | 1   |

Total Semester Hours: 17.5

#### Second Semester

|        |                                  |   |
|--------|----------------------------------|---|
| CA 135 | Breakfast Bistro                 | 2 |
| CA 150 | Banquet Quantity Food Production | 3 |
| CA 155 | Baking Applications              | 3 |
| CA 166 | Front of House Operations        | 2 |
| CA 188 | Hospitality and Management<br>OR | 3 |
| CA 200 | Nutrition                        | 3 |
|        | Communications Elective          | 3 |
|        | Math Elective                    | 3 |

Total Semester Hours: 19

### Total Credits Required to Graduate: 36.5 (Diploma)

#### Third Semester (Summer)

|        |            |   |
|--------|------------|---|
| CA 290 | Internship | 6 |
|--------|------------|---|

#### Fourth Semester (Fall)

|        |                                |   |
|--------|--------------------------------|---|
| CA 210 | Accounting for Hospitality     | 2 |
| CA 212 | Bake Shop                      | 2 |
| CA 215 | Culinary Classics              | 2 |
| CA 220 | Introduction to Sous Chef      | 2 |
| CA 231 | Intro to International Cuisine | 2 |
| CA 240 | Menu Planning                  | 1 |
|        | General Education Elective     | 3 |
|        | General Education Elective     | 3 |

Total Semester Hours: 17

#### Fifth Semester (Spring)

|        |                                  |   |
|--------|----------------------------------|---|
| CA 245 | Modern Cuisine                   | 4 |
| CA 255 | Practical Supervision            | 3 |
| CA 260 | Restaurant Concepts              | 2 |
| CA 265 | Culinary Exploration Lab         | 3 |
| CA 188 | Hospitality and Management<br>OR | 3 |
| CA 200 | Nutrition                        | 3 |
|        | General Education Elective       | 3 |

Total Semester Hours: 18

### Total Credits Required to Graduate: 77.5 (AAS)

The Mitchell Tech Culinary Academy is accredited by the American Culinary Federation, Educational Foundation, Accreditation Commission (ACFEFAC):

American Culinary Federation  
180 Center Place Way  
St. Augustine, FL 32095  
(800) 624-9458  
[www.acfcchefs.org](http://www.acfcchefs.org)

# Diesel Power Technology-Ag Power Technology, AAS Degree

Diesel Power Technology: a great way to get your hands on some of today's biggest, most automated machinery used in the agriculture industry! Students will take classes in electronic controls, GPS, introductory diesel, drive trains, hydraulics, electrical systems, air conditioning systems, harvesting equipment, service management and more to learn how to help farmers increase productivity and be more profitable.

Manufacturers are incorporating more and more technology into their new products. At the local dealer level, where equipment is sold and serviced, the demand for technicians who understand this new technology and have the ability to repair it in a cost-effective timely manner, is at an all-time high. This program will produce technicians who can diagnose mechanical and electronic problems or hydraulic failures in the complex modern equipment used on farms and in fields.

Students receive hands-on training and learn applied skills such as repair, diagnostic and troubleshooting skills that are critical for this industry. As part of the program, students will also complete an internship at an ag power dealership or job site related to the program.

Career opportunities include positions like service technician, parts person, parts manager, service/warranty writer, or customer service/sales representative at an agriculture power equipment dealership.

***Note: Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.***

## Award: AAS Degree

### First Semester

|          |                                 |   |
|----------|---------------------------------|---|
| DPT 120  | Diesel Engines Control Systems  | 3 |
| DPT 130  | Electrical Electronic Systems   | 2 |
| OPRV 105 | Service Center Fundamentals     | 2 |
| OPRV 120 | Basic Engine Theory & Operation | 2 |
| OPRV 121 | Basic Engine Lab                | 2 |
| OSHA 100 | OSHA 10 Training                | 1 |
| CIS 105  | Introduction to Computers       | 3 |
| SSS 100  | Student Success                 | 1 |
|          | Math Elective                   | 3 |

Total Semester Hours: 19

### Second Semester

|          |                                    |   |
|----------|------------------------------------|---|
| AGT 103  | Machinery Management               | 2 |
| DPT 107  | Introduction to Hydraulics         | 2 |
| DPT 115  | Intro to Powertrain                | 2 |
| DPT 121  | Adv. Diesel Engine and Control Sys | 3 |
| DPT 161  | Air Cond. Service Fundamentals     | 2 |
| OPRV 150 | Hand-held Power Equipment Lab      | 3 |
| OPRV 280 | Successful Service Management      | 1 |
|          | Social Science Elective            | 3 |

Total Semester Hours: 18

### Third Semester (Summer)

|         |            |   |
|---------|------------|---|
| DPT 290 | Internship | 6 |
|---------|------------|---|

### Fourth Semester (Fall)

|         |                                   |   |
|---------|-----------------------------------|---|
| AGT 212 | Ag Chem Equipment                 | 3 |
| DPT 215 | Adv. Powertrain and Drive Systems | 2 |
| DPT 240 | Harvesting Equipment Basics       | 3 |
| DPT 241 | Tractor Performance and Set-Up    | 2 |
| PAT 102 | Principles of GPS/GIS             | 2 |
|         | Behavioral Science Elective       | 3 |
|         | Written Communications Elective   | 3 |

Total Semester Hours: 18

### Fifth Semester (Spring)

|         |                                     |   |
|---------|-------------------------------------|---|
| DPT 201 | Guidance Steering and Variable Rate | 3 |
| DPT 210 | Adv Fluid Power Dynamics            | 3 |
| DPT 221 | Ag Equipment Diagnostics            | 3 |
| DPT 231 | Adv Electrical/Electric Diagnostics | 3 |
| WLD 102 | Basic Welding                       | 2 |

### Electives (Choose one or two)

|         |                                |   |
|---------|--------------------------------|---|
| DPT 243 | Seeding Equipment Fundamentals | 3 |
| DPT 245 | Hay Equipment Fundamentals     | 3 |

Total Semester Hours: 17

**Total Credits Required to Graduate: 78**

# Diesel Power-Light Truck Technology, AAS Degree

This program provides you with a great way to get your hands on some of today's high-powered, light duty vehicles. Students enrolled in the Light Truck Technology option will develop skills to diagnose, repair, and overhaul trucks sized Class Six and below. The first-year core curriculum provides you with the fundamentals of diesel technology before you move into the specifics of light truck maintenance and repair.

Through hands-on training in a state-of-the art lab, you will have access to a variety of makes and models of trucks to give you valuable real-life experience working on engines and maintaining these workhorse machines. You will also learn how to diagnose and repair air and hydraulic brake systems, electrical systems, drivetrains, and chassis. Also covered are important units like over-the-road diagnostics, preventative maintenance, transportation refrigeration and GPS/GIS systems.

Classroom instruction, combined with lab projects, will better prepare you for the workforce. As part of the program, you will also complete an internship at a job site related to the program. You can even consider a third-year option to earn a second AAS degree in our Diesel Power - Ag Power Technology.

Graduates of this option will be ready for careers as entry-level technicians in the transportation industry. Career opportunities include positions like service technician, parts person, parts manager, service/warranty writer, or customer service/sales representative at a dealership.

**Note: Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.**

## Award: AAS Degree

### First Semester

|          |                                 |   |
|----------|---------------------------------|---|
| DPT 120  | Diesel Engines Control Systems  | 3 |
| DPT 130  | Electrical Electronic Systems   | 2 |
| OPRV 105 | Service Center Fundamentals     | 2 |
| OPRV 120 | Basic Engine Theory & Operation | 2 |
| OPRV 121 | Basic Engine Lab                | 2 |
| OSHA 100 | OSHA 10 Training                | 1 |
| CIS 105  | Introduction to Computers       | 3 |
| SSS 100  | Student Success                 | 1 |
|          | Math Elective                   | 3 |

Total Semester Hours: 19

### Second Semester

|          |                                    |   |
|----------|------------------------------------|---|
| AGT 103  | Machinery Management               | 2 |
| DPT 107  | Introduction to Hydraulics         | 2 |
| DPT 115  | Intro to Powertrain                | 2 |
| DPT 121  | Adv. Diesel Engine and Control Sys | 3 |
| DPT 161  | Air Cond. Service Fundamentals     | 2 |
| OPRV 150 | Hand-held Power Equipment Lab      | 3 |
| OPRV 280 | Successful Service Management      | 1 |
|          | Social Science Elective            | 3 |

Total Semester Hours: 18

### Third Semester (Summer)

|         |            |   |
|---------|------------|---|
| DPT 290 | Internship | 6 |
|---------|------------|---|

### Fourth Semester (Fall)

|         |                                  |   |
|---------|----------------------------------|---|
| DPT 250 | Light Truck Drivetrains          | 3 |
| DPT 251 | Truck Integrated Electronics     | 2 |
| DPT 252 | Air and Hydraulic Brakes Systems | 3 |
| DPT 260 | Preventative Maintenance         | 3 |
| PAT 102 | Principles of GPS/GIS            | 2 |
|         | Written Communications Elective  | 3 |

Total Semester Hours: 16

### Fifth Semester (Spring)

|          |                                     |   |
|----------|-------------------------------------|---|
| DPT 207  | Advanced Hydraulics                 | 3 |
| DPT 231  | Adv Electrical/Electric Diagnostics | 3 |
| DPT 253  | Chassis and DOT Inspections         | 2 |
| DPT 261  | Over the Road Equipment Diagnostics | 3 |
| DPT 262  | Transportation Refrigeration        | 1 |
| WLD 102  | Basic Welding                       | 2 |
| TRAN 100 | Industrial Transportation CDL       | 1 |
|          | Behavioral Science Elective         | 3 |

Total Semester Hours: 18

**Total Credits Required to Graduate: 77**



# Electrical Construction & Maintenance, AAS Degree

The Electrical Construction and Maintenance program is a sequence of courses designed to provide basic training in maintenance and new construction wiring—in both residential and commercial buildings. The program emphasizes a combination of theory and practical application necessary for successful employment. Additional coursework includes fiber optic and data cabling as well as programmable logic controls.

The program begins with a review of basic math as it relates to the electrical trade and an introduction to hand tools, materials, basic electrical resistive theory, wire sizing, circuit construction and troubleshooting. The program continues with basic through advanced motor controls, motor theory and maintenance, installation and maintenance of equipment, blueprint reading, estimating, electrical codes and instruction in job-seeking skills.

The successful student in this program will demonstrate a variety of skills and abilities including manual dexterity, arm-hand steadiness and multi-limb coordination; visual color discrimination and near vision; reasoning, information ordering and problem-solving; and communication with supervisors, peers and subordinates. In addition, students must be able to perform general physical activities like climbing, lifting, walking, stooping and handling materials and must be able to climb a 6-foot ladder.

Apprentice electrical jobs in residential, commercial and industrial areas are open to Mitchell Tech graduates. Positions are available with electrical contractors and maintenance companies and with regional substations and utility companies. Incoming students are licensed as apprentice electricians in South Dakota. Upon completion of the Electrical Construction and Maintenance program, an Mitchell Tech graduate receives 2000 hours towards certification as a journeyman with a South Dakota electrician's license.

**Note:** Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.

## Award: AAS Degree

### First Semester

|          |                            |                          |
|----------|----------------------------|--------------------------|
| ECM 101  | Electrical Fundamentals    | 4                        |
| ECM 121  | Electrical Drawing         | 4                        |
| ECM 151  | Basic Electrical Lab       | 5                        |
| OSHA 101 | OSHA 10 Training           | 1                        |
| SSS 100  | Student Success            | 1                        |
|          | Math Elective              | 3                        |
|          | General Education Elective | 3                        |
|          |                            | Total Semester Hours: 21 |

### Second Semester

|         |                              |                          |
|---------|------------------------------|--------------------------|
| ECM 103 | Designing Electrical Systems | 3                        |
| ECM 122 | Residential Blueprint Code   | 3                        |
| ECM 149 | Basic Conduit Bending        | 2                        |
| ECM 157 | Wiring Lab                   | 4                        |
| CIS 105 | Introduction to Computers    | 3                        |
|         | General Education Elective   | 3                        |
|         |                              | Total Semester Hours: 18 |

### Third Semester

|         |                                  |                            |
|---------|----------------------------------|----------------------------|
| ECM 211 | Power Distribution               | 1.5                        |
| ECM 231 | Electronic Circuits              | 2                          |
| ECM 251 | Commercial/Industrial Wiring Lab | 4                          |
| ECM 252 | Industrial Controls              | 3                          |
| ECM 255 | Control Lab I                    | 1.5                        |
| ECM 259 | Programmable Logic Controls      | 3                          |
|         | Written Communications Elective  | 3                          |
|         |                                  | Total Semester Hours: 18.0 |

### Fourth Semester

|         |                                   |                            |
|---------|-----------------------------------|----------------------------|
| ECM 202 | Motor Theory Maintenance          | 2                          |
| ECM 221 | Commercial Blueprint Reading      | 2.5                        |
| ECM 235 | Structured Cabling                | 4                          |
| ECM 244 | VFD Motor Drives                  | 1                          |
| ECM 253 | Advanced Control Systems          | 2.5                        |
| ECM 257 | Advanced Control Lab II           | 2                          |
| ECM 261 | Advanced Programmable Logic Contr | 3.5                        |
| CPR 100 | First Aid, CPR AED                | 0.5                        |
|         |                                   | Total Semester Hours: 18.0 |

## Total Credits Required to Graduate: 75

**Third Year Option:** Students who wish to earn a second AAS degree in Automation Controls/SCADA will be required to take additional coursework. See the Electrical Construction & Maintenance SCADA Option on the Program Offerings page for details.

# Electrical Construction & Maintenance SCADA

## Option, AAS Degree

Students enrolled in Electrical Construction & Maintenance who wish to earn a second AAS degree in Automation Controls/SCADA will be required to take additional coursework.

Below is a suggested curriculum incorporating all of the required courses for a double AAS degree.

***Note: Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.***

### Award: Double AAS Degree

#### First Semester (Fall)

|                       |                            |    |
|-----------------------|----------------------------|----|
| ECM 101               | Electrical Fundamentals    | 4  |
| ECM 121               | Electrical Drawing         | 4  |
| ECM 151               | Basic Electrical Lab       | 5  |
| OSHA 101              | OSHA 10 Training           | 1  |
| SSS 100               | Student Success            | 1  |
|                       | Math Elective              | 3  |
|                       | General Education Elective | 3  |
| Total Semester Hours: |                            | 21 |

#### Second Semester (Spring)

|                       |                              |    |
|-----------------------|------------------------------|----|
| ECM 103               | Designing Electrical Systems | 3  |
| ECM 122               | Residential Blueprint Code   | 3  |
| ECM 149               | Basic Conduit Bending        | 2  |
| ECM 157               | Wiring Lab                   | 4  |
| CIS 105               | Introduction to Computers    | 3  |
|                       | General Education Elective   | 3  |
| Total Semester Hours: |                              | 18 |

#### Third Semester (Fall)

|                       |                                  |      |
|-----------------------|----------------------------------|------|
| ECM 211               | Power Distribution               | 1.5  |
| ECM 231               | Electronic Circuits              | 2    |
| ECM 251               | Commercial/Industrial Wiring Lab | 4    |
| ECM 252               | Industrial Controls              | 3    |
| ECM 255               | Control Lab I                    | 1.5  |
| ECM 259               | Programmable Logic Controls      | 3    |
| SD 142                | Control Circuit Analysis         | 4    |
|                       | Written Communications Elective  | 3    |
| Total Semester Hours: |                                  | 22.0 |

#### Fourth Semester (Spring)

|                       |                                   |      |
|-----------------------|-----------------------------------|------|
| ECM 202               | Motor Theory Maintenance          | 2    |
| ECM 221               | Commercial Blueprint Reading      | 2.5  |
| ECM 235               | Structured Cabling                | 4    |
| ECM 244               | VFD Motor Drives                  | 1    |
| ECM 253               | Advanced Control Systems          | 2.5  |
| ECM 257               | Advanced Control Lab II           | 2    |
| ECM 261               | Advanced Programmable Logic Contr | 3.5  |
| SD 135                | Introduction to Ethernet Networks | 3    |
| CPR 100               | First Aid, CPR AED                | 0.5  |
| Total Semester Hours: |                                   | 21.0 |

#### Fifth Semester (Fall)

|         |                                    |   |
|---------|------------------------------------|---|
| IST 230 | Data Visualization                 | 4 |
| SD 225  | Intro To SCADA Software            | 4 |
| SD 229  | Networking Concepts I              | 3 |
| SD 259  | Adv Programmable Logic Controllers | 4 |

Total Semester Hours: 15

#### Sixth Semester (Spring)

|        |                                |   |
|--------|--------------------------------|---|
| SD 205 | Process Controls               | 3 |
| SD 239 | Advanced Industrial Networking | 3 |
| SD 270 | SCADA Testing Control Lab      | 7 |

Total Semester Hours: 13

**Total Credits Required to Graduate with Both Degrees: 109**

# Electrical Utilities & Substation Technology, AAS Degree

The goal of the Electrical Utilities & Substation Technology program is to provide students with an extensive hands-on experience that integrates the knowledge, skills and competencies that the electrical power utility industry needs to ensure that customers have access to power. Graduates will learn to install, inspect, test, repair and maintain electrical equipment in substations and other smart grid equipment on the power grid.

Substation technicians are individuals who work with electrical engineers to design, construct and maintain a substation, the facility which collects power at the generation site, connects to a transmission grid and downloads energy to a distribution network where the power is delivered to the consumer. Graduates will find employment working outdoors at a substation or performing maintenance on the grid system housed inside a utilities service facility.

Students are expected to conform to *Rules for Programs with Required Drug and Alcohol Testing* while enrolled in this program.

***Admissions Requirements: Applicants to the program must be a graduate of Electrical Construction & Maintenance, Wind Turbine Technology or Power Line Construction & Maintenance or must have a complete transcript from another institution***

***Note: Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.***

## Award: AAS Degree

### First Semester

|          |                               |   |
|----------|-------------------------------|---|
| EUST 110 | Basic Motor Controls          | 2 |
| EUST 114 | Substation Operations Lab I   | 4 |
| EUST 120 | Substation Operations I       | 3 |
| EUST 132 | Schematic Reading             | 2 |
| EUST 145 | Alternating Current Circuits  | 2 |
| EUST 150 | Substation Safety I           | 1 |
| TRAN 100 | Industrial Transportation CDL | 1 |

Total Semester Hours: 15

### Second Semester

|          |                                |   |
|----------|--------------------------------|---|
| EUST 115 | Substation Operations Lab II   | 4 |
| EUST 121 | Substation Operations II       | 3 |
| EUST 130 | Intro to Smart Grid & Metering | 2 |
| EUST 131 | Fiber Optics for Substations   | 2 |
| EUST 151 | Substation Safety II           | 1 |

Total Semester Hours: 12

|         |                             |   |
|---------|-----------------------------|---|
| CIS 105 | Introduction to Computers   | 3 |
|         | Math Elective               | 3 |
|         | Communications Elective     | 3 |
|         | Behavioral Science Elective | 3 |
|         | Social Science Elective     | 3 |

Total Credits Required to Graduate: Diploma or Certificate from an accredited institution (minimum 25 credits) plus 27 technical credits from Mitchell Tech and 15 general education credits to earn the AAS degree.

**Total Credits Required to Graduate: 67**

## Geospatial Technologies, Diploma

The demand for new employees in GPS, GIS, geospatial mapping and data management is expanding in many industries. A skilled workforce to support the growing industry of mapping technology is needed. This one-year program includes courses in computers, GPS (Global Positioning Systems), data collection, CAD and GIS applications and analysis. Combining aspects of engineering, business, agriculture, energy, and technology, this program will meet current and future industry needs.

**Total Semester Hours: 33**

Career opportunities will include positions like GPS technician, survey technician, field technician, mapping technician, GIS specialist and more. Knowledge of this equipment and data is vital to those working in mining; oil and gas extraction; utilities and communication; construction; manufacturing; transportation; land, water and wildlife management; and personnel who work with data transfer and map production.

Students in this program may combine one year of Geospatial Technologies with one year of Heating and Cooling Technology; Natural Gas Technology; or Power Line Construction and Maintenance, and, with additional general education courses, will earn an AAS degree in Utilities Technology.

***Note: Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.***

### Award: Diploma

#### First Semester

|                          |                             |   |
|--------------------------|-----------------------------|---|
| MAP 101                  | Introduction to GIS         | 4 |
| MAP 102                  | Principles of GPS           | 2 |
| MAP 105                  | UAS Operation               | 2 |
| MAP 110                  | CAD I                       | 2 |
| SD 100                   | Introduction to Programming | 2 |
| SSS 100                  | Student Success             | 1 |
|                          | Communications Elective     | 3 |
| Total Semester Hours: 16 |                             |   |

#### Second Semester

|                          |                                  |   |
|--------------------------|----------------------------------|---|
| MAP 120                  | CAD II                           | 2 |
| MAP 121                  | Cloud-based GPS GIS Applications | 2 |
| MAP 125                  | GIS Problems Analysis            | 4 |
| MAP 128                  | Remote Sensing                   | 3 |
| CIS 107                  | Spreadsheet Concepts             | 3 |
|                          | Math Elective                    | 3 |
| Total Semester Hours: 17 |                                  |   |

# Heating and Cooling Technology, Diploma or AAS Degree

The Heating and Cooling Technology program provides students with skills and knowledge in mechanics, electricity and sheet metal. Students also receive extensive training in energy management and environmental controls technology to include renewable energy resources such as geothermal and solar technology. Laboratory time is spent installing and servicing heating and cooling systems, as well as designing and forming sheet metal patterns for ductwork.

Graduates are prepared for an expanding field that includes jobs in sales, service, installation and industrial maintenance for a company or as a self-employed contractor. Some typical jobs include service or installation technician, sales, service trainer, industrial maintenance, supervisor, manufacturer's representative or business owner.

Students may complete the first year of the curriculum and earn a one-year diploma.

Students in this program may also combine one year of Heating and Cooling Technology with one year of Geospatial Technologies; Natural Gas Technology; or Power Line Construction and Maintenance, and with additional general education courses to earn an AAS degree.

**Note: A combination degree requiring completion of selected courses is available. Check with the Admissions Office for details.**

**Note: Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.**

## Award: One-Year Diploma or AAS Degree

|                       |                                    |      |
|-----------------------|------------------------------------|------|
| First Semester        |                                    |      |
| HV 101                | Electrical Fundamentals            | 3    |
| HV 111                | Heating Fundamentals               | 3    |
| HV 121                | Air Condition & Refrigeration Fund | 2    |
| HV 151                | Air Condition Heat & Refrig Lab I  | 4    |
| CPR 100               | First Aid, CPR AED                 | 0.5  |
| OSHA 101              | OSHA 10 Training                   | 1    |
| SSS 100               | Student Success                    | 1    |
|                       | Communications Elective            | 3    |
| Total Semester Hours: |                                    | 17.5 |

|                       |                                     |    |
|-----------------------|-------------------------------------|----|
| Second Semester       |                                     |    |
| HV 122                | Sheet Metal Tech Lab                | 3  |
| HV 132                | Heating Refrigeration Theory        | 4  |
| HV 142                | HV Controls Heat Pumps              | 3  |
| HV 152                | Air Conditioning Heating Ref Lab II | 4  |
|                       | Math Elective                       | 3  |
| Total Semester Hours: |                                     | 17 |

## AAS Degree ONLY

|                         |                                     |    |
|-------------------------|-------------------------------------|----|
| Third Semester (Summer) |                                     |    |
| HV 290                  | Internship                          | 6  |
| Fourth Semester (Fall)  |                                     |    |
| HV 160                  | Planning Estimating                 | 3  |
| HV 231                  | Heat Pumps/Solar Heating Theory     | 3  |
| HV 244                  | Schematics                          | 2  |
| HV 251                  | Air Condition Heat & Refrig Lab III | 4  |
| CIS 105                 | Introduction to Computers           | 3  |
|                         | General Education Elective          | 3  |
| Total Semester Hours:   |                                     | 18 |
| Fifth Semester (Spring) |                                     |    |
| HV 202                  | Commercial Refrigeration            | 4  |
| HV 232                  | Commercial Air Conditioning         | 3  |
| HV 252                  | Air Condition Heat Refrig Lab IV    | 4  |
| HV 259                  | DDC Temperature Control             | 3  |
|                         | General Education Elective          | 3  |
| Total Semester Hours:   |                                     | 17 |

**Total Credits Required to Graduate: 34.5 (Diploma)**

**Total Credits Required to Graduate: 75.5 (AAS)**

The Heating and Cooling Technology program is accredited by:

HVAC Excellence  
PO Box 491  
Mt. Prospect, IL 60056  
800.394.5268  
[www.hvacexcellence.org](http://www.hvacexcellence.org)

## Human Services Technician, AAS Degree

The Human Services Technician program is designed to prepare students for positions in a variety of agencies and organizations that provide human and social services to all ages, from children to seniors. Students will learn to adapt to many different types of situations through classroom activities and fieldwork experiences under the supervision of experienced instructors and working professionals.

When you enroll in the HST program at Mitchell Tech, you will spend two years (four semesters) preparing to work in a fast-growing occupation, well versed in the skills needed to provide vital information, advocacy, care and support to people of diverse cultural, racial and ethnic backgrounds. The Associate Degree will prepare students for work in residential facilities for youth or adults, case management, retirement communities, substance abuse facilities, nursing homes, assisted living and agencies that deal with juvenile and criminal justice.

***Admission Requirement: All students accepted to the program must submit to a criminal background check at the student's expense. Details are available from the Admissions office.***

Program immunization requirements have to be met before entrance to fieldwork sites. See instructor for details.

***Program Graduation Requirement: Students must earn a grade of C (2.0) or higher in all technical courses as a prerequisite to HST 290. Students must earn a grade of C (2.0) or higher in their fieldwork in order to graduate.***

***Note: Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.***

### Award: AAS Degree

#### First Semester

|         |                                |   |
|---------|--------------------------------|---|
| HST 101 | Intro to Human Services        | 3 |
| HST 104 | Community Resources            | 3 |
| HST 106 | Human Services Populations     | 3 |
| HST 112 | Disabilities                   | 2 |
| HST 130 | Behavioral Theory & Principles | 2 |
| CIS 105 | Introduction to Computers      | 3 |
| SSS 100 | Student Success                | 1 |

Total Semester Hours: 17

#### Second Semester

|          |                              |   |
|----------|------------------------------|---|
| HST 120  | Chemical and Substance Abuse | 3 |
| HST 122  | Abuse and Neglect            | 3 |
| HST 124  | Assessment and Documentation | 3 |
| HST 128  | Self-Care                    | 2 |
| CHRD 130 | Human Development            | 3 |
|          | Math Elective                | 3 |

Total Semester Hours: 17

#### Third Semester

|         |                                   |   |
|---------|-----------------------------------|---|
| HST 210 | Family Dynamics                   | 3 |
| HST 222 | Mental Health & Wellness          | 3 |
| HST 226 | Group Practice                    | 3 |
| HST 228 | Service Learning                  | 2 |
| HST 230 | Career and Internship Preparation | 2 |
|         | Communications Elective           | 3 |
|         | Social Science Elective           | 3 |

Total Semester Hours: 19

#### Fourth Semester

|         |                         |     |
|---------|-------------------------|-----|
| HST 240 | Crisis Intervention     | 2   |
| HST 242 | Intro to Gerontology    | 2   |
| HST 244 | Intro to Corrections    | 2   |
| HST 246 | Intro to Youth Services | 2   |
| HST 250 | Social Welfare Policies | 2   |
| HST 290 | Internship              | 6   |
| CPR 100 | First Aid, CPR AED      | 0.5 |

Total Semester Hours: 16.5

**Total Credits Required to Graduate: 69.5**

# Information Systems Technology, AAS Degree

IT specialists are needed in every kind of business, no matter the size, to install, troubleshoot and support computer network systems. The Information Systems Technology program at Mitchell Technical College offers a comprehensive program to train entry level network or system administrators. Network Administrators are responsible for the computer network infrastructure. They maintain connectivity and security of the routers, switches and wireless equipment that modern networks depend on. System Administrators are skilled information technology professionals who are responsible for installing, supporting and maintaining servers and utilizing networking applications.

Mitchell Tech's sophisticated labs and virtual modules enable students to learn the most current installation, troubleshooting and repair skills available. Network security is infused into every aspect of the curriculum, ensuring that graduates are well prepared to work in many employment sectors where data security is needed.

According to the Bureau of Labor Statistics, "The growing use of sophisticated computer networks and Internet and intranet sites and the need for faster, more efficient networking products will result in a higher than average job growth in this area."

***Please Note: Students in this program may be required to lift 50 lbs. and to demonstrate visual color discrimination.***

***Note: Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.***

## First Year

|                       |                               |    |
|-----------------------|-------------------------------|----|
| First Semester        |                               |    |
| EC 105                | Data Cabling                  | 3  |
| EC 112                | Electrical Circuits           | 3  |
| IST 102               | Mixed Reality Development     | 2  |
| IST 120               | CompTIA A+ Core I             | 3  |
| MATH 162              | Digital Math                  | 3  |
| WBT 211               | Wi-Fi & Wireless Technologies | 3  |
| SSS 100               | Student Success               | 1  |
| Total Semester Hours: |                               | 18 |

## Second Semester

|                       |                            |    |
|-----------------------|----------------------------|----|
| IST 112               | Server Administration      | 3  |
| IST 121               | CompTIA A+ Core II         | 3  |
| IST 159               | LINUX Essentials           | 2  |
| IST 160               | Network+                   | 4  |
| IST 161               | Scripting and Automation   | 2  |
|                       | General Education Elective | 3  |
| Total Semester Hours: |                            | 17 |

## Second Year

### Third Semester (Summer)

|                       |            |   |
|-----------------------|------------|---|
| IST 290               | Internship | 6 |
| Total Semester Hours: |            | 6 |

### Fourth Semester

|                       |                                           |    |
|-----------------------|-------------------------------------------|----|
| IST 200               | Security+                                 | 3  |
| IST 201               | Cloud+                                    | 3  |
| IST 230               | Data Visualization                        | 4  |
| IST 264               | Identity Authentication and Authorization | 3  |
|                       | Written Communications Elective           | 3  |
| Total Semester Hours: |                                           | 16 |

### Fifth Semester

|                       |                                       |    |
|-----------------------|---------------------------------------|----|
| IST 202               | PenTest+                              | 4  |
| IST 203               | Emerging Technologies: MR, AI, and ML | 4  |
| IST 268               | Managing Modern Networks              | 5  |
|                       | General Education Elective            | 3  |
| Total Semester Hours: |                                       | 16 |

**Total Semester Hours: 73**

## Licensed Practical Nursing (LPN), Diploma

The LPN (Licensed Practical Nursing) program prepares graduates for entry into the nursing profession as a practical nurse. The program includes nursing and general education courses and can be completed in one calendar year.

This program focuses on the art and science of nursing, and is taught in classrooms, Mitchell Tech's state-of-the-art high-fidelity medical simulation laboratory, and in clinical practice settings. Students attend class, skills labs and clinical simulation experiences on campus. Additionally, students participate in clinical learning experiences in various healthcare settings in surrounding communities and simulated clinical experiences under the guidance of nursing faculty. Clinical experiences provide students with the opportunity to apply nursing theory and critical thinking skills to patient care situations to help develop sound clinical judgment.

General Education courses in the nursing curriculum are offered in traditional and online formats. Students may elect to complete general education courses prior to entering the program.

Graduates of the program find jobs in a variety of health care settings including acute care and long-term care facilities, home health care agencies, state and federal health-related facilities, private duty nursing, clinics, and office settings.

**Admissions Requirements:** All LPN applicants must have an ACT score of 18 or above in all sections, or the AccuPlacer equivalent; must have a high school or college cumulative GPA of 2.5 or higher; and must complete the TEAS Exam with a composite score of 62% or higher.

**All students accepted to the program must submit to a criminal background check at the student's expense. Details are available from the Admissions office.**

**Other requirements include immunizations; a physical exam; health insurance carried by the student; and more. See the Director of Nursing for details.**

**Progression in the nursing program is dependent upon satisfactory completion of the prescribed sequence of courses. Students are required to complete all coursework with a grade of "C" or higher before progression to the next semester is allowed and to qualify for graduation.**

**Note:** Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.

### Award: One-Year Diploma

#### First Semester (Fall)

|          |                                    |     |
|----------|------------------------------------|-----|
| HS 100   | Basic Life Support for Health Care | 0.5 |
| HS 103   | Anatomy/Physiology                 | 4   |
| LPN 100  | Test Taking Strategies             | 0.5 |
| LPN 101  | Fundamentals of Nursing            | 4   |
| LPN 102  | Fundamentals of Nursing Clinical   | 2   |
| LPN 103  | Pharmacology                       | 3   |
| MATH 103 | Mathematical Reasoning             | 3   |
| SSS 100  | Student Success                    | 1   |

Total Semester Hours: 18

#### Second Semester (Spring)

|         |                                     |   |
|---------|-------------------------------------|---|
| LPN 105 | Adult Health Nursing                | 5 |
| LPN 106 | Adult Health Nursing Clinical I     | 3 |
| LPN 107 | Maternal and Child Nursing          | 4 |
| LPN 108 | Maternal and Child Nursing Clinical | 2 |
|         | Written Communications Elective     | 3 |

Total Semester Hours: 17

#### Third Semester (Summer)

|          |                            |   |
|----------|----------------------------|---|
| HS 162   | Medical Law & Ethics       | 2 |
| LPN 110  | Adult Health Nursing II    | 4 |
| LPN 111  | Geriatric Nursing          | 3 |
| LPN 112  | Geriatric Nursing Clinical | 3 |
| LPN 150  | LPN Capstone Practicum     | 3 |
| PSYC 101 | General Psychology         | 3 |

Total Semester Hours: 18

### Total Credits Required to Graduate: 53

The Mitchell Tech Licensed Practical Nursing program has been granted Full Approval by the South Dakota Board of Nursing (SDBON).  
<https://doh.sd.gov/boards/nursing/education.aspx>

For further information regarding the program's status with SDBON, please contact:

Dr. Carena Jarding, DNP, RN  
 Nursing Program Director  
 Mitchell Technical College  
 1800 E. Spruce St.  
 Mitchell, SD 57301  
 (605) 995-7148



# Medical Assistant, AAS Degree

The Medical Assistant is a professional, multi-skilled person who assists in all aspects of medical practice. Medical Assistants help physicians examine and treat patients and perform routine tasks to keep offices running smoothly.

Medical assistants perform clerical duties such as answering telephones, greeting patients, updating and filing patient medical records, completion of insurance forms, handling correspondence and arranging for hospital admission and laboratory services. Clinical duties include taking and recording vital signs, explaining treatment procedures, preparing patients for examination, collecting laboratory specimens, administering medication (excluding intravenous), authorizing prescription telephone orders and preparing patients for X-rays. Opportunities exist in clinics, hospitals, nursing homes and insurance companies.

**Admission Requirement:** *All students accepted to the program must submit to a criminal background check at the student's expense. Details are available from the Admissions Office.*

Some immunization requirements may have to be met before entrance to certain clinical sites. See the Instructor for details.

**Note:** *Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.*

**Program Graduation Requirements:** *It is the goal of this program 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 250 Clinical Externship. Students must earn a grade of C (2.0) or higher in their clinical externship in order to graduate.*

## Award: AAS Degree

| First Semester        |                                 |    |
|-----------------------|---------------------------------|----|
| HS 101                | Medical Terminology             | 3  |
| HS 103                | Anatomy/Physiology              | 4  |
| HS 162                | Medical Law & Ethics            | 2  |
| MA 106                | Medical Laboratory Fundamentals | 4  |
| MATH 103              | Mathematical Reasoning          | 3  |
| SSS 100               | Student Success                 | 1  |
| Total Semester Hours: |                                 | 17 |

| Second Semester       |                             |    |
|-----------------------|-----------------------------|----|
| MA 111                | Medical Office Procedures   | 3  |
| MA 112                | Laboratory Procedures I     | 4  |
| MA 123                | Pathophysiology             | 3  |
| MOP 160               | CPT ICD-10-CM Coding        | 3  |
| SPCM 140              | Health Communication        | 3  |
|                       | Behavioral Science Elective | 3  |
| Total Semester Hours: |                             | 19 |

| Third Semester        |                                    |    |
|-----------------------|------------------------------------|----|
| MA 113                | Laboratory Procedures II           | 4  |
| MA 210                | Pharmacology & Admin. of Medicines | 3  |
| MA 220                | Examination Room Techniques I      | 4  |
| MOP 210               | Medical Insurance and Billing      | 3  |
|                       | Social Science Elective            | 3  |
|                       | Written Communications Elective    | 3  |
| Total Semester Hours: |                                    | 20 |

| Fourth Semester       |                                     |      |
|-----------------------|-------------------------------------|------|
| HS 100                | Basic Life Support for Health Care  | 0.5  |
| MA 211                | Advanced Medical Office Procedures  | 3    |
| MA 221                | Examination Room Techniques II      | 3    |
| MA 240                | Cardiac Monitoring and DX Procedure | 2    |
| MA 250                | Clinical Externship                 | 6    |
| Total Semester Hours: |                                     | 14.5 |

## Total Credits Required to Graduate: 70.5

The Mitchell Tech Medical Assistant program, offered for the AAS degree, is accredited by The Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

## Commission on Accreditation of Allied Health Education Programs

9355 113th St. N #7709  
Seminole, FL 33775  
(727) 210-2350  
[www.caahep.org](http://www.caahep.org)

# Medical Laboratory Technology, AAS Degree

The Medical Laboratory Technology program provides classroom and laboratory instruction to teach students the fundamentals of laboratory analysis. Lab technicians perform a variety of scientific tasks including important work like testing all types of body fluids to provide a physician with the information needed to make a diagnosis of disease.

After three semesters on campus, the remainder of the program pairs students with an affiliated hospital or clinic lab for a clinical practicum externship. During this time the student will work under the supervision of the lab personnel, as well as completing class assignments.

This program prepares students for employment as medical laboratory technicians. The program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

Graduates may test to become certified as Medical Laboratory Technicians by the American Society of Clinical Pathologists Board of Certification.

**Note:** *It is required that applicants to the program have successfully completed high school Algebra I and II, chemistry and biology with a C (2.0) or better to demonstrate proficiency in math and science. In addition, an applicant must have a cumulative high school GPA of 2.5 or higher. Some special requirements may have to be met before entrance to the program or to certain clinical sites. See the Program Director or the MLT Student Handbook for details.*

**Admission Requirement:** *All students accepted to the program must submit to a criminal background check at the student's expense. Details are available from the Admissions office.*

**Some immunization requirements may have to be met before entrance to certain clinical sites. See the Instructor for details.**

**Note:** *Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.*

**Program Graduation Requirement:** *Students must earn a grade of C (2.0) or higher in all technical courses, HS courses, and clinical practicum in order to graduate.*

## Award: AAS Degree

### First Semester

|          |                                 |   |
|----------|---------------------------------|---|
| HS 101   | Medical Terminology             | 3 |
| HS 103   | Anatomy/Physiology              | 4 |
| ML 104   | Medical Laboratory Fundamentals | 3 |
| ML 105   | Instrumentation                 | 2 |
| MATH 103 | Mathematical Reasoning          | 3 |
| SPCM 101 | Fundamentals of Speech          | 3 |
| SSS 100  | Student Success                 | 1 |

Total Semester Hours: 19

### Second Semester

|          |                               |   |
|----------|-------------------------------|---|
| ML 111   | Hemostasis                    | 2 |
| ML 112   | Hematology                    | 6 |
| ML 121   | Urinalysis Body Fluids        | 3 |
| ML 144   | Intro to Laboratory Chemistry | 3 |
| ML 171   | Immunology Serology           | 3 |
| ENGL 101 | English Composition           | 3 |

Total Semester Hours: 20

### Third Semester

|        |                                    |     |
|--------|------------------------------------|-----|
| ML 230 | Clinical Chemistry                 | 4   |
| ML 240 | Microbiology                       | 6   |
| ML 272 | Immunohematology/Blood Banking     | 3   |
| HS 100 | Basic Life Support for Health Care | 0.5 |
|        | Behavioral Science Elective        | 3   |
|        | Social Science Elective            | 3   |

Total Semester Hours: 19.5

### Fourth Semester

#### Clinical Practicum

|        |                                     |   |
|--------|-------------------------------------|---|
| ML 214 | Practical Clinical Hematology       | 4 |
| ML 224 | Practical Clinical Urinalysis       | 3 |
| ML 244 | Prac Clinic Microbiology Serology   | 5 |
| ML 274 | Practical Clinical-Immunohematology | 4 |

Total Semester Hours: 16

### Fifth Semester

#### Clinical Practicum

|        |                              |   |
|--------|------------------------------|---|
| ML 234 | Practical Clinical Chemistry | 6 |
|--------|------------------------------|---|

ML 214, ML 224, ML 244, ML 274, ML 234: Prerequisite:  
Students must have earned a grade of C or better in all previous technical courses before enrolling in clinical courses.

## Total Credits Required to Graduate: 80.5

The Mitchell Tech Medical Laboratory Technology program, offered for the AAS degree, is accredited by:

### The National Accrediting Agency for Clinical Laboratory Sciences

5600 N. River Rd. Suite 720  
Rosemont, IL 60018-5119  
(773) 714-8880

[www.naacls.org](http://www.naacls.org)

## Medical Office Professional, AAS Degree

A skilled Medical Office Professional is an invaluable asset to any medical office, working effectively with medical professionals and patients, while performing assorted office duties. With the number of healthcare procedures escalating every year as the population ages, there's a high demand for skilled specialists in patient information technology and medical billing and reimbursement. Medical Office Professionals are the experts on patient data that doctors, nurses and other providers rely on to perform their jobs.

Medical records and health information technicians can expect to be in high demand in the health sector during the next 20 to 30 years. Career opportunities in these areas include Medical Receptionist, Medical Records Clerk, Medical Information Management Clerk, Health Information Management, Medical Claims Clerk, Medical Claims Processor, Medical Claims Analyst and more.

**Admission Requirement:** All students accepted to the program must submit to a criminal background check at the student's expense. Details are available from the Admissions Office.

**Program Graduation Requirement:** Students must earn a grade of C (2.0) or higher in all technical courses as a prerequisite to MOP 290. Students must earn a grade of C (2.0) or higher in their clinical internship in order to graduate.

**Note:** Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.

### Award: AAS Degree

#### First Semester

|                       |                            |    |
|-----------------------|----------------------------|----|
| ACCT 110              | Principles of Accounting I | 4  |
| HS 101                | Medical Terminology        | 3  |
| HS 103                | Anatomy/Physiology         | 4  |
| SSS 100               | Student Success            | 1  |
|                       | Communications Elective    | 3  |
|                       | General Education Elective | 3  |
| Total Semester Hours: |                            | 18 |

#### Second Semester

|                       |                                 |    |
|-----------------------|---------------------------------|----|
| ACCT 111              | Principles of Accounting II     | 4  |
| MA 111                | Medical Office Procedures       | 3  |
| MA 123                | Pathophysiology                 | 3  |
| MOP 130<br>(online)   | Computers in the Medical Office | 3  |
| MOP 160               | CPT ICD-10-CM Coding            | 3  |
|                       | General Education Elective      | 3  |
| Total Semester Hours: |                                 | 19 |

#### Third Semester

|                       |                                    |    |
|-----------------------|------------------------------------|----|
| MA 210                | Pharmacology & Admin. of Medicines | 3  |
| MOP 206<br>(online)   | Transcription I                    | 4  |
| MOP 210               | Medical Insurance and Billing      | 3  |
| MOP 260<br>(online)   | Advanced Coding I                  | 4  |
|                       | Math Elective                      | 3  |
|                       | General Education Elective         | 3  |
| Total Semester Hours: |                                    | 20 |

#### Fourth Semester

|                       |                                              |    |
|-----------------------|----------------------------------------------|----|
| HS 162                | Medical Law & Ethics                         | 2  |
| MOP 212<br>(online)   | Electronic Medical Records                   | 3  |
| MOP 262<br>(online)   | CPC Exam Prep (Certified Professional Coder) | 3  |
| MOP 290               | Internship                                   | 8  |
| Total Semester Hours: |                                              | 16 |

\*HS 162 Medical Law & Ethics is an online course for MOP students.

**Total Semester Hours: 73**

# Natural Gas Technology, Diploma

The Natural Gas Technology program will teach you the skills needed to install, maintain, operate and repair gas distribution systems and equipment for residential, commercial and industrial customers.

As infrastructure ages and the need for gas services increases, companies are looking to hire now. After just one year, you will find a wide range of job options with starting annual salaries as high as \$55,000.

Graduates may find employment with public utilities or municipalities to install and maintain gas service, or in the construction industry which contracts with utilities for installation and maintenance.

Students in this program may combine one year of Natural Gas Technology with one year of Geospatial Technologies; Heating and Cooling Technology; or Power Line Construction and Maintenance, and, with additional general education courses, will earn an AAS degree.

Students are expected to conform to *Rules for Programs with Required Drug and Alcohol Testing* while enrolled in this program. Any student who enrolls in Commercial Driver training must obtain a South Dakota driver's license in order to complete the CDL training course. A Class A CDL is a graduation requirement for this program. See the Course Description for TRAN 100 for a full explanation.

***Note: Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.***

## Award: Diploma

### First Semester

|          |                                    |     |
|----------|------------------------------------|-----|
| NGT 100  | Safety for Natural Gas Technician  | 1   |
| NGT 102  | Gas Operations and Maintenance     | 3   |
| NGT 104  | Foundations of Natural Gas Tech    | 2   |
| NGT 105  | Gas Installation Lab               | 3   |
| NGT 110  | Trenching and Excavation Practices | 2   |
| CPR 100  | First Aid, CPR AED                 | 0.5 |
| OSHA 101 | OSHA 10 Training                   | 1   |
| SSS 100  | Student Success                    | 1   |
|          | Math Elective                      | 3   |

Total Semester Hours: 16.5

### Second Semester

|          |                               |   |
|----------|-------------------------------|---|
| BUS 204  | Customer Service              | 3 |
| NGT 112  | Gas Metering and Regulators   | 3 |
| NGT 115  | Gas Mapping and Locating      | 4 |
| NGT 120  | Corrosion Management          | 3 |
| PAT 102  | Principles of GPS/GIS         | 2 |
| TRAN 100 | Industrial Transportation CDL | 1 |
|          | Communications Elective       | 3 |

Total Semester Hours: 19

**Total Semester Hours: 35.5**

## Power Line Construction & Maintenance, Diploma

Mitchell Tech offers the only Power Line program in South Dakota. Employment opportunities are available with rural electric cooperatives, municipal and private utility companies, the Bureau of Reclamation, private contractors and many others. Course material and lab are based around the application and theory of distribution and transmission of electrical power. Fieldwork includes operating a digger derrick truck, setting poles, climbing poles, installing anchors and stringing conductors. Outside lab also involves installation of transformers, metering for overhead and underground distribution systems.

Physical fitness is an important part of the job of an electrical line worker. A careful, detail-oriented personality is also a good quality to possess since individuals will be working with high voltage, often in dangerous situations and bad weather conditions; safety is a major element of line worker training. Line work is extremely challenging as the type of projects, conditions and work locations change frequently. Lineworkers perform tasks in an outdoor environment subjected to various weather conditions such as extreme heat or in freezing temperatures in the rain, sleet, wind and snow. The work is done in both overhead and underground lines with the overhead work typically done at heights more than 25 feet above the ground. Lineworkers are often on call at any hour to restore power.

Students in this program may combine one year of Power Line Construction and Maintenance with one year of GPS/GIS Mapping Technology; Heating and Cooling Technology; or Natural Gas Technology, and with additional general education courses, will earn an AAS degree.

Students are expected to conform to Rules for Programs with Required Drug and Alcohol Testing while enrolled in this program. Any student who enrolls in Commercial Driver training must obtain a South Dakota driver's license in order to complete the CDL training course. A Class A CDL is a graduation requirement for this program. See the Course Description for TRAN 100 for a full explanation.

**Zero Tolerance in this program:** The Power Line Construction & Maintenance program at Mitchell Tech is a zero-tolerance program regarding a positive drug test. If the results of a positive drug test are confirmed by a medical review officer and are not the result of medication currently prescribed to the student, the student will be dismissed from the program. The zero-

tolerance policy is consistent with industry standards and is recommended by industry.

**Please Note:** Students planning to obtain an AAS degree in Utilities Technology **MUST** complete the CDL requirement during their first year of enrollment.

**Note:** Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.

**Note:** Mitchell Tech recommends that applicants in the Power Line Construction & Maintenance program obtain a physical examination for their safety and protection. Applicants to this program need to be able to perform physical activities that require considerable use of arms and legs and moving the whole body, such as climbing, lifting, balancing, walking, stooping and handling of heavy materials.

### Award: One-Year Diploma

#### First Semester

|          |                                   |     |
|----------|-----------------------------------|-----|
| PAT 100  | Intro to GPS Technologies         | 1   |
| PL 111   | Fundamentals of DC/AC             | 3   |
| PL 141   | Power Grid Design                 | 3   |
| PL 150   | Field Training I                  | 4   |
| PL 151   | Construction of Underground Lines | 4   |
| PL 171   | Utility Safety I                  | 1   |
| CPR 100  | First Aid, CPR AED                | 0.5 |
| OSHA 101 | OSHA 10 Training                  | 1   |
| SSS 100  | Student Success                   | 1   |
| TRAN 100 | Industrial Transportation CDL     | 1   |

Total Semester Hours: 19.5

#### Second Semester

|        |                                  |   |
|--------|----------------------------------|---|
| PL 120 | Transformers Connections         | 3 |
| PL 143 | Power Grid Design II             | 3 |
| PL 154 | Maintenance of Underground Lines | 4 |
| PL 156 | Field Training II                | 4 |
| PL 172 | Utility Safety II                | 1 |
|        | Math Elective                    | 3 |
|        | Written Communications Elective  | 3 |

Total Semester Hours: 21

**Total Credits Required to Graduate: 40.5**

# Power Sports & Marine Technology, Diploma or AAS Degree

Technicians in the fast-growing occupation of outdoor power sports are in demand all across the country. The last two decades have seen an increase in the number of recreational vehicles in households and businesses: motorcycles, scooters, snowmobiles, ATVs, four-wheelers and more.

Students will get experience learning service and repair of these high-powered machines in Mitchell Tech's state-of-the-art laboratories.

An optional second year is offered with two dynamic options. Students who complete the second year will earn an AAS degree and can choose to specialize in marine or motorcycle technologies. With two years of training, students will have even more opportunities in this exciting field.

Many dealerships in the region will offer supervised job shadowing and internship experiences. Employment opportunities can be found in many areas including dealership sales and service, cycle builders and manufacturers, ag maintenance shops and various other locations.

***Note: Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.***

## Award: One-Year Diploma or AAS Degree

|                       |                                 |    |
|-----------------------|---------------------------------|----|
| First Semester        |                                 |    |
| OPRV 105              | Service Center Fundamentals     | 2  |
| OPRV 120              | Basic Engine Theory & Operation | 2  |
| OPRV 121              | Basic Engine Lab                | 2  |
| OPRV 130              | Electrical/Electronic Systems   | 2  |
| OPRV 140              | 2 & 4 Cylinder Engines          | 2  |
| OPRV 141              | 2 & 4 Cylinder Engines Lab      | 2  |
| SSS 100               | Student Success                 | 1  |
|                       | Math Elective                   | 3  |
| Total Semester Hours: |                                 | 16 |

|                       |                                |    |
|-----------------------|--------------------------------|----|
| Second Semester       |                                |    |
| OPRV 124              | ATV & Snowmobile Systems       | 2  |
| OPRV 125              | ATV Snowmobile Lab             | 3  |
| OPRV 137              | Introduction to Marine         | 2  |
| OPRV 142              | Advanced Multicylinder Engines | 2  |
| OPRV 143              | Adv Multi-Cylinder Engine Lab  | 4  |
| OPRV 150              | Hand-held Power Equipment Lab  | 3  |
|                       | Communications Elective        | 3  |
| Total Semester Hours: |                                | 19 |

|                         |            |   |
|-------------------------|------------|---|
| Third Semester (Summer) |            |   |
| OPRV 190                | Internship | 6 |

## Total Credits Required to Graduate: 41 (Diploma)

### Marine Option

|                        |                                    |    |
|------------------------|------------------------------------|----|
| Fourth Semester (Fall) |                                    |    |
| OPRV 265               | Marine Outboard Engine Systems     | 2  |
| OPRV 266               | Marine Outboard Engine Systems Lab | 2  |
| OPRV 270               | Marine Preventative Maintenance    | 2  |
| OPRV 275               | Marine Outboard Drive Systems      | 2  |
| OPRV 276               | Marine Outboard Drive Systems Lab  | 2  |
| WLD 102                | Basic Welding                      | 2  |
|                        | Behavioral Science Elective        | 3  |
| Total Semester Hours:  |                                    | 15 |

|                         |                                     |    |
|-------------------------|-------------------------------------|----|
| Fifth Semester (Spring) |                                     |    |
| OPRV 267                | Marine Outboard Electrical Systems  | 2  |
| OPRV 268                | Marine Outboard Electrical Sys. Lab | 2  |
| OPRV 269                | Marine Outboard Boat Rigging Lab    | 2  |
| OPRV 281                | Marine Outboard Fuel Systems        | 2  |
| OPRV 282                | Marine Outboard Fuel Systems Lab    | 2  |
| CIS 105                 | Introduction to Computers           | 3  |
|                         | Social Science Elective             | 3  |
| Total Semester Hours:   |                                     | 16 |

## Total Credits Required to Graduate: 72 (AAS)

### Motorcycle Option

|                        |                             |    |
|------------------------|-----------------------------|----|
| Fourth Semester (Fall) |                             |    |
| OPRV 220               | Motorcycle Power Train      | 2  |
| OPRV 221               | Motorcycle Power Train Lab  | 2  |
| OPRV 225               | Motorcycle Fuel Injection   | 3  |
| OPRV 226               | Motorcycle Chassis Lab      | 2  |
| WLD 102                | Basic Welding               | 2  |
|                        | Behavioral Science Elective | 3  |
| Total Semester Hours:  |                             | 14 |

|                         |                                     |    |
|-------------------------|-------------------------------------|----|
| Fifth Semester (Spring) |                                     |    |
| OPRV 236                | Advanced Motorcycle EFI Systems     | 2  |
| OPRV 238                | Advanced Motorcycle Chassis Lab     | 2  |
| OPRV 239                | Advanced Motorcycle Power Train     | 2  |
| OPRV 240                | Advanced Motorcycle Power Train Lab | 2  |
| CIS 105                 | Introduction to Computers           | 3  |
|                         | Social Science Elective             | 3  |
| Total Semester Hours:   |                                     | 14 |

**Total Credits Required to Graduate: 69 (AAS)**



# Precision Ag Technology, AAS Degree

The demand for new employees in geospatial data processing and equipment installation is in expanding agriculture.

A skilled workforce to support the growing industry of precision ag technology is needed. This two-year program includes courses in Global Positioning Systems (GPS), data collection, agronomy and ag economics. Combining aspects of engineering, business, agriculture, energy and technology, this program will meet current and future industry needs.

Mitchell Tech's sophisticated labs will give students hands-on experience with cutting-edge technology including tractors, planters, harvesters, and a variety of drones.

Career opportunities include positions like GPS technician, custom applicator, precision technician and more. Knowledge of this equipment and data is vital to people in equipment sales and service, dealerships, applicators, crop consultants and agronomists.

***A strong background in math and science is recommended for this program.***

***Note: Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.***

## Award: AAS Degree

### First Semester

|         |                                  |   |
|---------|----------------------------------|---|
| EC 121  | AC/DC Analysis                   | 4 |
| PAT 102 | Principles of GPS/GIS            | 2 |
| PAT 107 | Basic Hydraulics                 | 2 |
| PAT 130 | Technology Installation & Oper I | 4 |
| PAT 151 | Precision Ag Electronics Lab     | 3 |
| CIS 107 | Spreadsheet Concepts             | 3 |
| SSS 100 | Student Success                  | 1 |

Total Semester Hours: 19

### Second Semester

|          |                                           |   |
|----------|-------------------------------------------|---|
| AGT 158  | Small Engines for Ag                      | 3 |
| PAT 112  | CAD System Design                         | 2 |
| PAT 140  | Guidance and Unmanned Aircraft Systems    | 3 |
| PAT 142  | Data Collection and Wireless Technologies | 3 |
| PAT 190  | Internship                                | 6 |
| OSHA 100 | OSHA 10 Training                          | 1 |

Total Semester Hours: 18

### Third Semester (Fall)

|         |                            |   |
|---------|----------------------------|---|
| AGT 120 | Soil Science I             | 3 |
| AGT 212 | Ag Chem Equipment          | 3 |
| AGT 261 | Ag Sales & Service         | 3 |
| PAT 210 | GIS Applications           | 4 |
|         | Math Elective              | 3 |
|         | General Education Elective | 3 |

Total Semester Hours: 19

### Fourth Semester (Spring)

|         |                                  |     |
|---------|----------------------------------|-----|
| AGT 110 | Crop Science I                   | 3   |
| AGT 218 | Principles of Ag Bus, Management | 3   |
| PAT 203 | Intro to Variable Rates          | 3   |
| PAT 230 | Technology Installation/Oper II  | 4   |
| CPR 100 | First Aid, CPR AED               | 0.5 |
|         | Communications Elective          | 3   |
|         | General Education Elective       | 3   |

Total Semester Hours: 19.5

**Total Credits Required to Graduate: 75.5**

## Radiation Therapy, AAS Degree

The Radiation Therapy program utilizes didactic, laboratory, and clinical education to prepare students to work as Radiation Therapists in cancer treatment centers and hospitals. Radiation Therapists work under the direction of a radiation oncologist to treat patients with malignant diseases using ionizing radiation. The program uses a combination of technical and general education courses to emphasize decision-making and critical thinking skills based upon a solid clinical foundation.

The program consists of three consecutive semesters. Students will spend the last two semesters in a radiation therapy facility completing their clinical experience. This requires students to relocate, at their own expense, to the community where the assigned facility is located.

### Admission Requirements:

- *Contact the Mitchell Tech Admissions office for an application packet.*
- *Students accepted into the program must be ARRT registered or registry-eligible radiographers.*
- *Students must also have completed the following college courses: anatomy and physiology, college algebra, and physics for radiographers. Mitchell Tech's registrar works with the admissions counselor and the program director to evaluate transcripts to assure that enrolling students meet the prerequisite requirements.*
- *Once accepted into the program, students must submit to a criminal background check at the student's expense. Details are available from the Admissions Office.*

**Some additional requirements, including drug screening and immunizations, may have to be met before entering certain clinical sites. These costs are at the student's expense. Contact the Program Director for more information.**

**Students must complete all technical courses with a minimum grade of C (2.0) in order to progress to subsequent semesters and graduate.**

***Note: Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.***

### Award: AAS Degree

#### First Semester (Fall)

|         |                                              |     |
|---------|----------------------------------------------|-----|
| AMI 210 | Cross-Sectional Anatomy & Pathology (online) | 4   |
| RTH 200 | Introduction to Radiation Therapy            | 2   |
| RTH 201 | Nursing and Patient Care                     | 2   |
| RTH 202 | Radiation Therapy Physics                    | 4   |
| RTH 205 | Clinical Radiation Oncology                  | 3   |
| RTH 206 | Simulation and Medical Imaging               | 3   |
| HS 100  | Basic Life Support for Health Care           | 0.5 |

Total Semester Hours: 18.5

#### Second Semester (Spring)

|         |                                   |    |
|---------|-----------------------------------|----|
| RTH 207 | Radiation Biology (online)        | 1  |
| RTH 209 | Radiation Therapy Topics (online) | 2  |
| RTH 210 | Clinical Practicum I              | 10 |
| RTH 212 | Registry Review I (online)        | 2  |

Total Semester Hours: 15

#### Third Semester (Summer)

|         |                                            |   |
|---------|--------------------------------------------|---|
| RTH 211 | Modern Radiation Therapy/Research (online) | 3 |
| RTH 213 | Clinical Practicum II                      | 8 |
| RTH 214 | Registry Review II (online)                | 2 |

Total Semester Hours: 13

### Total Credits Required to Graduate: 61.5

In addition to the technical courses required in the program, the student seeking an AAS degree must also complete:

|                             |   |
|-----------------------------|---|
| Communications Elective     | 3 |
| Behavioral Science Elective | 3 |
| Social Science Elective     | 3 |
| Math Elective               | 3 |
| General Education Elective  | 3 |

The Mitchell Tech Radiation Therapy program, offered for the AAS degree, is accredited by:

### The Joint Review Committee on Education in Radiologic Technology

20 North Wacker Drive, Suite 2850  
Chicago, IL 60606-3182  
(312) 704-5300; Fax: (312) 704-5304  
mail@jrcert.org  
www.jrcert.org

# Radiologic Technology, AAS Degree

The Radiologic Technology program utilizes didactic, laboratory, and clinical education to prepare students to work as radiologic technologists. The didactic, or classroom portion, teaches the student the fundamental principles of x-ray production, radiographic positioning skills, radiographic anatomy, imaging equipment, radiographic pathology, patient care, and radiation safety. The clinical portion allows the student to gain practical experience in real-life situations. Students will attend courses on MTC's campus the first two semesters of the program. For the subsequent three semesters, the student will be assigned to clinical rotations, including evening and weekend rotations, in various locations in South Dakota. This requires students to relocate to the area of their clinical assignment at their own expense. Students will also complete online courses during their clinical semesters.

## Admission Requirements:

- **Contact the Mitchell Tech Admissions office for an application packet. Application requirements include visitation of a radiology department; submission of a written essay describing and analyzing the visit; and resume and references.**
- **All students accepted to the program must submit to a criminal background check at the student's expense. Details are available from the Admissions Office.**

**Academic Standards: Students must complete all technical courses and HS 103 with a minimum grade of C (2.0) in order to graduate. Students who do not achieve a C (2.0) grade will be prevented from enrolling in the subsequent semester due to prerequisite requirements.**

Program immunization requirements have to be met before entrance to clinical sites. See an instructor for details.

**Note: Students are required to use a laptop or notebook computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.**

## Award: AAS Degree

### First Semester (Fall)

|          |                            |   |
|----------|----------------------------|---|
| HS 103   | Anatomy/Physiology         | 4 |
| RAD 110  | Intro to Rad Tech & Ethics | 3 |
| RAD 140  | Radiology Principles I     | 4 |
| RAD 150  | Radiographic Procedures I  | 6 |
| SSS 100  | Student Success            | 1 |
| SPCM 101 | Fundamentals of Speech     | 3 |

Total Semester Hours: 21

### Second Semester (Spring)

|         |                                    |     |
|---------|------------------------------------|-----|
| RAD 120 | Intro to Clinical Radiology        | 3   |
| RAD 142 | Radiology Principles II            | 5   |
| RAD 152 | Radiographic Procedures II         | 6   |
| RAD 160 | Radiographic Pathology             | 2   |
| RAD 170 | Radiation Biology & Protection     | 3   |
| HS 100  | Basic Life Support for Health Care | 0.5 |

Total Semester Hours: 19.5

### Third Semester (Summer)

|         |                                      |   |
|---------|--------------------------------------|---|
| RAD 154 | Radiographic Procedures III (online) | 2 |
| RAD 156 | Intro to CT (online)                 | 2 |
| RAD 211 | Clinical Radiology I                 | 9 |
| RAD 212 | Registry Review I (blended)          | 1 |
|         | Behavioral Science Elective (online) | 3 |

Total Semester Hours: 17

### Fourth Semester (Fall)

|          |                                 |    |
|----------|---------------------------------|----|
| RAD 221  | Clinical Radiology II           | 11 |
| RAD 222  | Registry Review II (blended)    | 1  |
| MATH 103 | Mathematical Reasoning (online) | 3  |

Total Semester Hours: 15

### Fifth Semester (Spring)

|          |                                  |    |
|----------|----------------------------------|----|
| RAD 231  | Clinical Radiology III           | 11 |
| RAD 232  | Registry Review III (blended)    | 1  |
| ENGL 101 | English Composition (online)     | 3  |
|          | Social Science Elective (online) | 3  |

Total Semester Hours: 18

## Total Credits Required to Graduate: 90.5

The Mitchell Tech Radiologic Technology program, offered for the AAS degree, is accredited by:

### The Joint Review Committee on Education in Radiologic Technology

20 North Wacker Drive, Suite 2850  
Chicago, IL 60606-3182  
(312) 704-5300; Fax: (312) 704-5304  
mail@jrcert.org  
www.jrcert.org

## Registered Nursing (LPN to RN), AAS Degree

For the Licensed Practical Nurse (LPN) looking to advance your career path, the LPN to RN (Registered Nursing) program at Mitchell Tech is designed to build upon your previously learned and practiced foundational nursing knowledge as an LPN. Our curriculum will allow you to grow into your new RN role in just one year.

As a RN student at Mitchell Tech, you will master scientific, physiologic, psychosocial, and fundamental nursing knowledge which will expand and develop your critical thinking and clinical reasoning skills. You will attend clinicals within the community to expand your nursing knowledge and skills, with nursing theory and general education classes delivered as hybrid courses, resulting in minimal trips to campus. The RN program will also incorporate clinical simulation experiences using Mitchell Tech's sim labs and virtual technology.

Upon completion of the LPN to RN program, you will graduate with an Associate of Applied Science degree and be eligible to take the NCELX-RN.

**Admission Requirements:** All RN applicants must hold a current and unencumbered LPN/LVN/PN license, a 2.5 or above GPA from graduating LPN program, completed 750 hours of paid work experiences as an LPN within the past 12 months, and one work reference from current supervisor. Additionally, RN applicants must have completed the following pre-requisite courses with a C or above: chemistry survey with lab, basic/general microbiology with lab, mathematical reasoning or equivalent, general psychology, and English composition.

All students accepted to the program must submit to a criminal background check at the student's expense. Details are available from the Nursing Program Director.

Other requirements include immunizations; a physical exam; health insurance; current BLS certification; and more. See the Nursing Program Director for details.

**Progression in the nursing program is dependent upon satisfactory completion of the prescribed sequence of courses. Students are required to complete all course work with a grade of "C" or higher before progression to the next semester is allowed and to qualify for graduation.**

**NOTE:** Students are required to use a laptop or notebook computer for this program. Students may

purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.

### AAS Degree

|                |                               |                          |
|----------------|-------------------------------|--------------------------|
| Pre-requisites |                               |                          |
| ENGL 101       | English Composition           | 3                        |
| MATH 103       | Mathematical Reasoning        | 3                        |
| PSYC 101       | General Psychology            | 3                        |
|                | Chemistry Survey with lab     | 4                        |
|                | General Microbiology with lab | 4                        |
|                |                               | Total Semester Hours: 17 |

|                 |                                                   |                          |
|-----------------|---------------------------------------------------|--------------------------|
| First Semester  |                                                   |                          |
| RN 200 (online) | Health and Illness Concepts Across the Lifespan I | 5                        |
| RN 201          | Clinical Intensive I                              | 3                        |
| RN 205 (online) | Professional and Healthcare Concepts I            | 3                        |
| SPCM 101        | Fundamentals of Speech                            | 3                        |
|                 |                                                   | Total Semester Hours: 14 |

|                 |                                                    |                          |
|-----------------|----------------------------------------------------|--------------------------|
| Second Semester |                                                    |                          |
| RN 210 (online) | Health and Illness Concepts Across the Lifespan II | 5                        |
| RN 211          | Clinical Intensive II                              | 2                        |
| RN 215 (online) | Professional and Healthcare Concepts II            | 3                        |
| CHRD 130        | Human Development                                  | 3                        |
|                 |                                                    | Total Semester Hours: 13 |

|                 |                                                     |                          |
|-----------------|-----------------------------------------------------|--------------------------|
| Third Semester  |                                                     |                          |
| RN 220 (online) | Health and Illness Concepts Across the Lifespan III | 5                        |
| RN 221          | Clinical Intensive III                              | 1                        |
| RN 250          | RN Capstone Practicum                               | 3                        |
| SOC 100         | Introduction to Sociology                           | 3                        |
|                 |                                                     | Total Semester Hours: 12 |

### Total Credits Required to Graduate: 56

The Mitchell Technical College Registered Nursing program has been granted Interim Status by the South Dakota Board of Nursing. <https://doh.sd.gov/boards/nursing/education.aspx>

For further information regarding the program's status with SDBON, please contact:

Dr. Carena Jarding, DNP, RN  
Nursing Program Director  
Mitchell Technical College  
1800 E. Spruce St.  
Mitchell, SD 57301  
(605) 995-7148

# Utilities Technology, AAS Degree

The utilities industry is one of the most technologically intensive segments of today's economy. The utility worker who is well rounded with knowledge of different types of utilities will find success in many areas. Mitchell Tech is addressing this industry need by combining the curricula of two existing programs to offer an AAS degree in Utilities Technology.

Students who complete a combination of any of these two programs—Power Line Construction and Maintenance; Geospatial Technologies; Heating & Cooling Technology; or Natural Gas Technology—with the requisite general education classes, will be awarded an AAS degree. Graduates of this program will find many employment opportunities with utility providers.

Students are expected to conform to *Rules for Programs with Required Drug and Alcohol Testing* while enrolled in this program. Any student who enrolls in Commercial Driver training must obtain a South Dakota driver's license in order to complete the CDL training course. A Class A CDL is a graduation requirement for this program. See the Course Description for TRAN 100 for a full explanation.

Please Note: Students planning to obtain an AAS degree in Utilities Technology MUST complete the CDL requirement during their **first** year of enrollment.

***Note: Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.***

***Note: Mitchell Tech recommends that applicants to this program obtain a physical examination for their safety and protection. Applicants to this program need to be able to perform physical activities that require considerable use of arms and legs and moving the whole body, such as climbing, lifting, balancing, walking, stooping and handling of heavy materials.***

## Award: AAS Degree

### PL Curriculum

#### First Semester

|         |                                   |   |
|---------|-----------------------------------|---|
| PAT 100 | Intro to GPS Technologies         | 1 |
| PL 111  | Fundamentals of DC/AC             | 3 |
| PL 141  | Power Grid Design                 | 3 |
| PL 150  | Field Training I                  | 4 |
| PL 151  | Construction of Underground Lines | 4 |
| PL 171  | Utility Safety I                  | 1 |

#### Second Semester

|        |                                  |   |
|--------|----------------------------------|---|
| PL 120 | Transformers Connections         | 3 |
| PL 143 | Power Grid Design II             | 3 |
| PL 154 | Maintenance of Underground Lines | 4 |
| PL 156 | Field Training II                | 4 |
| PL 172 | Utility Safety II                | 1 |

### Geospatial Technologies Curriculum

#### First Semester

|         |                             |   |
|---------|-----------------------------|---|
| MAP 101 | Introduction to GIS         | 4 |
| MAP 102 | Principles of GPS           | 2 |
| MAP 105 | UAS Operation               | 2 |
| MAP 110 | CAD I                       | 2 |
| SD 100  | Introduction to Programming | 2 |

#### Second Semester

|         |                                  |   |
|---------|----------------------------------|---|
| MAP 120 | CAD II                           | 2 |
| MAP 121 | Cloud-based GPS GIS Applications | 2 |
| MAP 125 | GIS Problems Analysis            | 4 |
| MAP 128 | Remote Sensing                   | 3 |
| CIS 107 | Spreadsheet Concepts             | 3 |

### Heating and Cooling Technology Curriculum

#### First Semester

|        |                                    |   |
|--------|------------------------------------|---|
| HV 101 | Electrical Fundamentals            | 3 |
| HV 111 | Heating Fundamentals               | 3 |
| HV 121 | Air Condition & Refrigeration Fund | 2 |
| HV 151 | Air Condition Heat & Refrig Lab I  | 4 |

#### Second Semester

|        |                                     |   |
|--------|-------------------------------------|---|
| HV 122 | Sheet Metal Tech Lab                | 3 |
| HV 132 | Heating Refrigeration Theory        | 4 |
| HV 142 | HV Controls Heat Pumps              | 3 |
| HV 152 | Air Conditioning Heating Ref Lab II | 4 |

### Natural Gas Technology Curriculum

#### First Semester

|         |                                    |   |
|---------|------------------------------------|---|
| NGT 100 | Safety for Natural Gas Technician  | 1 |
| NGT 102 | Gas Operations and Maintenance     | 3 |
| NGT 104 | Foundations of Natural Gas Tech    | 2 |
| NGT 105 | Gas Installation Lab               | 3 |
| NGT 110 | Trenching and Excavation Practices | 2 |

#### Second Semester

|         |                             |   |
|---------|-----------------------------|---|
| BUS 204 | Customer Service            | 3 |
| NGT 112 | Gas Metering and Regulators | 3 |
| NGT 115 | Gas Mapping and Locating    | 4 |
| NGT 120 | Corrosion Management        | 3 |
| PAT 102 | Principles of GPS/GIS       | 2 |

In addition to the technical courses required in each program, the student seeking an AAS degree must also complete:

|          |                               |     |
|----------|-------------------------------|-----|
| TRAN 100 | Industrial Transportation CDL | 1   |
| OSHA 101 | OSHA 10 Training              | 1   |
| CPR 100  | First Aid, CPR AED            | 0.5 |

In addition to the technical courses required in the program, the student seeking an AAS degree must also complete 16 credits of general education courses as outlined in the general education section of this document

# Welding/Progressive Welding, Certificate, Diploma or AAS Degree

The Welding & Advanced Manufacturing Technology program is industry-driven to educate students who want to pursue a career in the manufacturing industry. The program provides the proper skills for graduates to excel in welding, machining and lean manufacturing techniques. Students may earn an AAS degree by completing one of the second-year paths, and may return for a third year to complete two AAS degrees. Students who choose the third year option will be required to complete a management course.

Instruction is AWS code-based so that students may sit for welding certification testing, assuring future employer requirements.

Designed for student success, graduates will have many employment opportunities in the manufacturing sector. Labs include up-to-date technology in areas like gas metal arc welding of steel and aluminum, gas tungsten arc welding of steel and aluminum, shielded metal arc welding, robotic welding, operation of machining stations, metal forming, laser cutting and plasma cutting.

The program provides a path to industry leadership. With the knowledge and abilities gained, graduates will be able to become certified and help fill the demand in today's highly technical manufacturing environment.

***Note: Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.***

## Welding Certificate

### First Semester (Fall)

|          |                                    |   |
|----------|------------------------------------|---|
| WLD 101  | Welding Safety and Discontinuities | 2 |
| WMT 132  | Metallurgy                         | 2 |
| WMT 149  | Basic Welding Lab                  | 2 |
| WMT 150  | Welding Lab I                      | 4 |
| OSHA 100 | OSHA 10 Training                   | 1 |
| SSS 100  | Student Success                    | 1 |

Total Semester Hours: 12

### Second Semester (Spring)

|         |                              |   |
|---------|------------------------------|---|
| WMT 117 | Crane and Forklift Operation | 2 |
| WMT 120 | Manufac Symbols Measurements | 1 |
| WMT 121 | Blueprint Reading            | 1 |
| WMT 142 | Welding Economics            | 2 |
| WMT 151 | Welding Lab II               | 4 |

Total Semester Hours: 10

**Total Semester Hours: 22**

## Award: One-Year Diploma or AAS Degree

### First Semester (Fall)

|          |                                    |   |
|----------|------------------------------------|---|
| WLD 101  | Welding Safety and Discontinuities | 2 |
| WMT 132  | Metallurgy                         | 2 |
| WMT 149  | Basic Welding Lab                  | 2 |
| WMT 150  | Welding Lab I                      | 4 |
| OSHA 100 | OSHA 10 Training                   | 1 |
| SSS 100  | Student Success                    | 1 |
|          | Communications Elective            | 3 |

Total Semester Hours: 15

### Second Semester (Spring)

|         |                              |   |
|---------|------------------------------|---|
| WMT 117 | Crane and Forklift Operation | 2 |
| WMT 120 | Manufac Symbols Measurements | 1 |
| WMT 121 | Blueprint Reading            | 1 |
| WMT 142 | Welding Economics            | 2 |
| WMT 151 | Welding Lab II               | 4 |
|         | Math Elective                | 3 |
|         | General Education Elective   | 3 |

Total Semester Hours: 16

## Total Credits Required to Graduate (One-Year Diploma): 31

## Progressive Welding Technology

## AAS Degree ONLY

### Third Semester (Summer)

|         |            |   |
|---------|------------|---|
| WMT 290 | Internship | 6 |
|---------|------------|---|

### Fourth Semester (Fall)

|         |                                    |   |
|---------|------------------------------------|---|
| WMT 201 | Quality & Productivity Improvement | 2 |
| WMT 230 | Welding Robotic Lab                | 3 |
| WMT 242 | Welding Code                       | 2 |
| WMT 262 | Advanced Welding Processes         | 4 |
|         | General Education Elective         | 3 |

Total Semester Hours: 14

BUS 170: Entrepreneurship & Small Business Management required for third year.

### Fifth Semester (Spring)

|         |                                  |     |
|---------|----------------------------------|-----|
| WMT 232 | Nondestructive Testing (NDT)     | 4   |
| WMT 252 | Mechanical Workmanship Lab       | 3   |
| WMT 271 | Adv. Robot Welding Qualification | 2   |
| WMT 272 | Adv. Welding Qualification       | 2   |
| CPR 100 | First Aid, CPR AED               | 0.5 |
|         | General Education Elective       | 3   |

Total Semester Hours: 14.5

## Total Credits Required to Graduate (AAS): 65.5

# Welding/Machining & Manufacturing, Certificate, Diploma or AAS Degree

The Welding & Advanced Manufacturing Technology program is industry-driven to educate students who want to pursue a career in the manufacturing industry. The program provides the proper skills for graduates to excel in welding, machining and lean manufacturing techniques. Students may earn an AAS degree by completing one of the second-year paths, and may return for a third year to complete two AAS degrees. Students who choose the third year option will be required to complete a management course.

Instruction is AWS code-based so that students may sit for welding certification testing, assuring future employer requirements.

Designed for student success, graduates will have many employment opportunities in the manufacturing sector. Labs include up-to-date technology in areas like gas metal arc welding of steel and aluminum, gas tungsten arc welding of steel and aluminum, shielded metal arc welding, robotic welding, operation of machining stations, metal forming, laser cutting and plasma cutting. The program also includes the state's only ASNT Level III degree-based training program for non-destructive metal testing.

The program provides a path to industry leadership. With the knowledge and abilities gained, graduates will be able to become certified and help fill the demand in today's highly technical manufacturing environment.

***Note: Students in this program are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.***

## Welding Certificate

|                       |                                    |    |
|-----------------------|------------------------------------|----|
| First Semester (Fall) |                                    |    |
| WLD 101               | Welding Safety and Discontinuities | 2  |
| WMT 132               | Metallurgy                         | 2  |
| WMT 149               | Basic Welding Lab                  | 2  |
| WMT 150               | Welding Lab I                      | 4  |
| OSHA 100              | OSHA 10 Training                   | 1  |
| SSS 100               | Student Success                    | 1  |
| Total Semester Hours: |                                    | 12 |

|                              |                              |           |
|------------------------------|------------------------------|-----------|
| Second Semester (Spring)     |                              |           |
| WMT 117                      | Crane and Forklift Operation | 2         |
| WMT 120                      | Manufac Symbols Measurements | 1         |
| WMT 121                      | Blueprint Reading            | 1         |
| WMT 142                      | Welding Economics            | 2         |
| WMT 151                      | Welding Lab II               | 4         |
| Total Semester Hours:        |                              | 10        |
| <b>Total Semester Hours:</b> |                              | <b>22</b> |

## Award: One-Year Diploma or AAS Degree

|                       |                                    |    |
|-----------------------|------------------------------------|----|
| First Semester (Fall) |                                    |    |
| WLD 101               | Welding Safety and Discontinuities | 2  |
| WMT 132               | Metallurgy                         | 2  |
| WMT 149               | Basic Welding Lab                  | 2  |
| WMT 150               | Welding Lab I                      | 4  |
| OSHA 100              | OSHA 10 Training                   | 1  |
| SSS 100               | Student Success                    | 1  |
|                       | Communications Elective            | 3  |
| Total Semester Hours: |                                    | 15 |

|                          |                              |    |
|--------------------------|------------------------------|----|
| Second Semester (Spring) |                              |    |
| WMT 117                  | Crane and Forklift Operation | 2  |
| WMT 120                  | Manufac Symbols Measurements | 1  |
| WMT 121                  | Blueprint Reading            | 1  |
| WMT 142                  | Welding Economics            | 2  |
| WMT 151                  | Welding Lab II               | 4  |
|                          | Math Elective                | 3  |
|                          | General Education Elective   | 3  |
| Total Semester Hours:    |                              | 16 |

## Total Credits Required to Graduate (One-Year Diploma): 31

### Manufacturing/Machining

### AAS Degree ONLY

|                                                                                |                                    |    |
|--------------------------------------------------------------------------------|------------------------------------|----|
| Third Semester (Summer)                                                        |                                    |    |
| WMT 290                                                                        | Internship                         | 6  |
| Fourth Semester (Fall)                                                         |                                    |    |
| WMT 201                                                                        | Quality & Productivity Improvement | 2  |
| WMT 230                                                                        | Welding Robotic Lab                | 3  |
| WMT 231                                                                        | Manual Machining Lab               | 3  |
| WMT 240                                                                        | Manuf Programming & Installation   | 3  |
|                                                                                | General Education Elective         | 3  |
| Total Semester Hours:                                                          |                                    | 14 |
| BUS 170: Entrepreneurship & Small Business Management required for third year. |                                    |    |



## Fifth Semester (Spring)

|         |                            |     |
|---------|----------------------------|-----|
| WMT 250 | Laser Cutting Technology   | 3   |
| WMT 251 | CNC Machining Station Lab  | 3   |
| WMT 260 | Advanced Machining         | 4   |
| CPR 100 | First Aid, CPR AED         | 0.5 |
|         | General Education Elective | 3   |

Total Semester Hours: 13.5

**Total Credits Required to Graduate (AAS): 64.5**

## Wi-Fi & Broadband Technologies, AAS Degree

Today's broadband networks carry voice, video and data traffic across town and around the world. An Associate in Applied Science (AAS) degree in Wi-Fi & Broadband Technologies will prepare you to work and configure these modern, high speed networks. Wi-Fi is the most common way people connect to the Internet. Broadband commonly refers to high-speed Internet access that is always on. The transmission path can be any combination of coaxial cable, optical fiber, wireless or twisted pair. This program is designed to prepare students for the broadband industry by teaching installation, operation and maintenance of communications platforms using the full range of communication paths. Specialty skills will include Wi-Fi, routing and switching, laser fiber optics, Voice over IP (VoIP) and much more.

Students will apply their basic knowledge of electronics, science and math by performing tests and troubleshooting equipment, working in field service or maintaining sophisticated electronic systems and residential connectivity and commercial networking equipment. Graduates will find employment opportunities all over the world.

Preparing a workforce to compete in the global marketplace is the exciting challenge for the Broadband industry. This program gives students the technical skills for success in the world of broadband.

**Note: Students are required to purchase a laptop computer from Mitchell Tech. The laptop will have the necessary software installed and will be serviced free of charge while the student is attending Mitchell Tech.**

### Award: AAS Degree

#### First Semester

|                          |                        |   |
|--------------------------|------------------------|---|
| CIS 167                  | IT Essentials          | 3 |
| EC 105                   | Data Cabling           | 3 |
| EC 112                   | Electrical Circuits    | 3 |
| IST 156                  | Information Security I | 2 |
| MATH 162                 | Digital Math           | 3 |
| WBT 100                  | Introduction Broadband | 2 |
| SSS 100                  | Student Success        | 1 |
| Total Semester Hours: 17 |                        |   |

#### Second Semester

|                          |                               |   |
|--------------------------|-------------------------------|---|
| EC 113                   | Electronic Theory             | 3 |
| WBT 151                  | Broadband Lab I               | 3 |
| WBT 211                  | Wi-Fi & Wireless Technologies | 3 |
| WBT 249                  | Outside Plant                 | 3 |
|                          | Communications Elective       | 3 |
| Total Semester Hours: 15 |                               |   |

#### Third Semester (Summer)

|                         |            |   |
|-------------------------|------------|---|
| WBT 290                 | Internship | 6 |
| Total Semester Hours: 6 |            |   |

#### Fourth Semester

|                          |                                     |   |
|--------------------------|-------------------------------------|---|
| CIS 130                  | Networking Essentials               | 3 |
| WBT 120                  | Video Distribution Technologies     | 3 |
| WBT 210                  | Voice over Internet Protocol (VoIP) | 3 |
| WBT 251                  | Broadband Lab II                    | 4 |
|                          | Behavioral Science Elective         | 3 |
| Total Semester Hours: 16 |                                     |   |

#### Fifth Semester

|                          |                            |   |
|--------------------------|----------------------------|---|
| BUS 204                  | Customer Service           | 3 |
| PAT 102                  | Principles of GPS/GIS      | 2 |
| WBT 246                  | Central Office Transport   | 3 |
| WBT 257                  | Broadband Lab III          | 5 |
|                          | General Education Elective | 3 |
| Total Semester Hours: 16 |                            |   |

**Total Semester Hours: 70**

# Wind Turbine Technology, AAS Degree

The power of the wind to generate electricity for today's consumer is only as reliable as the technicians who install and service the giant turbines. Today, wind is one of the fastest growing energy technologies. Wind turbine technicians are needed around the world to support the demand for clean, efficient energy.

This two-year program will allow students to learn about the basics of turbines, mechanics, hydraulics, electronics and the computer networks that allow the system to communicate. Unique hands-on experience will be available to students as they climb Mitchell Tech's wind turbine located at the Crow Lake Wind Farm near White Lake, SD. Mitchell Tech is one of the few schools nationwide to have an operational 1.5 MW wind turbine.

The second year of the program will give graduates experience in PLCs, fiber optics, SCADA, advanced electronics and more.

A graduate of the program will find employment opportunities in turbine construction, maintenance and troubleshooting, power distribution, controls and other areas that move the power through the grid.

Students are expected to conform to *Rules for Programs with Required Drug and Alcohol Testing* while enrolled in this program.

***Note: Students are required to use a laptop computer for this program. Students may purchase a laptop from Mitchell Tech or bring their own device that meets Mitchell Tech specifications.***

## Award: AAS Degree

|                       |                                 |      |
|-----------------------|---------------------------------|------|
| First Semester (Fall) |                                 |      |
| CIS 130               | Networking Essentials           | 3    |
| EC 112                | Electrical Circuits             | 3    |
| WTT 100               | Turbine Safety                  | 1    |
| WTT 101               | Introduction to Wind Technology | 2    |
| WTT 104               | Schematics                      | 2    |
| WTT 130               | Field Training I                | 2    |
| CPR 100               | First Aid, CPR AED              | 0.5  |
| OSHA 101              | OSHA 10 Training                | 1    |
| SSS 100               | Student Success                 | 1    |
| Total Semester Hours: |                                 | 15.5 |

|                          |                           |    |
|--------------------------|---------------------------|----|
| Second Semester (Spring) |                           |    |
| WTT 102                  | Basic Turbine Mechanics   | 3  |
| WTT 108                  | Hydraulics                | 2  |
| WTT 112                  | Electronics I             | 3  |
| WTT 120                  | Industrial Motor Controls | 3  |
| WTT 131                  | Field Training II         | 2  |
|                          | Math Elective             | 3  |
| Total Semester Hours:    |                           | 16 |

|                       |                            |    |
|-----------------------|----------------------------|----|
| Third Semester (Fall) |                            |    |
| WTT 213               | Electronics II             | 3  |
| WTT 214               | Theory of Power Generation | 4  |
| WTT 217               | Advanced Motor Controls    | 3  |
| WTT 225               | Utility Safety             | 2  |
| WTT 230               | Field Training III         | 2  |
|                       | General Education Elective | 3  |
| Total Semester Hours: |                            | 17 |

|                          |                            |    |
|--------------------------|----------------------------|----|
| Fourth Semester (Spring) |                            |    |
| WTT 221                  | Wind Turbine PLC Wiring    | 4  |
| WTT 231                  | Field Training IV          | 2  |
| WTT 240                  | SCADA Concepts             | 3  |
| CIS 107                  | Spreadsheet Concepts       | 3  |
|                          | Communications Elective    | 3  |
|                          | General Education Elective | 3  |
| Total Semester Hours:    |                            | 18 |

**Total Semester Hours: 66.5**

## Online Programs

At Mitchell Tech, we understand the challenges faced by many students. Whether it's juggling a job, a family, or a life that is full of various demands, reaching your educational goals may have had to take a back seat. Mitchell Tech is committed to helping you reach your goals by offering a suite of online programs to fit your needs.

The following pages outline our Online Certificate, Diploma and Associate Degree programs. All of our programs can be taken *completely* online within the typical one to two-year time frame, or you can create an individualized learning plan to best fit your needs. (Programs including an internship, clinical or fieldwork experience will require you to travel to the employment site to complete the course.)

As an online student, you can study from home, the office, or an Internet café — anywhere you can find a connection to the Internet. Through Mitchell Tech online programs, you can work towards earning a degree while living your life. Our online options have been designed for flexibility, so you can schedule classes to fit your life. We've built an online college with the support and resources students need to be successful.

What distinguishes our online learning option is that the quality of our online education is the same as the one you'd receive in class on our campus. We recognize the challenges that you face as an online learner and it is our goal to provide you with the same opportunities to learn and connect with your instructor and fellow students outside of a traditional classroom.

Each instructor designs his course around a standard format so if you take multiple courses with different instructors, you will be familiar with basic course expectations. However, each instructor also adds his personality to the course so you will see different things from different instructors. You can expect the following from every online course you take at Mitchell Tech:

1. Syllabus: A complete syllabus posted online and in a downloadable format.
2. Handouts: Study guides, helpful pages, lecture notes- each class has a place for these types of communication and educational aids.
3. Powerpoints: Each lecture is captured in a Powerpoint for you to view. Some instructors will add voice threads to the slideshow.
4. Coursework: All assignments can be completed online. All assignments are located on one page so you can easily see what is due as well as what is coming up.
5. Gradebook: All grades are entered in the online gradebook so with a simple mouse-click, you know where you stand in the class.

Unlike a traditional course where you see the students and instructors several times a week, an online college degree course is totally self-directed. That means that you complete assignments on your schedule throughout the week. Taking an online course is “working-on-your-own-time,” not “working-at-your-own-pace.” Students must meet deadlines and move through the course at the pace the instructor establishes. It is up to you to keep up with the coursework and get assignments turned in on time.

Students in online programs will be required to enroll in a one-credit online seminar the first semester. This seminar formalizes your contact with your instructor and peer group. It's a way for you to keep on track and in touch, regardless of distance.

If you are looking for an online program, look for this symbol.

**Please note:** There are certain technology requirements for online programs including, but not limited to:

- A desktop or laptop computer with an Intel Core 2

Duo processor or better

- A hard drive with 320 GB 5400 rpm
- An integrated camera
- An Internet connection advertised as high speed (cable, DSL, etc.)
- Microsoft Office 2013 Professional Edition Suite (available at a reduced cost in the Mitchell Tech Bookstore)

# Administrative Office Specialist, Diploma or AAS Degree

The Administrative Office Specialist program prepares students to perform general duties in an executive or professional office setting. This set of important office skills may be applied to many types of businesses, ranging from small, owner-operated businesses up to major corporations.

Duties may include preparing reports and other documents using word processing, spreadsheet, database or presentation software; assisting with marketing duties; researching and preparing reports; coordinating and assisting with general office duties; interacting with customers; and general bookkeeping support. Combining computer software support skills needed in any office setting with a sampling of business classes, this program will help students find employment in almost any office support environment.

|                               |                            |                          |
|-------------------------------|----------------------------|--------------------------|
| Fifth Semester (Spring) (AAS) |                            |                          |
| BUS 100                       | Personal Finance           | 3                        |
| BUS 140                       | Business Law               | 3                        |
| BUS 220                       | Supervisory Management     | 3                        |
|                               | General Education Elective | 3                        |
|                               |                            | Total Semester Hours: 12 |

|                               |                            |                         |
|-------------------------------|----------------------------|-------------------------|
| Sixth Semester (Summer) (AAS) |                            |                         |
| ACCT 221                      | Quickbooks                 | 3                       |
| BUS 122                       | E-Commerce                 | 3                       |
|                               | General Education Elective | 3                       |
|                               |                            | Total Semester Hours: 9 |

**Total Credits Required to Graduate with AAS: 70**

## Award: One-Year Diploma or AAS Degree

### First Semester (Fall)

|         |                           |   |
|---------|---------------------------|---|
| BUS 110 | Accounting for Business I | 4 |
| BUS 143 | Document Production       | 3 |
| BUS 150 | Outlook Essentials        | 2 |
| BUS 216 | Spreadsheet Applications  | 3 |
| SSS 101 | Online Seminar I          | 1 |

Total Semester Hours: 13

### Second Semester (Spring)

|         |                            |   |
|---------|----------------------------|---|
| BUS 111 | Accounting for Business II | 4 |
| BUS 204 | Customer Service           | 3 |
| CIS 170 | Desktop Publishing         | 3 |
| CIS 171 | Digital Media Concepts     | 3 |

Total Semester Hours: 13

### Third Semester (Summer)

|         |                                 |   |
|---------|---------------------------------|---|
| BUS 217 | Database Applications           | 3 |
| CIS 203 | Web Essentials                  | 3 |
|         | Math Elective                   | 3 |
|         | Written Communications Elective | 3 |

Total Semester Hours: 12

## Total Credits Required to Graduate Diploma: 38

### Fourth Semester (Fall) (AAS)

|         |                          |   |
|---------|--------------------------|---|
| BUS 101 | Introduction to Business | 3 |
| BUS 120 | Principles of Marketing  | 3 |
| BUS 214 | Principles of Insurance  | 2 |

### Electives (choose one)

|         |                                  |   |
|---------|----------------------------------|---|
| BUS 170 | Entrepreneurship & Small Bus Mgt | 3 |
| BUS 210 | Principles of Selling            | 3 |

Total Semester Hours: 11

## Medical Office Professional, AAS Degree

A skilled Medical Office Professional is an invaluable asset to any medical office, working effectively with medical professionals and patients while performing assorted office duties. With the number of health care procedures escalating every year as the population ages, there's a high demand for skilled specialists in patient information technology and medical billing and reimbursement. Medical Office Professionals (MOP) are the experts on patient data that doctors, nurses and other providers rely on to perform their jobs.

Medical records and health information technology professionals can expect to be in high demand in the health sector during the next 20 to 30 years. In fact, the Bureau of Labor Statistics projects health information technology will be one of the 20 fastest growing occupations in the U.S.

Career opportunities in these areas include Medical Receptionist, Medical Records Clerk, Medical Information Management Clerk, Health Information Management, Medical Claims Clerk, Medical Claims Processor, Medical Claims Analyst and more.

**Admission Requirement:** All students accepted to the program must submit to a criminal background check at the student's expense. Details are available from the Admissions office.

**Program Graduation Requirement:** Students must earn a grade of C or higher in all program courses as a prerequisite to MOP 290. Students must earn a grade of C (2.0) or higher in their clinical internship in order to graduate.

### Award: AAS Degree

#### First Semester (Fall)

|         |                           |   |
|---------|---------------------------|---|
| BUS 110 | Accounting for Business I | 4 |
| HS 101  | Medical Terminology       | 3 |
| HS 103  | Anatomy/Physiology        | 4 |
| SSS 101 | Online Seminar I          | 1 |

Total Semester Hours: 12

#### Second Semester (Spring)

|          |                                 |   |
|----------|---------------------------------|---|
| BUS 111  | Accounting for Business II      | 4 |
| MOP 130  | Computers in the Medical Office | 3 |
| (online) |                                 |   |
| MOP 160  | CPT ICD-10-CM Coding            | 3 |
|          | General Education Elective      | 3 |

Total Semester Hours: 13

#### Third Semester (Summer)

|         |                               |   |
|---------|-------------------------------|---|
| HS 162  | Medical Law & Ethics          | 2 |
| MA 123  | Pathophysiology               | 3 |
| MOP 230 | Medical Office Administration | 3 |
|         | Math Elective                 | 3 |

Total Semester Hours: 11

#### Fourth Semester (Fall)

|          |                               |   |
|----------|-------------------------------|---|
| MOP 206  | Transcription I               | 4 |
| (online) |                               |   |
| MOP 210  | Medical Insurance and Billing | 3 |
| MOP 260  | Advanced Coding I             | 4 |
| (online) |                               |   |

Communications Elective 3

Total Semester Hours: 14

#### Fifth Semester (Spring)

|          |                                              |   |
|----------|----------------------------------------------|---|
| MA 210   | Pharmacology & Admin. of Medicines           | 3 |
| MOP 262  | CPC Exam Prep (Certified Professional Coder) | 3 |
| (online) |                                              |   |
|          | General Education Elective                   | 3 |
|          | General Education Elective                   | 3 |

Total Semester Hours: 12

#### Sixth Semester (Summer)

|          |                            |   |
|----------|----------------------------|---|
| MOP 212  | Electronic Medical Records | 3 |
| (online) |                            |   |
| MOP 290  | Internship                 | 8 |

Total Semester Hours: 11

**Total Credits Required to Graduate: 73**

# Small Business Management, Diploma or AAS Degree

In today's fast-paced business world, the small business manager often needs specialty skills to make a business succeed. Using the flexibility of online education, the Small Business Management program will provide business owners with a set of foundational skills that will help strengthen their businesses. Courses are general and applicable to any type of small business. Take the program completely online or attend traditional courses on the Mitchell Tech campus.

If you wish to continue, you may earn an AAS degree in Administrative Office Specialist with three additional semesters of coursework.

## Award: One-year Diploma

### First Semester (Fall)

|         |                           |   |
|---------|---------------------------|---|
| BUS 110 | Accounting for Business I | 4 |
| BUS 150 | Outlook Essentials        | 2 |
| BUS 210 | Principles of Selling     | 3 |
| CIS 105 | Introduction to Computers | 3 |
| SSS 101 | Online Seminar I          | 1 |

Total Semester Hours: 13

### Second Semester (Spring)

|         |                                 |   |
|---------|---------------------------------|---|
| BUS 111 | Accounting for Business II      | 4 |
| BUS 216 | Spreadsheet Applications        | 3 |
| BUS 220 | Supervisory Management          | 3 |
|         | Written Communications Elective | 3 |

Total Semester Hours: 13

### Third Semester (Summer)

|          |                              |   |
|----------|------------------------------|---|
| ACCT 221 | Quickbooks                   | 3 |
| BUS 122  | E-Commerce                   | 3 |
| BUS 170  | Entrepreneurship & Small Bus | 3 |
|          | Mgt                          |   |
|          | Math Elective                | 3 |

Total Semester Hours: 12

**Total Semester Hours: 38**

## Optional AAS Degree (Administrative Office Specialist)

### Fourth Semester (Fall)

|         |                          |   |
|---------|--------------------------|---|
| BUS 101 | Introduction to Business | 3 |
| BUS 120 | Principles of Marketing  | 3 |
| BUS 143 | Document Production      | 3 |
| BUS 214 | Principles of Insurance  | 2 |

Total Semester Hours: 11

### Fifth Semester (Spring)

|         |                        |   |
|---------|------------------------|---|
| BUS 140 | Business Law           | 3 |
| BUS 204 | Customer Service       | 3 |
| CIS 170 | Desktop Publishing     | 3 |
| CIS 171 | Digital Media Concepts | 3 |

Total Semester Hours: 12

### Sixth Semester (Summer)

|         |                            |   |
|---------|----------------------------|---|
| BUS 217 | Database Applications      | 3 |
| CIS 203 | Web Essentials             | 3 |
|         | General Education Elective | 3 |
|         | General Education Elective | 3 |

Total Semester Hours: 12

**Total Credits Required to Graduate: 73**

## Speech-Language Pathology Assistant, AAS Degree

One in six Americans has a speech, hearing or language disorder. These disorders affect infants, children, adults and the elderly. A communication disorder may affect a person's ability to pronounce sounds intelligibly, to understand what is being said, to process and remember spoken information, to use appropriate vocabulary and grammar, to speak fluently without stuttering, or to use his or her voice appropriately. Accidents, illnesses, birth defects and substance abuse can all contribute to communication disorders. These disorders isolate people from their friends, family and the community and limit job and educational opportunities. Speech-Language Pathology Assistants help these individuals to recover their ability to speak, understand and interact with others.

This online program is offered for either a two-year or three-year plan, depending upon the student's needs.

Graduates of the SLPA program will serve as support personnel to perform tasks prescribed, directed and supervised by certified speech-language pathologists.

Requirements for Speech-Language Pathology Assistants (SLPAs) vary from state-to-state. Mitchell Tech will attempt to determine whether our coursework will meet your state's requirements, but this is not possible in all cases. Please contact the program director to discuss your state's requirements. Mitchell Tech strongly encourages prospective students to verify that Mitchell Tech's coursework will meet their state's requirements. The American Speech-Language-Hearing Association website has information regarding state requirements on their website at <http://www.asha.org/advocacy/state/info/>.

**Admission Requirements:** All students accepted to the program must complete a criminal background check at the student's expense. Details are available from the Admissions office. Students are required to have good reading, writing, hearing and communication (verbal, written and articulation) skills in order to competently perform the job of a speech-language pathology assistant and to gain successful employment. Students must possess the motor skills necessary to manage clients and manipulate therapy materials in home and school environments. Applicants must have minimum scores on the English and Reading portions of the ACT or AccuPlacer.

Additional requirements may have to be met before entrance to fieldwork sites. Contact the instructor for details.

**Note:** Students in this program are required use an iPad. The student must purchase the iPad at his/her own expense. Specific software apps will also be required. Information about required apps will be provided as part of each course syllabus.

**Program Graduation Requirement:** It is the goal of this program to prepare competent entry-level speech-language pathology assistants. To achieve that goal, students must earn a grade of C (2.0) or higher in all technical courses as a prerequisite to SLPA 240 Clinical Fieldwork. Students must earn a grade of C (2.0) or higher in their clinical fieldwork in order to graduate.

### Award: AAS Degree

#### First Semester (Fall)

|          |                                    |                          |
|----------|------------------------------------|--------------------------|
| SLPA 101 | Intro To SLPA                      | 3                        |
| SLPA 104 | Anatomy/Physio of Speech & Hearing | 3                        |
| SLPA 105 | Speech & Language Development      | 3                        |
| SLPA 106 | Intro To Phonetics                 | 3                        |
| SSS 101  | Online Seminar I                   | 1                        |
| MATH 103 | Mathematical Reasoning             | 3                        |
|          |                                    | Total Semester Hours: 16 |

#### Second Semester (Spring)

|          |                                                |                          |
|----------|------------------------------------------------|--------------------------|
| SLPA 102 | Clinical Observation                           | 1                        |
| SLPA 103 | Career Seminar                                 | 1                        |
| SLPA 111 | Intro to Communication Disorders and Treatment | 3                        |
| SLPA 112 | Child Growth and Development                   | 3                        |
| SLPA 115 | Behavior Management                            | 3                        |
| ENGL 101 | English Composition                            | 3                        |
|          |                                                | Total Semester Hours: 14 |

#### Third Semester (Summer)

|          |                             |                         |
|----------|-----------------------------|-------------------------|
| SPCM 101 | Fundamentals of Speech      | 3                       |
|          | Social Science Elective     | 3                       |
|          | Behavioral Science Elective | 3                       |
|          |                             | Total Semester Hours: 9 |

#### Fourth Semester (Fall)

|          |                                    |                          |
|----------|------------------------------------|--------------------------|
| SLPA 200 | Intro to Audiology & Aural Rehab   | 2                        |
| SLPA 202 | Clinical Observation II            | 2                        |
| SLPA 205 | Neurogenic Communication Disorders | 2                        |
| SLPA 220 | Speech Disorders & Intervention    | 3                        |
| SLPA 230 | Language Disorders & Intervention  | 3                        |
|          |                                    | Total Semester Hours: 12 |



|                         |                                       |    |
|-------------------------|---------------------------------------|----|
| Fifth Semester (Spring) |                                       |    |
| SLPA 210                | Alternative & Augmentative<br>Comm    | 2  |
| SLPA 211                | Screening and Assessment<br>Processes | 2  |
| SLPA 235                | Clinical Mgt & Procedures             | 4  |
| SLPA 240                | Clinical Fieldwork                    | 6  |
| Total Semester Hours:   |                                       | 14 |

**Total Credits Required to Graduate: 65**

## Advanced Technical Education

Advanced Technical Education programs are often competency based and related to employee needs to fulfill current job-related tasks. The outcomes of Mitchell Tech's Advanced Technical Education programs vary according to professional training criteria.

Mitchell Tech offers three specific programs as well as customized trainings for individual companies. Fundamentally, Advanced Technical Education is centered on knowledge transfer, with an instructor teaching or demonstrating a particular function and the student learning and demonstrating they can apply what they have learned to a particular operation or situation. The training focuses on developing the skills necessary to be successful.

# South Dakota Center for Farm/Ranch Management, Certificate

The South Dakota Center for Farm/Ranch Management (SDCFRM) is an individualized program where participants are able to work one-on-one with Mitchell Tech Farm Business Management instructors. Instruction primarily takes place on-site at the participant's farm or ranch as well as occasional web-based or classroom sessions. Participants are trained in all aspects of financial management and recordkeeping as related to their ag operation. These skills are put into practice by the participants keeping their own business records, with the assistance of their instructor. At the end of each year, this data is compiled and analyzed by the instructor so each producer can review and use their data for planning and decision making purposes. Participants are also able to compare their data to state averages which are compiled by SDCFRM for the purpose of benchmarking. **All records are kept strictly confidential.**

Benefits to the participant of the program include: complete records of past years to review when making management decisions; records needed for filing yearly tax reports; development of a record management system for use with lenders; an increased knowledge of the strengths and weaknesses of their operation; the ability to determine the business's exact financial progress in any one year; an ability to project profitability of individual enterprises; and development of a working understanding of cash flow, net worth and profit & loss statements. Each semester, students will enroll in a four-credit course which covers the recordkeeping component as well as relevant current industry topics.

SDCFRM is also a certified provider of the FSA Farmer Borrower Training program. This is a 20-hour on-campus or online course focusing on ag financial and risk management principals. FBM 100 – Financial Foundations meets the requirements for new FSA borrowers and is open to any producer who would like to take as an introduction to the program.

To enroll in this program, contact the South Dakota Center for Farm/Ranch management at (605) 995-7191, [sdcfm@mitchelltech.edu](mailto:sdcfm@mitchelltech.edu) or visit [www.sdcfrm.com](http://www.sdcfrm.com).

## Award: Certificate

### Basic Program

|                 |                                     |   |
|-----------------|-------------------------------------|---|
| First Semester  |                                     |   |
| FBM 111         | Fundamentals of Farm Business Mgmt. | 4 |
| Second Semester |                                     |   |
| FBM 121         | System Mmgmt Data and Farm Analysis | 4 |
| Third Semester  |                                     |   |
| FBM 131         | Managing and Modify Farm Syst Data  | 4 |
| Fourth Semester |                                     |   |
| FBM 141         | Interpreting and Eval Finan Data    | 4 |
| Fifth Semester  |                                     |   |
| FBM 151         | Integrating Info for Financial Plan | 4 |
| Sixth Semester  |                                     |   |
| FBM 161         | Exam of the Context Sys Management  | 4 |

## Award: Advanced Certificate

### Farm Business Planning

|                 |                                            |   |
|-----------------|--------------------------------------------|---|
| First Semester  |                                            |   |
| FBM 113         | Interpreting Trends in Business Planning   | 4 |
| Second Semester |                                            |   |
| FBM 123         | Interpreting and Evaluating Financial Data | 4 |
| Third Semester  |                                            |   |
| FBM 133         | Strategies in Farm System Data Management  | 4 |
| Fourth Semester |                                            |   |
| FBM 143         | Examining Context System Management        | 4 |
| Fifth Semester  |                                            |   |
| FBM 153         | Trends in Business Planning                | 4 |
| Sixth Semester  |                                            |   |
| FBM 163         | System Plans and Projections               | 4 |

## Award: Advanced Certificate

### Estate and Transition Planning

|                            |                                     |   |
|----------------------------|-------------------------------------|---|
| First Semester<br>FBM 115  | Implementation Farm Tax<br>Planning | 4 |
| Second Semester<br>FBM 125 | Labor Economics and<br>Management   | 4 |
| Third Semester<br>FBM 135  | Analyzing Farm Tax Planning<br>Data | 4 |
| Fourth Semester<br>FBM 145 | Legal Issues in Agriculture         | 4 |
| Fifth Semester<br>FBM 155  | Evaluating Farm Estate Planning     | 4 |
| Sixth Semester<br>FBM 165  | Preparing for Farm Transition       | 4 |

# Leadership Academy, Leadership Studies Certificate

30 college credits

Organizations increasingly recognize the need for professionals who possess the skills to function in the global economy and are ready to take on greater leadership and supervisory roles. Optimizing the leadership pipeline and closing the leadership gap depends on your organization’s ability to choose and prepare the best leaders for tomorrow.

The Leadership Academy is a one-of-a kind process specifically designed for building the character and competence of your developing leaders. Organizations define high-potential leaders who fit the profile for success within their businesses. The program blends professional instruction on Mitchell Tech’s campus, followed by online distance education, and an intra-company mentored internship to foster leadership development within the participant’s organization. Those engaged in the process will draw upon their field experience and interaction with leaders from diverse organizations. Participants who successfully complete the program will receive a Certificate in Leadership Studies.

## Participant Time Commitment

On site direct instruction, online application and instruction, time to learn and apply with mentor at organization

## Mentor Time Commitment

Full day spring semester at Mitchell Tech; application and interaction with mentee at organization

## Costs Related to Participating

\$6,500 per participant, plus travel, lodging and meals

## Return on Investment

- Develop a competitive advantage in your organization by building a pipeline of talent.
- Improved understanding of organizational goals, business drivers and processes
- Direct application of leadership and business principles, behaviors, and techniques within the organization
- Networking, relationship building and sharing of best practices among peer organizations
- Extended knowledge and increased confidence to meet the leadership challenges of the organization
- Earn a Certificate in Leadership Studies, including

An advisory board of experienced professionals from many fields will continue to provide program guidance.

The Leadership Academy is constantly reevaluating to meet the changing demands placed upon leaders and organizations in today’s climate of rapid change.

## Award: Certificate in Leadership Studies

|                |                            |                          |
|----------------|----------------------------|--------------------------|
| First Semester |                            |                          |
| LDR 200        | Fundamentals of Leadership | 5                        |
| LDR 207        | Resilient Leadership       | 5                        |
| LDR 214        | Talent Managment           | 5                        |
|                |                            | Total Semester Hours: 15 |

|                 |                                   |                          |
|-----------------|-----------------------------------|--------------------------|
| Second Semester |                                   |                          |
| LDR 215         | Ethical Leadership                | 5                        |
| LDR 223         | Crisis Managment                  | 5                        |
| LDR 230         | Leadership Coaching and Mentoring | 5                        |
|                 |                                   | Total Semester Hours: 15 |

**Total Semester Hours: 30**

## Technical Studies, AAS Degree

Mitchell Tech offers an Associate of Applied Science degree in Technical Studies. The degree is designed to be a flexible option for students seeking career advancement by earning an associate's degree: past graduates of technical college diploma or certificate programs; individuals in the workforce, with or without formal postsecondary education, whose experience and skills gained on the job can translate to postsecondary credit; and others, with or without prior formal postsecondary education, whose career objectives cannot be met through the completion of any single technical program offered at one of the four technical colleges.

The Technical Studies AAS degree will provide South Dakotans a practical, efficient pathway to a college degree and the upskilling required for job advancement. The Technical Studies degree is earned through completion of an existing technical college diploma or approved certificate and completed by stacking a combination of credits awarded for general education and technical credits earned at the technical college. The student has the ability to lattice into a customized degree by choosing courses in business or management or additional technical courses that will enhance the student's overall skills, certifications, and value in the workplace.

The student will be required to meet the minimum coursework requirement of 25% of their total program must be earned at the individual technical college offering the degree.

### **Award: AAS**

The curriculum will be custom-designed based on each individual student's career goals and past educational and job experience. The overall framework for the structure will include an existing approved diploma or certificate from an accredited school, and the remaining credits for technical and general education courses.

The degree is comprised of a minimum of 60 credits.

Technical Courses (30 credit hours minimum)

*(Technical credits, as part of a required earned certificate or diploma from an HLC accredited institution, may be earned by a combination of technical courses and/or work experience demonstrated through documented and demonstrated assessments.)*

General Education Courses (15 - 18 credit hours minimum)

*(Students must meet the technical college's A.A.S. degree general education requirements where they enroll in the Technical Studies program. Each Technical College may have different requirements.)*

Elective Courses (12 - 15 credit hours minimum)

*(The degree requires a minimum of 60 credits. Individualized plans of study will include the required 30 technical credits and 15- 18 general education credits, and at least 12 -15 additional credits—technical or general electives—to meet the students' career objectives.)*

# Courses

## ACCT - Accounting

### ACCT 110 - PRINCIPLES OF ACCOUNTING I (4)

Provides knowledge of fundamental accounting standards, concepts and practices utilized in the preparation and analysis of financial reports for non-corporate and corporate business entities. Topics include business transactions and accounting records, the accounting cycle, financial statements, internal controls, current assets and liabilities, fixed assets and depreciation.

Distribution: Business/Services. Offered: Fall Semester.

### ACCT 111 - PRINCIPLES OF ACCOUNTING II (4)

Continuation of ACCT 110. Topics include payroll, partnership and corporate accounting, investments, long-term debt, statement of cash flows, financial analysis and departmental accounting. Prerequisite: ACCT 110.

Distribution: Business/Services. Prerequisite: ACCT110. Offered: Spring Semester.

### ACCT 212 - INTERMEDIATE ACCOUNTING I (3)

Review of basic accounting concepts and principles, financial statements, the accounting process, cash and temporary investments, receivables, inventories and cost procedures. Statement of cash flows, the time-value-of-money inventory cost allocations, valuation procedures and estimation are discussed. Computer problems are solved using accounting software. Prerequisite: ACCT 111.

Distribution: Business/Services. Prerequisite: ACCT111. Offered: Fall Semester.

### ACCT 213 - INTERMEDIATE ACCOUNTING II (3)

Comprehensive overview of liability relationships and owner's equity. Accounting for corporations is discussed. The importance of accounting for long-term bonds and investments, leases, retained earnings and their distribution is presented. Accounting for pensions, revenue recognition and financial reporting are covered. The acquisition, utilization and retirement of operating assets is covered. Computer problems are solved using accounting software. Prerequisite: ACCT 212.

Distribution: Business/Services. Prerequisite:

ACCT212. Offered: Spring Semester.

### ACCT 214 - COST ACCOUNTING I (3)

Accounting concepts, procedures and systems used in planning and controlling manufacturing business operations. Emphasis is placed on sources of cost information, maintenance of cost accounting records and cost accounting reports. Topics include accounting for materials, labor and factory overhead, job order costing and process costing systems. Prerequisite: ACCT 111.

Distribution: Business/Services. Prerequisite: ACCT111. Offered: Fall Semester.

### ACCT 215 - COST ACCOUNTING II (3)

Continuation of ACCT 214 with emphasis placed on the budgeting process and methods of analyzing cost accounting data for managerial planning and control purposes. Topics include process costing systems, budgeting, standard costing, direct costing and decision analysis techniques. Textbook problems and computer problems are used. Prerequisite: ACCT 214.

Distribution: Business/Services. Prerequisite: ACCT214. Offered: Spring Semester.

### ACCT 217 - GOVERNMENT AND NON PROFIT ACCTNG (3)

Introduction to concepts and practices of fund accounting for local governmental units and nonprofit organizations. Emphasis on fund structures, analysis and recording of transactions, preparation of financial reports is covered. Topics include local governmental unit funds, proprietary funds, fiduciary funds, account groups, hospitals and voluntary health and welfare organizations.

Distribution: Business/Services. Offered: Spring Semester.

### ACCT 218 - TAX ACCOUNTING I (3)

Comprehensive study of federal income tax law. Major emphasis is on structure and administration of federal income tax law, preparation of individual income tax returns, supporting schedules and income tax planning procedures. Topics include gross income inclusions and exclusions, business and personal deductions, tax credits and property transactions. Prerequisite: ACCT 111.

Distribution: Business/Services. Prerequisite: ACCT111. Offered: Fall Semester.

#### ACCT 221 - QUICKBOOKS (3)

Computer programs used to produce reprints and solve problems. Quickbooks accounting software is emphasized.

Distribution: Business/Services. Offered: Spring Semester.

#### ACCT 230 - GOVERNMENT & NONPROFIT (3)

This course covers both the governance and management of government and nonprofit organizations. The course will focus on the scope and structure of the nonprofit sector, leadership of nonprofits, management, fundraising, earned income strategies, financial management, lobbying and advocacy, managing international and global organizations, and social entrepreneurship.

Distribution: Business & Services. Offered: Fall.

#### ACCT 242 - FEDERAL TAXATION (3)

Distribution: Business & Services. Offered: Spring.

#### ACCT 245 - MANAGERIAL ACCOUNTING (3)

Managerial accounting is concerned with providing information to managers for use within the organization. Managerial accounting is a company's internal language, and is used for decision making, production management, product design and pricing, marketing, and for motivating and evaluating employees.

Distribution: Business & Services. Offered: Spring.

#### ACCT 290 - ACCOUNTING INTERNSHIP (3)

Supervised internship performed off-campus in an accounting/finance setting.

Distribution: Business/Services. Offered: Spring Semester, Summer Semester.

## AD - Architectural Design

#### AD 101 - BUILDING DESIGN (2)

Drawing methods in architectural drafting. Site planning and plot plans drawing are presented. Computer Aided Design (CAD) is introduced.

Distribution: Construction Technologies. Offered: Fall

Semester.

#### AD 102 - BUILDING MATERIALS (2)

Continuation of AD 101. Coordinates design including electrical layout and mechanical planning. Emphasis is placed on zoning and traffic flow. Computer Aided Design (CAD) software is utilized.

Distribution: Construction Technologies. Offered: Spring Semester.

#### AD 117 - PROJECT TIMELINE AND COST (2)

This course familiarizes students with planning and scheduling strategies in both residential and light commercial applications. An introduction to contracts and types of bidding is provided. Exposure to computer estimating and planning software will be included.

Distribution: Construction Technologies. Offered: Spring Semester.

#### AD 151 - ARCHITECTURAL DRAFTING DESIGN (4)

Use and care of drawing instruments, application of skills to basic engineering drawing of orthographic projection, sections, dimension techniques, pictorial drawings and plot plans.

Distribution: Construction Technologies. Offered: Fall Semester.

#### AD 152 - 3D ARCHITECTURAL DESIGN (2)

Drawing components of residential structures. Efforts will be directed toward precisely correlating the drawings completed in the drafting room with the building construction project. CAD is emphasized.

Distribution: Construction Technologies. Offered: Spring Semester.

#### AD 221 - ADVANCED BUILDING PRINCIPLES (2)

Concrete, advanced framing techniques and construction codes are taught. This course builds upon skills gained in introductory courses.

Distribution: Construction Technologies. Offered: Fall Semester.

#### AD 242 - BUILDING INFORMATION MODELING (2)

Students will learn the processes and tools for creating, organizing, and working with computer representations of building components used in architectural design, construction planning and documentation, rendering and

visualization. Techniques are covered for creating, managing, and applying building information models in the design and construction process.

Distribution: Construction Technologies. Offered: Spring Semester.

#### AD 272 - COMMERCIAL CONSTRUCTION DOCUMENTS (2)

Working with and interpreting documents used in commercial construction. Includes commercial plans, details, and specifications.

Distribution: Construction Technologies. Offered: Spring Semester.

### **AGT - Agricultural Technologies**

#### AGT 101 - ANIMAL SCIENCE I (3)

Introduction to the livestock industry including organizations, product value, breeds and methods of individual and sire selection. Also includes production performances, animal environment, marketing strategies and management alternatives.

Distribution: Agriculture & Transportation Technology. Offered: Fall Semester.

#### AGT 102 - WEEDS & HERBICIDES (3)

Weeds, their identification, classification and types are studied. Chemical, biological and mechanical controls will be discussed. This section includes an overview of herbicide, fungicide and insecticide selection, rotation and timing of applications. Topics regarding the avoidance of weed resistance issues and methods to deal with resistant weeds will be discussed.

Distribution: Agriculture & Transportation Technology. Offered: Fall Semester.

#### AGT 103 - MACHINERY MANAGEMENT (2)

Students will learn comparison methods and machinery economics to make decisions about purchase vs. lease vs. custom hiring arrangements. Attention will be placed on determining the right size equipment for the job, efficiency of equipment, as well as calculating depreciation costs on equipment.

Distribution: Agriculture & Transportation Technology. Offered: Fall Semester, Spring Semester.

#### AGT 104 - AG CHEMICALS (2)

Study of agricultural chemicals, pesticides and chemical applications. Equipment for liquid and dry chemicals, as well as non-chemical alternatives are studied. Preparation for the state commercial applicator exams. A passing score of 70% on each exam is a requirement for graduation from this program.

Distribution: Agriculture & Transportation Technology. Offered: Fall Semester.

#### AGT 110 - CROP SCIENCE I (3)

The plant development stages of corn, soybeans, small grains and alfalfa. The importance of planting dates and seeding depths along with environmental factors will be discussed.

Distribution: Agriculture & Transportation Technology. Offered: Spring Semester.

#### AGT 112 - FERTILIZERS (3)

Study of fertilizer types and elements, soil test results, fertilizer recommendations, blending calculations and costs per acre. Students will study nutrient requirements for major crops and learn to recognize nutrient deficiency symptoms.

Distribution: Agriculture & Transportation Technology. Offered: Spring Semester.

#### AGT 120 - SOIL SCIENCE I (3)

The importance of soil, its formation, physical properties and land classifications. Soil sampling procedures will be explained and soil test results will be studied.

Distribution: Agriculture & Transportation Technology. Offered: Fall Semester.

#### AGT 130 - LIVESTOCK SELECTION (2)

Study of beef, dairy, horses, sheep and swine evaluation, correlating body type to economical and efficient breeding stock production. Animal evaluation is performed on site for each species. Familiarizes students with available sources of sire information. Type, pedigree, performance, production (EPD and ratio), carcass, linear (dairy) and dollar data will be analyzed. Principles of carcass evaluation will be reviewed. Students should be able to evaluate the worth of a sire by the end of this course.

Distribution: Agriculture & Transportation Technology. Offered: Spring Semester.



**AGT 158 - SMALL ENGINES FOR AG (3)**

Introduction to the basic design and operating principles and components of the internal combustion engine. Topics to be explored include: valve train design and component identification, ignition and fuel system identification and design, similarities and differences between 2 and 4 stroke cycle engines, similarities and differences between air cooled and water cooled engines and component failure identification.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

**AGT 160 - COMMODITY MARKETING I (3)**

The study of the marketing of agricultural products using the CBOT/CME. Students will learn how to hedge grain and livestock using the different marketing choices associated with the cash market, futures market and options market (put and call options). Elevator contracts, as well as crop insurance, will also be studied.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

**AGT 190 - INTERNSHIP I (6)**

Supervised off-campus employment experience in an agricultural business related to livestock production, feed and animal health, livestock sales, agricultural crop protection products, insecticides, diseases, fertilizers and crop scouting procedures.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

**AGT 210 - CROP SCIENCE II (3)**

Continuation of AGT 110. Crop improvement practices used to fulfill the growing need of global consumption. Environmental impacts and different cropping systems are analyzed. Plant diseases and their control along with insect identification and economic thresholds are studied. Students will study the uses of cover crops and their primary role in agriculture.

Distribution: Agriculture & Transportation Technology.  
Prerequisite: AGT110. Offered: Spring Semester.

**AGT 211 - FARM ACCOUNTING (3)**

Study of farm accounting procedures as it relates to agricultural operations. Cash-basis accounting is taught through an accrual adjusted system which will provide information for measuring the profitability of the farming operation. Ag software is discussed and

evaluated to determine benefits of spreadsheet programs, records management and farm accounting programs.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

**AGT 212 - AG CHEM EQUIPMENT (3)**

Safe handling procedures for pesticides and proper loading and mixing of crop protection products are discussed. Proper use of liquid and dry application equipment and nozzle selection will be studied.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

**AGT 214 - AG LAW (3)**

Topics of concern to the agri-business person are emphasized. Areas of study include contracts, trespass, taxes, land use laws, bankruptcy, partnerships, corporations, environmental laws and estate planning.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

**AGT 215 - AG FINANCES (3)**

Study of the principles of agricultural finance and the types and uses of credit instruments. Topics covered will include time value of money, agricultural lending and financial statement analysis. Attention will focus on planning, analyzing and controlling business performance in agriculture.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

**AGT 218 - PRINCIPLES OF AG BUS, MANAGEMENT (3)**

Introduction to the responsibilities of farm business entrepreneurship. Students are exposed to the four functional areas of management: marketing, finance, supply chain and human resources. Students learn to understand the role that managers play in planning, organizing, directing and controlling as related to agri-business.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

**AGT 220 - SOIL SCIENCE II (2)**

Continuation of AGT 120. Soil organic matter and its functions in the soil are discussed. Water conservation,

soil management and drainage or irrigation practices are covered.

Distribution: Agriculture & Transportation Technology.  
Prerequisite: AGT120. Offered: Fall Semester.

#### AGT 240 - LIVESTOCK REPRODUCTION (3)

Study of young mammal development. Microscopic cell study, fetal development, genetics, artificial insemination, pregnancy testing and performance testing are discussed. Reproductive systems of swine, sheep, equine and cattle. Artificial insemination of livestock including pregnancy checking in cows. Students will get hands-on experience with ultrasound technology.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### AGT 241 - FEED UTILIZATION (2)

Advanced study of feed stuffs and their value and use in rations, feed processing practices and poisons found in feed stuffs. Prerequisite: AGT 245.

Distribution: Agriculture & Transportation Technology.  
Prerequisite: AGT245. Offered: Spring Semester.

#### AGT 242 - LIVESTOCK DISEASES (3)

Detailed study of livestock diseases, terms, symptoms, treatment and prevention of disease.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### AGT 245 - ANIMAL NUTRITION (2)

Basic animal nutritional requirements and how various food stuffs can be used to meet those demands. Computation of rations for various species.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### AGT 260 - ADVANCED COMMODITY MARKETING (3)

Continuation of AGT 160. Students will apply an array of concepts to simulations and case studies involving the buying and selling of commodities.

Distribution: Agriculture & Transportation Technology.  
Prerequisite: AGT160. Offered: Fall Semester.

#### AGT 261 - AG SALES & SERVICE (3)

Development of skills needed by an agricultural

salesperson including prospecting, territory management, customer service and communication. An investigation of the agricultural sales process, marketing and advertising methods are studied.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### AGT 263 - FUNDAMENTALS OF INSURANCE (2)

Course will focus on various types of insurance including life, health, homeowners, auto, property, casualty, liability, crop and livestock insurances.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### AGT 290 - INTERNSHIP II (6)

Supervised employment experience. Work in an agricultural business related to livestock production, feed and animal health sales, livestock buyers, agricultural chemical and fertilizer sales and applications.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### AGT 291 - LAND MANAGEMENT (1)

Students are given the task of managing the 80-acre Mitchell Tech land lab. Decisions regarding ground preparation, planting, cultivating, spraying, harvesting and marketing are all incorporated into the curriculum.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### AGT 295 - BEEF MANAGEMENT (1)

Prepares students for livestock ranching and ranch management. Begins with the basics of animal husbandry working with the daily operations of a beef herd. Daily decisions involving rations, selection of bulls and heifers to be marketed, proper selection of vaccines.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### AGT 296 - CALVING MANAGEMENT (1)

Designed to instruct students in calving management including dystocias, diseases of calves, prolapses, navel care, synchronizing and bull selection and care.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

## **AMI - Advanced Medical Imaging**

### **AMI 210 - CROSS-SECTIONAL ANATOMY & PATHOLOGY (ONLINE) (4)**

Anatomy and pathology necessary for the technologist to perform effectively in CT and MRI imaging modalities. Anatomic structures of the head, neck, spine, thorax, abdomen, pelvis and extremities are taught in cross-sectional axial, sagittal and coronal orientations. The pathologies commonly seen in these same anatomic areas are explored to the degree a technologist would require within their scope of practice.

Distribution: Health Services. Offered: 12 month term, Fall Semester, Spring Semester.

## **AOS - Admin Office Specialist**

## **ATE - Advanced Technical Education**

## **BC - Building Construction**

### **BC 103 - CONSTRUCTION EQUIPMENT (1)**

This course covers the safety and operation of the tools and equipment in the construction trade. Everything from hand tools to lifting and digging equipment will be practiced and tested. Students will be given certifications for the operation of numerous pieces of equipment.

Distribution: Construction Technologies. Offered: Fall Semester.

### **BC 110 - FRAMING AND EXTERIOR FINISH (3)**

This is a lab-based class that will cover layout and erection of a wood framed structure along with proper installation of exterior finishes such as roofing and siding. This will be accomplished through our class project of building a single resident home.

Distribution: Construction Technologies. Offered: Fall Semester.

### **BC 115 - BUILDING METHODS (2)**

This course interprets the methodology of floor framing, evaluates the uses of different fasteners, and reviews different applications of window, door and roof coverings. Students will study different building materials including wood and metal to gain an understanding of each material's properties and uses.

Distribution: Construction Technologies. Offered: Fall Semester.

### **BC 121 - MATERIAL TAKEOFF (2)**

In this course students will review and learn basic construction geometry. Upon completion of the geometry unit students will begin to delve into material estimating practices. Each student will complete an individual material take-off from a set of construction plans.

Distribution: Construction Technologies. Offered: Fall Semester.

### **BC 124 - GREEN BUILDING (2)**

This course provides a solid background in green building methods, as well as the tools to inform consumers of the benefits of green construction.

Distribution: Construction Technologies. Offered: Spring Semester.

### **BC 125 - BUILDING ENVELOPE (2)**

This course emphasizes materials and processes involved in a building envelope. It will provide students hands on experience working with various insulations and sealing products to insure a tight, energy efficient structure.

Corequisite: BC 124.

### **BC 130 - CASEWORK (3)**

Throughout this course, students will be exposed to the intricate details of finish carpentry. Building cabinets, hanging and trimming doors, and installing other molding will be covered and accessed.

Distribution: Construction Technologies. Offered: Spring Semester.

### **BC 162 - POST FRAME (1)**

This course covers the science, methods, and application of post frame structures. Students will be introduced to the industries cutting edge applications and will construct their own structures using these methods.

Distribution: Construction Technologies. Offered: Spring Semester.

### **BC 210 - ADVANCED WOOD FRAMING (2)**

This course covers advanced techniques used in wood-framed structures, including roof and room additions, staircases, and decks.

Distribution: Construction Technologies. Offered: NULL.

#### BC 212 - DRYWALL, TAPE AND TEXTURE (2)

This course covers the finishing of drywall surfaces. Students will learn a variety of skills including hanging, bedding seam tape, fill coat, finish, and texturing.

Distribution: Construction Technologies. Offered: NULL.

#### BC 221 - FOOTINGS AND FOUNDATIONS (2)

This course covers the layout, forming and placement of concrete products to construct a solid foundation for a structure. Other material will include forming and pouring concrete sidewalks and driveways.

Distribution: Construction Technologies. Offered: Fall Semester.

#### BC 225 - COMMERCIAL STRUCTURES (3)

Designed to help students understand the differences and similarities between commercial and residential construction, students will set red iron beams and girders, reinforced concrete panels, bar joists for a flat roof, and install commercial doors and hardware. Students will also lay concrete masonry units, frame structural steel walls and seal precast panels.

Distribution: Construction Technologies. Offered: NULL.

#### BC 230 - INTERIOR FINISH (4)

Installations of interior specialty items like cabinets, mill-work, interior doors, floor coverings, counter tops, and backsplashes.

Distribution: Construction Technologies. Offered: NULL.

#### BC 271 - CONSTRUCTION CONTRACTING LEADERSHIP (3)

This course teaches the fundamentals of ownership, management and the various levels of leadership involved in the construction industry.

Distribution: Construction Technologies. Offered: NULL.

#### BC 290 - COMMERCIAL INTERNSHIP (6)

On-the-job work experience with a company that will help utilize and develop skills in construction,

management, and drafting. Designed to provide students with opportunities to make connections between the theory and practice of academic study and the practical application of that study in a professional work environment while gaining relevant experience and professional connections.

Distribution: Construction Technologies. Offered: Summer Semester.

## BUS - Business

#### BUS 100 - PERSONAL FINANCE (3)

This course is designed to introduce students to the principles of individual and family financial management. Strategies for the development and attainment of short-term and long-term financial goals will be examined. The class will examine personal financial management based on a life cycle approach, while addressing the need for flexibility due to changing personal, social and economic conditions.

Distribution: Business/Services. Offered: Spring Semester.

#### BUS 101 - INTRODUCTION TO BUSINESS (3)

A survey of the business world covering business terminology, concepts and current business issues. The student will develop a business vocabulary, foster critical and analytical thinking and refine business decision-making skills. A major goal of this course is to help students become citizens who can contribute and compete in an increasingly global business environment. This course serves as a foundation for additional business subjects.

Distribution: Business/Services. Offered: Fall Semester.

#### BUS 110 - ACCOUNTING FOR BUSINESS I (4)

Fundamental accounting concepts and practices. Topics covered include business transactions and accounting records, the accounting cycle, financial statements, internal controls, current assets and liabilities, fixed assets, depreciation and payroll.

Distribution: Business/Services. Offered: Fall Semester.

#### BUS 111 - ACCOUNTING FOR BUSINESS II (4)

Accounting principles and procedures regarding notes, inventory, long-term assets, internal control and the concept of partnerships. Textbook problems and a practice set are used to enhance learning. Prerequisite:

**BUS 110**

Distribution: Business/Services. Prerequisite: BUS110.  
Offered: Spring Semester.

**BUS 120 - PRINCIPLES OF MARKETING (3)**

Introduction to marketing concepts and terminology. Establishes the origins, roles, purposes and scope of marketing as a business process and activity. Introduction to the marketing environment, as well as the different aspects of the marketing mix: products, price, promotion and distribution, is presented.

Distribution: Business/Services. Offered: Fall Semester, Spring Semester.

**BUS 122 - E-COMMERCE (3)**

In this course, students will study the three major driving forces behind E Commerce, which include technology change, business development and social issues. Students will gain an understanding of the field through a conceptual framework.

Distribution: Business/Services. Offered: Fall Semester, Spring Semester, Summer Semester.

**BUS 140 - BUSINESS LAW (3)**

Review of business law terms and concepts applied to business. A background in legal rights, social forces, administrative agencies, government regulations and consumer protection is presented. Contracts, personal property and bailments are discussed. Law terms and definitions are learned.

Distribution: Business/Services. Offered: Spring Semester.

**BUS 143 - DOCUMENT PRODUCTION (3)**

This course will introduce word processing skills that can be combined with students' basic skills to create complex documents. Students will utilize Microsoft Word to create and format documents and tables; create mail merges, macros, templates and fill-in forms; set and manipulate tabs; insert charts, graphics and hyperlinks; and import and export data. Students will also look at different ways of sharing documents with others. This course will help prepare the student for the Microsoft Word certification exam.

Distribution: Business/Services. Offered: Fall Semester.

**BUS 150 - OUTLOOK ESSENTIALS (2)**

Covers the features available in Microsoft Outlook, which is the industry's leading e-mail and personal information management software. Topics covered will include sending, receiving and organizing e-mails; managing the calendar, tasks, contacts and distribution lists; setting rules and creating meeting requests. This course will help prepare the student for the Microsoft Outlook certification exam.

Distribution: Business/Services. Offered: Fall Semester.

**BUS 170 - ENTREPRENEURSHIP & SMALL BUS MGT (3)**

In this course, students will learn about the challenges of entrepreneurship, different options for opening a business, how to write a business plan of their own, marketing issues and how to create a successful financial plan. Students will gain the tools to launch a new venture and the knowledge for entrepreneurial success.

Distribution: Business/Services. Offered: Fall, Summer Semester.

**BUS 204 - CUSTOMER SERVICE (3)**

Customer service is a critical element in the success and future of all businesses that compete in today's economy. It is more challenging than ever to attract and retain customers because more companies are competing for the same customer. This course is a study of issues in the workplace relating to effective customer service and emphasizes three different aspects of customer service: the profession, skills for success, and building and maintaining relationships. Through role play scenarios, collaborative learning activities, and application of concepts to real-world situations, students are introduced to the issues of ethics, problem solving, strategy implementation, empowerment, communications, motivation and leadership necessary for the delivery of exceptional customer service and customer retention.

Distribution: Business/Services. Offered: Spring Semester.

**BUS 210 - PRINCIPLES OF SELLING (3)**

Principles of selling and skills required by today's sales and marketing professional. Students will develop a variety of skills including communication, critical thinking, building relationships with customers, and ethical decision making. This course introduces advertising via all media - print, digital, video, TV, Internet, etc., as well as consumer behavior and

contemporary media issues.

Distribution: Business/Services. Offered: Fall, Spring Semester.

#### BUS 214 - PRINCIPLES OF INSURANCE (2)

A basic study of insurances available in the market today. The major areas covered include the types of term and permanent policies, annuities, how much insurance is needed, policy provisions, riders and health insurance plans.

Distribution: Business/Services. Offered: Fall Semester.

#### BUS 216 - SPREADSHEET APPLICATIONS (3)

Detailed instruction on the use of Microsoft Excel covering beginning, intermediate, and advanced concepts. Concepts covered include working with formulas and functions; creating and formatting charts graphs and pivot tables/pivot charts; sorting and filtering lists; data consolidation between multiple worksheets and workbooks; using Solver and the Scenario Manager; importing and exporting of data, and creating Macros. This course will help prepare the student for the Microsoft Excel certification exam.

Distribution: Business/Services. Offered: Fall Semester, Spring Semester.

#### BUS 217 - DATABASE APPLICATIONS (3)

This course provides detailed instruction on the use of Microsoft Access covering introductory, intermediate, and advanced concepts. Proper procedures for designing and administering a database suitable for both professional purposes and personal use will be explored. Concepts covered include importing and exporting data, working with tables, queries, forms, reports, and data macros. Students are exposed to practical examples showcasing Access as a useful tool. Students will discover the underlying functionality of Access allowing them to become more productive.

Distribution: Business/Services. Offered: Spring Semester, Summer Semester.

#### BUS 218 - INTRO TO HUMAN RESOURCE MANAGEMENT (3)

Students will learn how an organization's efficiency is impacted by the effectiveness of its human resource department. Human resource planning, recruitment, selection, development, compensation and benefits will be explored throughout the course.

Distribution: Business/Services. Offered: Spring Semester.

#### BUS 220 - SUPERVISORY MANAGEMENT (3)

Many organizational trends today—downsizing, cost cutting, employee empowerment, flexible hours and diversity issues— are all impacting the way supervisors deal with employees in the workplace. Students will understand all of these concepts and working through people to maximize productivity while maintaining a positive work environment.

Distribution: Business/Services. Offered: Spring Semester.

#### BUS 238 - FINANCE (3)

This course is designed give students the opportunity to learn about the various aspects of Finance. Students will examine topics such as: credit ratings, financing assets, investments, banking services, along with many other financial tools.

Distribution: Business/Services. Offered: Fall.

#### BUS 246 - DIGITAL MARKETING (3)

This course explores the ever-changing world of social media and its impact on the business world. Students will explore emerging social media technologies and study their application in contemporary practice. Through hands-on learning, students will design, implement and measure a digital marketing strategy for a business while participating in social networks, forums, blogs, wikis, micro-blogs and more.

Distribution: Business/Services. Offered: Spring Semester.

#### BUS 290 - BUSINESS INTERNSHIP (3)

Supervised internship performed off campus in a business setting.

Distribution: Business/Services. Offered: Spring Semester.

### CA - Culinary Arts

#### CA 107 - CUSTOMER SERVICE (4)

Students will learn the cycle of service as it relates to the importance of the customer. This course discusses the difference between hospitality and service and outlines the four facets of high-quality customer service. Other topics covered are serviceprofit chain, suggestive

selling, ensuring profit and ensuring consistent service value. Certification by NRAEF is required for completion of this course.

Distribution: Business/Services. Offered: Fall Semester.

#### CA 110 - MIS EN PLACE (1)

More than just a French term that few can pronounce correctly, the professional chef lives and dies by a good *mise en place*. Meaning "everything in place," this course will cover topics that will help prepare students for cooking/baking in a professional manner. Students will learn how to create prep lists, as well as developing the ability to plan and organize a day's work. Proper knife care and cuts are also covered in this course.

Distribution: Business/Services. Offered: Fall Semester.

#### CA 134 - PROFESSIONAL BAKING CONCEPTS (4)

Cookies and breads, cakes and custards; these are a few of the areas students will be introduced to. Through a combination of lecture as well as hands-on experience, students gain an understanding of the how's and why's of the commercial bakery.

Distribution: Business/Services. Offered: Fall Semester.

#### CA 135 - BREAKFAST BISTRO (2)

Earn your toque pleats by learning the many different ways to cook an egg, along with all of the other breakfast foods. Breakfast cookery helps develop speed in the kitchen, while allowing quality to remain the focus.

Distribution: Business/Services. Prerequisite: CA140 CA145 CA134. Offered: Spring Semester.

#### CA 140 - FUNDAMENTALS OF PROF. COOKING (4)

This course combines lecture, demonstration and student participation in order to develop an understanding of the composition of various foods and the correct preparation methods with a focus on classic techniques. Purchasing quality food products, proper storage, service techniques and menu planning are also discussed.

Distribution: Business/Services. Offered: Fall Semester.

#### CA 145 - SERVSAFE (1)

This course covers the causes and prevention of foodborne illnesses. Sanitation and safe food handling from the workers', customers', and supervisors' point of

view are discussed. NRAEF ServSafe Food Protection Manager Certification is required for completion of this course.

Distribution: Business/Services. Offered: NULL.

#### CA 150 - BANQUET QUANTITY FOOD PRODUCTION (3)

Consistently preparing high quality food in large quantities is key to the success of any foodservice establishment's banquet or catering operations. Roasts and steaks, soups and sauces, composed salads and much more will be covered in this course. On-site catering events including plated dinners and receptions will also take place as part of the educational aspect of this course.

Distribution: Business/Services. Prerequisite: CA140 CA145 CA134. Offered: Spring Semester.

#### CA 155 - BAKING APPLICATIONS (3)

Develop practical baking and pastry skills. Baking and decorating cakes as well as quick breads and yeast breads. Prepare a variety of desserts from aebleskivers to zeppoli.

Distribution: Business/Services. Prerequisite: CA134 CA140 CA145. Offered: Spring Semester.

#### CA 165 - CULINARY MATH (2)

Applied mathematical operations used to increase or decrease standard recipe yields, calculate food costs, convert recipe units of measure and calculate portion costs, as well as menu prices.

Distribution: Business/Services. Offered: Fall Semester.

#### CA 166 - FRONT OF HOUSE OPERATIONS (2)

The backbone of fine dining is presentation. This course will outline the different aspects of running the front of house in a fine dining operation; also covered will be the roles of server, maître d, and pantry chef.

Distribution: Business/Services. Prerequisite: CA107 CA140 CA145 CA134. Offered: Spring Semester.

#### CA 188 - HOSPITALITY AND MANAGEMENT (3)

This course is designed to prepare students for the many rewards and challenges of restaurant management including the "people side" of management. Effective communications, establishing harassment free workplaces, and building successful teams are three

major areas of concentration. Certification by NRAEF is required for completion of this course.

Distribution: Business/Services. Offered: Spring Semester.

#### CA 200 - NUTRITION (3)

Nutrition is the science of the nutrients in food and how they maintain the body. Students will learn the function of food ingredients and the aesthetic (flavor, texture and aroma) profiles of food to create dishes that are both creative and delicious. How people taste food and increased awareness of nutritional standards and guidelines are the basis for study of proteins fats and other lipids, carbohydrates and vitamins, minerals and water.

Distribution: Business/Services. Offered: Fall Semester.

#### CA 210 - ACCOUNTING FOR HOSPITALITY (2)

Involves financial practices of a food service operation. Topics include budgeting, profit and loss statements, managing accounts receivable and accounts payable, and pricing. Certification by NRAEF is required for completion of this course.

Distribution: Business/Services. Prerequisite: CA165. Corequisite: CA240. Offered: Fall Semester, Spring Semester.

#### CA 212 - BAKE SHOP (2)

The bakery and pastry shop are responsible for the first and last impression on the diner. Hand-formed artisan breads and spreads, as well as decadent plated desserts. Prepare desserts will be based on current menu requirements, as well as featured dessert. Various layered and stacked cakes and decorating techniques covered.

Distribution: Business/Services. Prerequisite: CA135 CA150 CA155 CA166. Offered: Fall Semester.

#### CA 215 - CULINARY CLASSICS (2)

The classics are the foundation upon which all other culinary skills are developed. This course will allow the student to develop their abilities in the on-campus restaurant, the Oak Room, using classic cooking techniques such as braising and sautéing.

Distribution: Business/Services. Prerequisite: CA135 CA150 CA155 CA166. Offered: Fall Semester.

#### CA 220 - INTRODUCTION TO SOUS CHEF (2)

Planning and costing dishes to be featured in our Chef's Café. Placing orders, checking and receiving deliveries. Demonstration cooking, as well as helping give guidance and direction to fellow students.

Distribution: Business/Services. Prerequisite: CA135 CA150 CA155 CA166 . Offered: Fall Semester.

#### CA 231 - INTRO TO INTERNATIONAL CUISINE (2)

Sample different regional cuisines from around the world. Asian cuisines, African cuisines, European and Oceanic cuisines, along with the Cuisines of the Americas will all be visited.

Distribution: Business/Services. Prerequisite: CA135 CA150 CA155 CA166. Offered: Fall Semester.

#### CA 240 - MENU PLANNING (1)

One of the most exciting and challenging parts of any chef's job is planning a menu. Chefs have limitless ideas, but it takes careful thought and foresight to pick out the ones that have potential. Students will use concepts learned to develop menus that are put to action in CA 260 Restaurant Concepts.

Distribution: Business/Services. Prerequisite: CA135 CA150 CA155 CA166. Corequisite: CA210. Offered: Fall Semester.

#### CA 245 - MODERN CUISINE (4)

Beef stew that still has the flavor of a medium rare steak. Or ice cream frozen at -320° F. This course allows students to work with new equipment and techniques like using a hot water bath to make a memorable beef stew or liquid nitrogen for the ice cream. During this semester the Oak Room on-campus restaurant will serve modernist cuisine and modernized classics.

Distribution: Business/Services. Prerequisite: CA 212 CA215 CA220. Corequisite: CA255 CA260. Offered: Spring Semester.

#### CA 255 - PRACTICAL SUPERVISION (3)

Develop leadership skills with the help of a chef instructor. Take what you learned in Hospitality Management and put it to use in real life. Each student Sous Chef will take on the role of kitchen supervisor to allow for building real-world skill in various settings.

Distribution: Business/Services. Prerequisite: CA135 CA150 CA155 CA166. Corequisite: CA 245 CA260. Offered: Spring Semester.



**CA 260 - RESTAURANT CONCEPTS (2)**

Almost everybody has an idea for a restaurant. This course is designed to allow students the ability to see that dream come to life (sort of ). Using menus they create in CA 240 Menu Planning, students will develop a concept, fine dining or bistro, gastro pub or New York deli and open a pop-up style restaurant in the Oak Room space.

Distribution: Business/Services. Prerequisite: CA240. Corequisite: CA245 CA255. Offered: Spring Semester.

**CA 265 - CULINARY EXPLORATION LAB (3)**

This course will cover a wide variety of topics from charcuterie and butchery to chocolate and sugar decorations. With a combination of lecture and lab, students are introduced to many areas not covered in depth in other courses.

Distribution: Business/Services. Offered: Spring Semester.

**CA 290 - INTERNSHIP (6)**

Experience in a commercial food service operation. Work in all areas of a commercial kitchen provides knowledge and skills of each position. The experience reveals the teamwork and responsibilities in a successful operation.

Distribution: Business/Services. Prerequisite: Must complete all diploma requirements to be eligible to register. . Offered: NULL.

**CHRD - Social Diversity****CHRD 130 - HUMAN DEVELOPMENT (3)**

Tracing the stages of human life from infancy, childhood, adolescence, and adulthood into old age. This course covers the emotional, psychosocial, and developmental stages throughout the life cycle. Students will study the implications of these stages in a variety of professional and social settings.

Distribution: Health Services. Offered: Spring Semester.

**CIS - Computer Science****CIS 101 - COMPUTER CONCEPTS (3)**

Overview of computer concepts with emphasis on file management, e-mail, word processing, spreadsheets, and Internet-based technology. The student will gain

hands-on experience with Microsoft Outlook, Word, Excel, Teams and cloud-based technologies such as GoogleDrive and OneDrive.

Distribution: General Education. Offered: Spring Semester.

**CIS 105 - INTRODUCTION TO COMPUTERS (3)**

Overview of computer applications with emphasis on e-mail, word processing, spreadsheets, database, presentation tools and Internet-based technology. This course will cover the Microsoft Office Suite, Microsoft Teams and cloud-based technologies such as GoogleDrive and OneDrive.

Distribution: General Education. Offered: Fall Semester, Spring Semester, Summer Semester.

**CIS 107 - SPREADSHEET CONCEPTS (3)**

Detailed instruction on the use of Microsoft Excel covering beginning, intermediate, and advanced concepts. Concepts covered include working with formulas and functions; creating and formatting charts graphs and pivot tables/pivot charts; sorting and filtering lists; data consolidation between multiple worksheets and workbooks; and importing and exporting of data.

Distribution: General Education. Offered: Fall Semester, Spring Semester.

**CIS 130 - NETWORKING ESSENTIALS (3)**

Covers the fundamentals of networking. Students will learn how devices communicate on a network, network addressing and network services, how to build a home network and configure basic security, and the basics of configuring devices. Network troubleshooting will be introduced.

Distribution: Engineering Technologies. Offered: Spring Semester.

**CIS 167 - IT ESSENTIALS (3)**

Students learn the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. Students learn to assemble and configure a computer, install operating systems and software and troubleshoot hardware and software problems. This course helps students prepare for the CompTIA A+ certification.

Distribution: Engineering Technologies. Offered: Fall Semester.

### CIS 170 - DESKTOP PUBLISHING (3)

In today's technological world, many businesses are doing their own "in-house" publishing. This course will give students the background and hands-on practice to be able to utilize software programs like Microsoft Publisher and Adobe Photoshop. Emphasis is placed on the creation of student projects including newsletters, brochures, posters and promotional materials, as well as image manipulation. Principles of layout and design will be highlighted. Prerequisite: CIS 143.

Distribution: Business/Services. Prerequisite: CIS143. Offered: Spring Semester.

### CIS 171 - DIGITAL MEDIA CONCEPTS (3)

Students will study the eight-step planning cycle that helps ensure the development of a winning Social Media Marketing Plan. This model incorporates the conceptual foundation and practical techniques necessary for creating an effective SMM plan.

Students also will learn to develop digital media content to communicate ideas clearly, concisely, and effectively. Developing digital media content involves purposeful design by incorporating text, graphics, audio, and video into a cohesive message and/or story. Students will gain hands-on experience working with a variety of digital media/multimedia tools.

Distribution: Business/Services. Prerequisite: BUS143. Offered: Spring Semester.

### CIS 203 - WEB ESSENTIALS (3)

Provides detailed instruction on the development, maintenance, publication and design of a Web site using HTML, Wix and Word Press This course also discusses social media and ways to market a business using a variety of social media platforms. This course also includes use of PhotoShop. Prerequisite: CIS 143. Corequisite/Prerequisite: CIS 170.

Distribution: Business/Services. Prerequisite: CIS143. Offered: Summer Semester.

## COMM - Communications

### COMM 151 - MASS MEDIA AND CULTURE (3)

A brief history of mass media and critical assessment of

emerging technology and information delivery. Cultural, global and economic impacts of print and digital communication are examined. Legal and ethical uses of mass media are considered in context of personal/private, social, and career or workplace applications.

Distribution: General Education. Offered: Fall Semester, Spring Semester.

### COMM 210 - INTERPERSONAL COMMUNICATIONS (3)

Students will explore human interaction in face-to-face and computer mediated situations. The focus of this course will be on helping students develop interpersonal skills to enhance their ability to communicate verbally and nonverbally using shared meaning in a variety of social contexts, such as in the workplace, with family, and in other social situations. This course provides intellectual, psychological, and experiential activities for developing interpersonal communication skills in common situations within our society.

Distribution: General Education. Offered: Fall Semester, Spring Semester, Summer Semester.

## CPR - CPR Training

### CPR 100 - FIRST AID, CPR AED (0.5)

This course trains participants to provide first aid, CPR, and the use of an automated external defibrillator (AED). Students must complete the hands-on skill session. This class is offered for credit as a Pass/No Pass course.

Distribution: Health Services. Offered: Fall Semester, Spring Semester.

## DPT - Diesel Power Technology

### DPT 107 - INTRODUCTION TO HYDRAULICS (2)

Fundamental theories of fluid dynamics and basic laws of physics governing the non-compressible nature of liquids will be the foundation of this course. Pascal's law, Bernoulli's principle and fluid mechanics will be explored utilizing modern hydraulic engineering trainers allowing students to build models which demonstrate the principles and theories discussed during the lecture portion of this course. Component identification, design limits of components as well as expected performance based on load, flow and pressure will be key elements of the course. Open and closed center systems will be explored in depth.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### DPT 115 - INTRO TO POWERTRAIN (2)

Basic information relating to traditional dry and wet clutch technologies, basic gearbox designs and hydrostatic drive systems. Basic information on all types of bearing, belts and chain drive systems. An understanding of theories relevant to bearing load capacities, horsepower limitations and drive engagement will be covered and training on diagnosis. Students will be introduced to current technology being utilized on major agricultural equipment, lawn equipment and over the road truck and trailers equipment.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### DPT 120 - DIESEL ENGINES CONTROL SYSTEMS (3)

This course will introduce the student to the diesel engine and the mechanical control systems commonly used in their operation. Students will learn the design and operating principles which make diesels different from spark ignition engines and develop a diagnostic technique for working with them based on this knowledge. Internal components, wear tolerances, operating characteristics and fuel delivery systems for the common diesel engine brands utilized in the ag equipment industry will be explored. Safety practices, tool selection, component identification and failure mode analysis will be fundamental topics in this course.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### DPT 121 - ADV. DIESEL ENGINE AND CONTROL SYS (3)

Students will be able to experience firsthand the changes that have occurred within the diesel engine industry due to the advancements in microcomputer and electronics technology. HPCR (High Pressure, Common Rail) fuel systems, HEUI injectors, as well as their respective control systems, will be discussed in detail. Fuel and engine monitoring, sensor operation, variable displacement turbochargers and other factors relevant to emissions will be focal points of this course. The student will develop basic diagnostic procedures and an entry level understanding of DTC information which is fundamental to modern diesel engine failure diagnosis. At the conclusion of this course the student will have the opportunity to complete the ASE Diesel Diagnostics Certification exam.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### DPT 130 - ELECTRICAL ELECTRONIC SYSTEMS (2)

Course is based around general electrical theory and the principles of DC and AC current operating in modern Agricultural Equipment. Topics to be explored include: current flow, Ohm's law, voltage, amperage, circuit types, test equipment, symbols used in electrical diagrams, and reading and understanding electrical diagrams in technical publications. Electrical and Electronic systems and controller networks and diagnostic procedures will also be discussed.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### DPT 161 - AIR COND. SERVICE FUNDAMENTALS (2)

Students will develop the skills and techniques necessary to diagnose and repair mobile automotive-style air conditioning systems found on today's modern agricultural equipment. Theories of system operation, components and flow patterns will be discussed. Students will have the opportunity to earn their mobile air conditioning service certification during this course.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### DPT 201 - GUIDANCE STEERING AND VARIABLE RATE (3)

This course expands many of the concepts, theories and practices utilized in maintaining, diagnosing and operating GPS/GIS equipment and software necessary for variable rate, site specific application of product, as well as auto steer capabilities of equipment. Mechanical/electrical diagnostic and troubleshooting practices will be developed and the repair of harnesses and components will be explored. Students will also utilize mapping and data collection activities to develop prescriptions for product application. The understanding of the link between software utilization and map/prescription deviation will be a fundamental element of the software/prescription diagnostics portion of this class. Students will be directly involved in seeding and fertilizer applications to the Mitchell Tech Land Lab by researching, developing and implementing the variable rate prescriptions that will be utilized during the spring seeding operation.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### DPT 207 - ADVANCED HYDRAULICS (3)

Diagnosing and testing to solve system problems; interpretation of fluid hydraulic schematic and diagrams; and electronic and computer-controlled systems are all covered.

Distribution: Agriculture & Transportation Technology.  
Offered: NULL.

#### DPT 210 - ADV FLUID POWER DYNAMICS (3)

This advanced hydraulics course will utilize variable displacement, pressure compensated hydraulic pumps, valves and components common to current production agricultural tractors and equipment to aid students in developing diagnostic and repair skills necessary to become proficient technicians. Students will become familiar with hydraulic pump diagnostics, priority circuit identification, flow control system diagnostics and electronic valve calibration. Component identification and inspection as well as direct system operation in the lab setting are fundamental elements of this course. Hydrostatic drives and motors will also be explored.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### DPT 215 - ADV. POWERTRAIN AND DRIVE SYSTEMS (2)

Advanced information relating to traditional dry and wet clutch technologies as well as gearbox designs, manual transmissions, automatic transmissions and hydrostatic drive systems. Torque, axle loading, differential drive design, hydraulic controls and power transmission through torque sensing drives will be explored. An understanding of theories relevant to load bearing capacities, horsepower limitations and drive engagement will be developed. Students will be introduced to current technology being utilized by major agricultural and over the road equipment.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### DPT 221 - AG EQUIPMENT DIAGNOSTICS (3)

The fundamental principles of mating attachments or drawn equipment electronically and hydraulically to combines and tractors will be the basis of this course. Concepts such as CAN bus diagnosis, ECV and ICV calibration, header compatibility and hydraulic flow requirements will be developed. Students will also be able to determine proper harness and hose configurations and basic operating characteristics for these types of equipment. Students will be taught how to

utilize available technical information from both service and sales manuals, as well as compatibility guides. In field diagnosis of operating problems with planting and harvest equipment and the ability to determine a course of action to remedy the situation will be elements of this learning path.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### DPT 231 - ADV ELECTRICAL/ELECTRIC DIAGNOSTICS (3)

Students will utilize "on-board" diagnostics systems as well as hand held equipment and laptop computers to access and diagnose DTC information from tractors and harvesting equipment. Proficiency with technical data, DVOM operation and component location and identification will be fundamental aspects of this course. Common theories and operational principles learned in previous courses relating to electrical and electronic components, their testing and circuit diagnostics will be revisited. Examples of these components would be potentiometers, hall-effect switches, thermistors, variable resistance sensors and relays. Students will develop their electrical/electronic diagnostic abilities by completing multiple activities designed to hone their critical thinking skills. This course is an active diagnostic lab course.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### DPT 240 - HARVESTING EQUIPMENT BASICS (3)

Students will explore the fundamentals of combine harvester operation, maintenance and repair. Basic machine wear component inspection, diagnosis and repair procedures will be the topics of study. Students will learn the basics of machine adjustments and header equipment compatibility, as well as field operation. Different types of threshing and separating systems will be explored as well as how they differ in wear and operating characteristics.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### DPT 241 - TRACTOR PERFORMANCE AND SET-UP (2)

Modern farm tractors are precise technological pieces of equipment on today's farms and ranches. The need to properly equip and ballast these machines for peak performance in a customer's operation is paramount. Student enrolled in this course will utilize sales catalog

information, test data and practical application to ballast, set wheel spacing and adjust steering, engine and power train parameters on a given machine.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### DPT 242 - SALES AND MARKETING : PARTS AND AFTERMARKET (2)

#### DPT 243 - SEEDING EQUIPMENT FUNDAMENTALS (3)

Students will learn the theories and principles behind the functional elements that make a row crop planter work. Seed placement, seed singulation, seed furrow development, closing, firming and frame system management will be topics of exploration. Seed monitoring systems and equipment for variable rate placement will also be discussed. Diagnostics of planting system operations and equipment wear recognition will be key points of focus in this fast-paced course. Components from all major manufacturers will be utilized in this course of study.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### DPT 245 - HAY EQUIPMENT FUNDAMENTALS (3)

The service and repair of modern hay equipment will be the focus of this course. Students will learn the theories and practices of wear inspection, functional diagnosis, forming, wrapping and related hydraulic function issues that arise when customers operate hay harvesting equipment. Round balers, large square balers and mowers/conditioners will be the primary equipment utilized in this course.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### DPT 250 - LIGHT TRUCK DRIVETRAINS (3)

This course is based on general theory of light and medium truck drive trains. Topics explored will include manual and automatic transmissions; transfer cases; and differentials. Also explored will be electronically controlled transmissions; maintenance and repair; and future applications of drive train systems and subsystems.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### DPT 251 - TRUCK INTEGRATED ELECTRONICS (2)

This course is designed around electronically controlled

diesel engine systems and subsystems. Students will examine in detail the relationship of CAN BUS and LIN networks and how they work with related diesel systems in a vehicle. A special emphasis will be placed on the electrical components and networks used in modern diesel emissions systems.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### DPT 252 - AIR AND HYDRAULIC BRAKES SYSTEMS (3)

This course is based upon general air and hydraulic brake theory and operation. Topics will include hydraulic brake systems, air brake systems, anti-lock braking systems, electronic braking systems, as well as general maintenance and troubleshooting. The importance of a properly operating braking system in light and heavy truck applications will be discussed in detail.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### DPT 253 - CHASSIS AND DOT INSPECTIONS (2)

This course will prepare students for the ASE Electronic Diesel Engine Diagnosis (L2) Test. Students will explore and conduct DOT inspection of on rad light and medium duty truck and truck systems.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### DPT 260 - PREVENTATIVE MAINTENANCE (3)

This course is based on preventative maintenance practices in light and medium duty truck applications. Topics will include general maintenance practices, scheduled maintenance and repairs and emergency maintenance and repairs. A special emphasis will be placed on emission controls system maintenance procedures.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### DPT 261 - OVER THE ROAD EQUIPMENT DIAGNOSTICS (3)

Fundamental principles of parts failure analysis will be examined in this course. Concepts such as CAN BUS and LIN controller diagnostics along with a general knowledge of troubleshooting and repair will be developed. Students will be taught how to utilize available technical manuals and guides, along with

vehicle specific computer controlled diagnostic systems. In the shop setting, critical thinking skills will be used to develop and implement a troubleshooting course of action and repair.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### DPT 262 - TRANSPORTATION REFRIGERATION (1)

Students will learn basic on-road and transportation air conditioning controls and systems. We will also explore various troubleshooting and maintenance practices in accordance with vehicle manufacturer recommendations.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### DPT 290 - INTERNSHIP (6)

Supervised internship performed off-campus in an agricultural mechanic or service setting.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester, Summer Semester.

### **ECM - Electrical Constr. & Maint.**

#### ECM 101 - ELECTRICAL FUNDAMENTALS (4)

AC/DC electricity and its characteristics. A study of the basic components used in various electrical systems.

Distribution: Construction Technologies. Offered: Fall Semester.

#### ECM 103 - DESIGNING ELECTRICAL SYSTEMS (3)

Basic wiring systems used in commercial and industrial fields as well as related code construction regulations. Calculation of motor branch circuits, feeder circuits and protective devices required by the NEC. Motor overload protection and wiring methods are discussed. Equipment design and the use of electrical equipment are explored. Prerequisites: ECM 101, ECM 151.

Distribution: Construction Technologies. Prerequisite: ECM101 ECM151. Offered: Spring Semester.

#### ECM 121 - ELECTRICAL DRAWING (4)

Electrical blueprints. Current flow through circuits are studied using wiring diagrams and cable overlays. Work is conducted on wiring projects in student labs and project houses.

Distribution: Construction Technologies. Offered: Fall Semester.

#### ECM 122 - RESIDENTIAL BLUEPRINT CODE (3)

Home electrical systems using state and national wiring codes and regulations. Circuit-by-circuit review of unique electrical items and wiring methods installed in a home. Prerequisite: ECM 121.

Distribution: Construction Technologies. Prerequisite: ECM121. Offered: Spring Semester.

#### ECM 149 - BASIC CONDUIT BENDING (2)

Formulas used in conduit bending. Application of the formulas is used with electrical metallic tubing (EMT) hand benders. Then the different types of conduit bends are installed on practice surfaces.

Distribution: Construction Technologies. Offered: Spring Semester.

#### ECM 151 - BASIC ELECTRICAL LAB (5)

Hands-on study of AC/DC electricity behavior. Study of the NEC pertaining to general and residential wiring. Perform residential wiring tasks, including wiring of lab projects and complete wiring of project homes.

Distribution: Construction Technologies. Offered: Fall Semester.

#### ECM 157 - WIRING LAB (4)

Continuation of ECM 151. Basic wiring practices and methods used in residential settings are introduced. Install 100 and 200 amp breaker panels. Students work with a variety of cable wiring methods. Also studied are different electrical heating and basic control systems for motors. Safe electrical practices in the electrical industry are taught. Prerequisites: ECM 101, ECM 121, ECM 151.

Distribution: Construction Technologies. Prerequisite: ECM151 ECM101 ECM121. Offered: Spring Semester.

#### ECM 202 - MOTOR THEORY MAINTENANCE (2)

A practical hands-on course using ammeters, voltmeters, wattmeters and multimeters in testing and troubleshooting electric motors, components and wiring systems. A study of single and three-phase AC motors, their construction features and operating characteristics. This lecture/lab class emphasizes electric motor terminology, identification of motor types, enclosures, mounts, motor selection, connections, maintenance,

testing and troubleshooting.

Distribution: Construction Technologies. Offered: Spring Semester.

#### ECM 211 - POWER DISTRIBUTION (1.5)

High voltage systems, transformers and their connections. The relationship between the primary and secondary sides of transformers are studied along with equipment selection and utilization. Generation, transportation and grounding of singlephase and three-phase power.

Distribution: Construction Technologies. Offered: Fall Semester.

#### ECM 221 - COMMERCIAL BLUEPRINT READING (2.5)

Continuation of ECM 122. Commercial and industrial installations are presented along with code-related regulations. Commercial service and feeder calculations. Commercial print reading and estimating.

Distribution: Construction Technologies. Prerequisite: ECM122. Offered: Spring Semester.

#### ECM 231 - ELECTRONIC CIRCUITS (2)

Electronic circuits and the operation of electronic components. Diodes, SCRs, triacs, JFETs, MOSFETs, UJT's and industrial electronic devices are studied. Electronic controls are introduced.

Distribution: Construction Technologies. Offered: Fall Semester.

#### ECM 235 - STRUCTURED CABLING (4)

Identification of transmission mediums (UTP, STP, COAX, FIBER, etc.). Voice, data and video systems are reviewed. ANSI/EIA/TIA standards; proper terminating, splicing and testing of Category 5e and 6 copper cables; as well as terminating and splicing of fiber optic cables are covered.

Distribution: Construction Technologies. Offered: Spring Semester.

#### ECM 244 - VFD MOTOR DRIVES (1)

Operation of the solid state components found in electric motor drives. Students will learn the different types of electric motor drives, drive operating principles, and advantages to different types of motor drives to make the best selection. The course covers

procedures for installation, basic and advanced programming, and start-up procedures for electric drives and motors. Students will learn to establish troubleshooting procedures to ensure minimal downtime.

Distribution: Construction Technologies. Offered: Spring Semester.

#### ECM 251 - COMMERCIAL/INDUSTRIAL WIRING LAB (4)

Continuation of ECM 149. Practical wiring applications of commercial and industrial are presented. All types of conduit bending are taught including hydraulic bending. An advanced level of industrial conduit bending is demonstrated.

Distribution: Construction Technologies. Prerequisite: ECM149. Offered: Fall Semester.

#### ECM 252 - INDUSTRIAL CONTROLS (3)

Study of mechanical and electromagnetic starters, timers, switches and other control devices. Start/stop controls for motors and other industrial equipment. Learn control logic systems with ladder and wiring diagrams. Study connections and troubleshoot various circuits. Corequisite: ECM 255.

Distribution: Construction Technologies. Offered: Fall Semester.

#### ECM 253 - ADVANCED CONTROL SYSTEMS (2.5)

Continuation of ECM 252. Applications of control devices are reviewed. Photoelectric controls, PLC logic modules, sequential motor starting, troubleshooting, reduced-voltage startup, acceleration and deceleration methods are studied. Prerequisites: ECM 252, ECM 255. Corequisite: ECM 257.

Distribution: Construction Technologies. Prerequisite: ECM252 ECM255. Offered: Spring Semester.

#### ECM 255 - CONTROL LAB I (1.5)

Hands-on use of apparatus studied in ECM 252 and ECM 202. Projects range from basic circuitry to advanced circuits utilizing motor starters, pilot devices and timing devices. Corequisite: ECM 252.

Distribution: Construction Technologies. Offered: Fall Semester.

#### ECM 257 - ADVANCED CONTROL LAB II (2)

Continuation of ECM 255. Higher level experiments and practical applications of advanced industrial control circuitry are presented utilizing lab experiments and control equipment studied in ECM 253. Student tasks include designing, constructing, wiring and troubleshooting of the mechanical and/or PLC operated projects. Corequisite: ECM 253.

Distribution: Construction Technologies. Prerequisite: ECM255. Offered: Spring Semester.

#### ECM 259 - PROGRAMMABLE LOGIC CONTROLS (3)

Programmable logic control systems for the control of electrical components and equipment. Projects using solid state devices in commercial and industrial applications are completed.

Distribution: Construction Technologies. Offered: Fall Semester.

#### ECM 261 - ADVANCED PROGRAMMABLE LOGIC CONTR (3.5)

Continuation of ECM 259. More capabilities and applications of solid state control systems are integrated with text and lab projects. Logic networks solving typical industrial control problems are developed and programmed into a variety of controllers. Prerequisite: ECM 259.

Distribution: Construction Technologies. Prerequisite: ECM259. Offered: Spring Semester.

## Economics

### ECON 101

Provides a basic understanding of the principles of microeconomics. At its core, the study of economics deals with the choices and decisions we make to manage the scarce resources available to us. Microeconomics is the branch of economics that pertains to decisions made at the individual level, such as the choices individual consumers and companies make after evaluating resources, costs, and trade-offs.

#### ECON 101 - MICROECONOMICS (3)

This course will cover the study of the price system, market structures, and public policy. The topics of supply and demand, price controls, competition, elasticity, and efficient resource allocation will be addressed. Understanding how businesses determine what resources they will use to produce goods is vital for understanding Microeconomics.

Distribution: Business & Services. Offered: Fall.

## EC - Telecom

### EC 105 - DATA CABLING (3)

Covers fundamental principles for cable installation and splicing. Topics include cable construction, (Fiber, Copper, Coax) basics of transmission media, color coding, cable closures and splicing of cable. Define copper cable transmission medium. Define fiber optic transmission medium. Define wireless transmission medium.

### EC 112 - ELECTRICAL CIRCUITS (3)

Direct Current (DC) theory and the fundamentals of series and parallel DC circuits. An introduction to the concept of electricity and its behavior with respect to conductors and resistance devices. The study of Alternating Current (AC) circuits begins with the generation of a sine wave and review of trigonometric functions and continues through resonance.

Distribution: Engineering Technologies. Offered: Fall Semester.

### EC 113 - ELECTRONIC THEORY (3)

Introduction to the components of electronics, both passive and active are covered. Students study the fundamental circuitry, solid state components, resistance, capacitance, inductance and AC theory. Critical thinking skills and troubleshooting are also studied.

Prerequisite: EC 112 or EC 121. Offered: Spring.

### EC 121 - AC/DC ANALYSIS (4)

Direct Current (DC) theory and the fundamentals of series and parallel DC circuits. An introduction to the concept of electricity and its behavior with respect to conductors and resistance devices. The study of Alternating Current (AC) circuits begins with the generation of a sine wave and review of trigonometric functions and continues through resonance.

Distribution: Engineering Technologies. Offered: Spring Semester.

## EDU - Education Special Topics

### EDU 298 - CTE MENTORSHIP INTERNSHIP (4)

Methods, strategies, and theories of adult learning will



be covered. Hands-on application of instructional methods, assessment strategies, technology integration, diversity, communication and classroom management will be incorporated into two workshop sessions as well as 30 weeks in an online learning environment. This course meets the alternative certification requirements for secondary instructors who teach CTE courses.

Distribution: NULL. Offered: 12 month term.

EDU 299 - METHODS OF CTE TEACHING (4)

NULL

Distribution: Business/Services. Offered: Fall Semester.

## **ENGL - English**

ENGL 098 - BASIC WRITING (2)

Review in the basics of written communications. The emphasis is on grammar, sentence clarity, and paragraph structure. This class is offered for credit as a Pass/No Pass course. Placement test scores determine assignment.

Distribution: General Education. Offered: Fall Semester, Spring Semester.

ENGL 101 - ENGLISH COMPOSITION (3)

This class is designed to develop students' skills in critical reading and in a range of writing tasks. It allows students to go beyond matters of comprehension and summary to evaluate and extend everything they read. It will assist students in discovering something meaningful to say and to use writing as a way to actively participate in discussions about certain subjects; it will also enable students to approach a topic in a creative manner, gather and evaluate information, organize ideas, write coherent sentences, and learn to revise and edit drafts.

This course includes review techniques for correct mechanics, grammar, and sentence construction. It introduces students to professional and technical writing, and it assists students in developing strategies for collaborative writing.

Prerequisite: ENGL 098 or qualifying placement score.

Distribution: General Education. Offered: Fall Semester, Spring Semester.

ENGL 101 - ENGLISH COMPOSITION (ONLINE) (3)

This class is designed to develop students' skills in

critical reading and in a range of writing tasks. It allows students to go beyond matters of comprehension and summary to evaluate and extend everything they read. It will assist students in discovering something meaningful to say and to use writing as a way to actively participate in discussions about certain subjects; it will also enable students to approach a topic in a creative manner, gather and evaluate information, organize ideas, write coherent sentences, and learn to revise and edit drafts.

This course includes review techniques for correct mechanics, grammar, and sentence construction. It introduces students to professional and technical writing, and it assists students in developing strategies for collaborative writing.

Prerequisite: ENGL 098 or qualifying placement score.

Distribution: General Education. Offered: Fall Semester, Spring Semester.

ENGL 110 - WORKPLACE COMMUNICATIONS (3)

This course emphasizes written and oral skills needed for success in the workplace. Students will practice professional communications through activities and collaborative projects. Instruction will provide students with strategies for addressing essential writing, speaking, and listening skills. Prerequisite: ENGL 098 or qualifying placement score.

Distribution: General Education. Offered: Fall Semester, Spring Semester, Summer Semester.

## **ENTR-Entrepreneurship**

ENTR 200 - STRATEGIC THINKING (3)

Students are introduced to the principles and techniques of problem solving, creativity and opportunity recognition that are critical to an entrepreneurial mindset. A wide variety of creative problem solving and theory building skills are presented and students have the opportunity to apply those to the development of an innovation or invention.

Offered: Fall.

ENTR 205 - BUSINESS MODEL DEVELOPMENT (3)

Creating new businesses, capturing new markets, and enhancing organizational effectiveness occur through improving productivity or innovation, or both. Students

will explore the building blocks to develop successful frameworks, strategies, funding techniques, business model and design-driven innovation. Focus is on the selection of an appropriate business model.

Offered: Fall.

#### ENTR 210 - HOW TO BUILD A STARTUP (3)

Focus is on the startup and operation of a business. Students examine the accounting, finance, management, and marketing (tools) and processes (application of tools) as they pertain to entrepreneurial endeavors. Develops overall managerial awareness and analytical skills in small business problem solving.

Offered: Fall.

#### ENTR 215 - PROFESSIONAL SELLING (3)

Professional selling is predicated on question-based selling. Students learn how to conduct an interview and make recommendations to customers. This course provides students with the knowledge and skill sets needed to give them the ability to make effective sales presentations to businesses or consumers, including direct selling.

Offered: Fall.

#### ENTR 225 - BUSINESS PLAN DEVELOPMENT (3)

Every successful venture, big or small, started with a problem and an idea for a solution. New venture success is a measured combination of feasibility, practicality, testing, and luck. This course will teach students how to research and write an effective business plan.

Offered: Spring.

#### ENTR 230 - MARKET ANALYSIS (3)

This course will explore markets and learn how to identify and evaluate opportunities for new businesses. Topics covered include market analysis, researching venture creating opportunities, and finding a niche to operate.

Offered: Spring.

#### ENTR 235 - ADVISORY BOARDS (3)

Establishing a strong advisory board to utilize external expertise is vital to any business, small or large. This course will teach students about the team of professionals, often called an advisory board, and the impact this group of experts can make in successfully

operating a business. Advisory boards may be comprised of a(n) accountant, lawyer, insurance agent, banker, and personal advisors.

Offered: Spring.

#### ENTR 240 - CUSTOMER DEVELOPMENT (3)

This course will introduce students to the tools and process of gathering customer insights for identifying and developing new product opportunities. Students will acquire the knowledge and skills to turn their ideas gained from understanding customer needs into innovative products and solutions.

Offered: Spring.

### EUST - Substation Tech

#### EUST 110 - BASIC MOTOR CONTROLS (2)

Presents basic AC and DC motor controls concepts and gives students an understanding of typical devices such as pushbuttons, selector switches, sensors, starters, contactors, overloads and relays.

Distribution: Energy Production Technologies. Offered: Fall Semester.

#### EUST 114 - SUBSTATION OPERATIONS LAB I (4)

This lab will supplement the topics covered in EUST 120.

Distribution: Energy Production Technologies. Offered: Fall Semester.

#### EUST 115 - SUBSTATION OPERATIONS LAB II (4)

This lab will supplement the topics covered in EUST 121.

Distribution: Energy Production Technologies. Offered: Spring Semester.

#### EUST 120 - SUBSTATION OPERATIONS I (3)

Overview of substations and the different types. Students will learn what makes up the components of a substation such as the transformers and how they are cooled, different types of circuit breakers, methods of voltage control along with the function of smart grid metering and relaying.

Distribution: Energy Production Technologies. Offered: Fall Semester.

**EUST 121 - SUBSTATION OPERATIONS II (3)**

A continuation of EUST 120. Students will perform hands-on testing of the components that make up a substation such as transformers, circuit breakers, regulators, capacitor banks along with replacement of smart meters and other smart grid equipment.

Distribution: Energy Production Technologies.  
Prerequisite: EUST120. Offered: Spring Semester.

**EUST 130 - INTRO TO SMART GRID & METERING (2)**

Smart grid is a type of electrical grid which attempts to predict and intelligently respond to the behavior and actions of all electric power users connected to it—suppliers, consumers and those that do both—in order to efficiently deliver reliable, economic and sustainable electricity services.

Distribution: Energy Production Technologies. Offered: Spring Semester.

**EUST 131 - FIBER OPTICS FOR SUBSTATIONS (2)**

Identification of transmission mediums (UTP, STP, COAX, FIBER, etc.). ANSI/EIA/TIA standards; the proper terminate, splicing and testing of Category 5 and fiber optic cable are studied.

Distribution: Energy Production Technologies. Offered: Spring Semester.

**EUST 132 - SCHEMATIC READING (2)**

Designed to prepare students with the ability to read and understand electrical diagrams, recognize equipment and verify the integrity of existing schematics. Participants will be introduced to electrical symbols, one-line and three-line electrical schematics and their content, including basic layout and legends. The course includes practical exercises in schematic reading, diagram verification and the steps required for creating and maintaining accurate one-line diagrams.

Distribution: Energy Production Technologies. Offered: Fall Semester.

**EUST 145 - ALTERNATING CURRENT CIRCUITS (2)**

An introduction to the concepts of inductance, inductive reactance, capacitance, capacitive reactance, and reactive circuits; time constants; alternating current terms and principles; transformers; calculation of AC circuit values; identification of principles of motors and generators.

Distribution: Energy Production Technologies. Offered: Fall Semester.

**EUST 150 - SUBSTATION SAFETY I (1)**

A health and safety curriculum for secondary electrical trades. The manual used is designed to engage students in recognizing, evaluating and controlling hazards associated with electrical work in a substation environment.

Distribution: Energy Production Technologies. Offered: Fall Semester.

**EUST 151 - SUBSTATION SAFETY II (1)**

A continuation of EUST 150.

Distribution: Energy Production Technologies.  
Prerequisite: EUST150. Offered: Spring Semester.

**FBM - Farm Business Management****FBM 100 - BEGIN FARMER RANCHER FSA BORROW TRG (2)**

This course is for the Farmer/Rancher who has been farming/ranching less than 10 years and also is for FSA Borrowers who want training in the following areas: goal setting, balance sheet and financial ratios, financial trends, ag production trends, cash flow statements, record keeping systems, risk anagement/marketing, income tax management, estate planning and financial analysis. Current issues relating to production agricultural management are also reviewed in this course. This course meets the requirements set by FSA for direct loan borrowing.

Distribution: Business/Services. Offered: 12 month term.

**FBM 111 - FUNDAMENTALS OF FARM BUSINESS MGMT. (4)**

Overview of the Farm Business Management program. Students will be introduced to goal setting, self- and business assessment, record keeping, and business projections to provide the fundamentals for personal and business management progress. Current issues affecting business management are an integral part of this course.

Distribution: Business/Services. Offered: Fall Semester, Spring Semester, Summer Semester.

**FBM 113 - INTERPRETING TRENDS IN BUSINESS PLANNING (4)**

This course examines whole farm, enterprise, balance sheet, and inventory trends. Current analysis data is compared to historical data in making future farm business planning decisions. Financial ratios are used to indicate the farm financial structure.

Offered: Fall, Spring, Summer.

#### FBM 115 - IMPLEMENTATION FARM TAX PLANNING (4)

This course will provide an introduction to the basics of tax law and tools affecting the farm operation and allow the producer to be better prepared for tax season.

Offered: Fall, Spring, Summer.

#### FBM 121 - SYSTEM MMGMT DATA AND FARM ANALYSIS (4)

Continues to build on the fundamentals of farm business management. The student will complete a farm business financial and enterprise analysis. Sound financial record keeping is an integral component.

Distribution: Business/Services. Offered: Fall Semester, Spring Semester, Summer Semester.

#### FBM 123 - INTERPRETING AND EVALUATING FINANCIAL DATA (4)

This course continues to expand on preparation and evaluation of the farm business analysis. The course provides continued guidance and perfection of business record closeout procedures, tax implications of management decisions, and continues to monitor farm business and family goals

Offered: Fall, Spring, Summer.

#### FBM 125 - LABOR ECONOMICS AND MANAGEMENT (4)

This course will organize skills for effective management of farm employees and agribusiness personnel through development of; handbooks, compensation/incentive packages, individual expectations/evaluations, and team meetings.

Offered: Fall, Spring, Summer.

#### FBM 131 - MANAGING AND MODIFY FARM SYST DATA (4)

Helps the student refine their farm business data system and will assist them with applying year-end procedures for farm business analysis. Students will improve

accuracy in the following: farm enterprise analysis; tax planning and filing; and cash and liabilities checks.

Distribution: Business/Services. Offered: Fall Semester, Spring Semester, Summer Semester.

#### FBM 133 - STRATEGIES IN FARM SYSTEM DATA MANAGEMENT (4)

This course will help the student focus on long term strategies necessary to maintain and enhance the farm business and personal future financial goals. The student will complete the year by preparing for an accurate, usable business analysis

Offered: Fall, Spring, Summer.

#### FBM 135 - ANALYZING FARM TAX PLANNING DATA (4)

This course explores the implications of alternative tax management plans. The student will estimate farm business tax liability based on own records and develop a plan to make changes in final tax liability.

Offered: Fall, Spring, Summer.

#### FBM 141 - INTERPRETING AND EVAL FINAN DATA (4)

Expands on preparation and evaluation of the farm business analysis. Provides continued guidance and improvement of business record close-out procedures, tax implications of management decisions, and monitoring of farm business and family goals.

Distribution: Business/Services. Offered: Fall Semester, Spring Semester, Summer Semester.

#### FBM 143 - EXAMINING CONTEXT SYSTEM MANAGEMENT (4)

This course is designed to assist students in preparation of improved farm system management procedures. Students in the course will evaluate several years of an improved farm system analysis.

Offered: Fall, Spring, Summer.

#### FBM 145 - LEGAL ISSUES IN AGRICULTURE (4)

This course is designed for students who want to explore the legal issues surrounding estate planning including; taxation, family trusts, valuation of estate, gifting, transition, etc.

Offered: Fall, Spring, Summer.

**FBM 151 - INTEGRATING INFO FOR FINANCIAL PLAN (4)**

Provides a long-term strategy for the student to maintain and enhance the farm business and personal financial goals.

Distribution: Business/Services. Offered: Fall Semester, Spring Semester, Summer Semester.

**FBM 153 - TRENDS IN BUSINESS PLANNING (4)**

This course is designed to teach the advanced analysis student to recognize past trends in business to draw conclusions as to future trends.

Offered: Fall, Spring, Summer.

**FBM 155 - EVALUATING FARM ESTATE PLANNING (4)**

This course is an overview of legal issues affecting ownership, operation, and transfer for business operators and managers.

Offered: Fall, Spring, Summer.

**FBM 161 - EXAM OF THE CONTEXT SYS MANAGEMENT (4)**

Prepares students to develop improved farm system management procedures. Students will evaluate several years of an improved farm system analysis.

Distribution: Business/Services. Offered: Fall Semester, Spring Semester, Summer Semester.

**FBM 163 - SYSTEM PLANS AND PROJECTIONS (4)**

This course will enable students to identify the elements necessary to evaluate and create a strategic plan for their agribusiness systems. Students will focus on determining uses for the plan today and tomorrow and developing a plan to locate those team members necessary for strategic plan creation.

Offered: Fall, Spring, Summer.

**FBM 165 - PREPARING FOR FARM TRANSITION (4)**

This course provides the opportunity for the student to study the many aspects of farm business and/or family transition which occur in the typical farm business.

Offered: Fall, Spring, Summer.

**HS-Health Sciences****HS 100 - BASIC LIFE SUPPORT FOR HEALTH CARE (0.5)**

This course meets CDC, OSHA and NFPA guidelines for basic life support. It focuses on immediate life-threatening situations, demonstrates quick, effective responses and presents perspectives on how frequently these situations occur. It is ideal for professionals such as firefighters, police, paramedics, lifeguards, athletic trainers, medical assistants and other medical professionals. Topics covered include the professional rescuer's role in emergencies; victim's condition assessment; basic life support; rescue breathing; cardiac emergencies; airway obstructions; AED use; and resuscitation in special situations. This class is offered for credit as a Pass/No Pass course.

Distribution: Health Services. Offered: Fall Semester, Spring Semester.

**HS 101 - MEDICAL TERMINOLOGY (3)**

Vocabulary and terms used in the medical professions. Meanings of root words, prefixes and suffixes are studied. Proficiency is gained in analyzing medical words and in understanding how the word elements relate and apply to medicine. (A grade of "C" or higher required to continue in medical programs.)

Distribution: Health Services. Offered: Fall Semester, Spring Semester.

**HS 103 - ANATOMY/PHYSIOLOGY (4)**

Basic anatomy and physiology of the human body. Systems studied include integumentary, musculo-skeletal, nervous, circulatory, lymphatic, respiratory, urinary, digestive, endocrine and reproductive. (A grade of "C" or higher required to continue in medical programs.)

Distribution: Health Services. Offered: Fall Semester, Spring Semester.

**HS 162 - MEDICAL LAW & ETHICS (2)**

Ethical principles and legal regulations governing a medical practice.

Distribution: Health Services. Offered: Fall Semester, Spring Semester, Summer Semester.

## HST - Human Services Technician

### HST 101 - INTRO TO HUMAN SERVICES (3)

An interdisciplinary approach to the understanding of human services. This course introduces students to the skills necessary for entry level, professional work and allows students to explore themselves as potential human services professionals. The helping professions will be examined, including a brief history of social welfare and human service agencies.

Distribution: Health Services. Offered: Fall Semester.

### HST 104 - COMMUNITY RESOURCES (3)

Community resources benefit individuals and families. Students will be exposed to a wide variety of community agencies, resources, and programs. This course will provide a broad overview of the resources and services available to a diverse population. Students examine agencies' professional practices, as well as how these individuals resources fit into the community as a whole.

Distribution: Health Services. Offered: Fall Semester.

### HST 106 - HUMAN SERVICES POPULATIONS (3)

General information about human populations. Students will be introduced to a variety of people from diverse racial, ethnic, and cultural backgrounds, as well as information about the worldview or orientation that guides each culture. Discussions will involve the professional skills and awareness necessary for cultural sensitivity and bias along with age appropriate interactions.

Distribution: Health Services. Offered: Fall Semester.

### HST 112 - DISABILITIES (2)

An introduction to working with people with disabilities. This course begins with brief overview of specific developmental disabilities. Included is general information regarding special education, residential services, vocational services, and other services for children and adults with disabilities. Students will explore personal beliefs and biases regarding people with disabilities.

Distribution: Health Services. Offered: Fall Semester.

### HST 120 - CHEMICAL AND SUBSTANCE ABUSE (3)

A basic course in chemical, substance abuse and dependency. Students will be given brief overview of

common chemical and substance abuses. The physiological, psychological, and social aspects of chemical and substance abuse will be examined. The role of the human services professional in assessing alcohol and drug abuse and dependency will be studied.

Distribution: Health Services. Offered: Spring Semester.

### HST 122 - ABUSE AND NEGLECT (3)

This course discusses the different types of abuse and neglect involving children and adults and explores the definitions, indicators and causes of abuse, neglect and domestic violence. Students will learn about mandatory reporting laws and state welfare system. Investigation, assessment, and prevention efforts are highlighted.

Distribution: Health Services. Offered: Spring Semester.

### HST 124 - ASSESSMENT AND DOCUMENTATION (3)

The exchange of information between clients and the human service technician is crucial to the helping relationship. This course will introduce students to basic interviewing and record keeping skills as practiced in human services and community agencies. Skillful interviewing strategies will be observed and practiced through simulated activities and role playing.

Distribution: Health Services. Offered: Spring Semester.

### HST 128 - SELF-CARE (2)

This course covers topics concerning wellness, holistic health, mind-body connection, health and wellness models, mental wellness, positive self-concept, stress management, diet, nutrition, weight control, aerobic and strength building exercise, healthy lifestyle behaviors and applications to life. Professional boundaries and guidelines are discussed to promote healthy working relationships.

Distribution: Health Services. Offered: Spring Semester.

### HST 130 - BEHAVIORAL THEORY & PRINCIPLES (2)

Presents a behavior change approach in terms of basic principles, theory and treatment. This course will use science-based principles and procedures such as positive reinforcement, extinction, shaping, conditioning and modeling. Other topics covered will include behavioral techniques specific to Human Service Agencies in the Mitchell and surrounding areas.

Distribution: Health Services. Offered: Fall Semester.

### HST 210 - FAMILY DYNAMICS (3)

This course evaluates the significance of family and its impact on the well-being of individuals and society. Students will explore how the family meets the needs of each member and the family as a whole including the impact of differences, perspectives, and the effects of crisis.

Distribution: Health Services. Offered: Fall Semester.

#### HST 222 - MENTAL HEALTH & WELLNESS (3)

Study of human behavior with emphasis on emotional and mental abnormalities and modes of treatment. The student will identify common mental illnesses and maladaptive behavior; to assist in planning client care. Discuss trends in the management of the individual and medical and psychological treatment.

Distribution: Health Services. Offered: Fall Semester.

#### HST 226 - GROUP PRACTICE (3)

Provides an introduction to the techniques and applications of group work. Different types of groups, the phases of group development, and common group dynamics will be introduced. Students will gain understanding of concepts and skills when working with various groups.

Distribution: Health Services. Offered: Fall Semester.

#### HST 228 - SERVICE LEARNING (2)

Service learning is a structured learning experience that combines community service with academic instruction. It enables students to apply knowledge and skills learned in the classroom to meaningful service to the community. Students will engage in activities that address human and community needs, involve critical thinking, and create pathways for success.

Offered: Fall.

#### HST 230 - CAREER AND INTERNSHIP PREPARATION (2)

Prepares students to enter internship. Students will begin to make the transition from classroom learning to a professional setting. On-site visits to various community agencies will be made. Topics include reinforcement in: supervisory relationships, safety issues, computer applications, data collection, record keeping, professionalism, and confidentiality.

Distribution: Health Services. Offered: Fall Semester.

#### HST 240 - CRISIS INTERVENTION (2)

Theory of crisis intervention and stage of crisis. Presented will be human service worker's expected philosophy, knowledge, techniques and skills needed for working with people in crisis. Crisis intervention techniques will be examined, as well as models of conflict resolution.

Distribution: Health Services. Offered: Spring Semester.

#### HST 242 - INTRO TO GERONTOLOGY (2)

Focuses on human aging. Social, economic, and health issues related to the aging process will be discussed. Agencies, services, and programs that are available to the elderly will be explored.

Distribution: Health Services. Offered: Spring Semester.

#### HST 244 - INTRO TO CORRECTIONS (2)

Focuses on the corrections system in the United States. Students will learn about the correctional process of probation, institutionalization, and parole, along with human services careers within the corrections system. Services and programs available in the community and within institutions will be studied.

Distribution: Health Services. Offered: Spring Semester.

#### HST 246 - INTRO TO YOUTH SERVICES (2)

Focuses on individuals under the age of eighteen. Topics to be covered will include child development, parental influence, social, economic, and health issues related to youth. Students will learn about agencies, services, and programs available to youth and parents/guardians.

Distribution: Health Services. Offered: Spring.

#### HST 250 - SOCIAL WELFARE POLICIES (2)

This course will review the development of American social welfare policy and involve the student in current issues of social welfare programs and policy. The course will provide a basic overview of American social policy and program development in such areas as poverty and income maintenance, employment, housing, health care, and social service organization. Throughout emphasis will be placed on the understanding of policies and programs in the social, economic and political context and the effect of these policies and programs on individuals and society. Students will achieve a familiarity with social welfare programs including SSI, SSDI, TANF, CHIP, WIC, etc.

Distribution: Health Services. Offered: Spring Semester.

### HST 290 - INTERNSHIP (6)

Supervised work experience with an appropriate agency. Students will fine-tune their professional skill development through work with diverse populations in an approved setting. Students will have an opportunity to request internship sites based on their interest, strengths and employment goals.

Distribution: Health Services. Offered: Spring Semester.

## HV-Heating & Cooling-Technology

### HV 101 - ELECTRICAL FUNDAMENTALS (3)

Basics of electricity. Direct current (DC), alternating current (AC), electrical laws and symbols, circuit fundamentals, and the use of test equipment is taught. Electrical fundamentals related to heating, ventilation, air conditioning and refrigeration systems is emphasized. Projects are assigned using computer simulation programs and laboratory trainers.

Distribution: Construction Technologies. Offered: Fall Semester.

### HV 111 - HEATING FUNDAMENTALS (3)

Basic theories of heating. Typical heating equipment and appliances are reviewed. Maintenance procedures of gas, fuel oil and electric furnaces and boilers are studied. Projects include using computer simulation programs and lab trainers.

Distribution: Construction Technologies. Offered: Fall Semester.

### HV 121 - AIR CONDITION & REFRIGERATION FUND (2)

Introduces the basic theories of air conditioning and refrigeration. The proper operation and function of components in a cooling system are identified. Projects use computer simulation programs and lab trainers.

Distribution: Construction Technologies. Offered: Fall Semester.

### HV 122 - SHEET METAL TECH LAB (3)

Basic sheet metal and fittings. Use of sheet metal hand tools and equipment is taught. Procedures for duct layout and sheet metal terminology is reviewed. Use, maintenance and operating adjustments of sheet metal shop equipment. Pattern layout, fabrication, use of hand

tools and assembly procedures are covered.

Distribution: Construction Technologies. Offered: Spring Semester.

### HV 132 - HEATING REFRIGERATION THEORY (4)

Continuation of HV 121. More detailed information about heating and refrigeration cycles is taught. Also covered are controls, new refrigerants, refrigerant recovery and recycling. A refrigerant certification test is administered.

Distribution: Construction Technologies. Prerequisite: Must have completed HV-151. Offered: Spring Semester.

### HV 142 - HV CONTROLS HEAT PUMPS (3)

HVAC/R controls covered include low voltage, temperature, low/high, and oil pressure controls. Heat pump troubleshooting application and theory are also taught.

Distribution: Construction Technologies. Offered: Spring Semester.

### HV 151 - AIR CONDITION HEAT & REFRIG LAB I (4)

Introduction to lab trainers and equipment including heating and cooling equipment used in residential buildings. Projects use computer simulation programs.

Distribution: Construction Technologies. Offered: Fall Semester.

### HV 152 - AIR CONDITIONING HEATING REF LAB II (4)

Maintenance, troubleshooting and installation of gas, fuel oil and electric furnaces, air conditioning and refrigeration equipment. Projects use computer simulation programs and lab trainers.

Distribution: Construction Technologies. Prerequisite: Must have completed HV-151. Offered: Spring Semester.

### HV 160 - PLANNING ESTIMATING (3)

Calculations of heat loss and heat gain on residential/commercial buildings and on refrigeration equipment. Computer software programs are used to determine heat loss and gain. Students will develop blueprints, duct work layouts and estimates.

Distribution: Construction Technologies. Prerequisite: Must have completed HV-122 Sheet Metal . Offered:



Fall Semester.

#### HV 202 - COMMERCIAL REFRIGERATION (4)

Commercial refrigeration systems. Low, medium and high temperature refrigeration equipment and computerized rack systems are studied. The reading and drawing of commercial electrical schematics is introduced.

Distribution: Construction Technologies. Prerequisite: Must have completed first year technical courses and HV 251. Offered: Spring Semester.

#### HV 231 - HEAT PUMPS/SOLAR HEATING THEORY (3)

Application and design of heat pumps. The efficiency of heat pumps is compared to alternative systems. Maintenance, installation and troubleshooting procedures are taught. Integration of geothermal, solar, and photovoltaic technology is covered.

Distribution: Construction Technologies. Prerequisite: Must have completed first year technical courses. Offered: Fall Semester.

#### HV 232 - COMMERCIAL AIR CONDITIONING (3)

Operation of large, commercial air conditioning systems. Included are controls, pressure devices and safety regulations. Students will be able to troubleshoot and install indoor air quality devices.

Distribution: Construction Technologies. Prerequisite: Must have completed HV-251 Course. Offered: Spring Semester.

#### HV 244 - SCHEMATICS (2)

HVAC/R wiring diagram symbols. Students will be able to identify both parallel and series circuits; draw pictorial and ladder diagrams; identify abbreviations for common HVAC/R components; and be able to read the legend of a wiring schematic.

Distribution: Construction Technologies. Prerequisite: Must have completed first year technical courses. Offered: Fall Semester.

#### HV 251 - AIR CONDITION HEAT & REFRIG LAB III (4)

Maintenance, installation and troubleshooting of air conditioning, heat pumps, heating systems and indoor air quality systems.

Distribution: Construction Technologies. Prerequisite: Must have completed HV-151 & 152. Offered: Fall Semester.

#### HV 252 - AIR CONDITION HEAT REFRIG LAB IV (4)

Continuation of HV 251. Maintenance, installation and troubleshooting of heat pump, air conditioning, heating and refrigeration systems.

Distribution: Construction Technologies. Prerequisite: Must have completed HV-251 . Offered: Spring Semester.

#### HV 259 - DDC TEMPERATURE CONTROL (3)

Application and design of basic DDC Control Systems. Direct Digital Controls and Building Automation Systems will be introduced. Installation, programming and check out of a basic controls system will be studied.

Distribution: Construction Technologies. Prerequisite: Must have completed HV-251 Course. Offered: Spring Semester.

#### HV 290 - INTERNSHIP (6)

Work in a position related to the heating and cooling industry. Prerequisite: Successful completion with a GPA of 2.0 or higher in all previous required technical courses.

Distribution: Construction Technologies. Prerequisite: Must have completed first year technical courses. Offered: Summer Semester.

## IST - Information Systems Technology

#### IST 102 - MIXED REALITY DEVELOPMENT (2)

The course will explore the expanding world of mixed reality (MR) and virtual reality (VR). This area of technology is expanding and being used in a wide variety of fields like engineering, construction, education, industry training and medicine. Students will work hands-on with current AR and VR headsets and learn to develop their own extended reality projects.

Offered: Fall.

#### IST 112 - SERVER ADMINISTRATION (3)

Equips the students with the skills necessary to manage a Windows Server system with a focus on installation and configuration. Through hands-on labs, extensive coverage begins with an introduction to Windows Server and continues with coverage of server

management, configuration of storage, file and printer services, Active Directory, account management, Group Policy, TCP/IP, DNS, DHCP, and Hyper-V virtualization.

Distribution: Engineering Technologies. Offered: Spring Semester.

#### IST 120 - COMPTIA A+ CORE I (3)

In this course, students will gain the core knowledge that their career in IT will be built upon. This course covers mobile devices, networking technology, computer hardware, virtualization and cloud computing. This is the first of two courses that will prepare the student for their CompTIA A+ certification.

Distribution: Engineering Technologies. Offered: Fall Semester.

#### IST 121 - COMPTIA A+ CORE II (3)

Part two of an IT Technician's core knowledge, CompTIA A+ 220-1102 covers operating systems, security, software, and operational procedures. After successfully completing IST 120 and IST 121, students will sit for the CompTIA A+ exam.

Offered: Spring.

#### IST 156 - INFORMATION SECURITY I (2)

The basics of security are covered. The course introduces students to computer vulnerabilities and threats and steps that can be taken to safeguard computers and networks. This course will expose the student to security planning, security technology, security organization and the legal and ethical issues associated with computer and network security.

Distribution: Engineering Technologies. Offered: Spring Semester.

#### IST 159 - LINUX ESSENTIALS (2)

Provides a basic knowledge required to competently use a desktop or mobile device using a LINUX Operating System. Through extensive hands-on labs students will understand the place of LINUX and Open Source in the context of the broader IT industry. Prerequisite: Basic keyboarding and computer skills expected.

Distribution: Engineering Technologies. Offered: Spring Semester.

#### IST 160 - NETWORK+ (4)

Network+ builds on your basic network knowledge and builds the foundation and fundamental skills to install, maintain, and troubleshoot networks that businesses rely on.

Offered: Spring.

#### IST 161 - SCRIPTING AND AUTOMATION (2)

IT administrators must manage a large variety of systems and the work must be done accurately. Admins can use scripts to automate processes ensuring the work is done accurately every time. You will learn the basics of scripting and apply this knowledge to real world IT problems and processes.

Offered: Spring.

#### IST 200 - SECURITY+ (3)

CompTIA's Security+ provides the basic knowledge needed to plan, implement, and maintain information security in a vendor-neutral format. This highly respected certification will give you the foundational skills to perform core security functions.

Offered: Fall.

#### IST 201 - CLOUD+ (3)

Business services and IT infrastructures are moving to the cloud. Modern IT professionals must understand cloud concepts and be able to securely setup and maintain these systems for their employers. Students in this course will learn to:

- Understand cloud architecture and design
- Deploy cloud services and solutions
- Successfully maintain, secure, and optimize a cloud environment
- Troubleshoot common issues related to cloud management

Offered: Fall.

#### IST 202 - PENTEST+ (4)

CompTIA PenTest+ is for cybersecurity professionals tasked with penetration testing and vulnerability management. Students will cover the latest techniques for pen testing cloud, traditional on-premises, hybrid, and web environments to find and assess network security vulnerabilities

Offered: Spring.

#### IST 203 - EMERGING TECHNOLOGIES: MR, AI, AND

## ML (4)

Technology is evolving at an alarming rate. This course will explore and develop projects in the emerging areas of mixed reality (MR), artificial intelligence (AI), and machine learning (ML).

Offered: Spring.

## IST 230 - DATA VISUALIZATION (4)

This course will cover the use of databases in business and how they are used in daily operations and to drive business decisions. Students will gain introductory experience with database setup, backup and maintenance, and data import, export and integration. Organizations collecting and storing data is not enough. Data for decision making needs to be analyzed to identify trends and outliers. Students will be introduced to SQL scripting, data analysis tools and ways of visually displaying data. Microsoft Power BI suite of tools will be used for live dashboards, charts, and printed reports.

Distribution: Engineering Technologies. Offered: Fall.

## IST 264 - IDENTITY AUTHENTICATION AND AUTHORIZATION (3)

Gain experience in understanding, designing and working with on-premise Active Directory and the cloud-based Azure AD for Microsoft networks. Through hands-on exercises students learn how to plan for deployment, develop security strategies, work with group policies and user profiles, configure access control and resource sharing, monitor performance and administer Active Directory. Virtualization and scripting using PowerShell is utilized. Prerequisite: IST 112.

Distribution: Engineering Technologies. Prerequisite: IST112. Offered: Fall Semester.

## IST 268 - MANAGING MODERN NETWORKS (5)

This course is a capstone for the Information Systems Technology program. Students will build and troubleshoot their own network, servers, clients and domain. Students will be required to securely provide the following working services on their domain.

- Internal and public DNS management
- DHCP
- Active Directory with Group Policies

- Server and client hardening
- Distributed File System (DFS)
- Folder Redirection
- Software deployment
- Firewall settings
- Fine Grained Password Policies

- Establishment of a hybrid cloud with Microsoft Azure and 365
  - Public web server
  - Windows Deployment Services
  - Windows Server Update Services (WSUS)
- Prerequisite: IST 264.

Distribution: Engineering Technologies. Prerequisite: IST264. Offered: Spring Semester.

## IST 290 - INTERNSHIP (6)

Supervised internship performed off-campus in a computer network or systems support setting.

Distribution: Engineering Technologies. Offered: NULL.

**LDR - Leadership**

## LDR 200 - FUNDAMENTALS OF LEADERSHIP (5)

An introduction to the foundational principles of leadership. This course incorporates the Golden Circle that contains three key elements of leadership: The What, The Why and The How. The course defines what a leader is, various leadership styles and building a leadership mindset. Participants will develop their character, competence and challenge their own belief

systems, the belief systems of their organization, world, and fellow team mates. A focus on personal development through emotional intelligence helps prepare participants for coachable moments throughout the course.

#### LDR 201 - PRINCIPLES OF LEADERSHIP (3)

Designed to help students understand the principles of leadership, students will develop the knowledge, confidence, skills, and self-image necessary to pursue entrepreneurial ventures in business. Provides a foundation in the fundamentals of entrepreneurial leadership, as well as a source of how to assess and motivate themselves.

Offered: Fall.

#### LDR 206 - LEADERSHIP DEVELOPMENT (3)

The Franklin Covey Leadership academy is integrated to develop leadership character and competencies. An introduction to the skills and tools necessary to become a modern leader. Each learner will evaluate personal leadership effectiveness, individual motivation strategies, and personal missions and goals

Offered: Spring.

#### LDR 207 - RESILIENT LEADERSHIP (5)

A resilient leader is one who can sustain optimal well-being and performance even under the most difficult of conditions. This includes balancing their personal, family, and organizational needs. A focus of this course is on having the courage to see and meet life exactly as it is and choosing to learn how to respond to each adversity with confidence, hope and renewed vigor. Ways to build resiliency and stress management are put into day to day practical application.

#### LDR 214 - TALENT MANAGEMENT (5)

This course helps participants identify a team with the right mix of skills and personalities. Different individual talents that incorporate finance, human resources, management and leadership skills to determine the makeup of various organizations will be discussed. Students will learn to recognize a culture that promotes collaborative work, diagnose common problems that impede organizational progress, and learn corrective measures to mitigate those problems and improve overall performance.

#### LDR 215 - ETHICAL LEADERSHIP (5)

Participants will take this complex topic and apply it squarely to their working world, day to day environment, activities, and leadership behaviors. Exposure to organizational ethics will be provided. Focus areas include: ethics policies, ethical decision making and current events.

#### LDR 221 - PROJECT MANAGEMENT (3)

Effective project management skills are important to professionals in any business. In this course, students will learn how to define, plan, and execute a project whether the goal is simple or complex. Students will discover the tools and skills for delivering projects on time and on budget while meeting performance specifications. Students will explore the basic components of project management and the project life cycle.

Offered: Spring.

#### LDR 223 - CRISIS MANAGEMENT (5)

This course identifies common traits evident in a crisis with a focus on looking at failure as a learning tool, preparedness, and taking appropriate risks. Various organizations' crisis management plans will be assessed.

#### LDR 226 - STRATEGIC LEADERSHIP AND PLANNING (3)

This course provides a survey of the traditional functions of management in a startup business with a primary emphasis on planning, organizing, controlling, and leading. This emphasis involves coverage of managerial decision making, leadership, motivation, interpersonal communication, staffing human resources, organizational structure, design, and change and development.

Offered: Spring.

#### LDR 230 - LEADERSHIP COACHING AND MENTORING (5)

Organizations increasingly recognize the need for professionals who possess the skills to function in the global economy and are ready to take on leadership and supervisory roles. Optimizing the leadership pipeline and closing the leadership gap depends on the organization's ability to choose and prepare the best leaders for tomorrow. This building of character and competence of developing leaders comes with a partnership of the intracompany mentorship. We focus on the relationship building as well as the mind-set, skill-set, tool-set, and heart-set of future leaders to

empower them to confront the leadership challenges of the 21st century. A focus is on developing leaders in: talent, engagement, loyalty, preparedness, diversity, learning and growth. Creating a Mentorship Plan and Personal Development Plan is held throughout the course and in constant review/change.

## **LPN - Licensed Practical Nursing**

LPN 001 - OPEN LAB (0)

NULL

Distribution: Health Services. Offered: NULL.

LPN 100 - TEST TAKING STRATEGIES (0.5)

Prepares nursing students to become more effective in test-taking strategies with topics of time management, critical thinking, stress and anxiety management, and test question and answer evaluation methods. This course will help students understand the NCLEX-PN exam test plan and long term strategies to prepare students for the licensing exam.

Distribution: Health Services. Corequisite: LPN101 LPN102 LPN103. Offered: Fall Semester.

LPN 101 - FUNDAMENTALS OF NURSING (4)

Focuses on the foundational development of the role of the Practical Nurse. Legal and ethical standards, trends in nursing, and scope of practice of practical nursing will be explored. This course also introduces the student to the nursing processes as a tool to guide clinical judgment. Additional concepts within the course include communication, documentation, caring, confidentiality, infection control, safety, and information security.

Distribution: Health Services. Corequisite: LPN100 LPN102 LPN103. Offered: Fall Semester.

LPN 102 - FUNDAMENTALS OF NURSING CLINICAL (2)

The clinical component of LPN 101. This course is a continuation of fundamentals course with application of theoretical nursing content into the clinical, lab, and simulation setting. Students will gain experience mastering basic nursing skills and foundational clinical decision making.

Distribution: Health Services. Corequisite: LPN100 LPN101 LPN103. Offered: Fall Semester.

LPN 103 - PHARMACOLOGY (3)

Designed to provide students with opportunities to develop pharmacological competencies necessary to meet the needs of individuals throughout the lifespan in a safe, legal, and ethical manner. This course contains a basic pharmacological foundation of knowledge of drug classifications and medication prototypes, therapeutic actions, side-effects, and nursing implications. This course introduces students to basic principles of pharmacology, dosage calculations, and the knowledge necessary to safely administer medications.

Distribution: Health Services. Corequisite: LPN100 LPN101 LPN102. Offered: Fall Semester.

LPN 105 - ADULT HEALTH NURSING (5)

Builds upon the fundamentals nursing course. This course is designed to acquaint the learner with classification of medical/ surgical diseases using the Body System approach as the framework. The significance of each symptom and the nurse's responsibility for patient care will be stressed. Emphasis is placed on physiological disorders that require management in an acute and/or long term care facility. Nutrition, pharmacology, communication, and cultural concepts are integrated throughout this course.

Distribution: Health Services. Prerequisite: LPN100 LPN101 LPN102 LPN103. Corequisite: LPN106 LPN107 LPN108. Offered: Spring Semester.

LPN 106 - ADULT HEALTH NURSING CLINICAL I (3)

The clinical component of LPN 105. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe patient care in lab, simulation, and selected clinical settings. Medication administration concepts and skills, patient care management principles and professional/therapeutic communication will be developed throughout the clinical course.

Distribution: Health Services. Prerequisite: LPN100 LPN101 LPN102 LPN103. Corequisite: LPN105 LPN107 LPN108. Offered: Spring Semester.

LPN 107 - MATERNAL AND CHILD NURSING (4)

Provides an integrative, family-centered approach to maternity and pediatric nursing, highlighting the ways in which infants and children differ from adults. Emphasis is placed on normal and abnormal pregnancies, birthing process, family dynamics, care of the newborn, growth and development and common pediatric disorders. The impact of psycho-social and cultural values and practices of the childbearing family

unit are also explored. The nursing process is used in identifying and meeting the needs of the childbearing family to facilitate optimal functioning. Nutrition, pharmacology, and communication concepts are integrated throughout this course.

Distribution: Health Services. Prerequisite: LPN100 LPN101 LPN102 LPN103. Corequisite: LPN105 LPN106 LPN108. Offered: Spring Semester.

#### LPN 108 - MATERNAL AND CHILD NURSING CLINICAL (2)

The clinical component of LPN 107. Clinical experiences provide the student an opportunity to apply theoretical concepts and to provide safe patient care to childbearing family unit and children in the lab, simulation, and selected clinical settings.

Distribution: Health Services. Prerequisite: LPN100 LPN101 LPN102 LPN103. Corequisite: LPN105 LPN106 LPN107. Offered: Spring Semester.

#### LPN 110 - ADULT HEALTH NURSING II (4)

This course builds upon Adult Health Nursing I and continues to acquaint the learner with classification of medical/surgical diseases using the Body System approach as the framework. The knowledge regarding disease processes and application of the nursing process is also emphasized. This course is designed to assist the student in developing concepts of mental health and his/her role in the mental health effort. An awareness of mental illness, its treatment, and relationship to all areas of nursing will be included. Nutrition, pharmacology, culture, critical thinking skills, prioritizing, ethical and legal issues, documentation, and working with other members of the healthcare team are concepts that are interwoven throughout this course.

Distribution: Health Services. Prerequisite: LPN105 LPN106 LPN107 LPN108. Corequisite: LPN111 LPN112. Offered: Summer Semester.

#### LPN 111 - GERIATRIC NURSING (3)

This course is an overview of the normal physical, psychological and cultural aspects of the aging process. It addresses common disease processes of aging and exploration of attitudes toward care of the older adult as guided by the National League for Nursing Advancing Care Excellence for Seniors (ACES). Also covered are preventative care and restorative measures for the older adult. An emphasis is given on adaptations in the provision of nursing care to the older individual. Nutrition, pharmacology, communication, and cultural

concepts are integrated throughout this course.

Distribution: Health Services. Prerequisite: LPN105 LPN106 LPN107 LPN108. Corequisite: LPN110 LPN112. Offered: Summer Semester.

#### LPN 112 - GERIATRIC NURSING CLINICAL (3)

This course is the clinical component of LPN 110 and LPN 111. Clinical experiences provide the student an opportunity to apply theoretical concepts and to provide safe patient care to complex patient situations with an emphasis on the geriatric population with multiple comorbidities in the lab, simulation, and selected clinical settings. Care of the patient with the student having a more autonomous role will be emphasized.

Distribution: Health Services. Prerequisite: LPN105 LPN106 LPN107 LPN108. Corequisite: LPN110 LPN111. Offered: Summer Semester.

#### LPN 150 - LPN CAPSTONE PRACTICUM (3)

This course is designed to provide students with the opportunity to integrate clinical and theoretical learning from previous nursing courses through a role-transition clinical experience. The purpose is for students to function in the professional nursing role and further the transition from student nurse to professional practical nurse.

Distribution: Health Services. Prerequisite: LPN110 LPN111 LPN112. Offered: Summer Semester.

## MA - Medical Assistant

#### MA 106 - MEDICAL LABORATORY FUNDAMENTALS (4)

Introduction to medical laboratory work with specific reference to the role, ethics, conduct, certification, education, employment and fundamental knowledge and skills related to clinical laboratory personnel. Basic mathematics review and lab related math such as the metric system, temperature conversions, concentration units, including terms used in quality control are covered. Included in this course is laboratory safety to include physical, chemical and biological hazards, barriers and isolation techniques. Students are instructed in the collection and preparation of specimens to include venipunctures and capillary sticks, reporting of laboratory results and quality assurance methods.

Distribution: Health Services. Offered: Fall Semester.

#### MA 111 - MEDICAL OFFICE PROCEDURES (3)

Material, situations and work in a medical front office. Examples, explanations and illustrations from the medical office are utilized. The perspective of the medical assistant is emphasized. Communication skills, recording patient histories, office accounting, secretarial, reception and other clerical skills are stressed.

Distribution: Health Services. Offered: Spring Semester.

#### MA 112 - LABORATORY PROCEDURES I (4)

An emphasis is placed on the laboratory procedures that Medical Assistants perform. These include work with hematology (hemoglobin, hematocrit, white and red cell counts, indices, platelet count, erythrocyte sedimentation rate) and urinalysis/ body fluids. Modern automated instrumentation is utilized. Prerequisite: "C" grade or higher in MA 106.

Distribution: Health Services. Prerequisite: MA106. Offered: Spring Semester.

#### MA 113 - LABORATORY PROCEDURES II (4)

An emphasis on laboratory procedures includes chemistry, basic immunology and serology and microbiology. Automated instrumentation and POL point-of-care equipment are used.

Distribution: Health Services. Prerequisite: MA112. Offered: Fall Semester.

#### MA 123 - PATHOPHYSIOLOGY (3)

Pathology of diseases. Special emphasis is placed on the etiology, signs, symptoms, diagnoses and treatment options for diseases and conditions of the human body.

Distribution: Health Services. Prerequisite: HS101 HS103. Offered: Spring Semester, Summer Semester.

#### MA 210 - PHARMACOLOGY & ADMIN. OF MEDICINES (3)

Identification of the classification and uses of medicines, vaccines, etc. Included are the correct procedures for administration of these materials.

Distribution: Health Services. Prerequisite: HS101 HS103 MA123. Offered: Fall Semester, Spring Semester.

#### MA 211 - ADVANCED MEDICAL OFFICE PROCEDURES (3)

Enhanced competencies and EHR skills. Students will

apply the techniques within the SIM lab. Prerequisite: MA 111.

Distribution: Health Services. Prerequisite: MA111. Offered: Spring Semester.

#### MA 220 - EXAMINATION ROOM TECHNIQUES I (4)

Clinical office competencies and skills required of the medical assistant. Course work includes aseptic technology, assessment and procedures, preparation and administration of medications, vital signs assessment, recording and assisting with physical examinations, performance of disinfection and sterilization and charting techniques.

Distribution: Health Services. Prerequisite: HS101 HS103 MA123. Offered: Fall Semester.

#### MA 221 - EXAMINATION ROOM TECHNIQUES II (3)

A continuation of clinical procedures performed in a medical office. Course work includes assisting with specific physical exams, instrument recognition, ear and eye procedures, catheterization, dressing applications, preparation of surgical trays and patient education. Prerequisite: MA 220.

Distribution: Health Services. Offered: Spring Semester.

#### MA 240 - CARDIAC MONITORING AND DX PROCEDURE (2)

General knowledge of electrocardiography. Special emphasis is placed on equipment used, procedures performed and education of patients.

Distribution: Health Services. Prerequisite: HS101 HS103 MA123. Offered: Spring Semester.

#### MA 250 - CLINICAL EXTERNSHIP (6)

Experience in medical facilities and organizations. Work is performed under the direct supervision of licensed medical personnel. Prerequisite: Successful completion of 64.5 credits prior to start of externship.

Distribution: Health Services. Offered: Spring Semester, Summer Semester.

## MAP - Geospatial Technologies

#### MAP 101 - INTRODUCTION TO GIS (4)

This course introduces tools and techniques of data creation, data integration, mapping, and spatial analysis in geographic information systems (GIS). Students will

create geodatabases for field GPS data collection. The course incorporates hands-on use of ESRI products.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### MAP 102 - PRINCIPLES OF GPS (2)

Introduction to basic GPS principles including GPS corrections, constellations, navigation and primary industry uses. Students will receive hands-on experience with different data collection techniques using various GPS devices. Workflow procedures and geodatabase implementation will be modeled for industry practice.

Offered: Fall.

#### MAP 105 - UAS OPERATION (2)

Students will learn how to safely and legally set up and fly a variety of drones for personal, business, and organizational needs. Operations will start with manual flight and transition to autonomous flight control as student's flight skill progresses.

Distribution: Engineering. Offered: Fall Semester.

#### MAP 110 - CAD I (2)

This course introduces computer-aided drafting software for specific technologies. Emphasis is placed on understanding the software command structure and drafting standards for specific technical fields. Upon completion, students should be able to create and plot basic drawings.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### MAP 120 - CAD II (2)

A continuation of CAD I moving onto advanced techniques. Advanced AutoCAD concepts such as assigning data to blocks and importing and exporting of AutoCAD files from and to other software are all covered. The majority of this class is in 2D drawing however 3D isometric views are covered.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### MAP 121 - CLOUD-BASED GPS GIS APPLICATIONS (2)

Students will work with cloud GPS/GIS products including but not limited to ESRI, Trimble, and AgTerra products. This course will focus on the collection,

analysis, integration, management and product production leveraging cloud technology.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### MAP 125 - GIS PROBLEMS ANALYSIS (4)

This course will be a continuation of Intro to GIS. Students will also be involved in GIS modeling, analyzing, problem solving, indoor mapping, planning, and geo-referencing for real world solutions.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### MAP 128 - REMOTE SENSING (3)

The course will focus on the collection, implementation, interpretation, and development of remotely collected data. Students will have access to a variety of top of line industrial and consumer drones for flight and data collection. Will have access to ESRI, DroneDeploy, Pix4D, Adobe, and other products to create data, video products, mapping solutions, etc. to meet industry demands. Students will prepare take the Remote Pilot Certified Small UAS exam to become commercially certified Part 107 drone pilots.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

## MATH - Mathematics

#### MATH 091 - BASIC ALGEBRA (2)

Preparatory course for Mathematical Reasoning, Digital Math, and Business Math. Students will learn about solving equations, exponents and polynomials, graphs and systems of equations, factoring and quadratic equations. This class is offered for credit as a Pass/No Pass course. Test scores determine placement. This course may be taken corequisite with the math course required for graduation.

Distribution: General Education. Offered: Fall Semester.

#### MATH 103 - MATHEMATICAL REASONING (3)

This course is designed to develop students' problem-solving skills and quantitative reasoning through topics including: problem-solving processes, logic, percentages, measurement, ratios and proportions, statistics, linear equations, geometry and trigonometry, and personal finance.

Distribution: General Education. Prerequisite: Math 091



or qualifying test score. Offered: Fall Semester, Spring Semester.

### MATH 103 - MATHEMATICAL REASONING (ONLINE) (3)

This course is designed to develop students' problem-solving skills and quantitative reasoning through topics including: problem-solving processes, logic, percentages, measurement, ratios and proportions, statistics, linear equations, geometry and trigonometry, and personal finance.

Distribution: General Education. Prerequisite: Math 091 or qualifying test score. Offered: Fall Semester, Spring Semester.

### MATH 130 - BUSINESS MATH (3)

Covers basic mathematical calculations commonly used in business settings. Course covers computing fractions and decimals, the order of operations for combined computations and solving equations and word problems. Also provides instruction on the use of a calculator for business applications.

Distribution: General Education. Prerequisite: Math 091 or qualifying test score. Offered: Fall Semester.

### MATH 162 - DIGITAL MATH (3)

A course designed to increase awareness and appreciation for math in digital and electronic applications. Topics covered include: the metric system with applications in engineering notation, algebra to solve electrical formulas, trigonometry in AC circuit analysis, the use of logarithms with the application of intensity, logic, and an introduction to binary notation with number systems including octal and hexadecimal.

Distribution: Engineering Technologies. Prerequisite: Math 091 or qualifying test score. Offered: Fall Semester.

## **MEN - Mentoring**

## **ML - Medical Laboratory Technician**

### ML 104 - MEDICAL LABORATORY FUNDAMENTALS (3)

Introduction to medical laboratory work with specific reference to the role, ethics, conduct, certification, education, employment and fundamental knowledge and skills related to medical laboratory personnel. Basic mathematics review and lab related math such as the

metric system, temperature conversions, concentration units, dilutions, ratios and statistics used in quality control are covered. Included in this course is laboratory safety to include physical, chemical and biological hazards, laboratory safety, barriers and isolation techniques. Students are instructed in the collection and preparation of specimens to include venipunctures and capillary sticks, reporting of laboratory results and quality assurance methods.

Distribution: Health Services. Offered: Fall Semester.

### ML 105 - INSTRUMENTATION (2)

Basic design of advanced laboratory automation equipment. Course materials include laboratory glassware, microscopes, centrifuges, balances and scales, pipetting, spectrophotometry, turbidometry, nephelometry, ion selective electrodes, electrophoresis, chromatography and advanced quality assurance.

Distribution: Health Services. Offered: Fall Semester.

### ML 111 - HEMOSTASIS (2)

Theory and practical application of the coagulation pathway to include factors involved in coagulation tests: capillary fragility, prothrombin times, partial thromboplastin times and fibrinogen assays. Prerequisite: Grade of C or higher in ML 104 and ML 105.

Distribution: Health Services. Prerequisite: ML104 ML105. Offered: Spring Semester.

### ML 112 - HEMATOLOGY (6)

Anatomy, physiology and related pathology of the circulatory system with specific reference to the formation, function and identification of blood cells. Major emphasis is on the related theory and performance of hematological procedures such as sample identification, collection and preparation; automated leukocyte and erythrocyte counts; hemoglobin and hematocrit measurements; WBC differential; leukocyte and erythrocyte morphology; RBC indices; erythrocyte sedimentation rate; platelet count; reticulocyte count; and eosinophil count. Automated hematological equipment is included. Specific methodologies in common use in medical laboratories and quality control standards are followed. Prerequisite: Grade of C or higher in ML 104 and ML 105.

Distribution: Health Services. Prerequisite: ML104 ML105. Offered: Spring Semester.

**ML 121 - URINALYSIS BODY FLUIDS (3)**

Anatomy, physiology and related to pathology of the urinary system. Major emphasis is on the related theory and performance of physical, chemical and microscopic analysis of urine as well as collection, preservation and proper reporting of analysis. Certain renal function tests and occult blood are covered. Emphasis is placed on anatomy, physiology and related pathology of body fluids to include feces, semen, seminal fluid, synovial fluid, serous fluid, spinal fluid and the collection, preparation, preservation and analysis of those fluids. An introduction to cell counts of other body fluids is covered. Prerequisite: Grade of C or higher in ML 104 and ML 105.

Distribution: Health Services. Prerequisite: ML104 ML105. Offered: Spring Semester.

**ML 144 - INTRO TO LABORATORY CHEMISTRY (3)**

General and biological chemistry with applications specific to the medical laboratory. The student will become familiar with chemical terminology, the atomic structure, ionic and molecular compounds, organic chemistry and acid and base balance. The biochemistry of carbohydrates, lipids, proteins, enzymes and hormones are presented and their relationship to the medical laboratory is studied. Prerequisite: A grade of C or higher in this course is required before enrolling in ML 230.

Distribution: Health Services. Offered: Spring Semester.

**ML 171 - IMMUNOLOGY SEROLOGY (3)**

Basic genetics, immunology and serology. The student will acquire an understanding of the immune system including antigen/antibody reactions, origin, stimulation, body response and rejection. A study of the immunoglobulins, complement and classifications of immunity, precipitation and agglutination reactions is included. Serological tests include the related theory and performance of procedures to include hepatitis, rubella, Epstein-Barr virus, AIDS, CRP, RA, FANA, cold agglutinins, pregnancy, streptococcal diseases and autoimmune diseases. Immunoassay principles and practical applications are covered. Prerequisite: Grade of C or higher in ML 104 and ML 105.

Distribution: Health Services. Prerequisite: ML104 ML105. Offered: Spring Semester.

**ML 214 - PRACTICAL CLINICAL HEMATOLOGY (4)**

Hematology which includes hemoglobin, hematocrit, leukocyte count; WBC differential; sed rate; erythrocyte

count; platelet count; reticulocyte count; eosinophil count; clotting time; prothrombin time; activated partial thromboplastin time; preparation of bone marrow smears. Experience is gained through obtaining blood samples to include venipuncture, capillary puncture and arterial blood gases. Additional hematological procedures may be performed at the option of the affiliated laboratory. This course is included in the clinical practicum semester.

Distribution: Health Services. Offered: Spring Semester.

**ML 224 - PRACTICAL CLINICAL URINALYSIS (3)**

Urinalysis which includes physical and chemical tests; microscopic identification of formed elements; collection and preparation of 24-hour samples for quantitative tests; pregnancy tests; renal function tests of urine, feces and spinal fluid and other body fluids. Additional urinalysis procedures may be performed at the option of the affiliated laboratory. This course is included in the clinical practicum semester.

Distribution: Health Services. Offered: Spring Semester.

**ML 230 - CLINICAL CHEMISTRY (4)**

Basic clinical chemistry and diagnostic analysis. Included are analytical chemical procedures such as identification, collection, handling, standardization and quality control, carbohydrate tests, renal function tests, proteins including electrophoresis, electrolytes, enzymes, liver function tests, therapeutic drug monitoring, endocrinology and toxicology. Automated instrumentation is emphasized. Prerequisite: a grade of C or higher is required in ML 104, ML 105 and ML 144.

Distribution: Health Services. Prerequisite: ML104 ML105 ML144. Offered: Fall Semester.

**ML 234 - PRACTICAL CLINICAL CHEMISTRY (6)**

Clinical chemistry which includes specimen procurement, quantitative measurement and clinical significance of glucose, urea, nitrogen, proteins, triglycerides, cardiac markers, toxicology, therapeutic drug monitoring, bilirubin, cholesterol, electrolytes, enzymes, creatinine, uric acid, calcium, phosphorous, thyroid function test, iron, TIBC, pH and blood gases. Additional chemical procedures may be performed at the option of the affiliated laboratory. This course is included in the clinical practicum semester.

Distribution: Health Services. Offered: NULL.

**ML 240 - MICROBIOLOGY (6)**

Classification, identification and pathology of disease-causing organisms such as bacteria, fungus, yeasts, viruses, rickettsiae and parasites. Major emphasis is on the related theory and performance of microbiological procedures such as sterilization, collection and preparation of specimens, culturing methods, media preparation, staining techniques, antibiotic sensitivity testing and identification of commonly cultured bacteria. Prerequisite: a grade of C or higher is required in ML 104 and ML 105.

Distribution: Health Services. Prerequisite: ML104 ML105. Offered: Fall Semester.

#### ML 244 - PRAC CLINIC MICROBIOLOGY SEROLOGY (5)

Microbiology includes collecting, setting up, plating, incubating, transporting and transferring microbiological cultures; identification of organisms involving common techniques such as gram stain, special stains, biochemical tests, coagulase and catalase tests and antibiotic susceptibility tests. Serological procedures might include RPR, streptococcus antigens and antibodies, infectious mono tests, RA, pregnancy, HIV, hepatitis, FANA, RSO, influenza A and B and C-RP tests. Preparation of samples for parasitology, mycology and virology study are included at the option of the affiliated laboratory. This course is included in the clinical practicum semester.

Distribution: Health Services. Offered: Spring Semester.

#### ML 272 - IMMUNOHEMATOLOGY/BLOOD BANKING (3)

Basic immunohematological aspects of blood factors and their relationship to blood transfusion and disease states. Topics include the history, identification, inheritance of blood factors and antigen-antibody relationships involving detection of blood factors. Major emphasis is on the related theory and performance of immunohematological procedures such as ABO grouping, Rh typing, identification of blood factors, direct coombs, antibody screening and identification, compatibility testing, transfusion of blood and blood components, selection, collection, storage of donor blood and quality assurance. Prerequisite: A grade of C or higher in ML 171.

Distribution: Health Services. Prerequisite: ML171. Offered: Fall Semester.

#### ML 274 - PRACTICAL CLINICAL-IMMUNOHEMATOLOGY (4)

Immunohematology: which includes blood banking, ABO grouping, Rh typing, direct and indirect coombs testing, antibody screening and compatibility testing. Selection of blood donors, collection of blood for transfusion, storage of blood and blood components and quality control are included. Additional blood banking procedures may be included at the option of the affiliated medical laboratory. This course is included in the clinical practicum semester.

Distribution: Health Services. Offered: Spring Semester.

### MOP - Medical Office Professional

#### MOP 130 (ONLINE) - COMPUTERS IN THE MEDICAL OFFICE (3)

Develops the ability to operate and maintain the computer efficiently. Using specialized programs, students will learn about billing office processes, handling patient records and transactions (new patients, immunizations records, insurance information, etc.), processing payments, correspondence and other computerrelated tasks.

Distribution: Health Services. Offered: Spring Semester.

#### MOP 160 - CPT ICD-10-CM CODING (3)

A formal system for converting descriptions of diseases, injuries and health care procedures into numeric and alphanumeric designations. Students will learn to place code numbers and correlate to procedures performed to test or correct diagnoses.

Distribution: Health Services. Prerequisite: HS101 HS103. Offered: Spring Semester.

#### MOP 206 (ONLINE) - TRANSCRIPTION I (4)

Transcription of medical terms and cases. Reports are generated including the first stage of treatment through discharge.

Distribution: Health Services. Prerequisite: HS101 MA123 HS103. Offered: Fall Semester.

#### MOP 210 - MEDICAL INSURANCE AND BILLING (3)

An overview of processing medical insurance claims. Special topics may include Medicare, various types of insurances, refilling, resubmitting, etc. Coding skills attained in MOP 160 will be used. Prerequisite: MOP 160.

Distribution: Health Services. Prerequisite: MOP160. Offered: Fall Semester.

### **MOP 212 (ONLINE) - ELECTRONIC MEDICAL RECORDS (3)**

Documentation of all procedures performed on patients. The new EMR technology replaces the old patient "chart." Students will become familiar with software and its capabilities including communication with pharmacies, physicians, hospitals, their care providers and patients.

Distribution: Health Services. Prerequisite: HS101 HS103. Offered: Spring Semester, Summer Semester.

### **MOP 230 - MEDICAL OFFICE ADMINISTRATION (3)**

Explanations and illustrations of procedures, situations and tasks in a typical medical office. Units on patient health information, records management, telephone skills, communication skills and general office management are covered.

Distribution: Health Services. Offered: Fall Semester, Summer Semester.

### **MOP 260 (ONLINE) - ADVANCED CODING I (4)**

Advanced level medical office coding course for CPT and ICD-10- CM coding systems. Students will apply the techniques learned to code patient services. Correct principles of coding, HIPAA tips and coding points will be covered. Prerequisite: MOP 160.

Distribution: Health Services. Prerequisite: MOP160. Offered: Fall Semester.

### **MOP 262 (ONLINE) - CPC EXAM PREP (CERTIFIED PROFESSIONAL CODER) (3)**

The CPC Exam Preparation course reviews the principles and purpose of the CPT, ICD-10-CM and HCPCS coding manuals. Students learn skills to become better coders and assign procedures and diagnosis codes to the highest level of specificity. Upon successful completion of the class, each student will be eligible to sit for the American Academy of Professional Coders (AAPC) exam. Prerequisite: MOP 260.

Distribution: Health Services. Prerequisite: MOP260. Offered: Spring Semester.

### **MOP 290 - INTERNSHIP (8)**

On-the-job work experience. The student works at a medical facility off-campus. Prerequisite: The student must meet department criteria to be eligible for internship.

Distribution: Health Services. Offered: Spring Semester, Summer Semester.

## **NGT - Natural Gas Technology**

### **NGT 100 - SAFETY FOR NATURAL GAS TECHNICIAN (1)**

Preparation to work in and perform routine safety precautions with natural gas. Students will gain knowledge and skills required to assist an injured or suddenly ill person before professional emergency care can be provided.

Distribution: Energy Production Technologies. Offered: Fall Semester.

### **NGT 102 - GAS OPERATIONS AND MAINTENANCE (3)**

An introduction to the fundamentals of transportation, storage and the regulations pertaining to propane, butane and natural gas.

Distribution: Energy Production Technologies. Offered: Fall Semester.

### **NGT 104 - FOUNDATIONS OF NATURAL GAS TECH (2)**

An introduction to various aspects of the gas industry including development, economics, equipment, systems, instrumentation, operations, and various associated scientific principles and processes. The course gives students a basic introduction to the Natural Gas Technology program. Addressed will be a variety of topics with emphasis on predrilling and drilling including; pre-drilling planning, drilling, circulation systems, construction basics, simple completions, overview of production processes and equipment.

Distribution: Energy Production Technologies. Offered: Fall Semester.

### **NGT 105 - GAS INSTALLATION LAB (3)**

Applies curriculum studied in concurrent courses. Equipment operation including backhoe and loader operation, trencher and plow operations, directional boring and line locating.

Distribution: Energy Production Technologies. Offered: Fall Semester.

### **NGT 110 - TRENCHING AND EXCAVATION PRACTICES (2)**

OSHA Excavation Standard and safety and health aspects of excavation and trenching. Course topics include practical soil mechanics and their relationship to the stability of shored and unshored slopes and walls of excavations, introduction of various types of shoring (wood timbers and hydraulic), soil classification, and use of protective systems.

Distribution: Energy Production Technologies. Offered: Fall.

#### NGT 112 - GAS METERING AND REGULATORS (3)

Enables the student to apply common technical concepts used in the gas measurement industry. Computer based and instructor led training are blended with hands-on exercises to build a set of basic skills necessary to implement industry applied mathematics and physical laws necessary for advanced gas measurement training.

Distribution: Energy Production Technologies. Offered: Spring Semester.

#### NGT 115 - GAS MAPPING AND LOCATING (4)

The gas industry has an enormous impact on all aspects of daily life. Individuals, corporations, and national governments make financial and policy decisions based on the cost, use, and availability of natural resources. This course reviews gas operations and markets including an overview of basic drilling operations, production, basic economics, processing and final transport. Students will be introduced to the cost of wells, seasonal impacts on prices, and the role of natural gas reserves.

Distribution: Energy Production Technologies. Offered: Spring Semester.

#### NGT 120 - CORROSION MANAGEMENT (3)

The mechanisms of corrosion and the benefits of corrosion prevention and control planning. Students will identify good practices for setting up an optimal corrosion management scheme. An overview of top corrosion threats and their mitigation methods is taught and includes weld corrosion, external corrosion and stress corrosion cracking.

Distribution: Energy Production Technologies. Offered: NULL.

## OL - Online

#### OL 100 - ONLINE ORIENTATION (0)

This course is designed to help students navigate the LMS before taking online courses.

Distribution: General Education. Offered: 12 month term.

#### OL 101 - MYTECH BASICS (0)

This course is designed to help students navigate the LMS before taking online courses.

Distribution: General Education. Offered: Fall Semester, Spring Semester, Summer Semester.

## OPRV - Powersports

#### OPRV 105 - SERVICE CENTER FUNDAMENTALS (2)

Introduction to the basic principles and working environment of a service center. Topics to be explored include: the proper use and care of hand and basic power tools, the use of precision measuring tools, test equipment and special tools, safe and proper use of lifting equipment and large shop tools such as hydraulic presses and tire equipment, as well as general shop safety, the language and vocabulary related to the ATV and motorcycle service industry, customer service and writing of work orders.

Distribution: Agriculture & Transportation Technology. Offered: Fall Semester.

#### OPRV 120 - BASIC ENGINE THEORY & OPERATION (2)

Introduction to the basic design and operating principles and components of the internal combustion engine. Topics to be explored include: valve train design and component identification, ignition and fuel system identification and design, similarities and differences between 2 and 4 stroke cycle engines, similarities and differences between air cooled and water cooled engines and component failure identification.

Distribution: Agriculture & Transportation Technology. Offered: Fall Semester.

#### OPRV 121 - BASIC ENGINE LAB (2)

This lab will be based on Briggs and Stratton and Honda single cylinder overhead valve engines. Students will disassemble, measure components, grind valves and seats and in general rebuild the engine.

Distribution: Agriculture & Transportation Technology. Offered: Fall Semester.

### OPRV 124 - ATV & SNOWMOBILE SYSTEMS (2)

A general study of topics which make snowmobile and ATV service unique in the industry. Topics to be explored: 2 and 4 wheel drive systems, ski and track systems, air induction, cooling systems, skis and steering components.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

### OPRV 125 - ATV SNOWMOBILE LAB (3)

Students will utilize information from lecture OPRV 124 to complete disassembly, repair and reassembly of sub-systems and components of ATVs and snowmobiles, as well as determine the root failures of components.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

### OPRV 130 - ELECTRICAL/ELECTRONIC SYSTEMS (2)

General electrical theory and the principles of DC current operating in ATVs, motorcycles, snowmobiles and outdoor power equipment. Topics to be explored include: current flow, Ohm's law, voltage, amperage, circuit types, test equipment, symbols used in electrical diagrams and reading and understanding electrical diagrams in technical publications.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

### OPRV 137 - INTRODUCTION TO MARINE (2)

Students will be introduced to basic Marine Industry concepts including the installation and maintenance of certain components. The main focus of this course will be outboard boats & engines and students will install and adjust components used on an outboard boat package. The curriculum includes the identification of the various types of boats, motors, trailers, and accessories.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

### OPRV 140 - 2 & 4 CYLINDER ENGINES (2)

General theory, design and operation of multi-cylinder engines as they relate to ATV's, motorcycles and snowmobiles. Topics to include: repair and maintenance of metric engines as well as American V-twin engines, precision measuring of root components and failure

analysis.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

### OPRV 141 - 2 & 4 CYLINDER ENGINES LAB (2)

Students will explore the physical components of multi-cylinder engines, utilizing shop equipment to perform basic repairs and rebuild of metric and American V-Twin engines. Cooling systems and fuel systems diagnosis to be discussed.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

### OPRV 142 - ADVANCED MULTICYLINDER ENGINES (2)

Continuation of topics covered in OPRV 140. Special attention given to precision engine building and customization. This class will be the technical basis for the OPRV 143 lab. Students will utilize printed technical data and parts manuals as well as Internet-based information to prepare for projects lab.

Distribution: Agriculture & Transportation Technology.  
Prerequisite: OPRV140. Offered: Spring Semester.

### OPRV 143 - ADV MULTI-CYLINDER ENGINE LAB (4)

In this project lab, students will be responsible for diagnosing failures, estimating cost of repairs, acquiring technical data and parts list for repairs, as well as performing repairs on products supplied to Mitchell Tech from industry. Secondary component of this lab will involve diagnosis test out on various ATVs, motorcycles and outdoor power equipment.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

### OPRV 150 - HAND-HELD POWER EQUIPMENT LAB (3)

This lab will be based on the theories of two and four stroke engines as they pertain to hand-held equipment such as chain saws, weed eaters, leaf blowers and other hand-held devices. Parts look-up and a focus on Stihl hand-held products will be a core element of this course.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

### OPRV 190 - INTERNSHIP (6)

On the job training (OJT). Work a minimum of 240 hours in a service or shop environment.

Distribution: Agriculture & Transportation Technology.  
Offered: Summer Semester.

#### OPRV 220 - MOTORCYCLE POWER TRAIN (2)

This course will provide students with the opportunity to experience motorcycle transmission rebuilds and troubleshooting. Primary inspection and repair, along with the different final drive components and engine design and overhauls will be covered.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### OPRV 221 - MOTORCYCLE POWER TRAIN LAB (2)

Students will participate in specially-designed lab activities related to OPRV 220.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### OPRV 225 - MOTORCYCLE FUEL INJECTION (3)

This course will introduce students to the intricacies of modern fuel Injection and computer control systems as they apply to motorcycles and ATVs. Students will explore fuel mapping and performance data modification utilized in both open and closed loop systems. Students will be able to complete diagnostic procedures and test operational effectiveness of fuel maps utilizing the dynamometer. Component design and engineering challenges related to fuel injection designed engines will also be discussed as well as emission standards related to product development. Basic V-Twin technology and how it relates to current fuel injection trends will also be discussed.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### OPRV 226 - MOTORCYCLE CHASSIS LAB (2)

This course will cover frame and suspension designs and how they affect performance and dependability. A motorcycle must handle properly over bumps, in turns, during acceleration, and when stopping. This is critical to both rider safety and comfort. During the semester students will perform hands-on activities covering the fundamental inspection, service, repair, and troubleshooting procedures for motorcycle frame and suspension systems.

Distribution: Agriculture & Transportation Technology.

Offered: Fall Semester.

#### OPRV 236 - ADVANCED MOTORCYCLE EFI SYSTEMS (2)

A continuation of techniques and principles learned in OPRV 235. Students will learn intricate details of fuel mapping and how variations of the inputs determine the final performance of an engine. A detail-orientated approach to fuel injection management and diagnostic procedures utilized in industry will be the focus. Extensive lab time and firm understanding of electrical and electronic theory required.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### OPRV 238 - ADVANCED MOTORCYCLE CHASSIS LAB (2)

This semester will cover frame and suspension designs and how they affect performance and dependability. During the semester students will get hands-on experience covering the fundamental inspection, service, repair, and troubleshooting procedures for motorcycle frame and suspension systems.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### OPRV 239 - ADVANCED MOTORCYCLE POWER TRAIN (2)

Students will learn the importance of inspection and measuring when working with rebuilds. Topics will include how to clean and prepare for rebuild in extensive detail. Motorcycle-specific tool use and care will also be covered.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### OPRV 240 - ADVANCED MOTORCYCLE POWER TRAIN LAB (2)

Students will be dissecting advanced motorcycle engines and disassembling and assembling them piece by piece. Every aspect of the engine will be inspected. Students will be introduced to the process of an engine rebuild and learn how to properly complete an engine rebuild. Camshaft upgrades and designs will be covered, as well as how to tune a motorcycle engine after a rebuild.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

**OPRV 265 - MARINE OUTBOARD ENGINE SYSTEMS (2)**

Students will explore the types of periodic maintenance that are required for different makes and models of boat, trailer engine packages. Perform maintenance, inspection and off-season storage procedures on the product as well. Evinrude, Mercury, MerCruiser, OMC and Yamaha will be the main focus.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

**OPRV 266 - MARINE OUTBOARD ENGINE SYSTEMS LAB (2)**

Students will perform procedures discussed during class. Component disassembly, diagnostics, inspection and measurements of the components, and the reassembly/resealing process. Evinrude, Mercury and Yamaha will be the main focus.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

**OPRV 267 - MARINE OUTBOARD ELECTRICAL SYSTEMS (2)**

Students will explore the operation, theory and diagnostics of components on an outboard's starting, charging, power trim and tilt and ignition circuits. Boat and trailer electrical accessories as well. Evinrude, Mercury and Yamaha will be the main focus.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

**OPRV 268 - MARINE OUTBOARD ELECTRICAL SYS. LAB (2)**

Students will perform procedures discussed during class. Diagnostics and inspection of components on an outboard's starting, charging, power trim and tilt and ignition circuits on Evinrude, Mercury and Yamaha will be the main focus.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

**OPRV 269 - MARINE OUTBOARD BOAT RIGGING LAB (2)**

Students will perform outboard motor, boat and accessory installation. Operation of all equipment will be performed after installation.

Distribution: Agriculture & Transportation Technology.

Offered: Spring Semester.

**OPRV 270 - MARINE PREVENTATIVE MAINTENANCE (2)**

Students will explore the types of periodic maintenance that are required for different makes and models of boat, trailer engine packages. Perform maintenance, inspection and off-season storage procedures on the product as well. Evinrude, Mercury, MerCruiser, OMC and Yamaha will be the main focus.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

**OPRV 275 - MARINE OUTBOARD DRIVE SYSTEMS (2)**

Students will explore the operation, theory and diagnostics of components on an outboard drive lower unit assembly, power trim and tilt, driveshaft and swivel housing, marine corrosion and propeller design and performance. Lower unit rebuild, shim procedures will be discussed also. Evinrude, Mercury and Yamaha will be the main focus.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

**OPRV 276 - MARINE OUTBOARD DRIVE SYSTEMS LAB (2)**

An overview of OSHA (Occupational Safety and Health Administration) standards focusing on hazard recognition and injury and illness prevention. The 10-hour general program is intended to provide entry-level workers with awareness of hazards in and around the work site. Emphasis is placed on recognition and prevention and helps create a culture of safety. Upon successful completion the student will receive OSHA 10 certification.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

**OPRV 280 - SUCCESSFUL SERVICE MANAGEMENT (1)**

Utilization of industry software and service management practices for evaluation of lab performance. Exercises related to service information dispensed in classroom sessions will be completed.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

**OPRV 281 - MARINE OUTBOARD FUEL SYSTEMS**



(2)

Students will explore the operation, theory and diagnostics of components on an outboard fuel system. Carbureted, Electronic Fuel Injected and Direct Fuel Injection. Evinrude, Mercury and Yamaha will be the main focus.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### OPRV 282 - MARINE OUTBOARD FUEL SYSTEMS LAB (2)

Students will perform procedures discussed during class. Diagnostics and inspection of components on an outboard's starting, charging, power trim and tilt and ignition circuits on Evinrude, Mercury and Yamaha will be the main focus.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

## OSHA - OSHA Training

#### OSHA 100 - OSHA 10 TRAINING (1)

An overview of OSHA (Occupational Safety and Health Administration) standards focusing on hazard recognition and injury and illness prevention. The 10-hour general program is intended to provide entry-level workers with awareness of hazards in and around the work site. Emphasis is placed on recognition and prevention and helps create a culture of safety. Upon successful completion the student will receive OSHA 10 certification.

Distribution: NULL. Offered: Fall Semester, Spring Semester.

#### OSHA 101 - OSHA 10 TRAINING (1)

An overview of OSHA (Occupational Safety and Health Administration) standards focusing on hazard recognition and injury and illness prevention. The 10-hour construction program is intended to provide entry-level construction workers with awareness of hazards in and around the construction work site. Emphasis is placed on recognition and prevention and helps create a culture of safety. Upon successful completion the student will receive OSHA 10 certification.

Distribution: Construction Technologies. Offered: Fall Semester, Spring Semester.

## PAT - Precision Ag Technology

#### PAT 100 - INTRO TO GPS TECHNOLOGIES (1)

Students will be introduced to basic GPS principles including GPS corrections, constellations, navigation and primary industry uses. Students will have hands on experience with different data collection techniques using tablets and Trimble GPS devices.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### PAT 102 - PRINCIPLES OF GPS/GIS (2)

Students will be introduced to basic GPS principles and how they are applied to precision agriculture and GIS applications. Different GPS corrections and constellations and primary industry uses will be introduced as well as different GPS terms and how they are used in the industry. Once an aptitude is gained for the GPS, the course will shift to GIS operations in the agriculture industry.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester, Spring Semester.

#### PAT 107 - BASIC HYDRAULICS (2)

Industry relevant skills including how to operate, install and analyze performance of basic hydraulic systems. Fundamentals of hydraulic systems used in industrial applications are presented.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### PAT 112 - CAD SYSTEM DESIGN (2)

This course introduces computer-aided drafting software for specific technologies. Emphasis is placed on understanding the software command structure and drafting standards for specific technical fields. Upon completion, students should be able to design and create functional systems.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring.

#### PAT 130 - TECHNOLOGY INSTALLATION & OPER I (4)

This lab will consist of the practical use and installation of a variety of GPS/Precision Ag products. Students will work on real-world applications including auto-steer, product control installation, product design, mapping and recording data points with geospatial technologies,

land preparation, harvest and planting at the Precision Ag lab and land plots.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### PAT 140 - GUIDANCE AND UNMANNED AIRCRAFT SYSTEMS (3)

The course will discuss the sensors and devices involved with different types of guidance systems from different manufacturers, including the advantages, accuracy and different features of those systems. Students will install, setup, calibrate and troubleshoot guidance systems from different suppliers. Students will also take the Remote Pilot Certified Small UAS exam to become commercially certified drone pilots.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### PAT 142 - DATA COLLECTION AND WIRELESS TECHNOLOGIES (3)

Students will be introduced to various data collection and management tools used in the precision technology field. As a comprehensive data collection course, students will be studying yield monitor systems, crop vigor sensor systems, soil sampling and topography mapping systems, as well as a multitude of other tools used in data collection. Also included will be an introduction to GIS programs and wireless technologies used to leverage data in Precision Agriculture.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### PAT 151 - PRECISION AG ELECTRONICS LAB (3)

Experience with soldering, hand tools, components, color code, Ohm's law, and reading circuit diagrams. Work with ohmmeters, ammeters, voltmeters, power supplies and other devices included. This lab examines AC/DC circuit characteristics, including capacitance and inductance and explores the P/N junction as it applies to diodes and bipolar junction transistors.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### PAT 190 - INTERNSHIP (6)

Supervised internship performed off-campus in a precision technology business setting.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester, Spring Semester.

#### PAT 203 - INTRO TO VARIABLE RATES (3)

Students will learn about the components of Variable Rate (VR) application systems. They will study the principles of VR application equipment and the economic and environmental impact of variable rate applications. Students will prepare VRA maps for spring planting using a variety of data layers and information. Once a plan is made students will complete planter preparation and plant corn and beans at the MTC Land Labs. Students will also take part in completing a planter build started in the fall.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

#### PAT 210 - GIS APPLICATIONS (4)

This course will use Geographic Information Systems (GIS) to manage agronomic data. Students use GIS software to manage data (yield, soil sample, imagery, applied, etc.) and create variable rate maps for seeding, spraying, and fertilizer applications.

Distribution: Agriculture & Transportation Technology.  
Offered: Fall Semester.

#### PAT 230 - TECHNOLOGY INSTALLATION/OPER II (4)

A continuation of PAT 130.

Distribution: Agriculture & Transportation Technology.  
Offered: Spring Semester.

### **PL - Power Line Constr. & Maint.**

#### PL 111 - FUNDAMENTALS OF DC/AC (3)

Basic electricity as it applies to high voltage lines. The student learns to apply Ohm's Law for DC circuits. The student learns basic generation and the effects of inductance and capacitance in the AC circuit.

Distribution: Energy Production Technologies. Offered: Fall Semester.

#### PL 120 - TRANSFORMERS CONNECTIONS (3)

Application of electrical formulas to practical circuits. Problems such as series and parallel circuits, solving for inductive and capacitive reactance, impedance, apparent, real and reactive power and power factor are common. Transformer, regulator, capacitor and metering applications are covered in detail in this course.

Distribution: Energy Production Technologies. Offered: Spring Semester.

#### PL 141 - POWER GRID DESIGN (3)

Fundamental theory of high voltage power grid systems. The generating systems, transmission, subtransmission, distribution and service are studied.

Distribution: Energy Production Technologies. Offered: Fall Semester.

#### PL 143 - POWER GRID DESIGN II (3)

Continuation of PL 141.

Distribution: Energy Production Technologies.  
Prerequisite: PL141. Offered: Spring Semester.

#### PL 150 - FIELD TRAINING I (4)

Basic theory and design for the installation and construction of a high voltage overhead system. Installation and construction of an actual overhead system will be part of a lab project.

Distribution: Energy Production Technologies. Offered: Fall Semester.

#### PL 151 - CONSTRUCTION OF UNDERGROUND LINES (4)

Basic theory and design for the installation and construction of a high voltage underground system. Installing and constructing an actual underground system will be part of a lab project.

Distribution: Energy Production Technologies. Offered: Fall Semester.

#### PL 154 - MAINTENANCE OF UNDERGROUND LINES (4)

System protection, sectionalizing and grounding procedures and basic fault procedures on underground low and high voltage lines.

Distribution: Energy Production Technologies. Offered: Spring Semester.

#### PL 156 - FIELD TRAINING II (4)

Fundamental operation and maintenance of overhead distribution and transmission lines. Hands-on application will be utilized by operating and maintaining the lines built as part of PL 150.

Distribution: Energy Production Technologies.

Prerequisite: PL150. Offered: Spring Semester.

#### PL 171 - UTILITY SAFETY I (1)

OSHA, APPA and NESC rules, procedures and codes applied to the design and construction of overhead and underground lines.

Distribution: Energy Production Technologies. Offered: Fall Semester.

#### PL 172 - UTILITY SAFETY II (1)

Continuation of PL 171. Specific OSHA, APPA and NESC rules that apply to operating and maintaining overhead and underground lines. Includes hands-on procedures and pole top rescue.

Distribution: Energy Production Technologies.  
Prerequisite: PL171. Offered: Spring Semester.

## PSYC - Psychology

#### PSYC 101 - GENERAL PSYCHOLOGY (3)

Designed to relate psychology to everyday life. Students will gain a basic understanding of how we develop throughout our life span and how we learn throughout our lives. Special emphasis is placed on understanding causes, symptoms and treatment of the most prevalent psychological disorders in our society. An empathetic perspective for those who suffer from these disorders and how the disorders affect their families is stressed.

Distribution: General Education. Offered: Summer Semester.

## RAD - Radiologic Technologist

#### RAD 001 - OPEN SIMULATION LAB (0)

NULL

Distribution: Health Services. Offered: NULL.

#### RAD 110 - INTRO TO RAD TECH & ETHICS (3)

This course is an introduction to radiologic science. The content prepares students for academic study and clinical experiences. Topics include introduction to imaging, professional organizations, basic patient care, infection control, professional ethics, and medical law.

Distribution: Health Services. Offered: Fall Semester.

#### RAD 120 - INTRO TO CLINICAL RADIOLOGY (3)

This course will introduce the student to the clinical aspect of their training. Topics include critical thinking, human diversity/ patient interactions, medical emergencies, aseptic/non-aseptic technique, pharmacology, contrast media, and venipuncture.

Distribution: Health Services. Prerequisite: HS 103, RAD 110, RAD 140, RAD 150. Offered: Spring Semester.

#### RAD 140 - RADIOLOGY PRINCIPLES I (4)

This course creates a foundation for understanding the principles of radiographic technique and quality. Included is a description of the basic physical principles of measurement, energy, atomic structure, electricity, magnetism, and their application to radiation production. The course also offers an overview of how the x-ray machine produces x-radiation. Emphasis is on radiographic image quality through presentation of prime exposure factors, solving technical problems, and making adjustments to correct those problems.

Distribution: Health Services. Offered: Fall Semester.

#### RAD 142 - RADIOLOGY PRINCIPLES II (5)

This course creates a foundation for understanding the fundamental concepts, terminology, and applications of digital imaging as it relates to radiologic technology. Included is a description of digital image acquisition, display, and archiving. Advanced x-ray imaging equipment will be introduced, including surgical radiography, digital fluoroscopy, and interventional radiography. Advanced modalities will also be introduced.

Distribution: Health Services. Prerequisite: HS103 RAD110 RAD140 RAD150. Offered: Spring Semester.

#### RAD 150 - RADIOGRAPHIC PROCEDURES I (6)

This course provides the student with the knowledge necessary to perform radiographic procedures relative to the upper and lower extremities and chest. Emphasis will be placed on radiographic terms, detailed anatomy, positioning, and image analysis guidelines which includes identification of required anatomy and recognizing diagnostic quality images.

Distribution: Health Services. Offered: Fall Semester.

#### RAD 152 - RADIOGRAPHIC PROCEDURES II (6)

This course provides the student with the knowledge necessary to perform radiographic procedures relative to the cranium, ribs and sternum, vertebral column and

abdomen. Emphasis will be placed on radiographic terms, detailed anatomy, positioning, and image analysis guidelines which includes identification of required anatomy and recognizing diagnostic quality images.

Distribution: Health Services. Prerequisite: HS103 RAD110 RAD140 RAD150. Offered: Spring Semester.

#### RAD 154 - RADIOGRAPHIC PROCEDURES III (ONLINE) (2)

This course provides the student with the knowledge necessary to perform radiographic procedures relative to the urinary and digestive systems. Emphasis will be placed on radiographic terms, detailed anatomy, positioning, and image analysis guidelines which includes identification of required anatomy and recognizing diagnostic quality images. Trauma radiography is also introduced.

Distribution: Health Services. Prerequisite: HS103 RAD150 RAD152. Offered: Summer Semester.

#### RAD 156 - INTRO TO CT (ONLINE) (2)

This course will emphasize the basic principles of computed tomography. The content will include computed tomography generations, components and processes, and radiation protection. Also emphasized will be the principles of sectional anatomy as demonstrated on routine sectional images. CT images are primarily studied in this course but the student is introduced to a comparison of CT and MRI images. Exams included will be thorax, abdomen, pelvis, head, spine, and extremity.

Distribution: Health Services. Offered: Spring Semester.

#### RAD 160 - RADIOGRAPHIC PATHOLOGY (2)

This course will introduce the student to the concept of disease and its effects on the human body. The relationship of pathology and diseases to various radiographic procedures and radiographs will be discussed.

Distribution: Health Services. Prerequisite: HS103, RAD110, RAD140, RAD150. Offered: Spring Semester.

#### RAD 170 - RADIATION BIOLOGY & PROTECTION (3)

This course provides an overview of the effects of ionizing radiation on cells in the human body. Topics include factors affecting biological response, radiation exposure monitoring, units of measurement, and

radiation protection for patients, personnel, and the public.

Distribution: Health Services. Prerequisite: HS103  
RAD110 RAD140 RAD150. Offered: Spring Semester.

#### **RAD 211 - CLINICAL RADIOLOGY I (9)**

This course is the first of a three part series of clinical courses. Students will focus on the basic application of radiography in the clinical setting. Under supervision, students develop technical skills and procedural knowledge through observation and participation in radiographic studies. Students will also complete radiographic exam competencies.

Distribution: Health Services. Prerequisite: RAD120  
RAD142 RAD152 RAD160 RAD170. Offered:  
Summer Semester.

#### **RAD 212 - REGISTRY REVIEW I (BLENDED) (1)**

This course is designed to prepare students for the national certification exam. The content of this course focuses on patient care, safety, image production, and procedures. Tests are formatted similar to the national certification exam. This course is the first in a three-part series of registry review courses.

Distribution: Health Services. Prerequisite: RAD120  
RAD142 RAD152 RAD160 RAD170. Offered:  
Summer Semester.

#### **RAD 221 - CLINICAL RADIOLOGY II (11)**

This course is the second of a three part series of clinical courses. Students will focus on more advanced application of radiography in the clinical setting. Under supervision, students continue to develop technical skills and procedural knowledge through participation in radiographic studies. Students will also complete radiographic exam competencies and explore elective practice areas of radiology.

Distribution: Health Services. Prerequisite: RAD154  
RAD156 RAD211 RAD212. Offered: Fall Semester.

#### **RAD 222 - REGISTRY REVIEW II (BLENDED) (1)**

This course is designed to prepare students for the national certification exam. The content of this course focuses on patient care, safety, image production, and procedures. Tests are formatted similar to the national certification exam. This course is the second in a three-part series of registry review courses.

Distribution: Health Services. Prerequisite: RAD154

RAD211 RAD212. Offered: Fall Semester.

#### **RAD 231 - CLINICAL RADIOLOGY III (11)**

This course is the third of a three part series of clinical courses. Students will focus on preparing for the professional responsibilities needed for clinical practice in the healthcare environment. Under supervision, students will refine technical skills and procedural knowledge through participation in radiographic studies. Students will also complete radiographic exam competencies and explore elective practice areas of radiology.

Distribution: Health Services. Prerequisite: RAD221  
RAD222. Offered: Spring Semester.

#### **RAD 232 - REGISTRY REVIEW III (BLENDED) (1)**

This course is designed to prepare students for the national certification exam. The content of this course focuses on patient care, safety, image production, and procedures. Tests are formatted similar to the national certification exam. This course is the third in a three-part series of registry review courses.

Distribution: Health Services. Prerequisite: RAD221  
RAD222. Offered: Spring Semester.

## **RN-Registered Nursing**

#### **RN 200 (ONLINE) - HEALTH AND ILLNESS CONCEPTS ACROSS THE LIFESPAN I (5)**

This course focuses on nursing care of various health and illness concepts across the lifespan. Concepts include cellular regulation, comfort, fluid and electrolyte balance, infection, oxygenation, culture and diversity, health, wellness, illness, and injury, elimination, mobility, nutrition, tissue integrity, self, perfusion, sensory perception, family, development, and perioperative care. This course is designed to further develop the application of health and illness concepts through selected exemplars.

Distribution: Health Science. Corequisite: RN 201, RN 205. Offered: Fall.

#### **RN 201 - CLINICAL INTENSIVE I (3)**

This clinical course is the first of three clinical courses in which the student will apply curricular concepts in the care and management of clients across the lifespan in various healthcare settings. This course is a combination of lab, simulation, and clinical.

Distribution: Health Science. Corequisite: RN 200, RN 205. Offered: Fall.

### RN 205 (ONLINE) - PROFESSIONAL AND HEALTHCARE CONCEPTS I (3)

This course is designed to integrate previous healthcare knowledge and attributes into the role development of the professional registered nurse. In addition this course develops the students' understanding of the principles of healthcare and how professional nursing impacts client health and well-being. Emphasis will be placed upon the professional nursing concepts of clinical decision making, collaboration, nursing interventions, assessment, communication and the healthcare concepts of accountability, advocacy, ethics, safety, and legal issues.

Distribution: Health Science. Corequisite: RN 200, RN 201. Offered: Fall.

### RN 210 (ONLINE) - HEALTH AND ILLNESS CONCEPTS ACROSS THE LIFESPAN II (5)

This nursing course further develops nursing care of various health and illness concepts across the lifespan. Concepts include acid-base balance, cellular regulation, comfort, fluid and electrolyte balance, infection, oxygenation, mood and affect, digestion, elimination, immunity, inflammation, metabolism, mobility, perfusion, sensory perception, sexuality, addiction, development, and reproduction. The course is designed to further develop the application of health and illness concepts through selected exemplars.

Distribution: Health Science. Prerequisite: RN 200, RN 201, RN 205. Corequisite: RN 211, RN 215. Offered: Spring.

### RN 211 - CLINICAL INTENSIVE II (2)

This clinical course is the second of three clinical courses in which the student will apply curricular concepts in the care and management of clients across the lifespan. This course is a combination of lab, simulation, and clinical.

Distribution: Health Science. Prerequisite: RN 200, RN 201, RN 205. Corequisite: RN 210, RN 215. Offered: Spring.

### RN 215 (ONLINE) - PROFESSIONAL AND HEALTHCARE CONCEPTS II (3)

This course is designed to further integrate previous healthcare knowledge and attributes into the role development of the professional registered

nurse. Further development of the students' understanding of the principles of healthcare and how professional nursing impacts client health and well-being will be explored. Emphasis will be placed upon the professional nursing concepts of managing care, professionalism, teaching and learning and the healthcare concepts of healthcare systems, health policy, informatics, evidence-based practice, and quality improvement.

Distribution: Health Science. Prerequisite: RN 200, RN 201, RN 205. Corequisite: RN 210, RN 211. Offered: Spring.

### RN 220 (ONLINE) - HEALTH AND ILLNESS CONCEPTS ACROSS THE LIFESPAN III (5)

This is the final of three courses that develop nursing care of various health and illness concepts across the lifespan. Concepts include cellular regulation, comfort, infection, oxygenation, grief and loss, mood and affect, digestion, immunity, inflammation, metabolism, mobility, tissue integrity, cognition, self, spirituality, intracranial regulation, perfusion, sexuality, thermoregulation, stress and coping, and trauma. The course is designed to further develop the application of health and illness concepts through selected exemplars.

Distribution: Health Science. Prerequisite: RN 210, RN 211, RN 215. Corequisite: RN 221, RN 250. Offered: Summer.

### RN 221 - CLINICAL INTENSIVE III (1)

This clinical course is the final of three clinical courses in which the student will apply curricular concepts in the care and management of clients across the lifespan. This course is a combination of lab, simulation, and clinical.

Distribution: Health Science. Prerequisite: RN 210, RN 211, RN 215. Corequisite: RN 220, RN 250. Offered: Summer.

### RN 250 - RN CAPSTONE PRACTICUM (3)

This course is designed to provide students with the opportunity to integrate clinical and theoretical learning from previous nursing courses through an LPN to RN role-transition clinical experience. The purpose is for the student to function in the professional nursing role and further the transition from LPN to the RN role.

Distribution: Health Science. Corequisite: RN 220, RN 221. Offered: Summer.

## RTH - Radiation Therapy

### RTH 200 - INTRODUCTION TO RADIATION THERAPY (2)

This course is an exploration of the foundation of radiation therapy practices and the variety of roles for the professional in the delivery of health care. Principles of practice, professional responsibilities, medical law and ethics will be addressed along with program expectations.

Distribution: Health Services. Offered: Fall Semester.

### RTH 201 - NURSING AND PATIENT CARE (2)

This course will focus on the role of the radiation therapist in overall disease management. It will prepare students to work directly with patients in a health care setting and covers assessment, examination and monitoring of patients, symptom management and the management of oncologic emergencies. Patient issues such as pain control, nutritional counseling, patient education, death and dying will be explored. Chemotherapeutic drugs will be introduced and discussed.

Distribution: Health Services. Offered: Fall Semester.

### RTH 202 - RADIATION THERAPY PHYSICS (4)

This course applies the concepts of radiation oncology physics as it is practiced in the clinic. Interactions of ionizing radiation, measurement of ionizing radiation, nuclear transformation and the quality of X-ray beams are discussed. This course provides the student with an understanding of the different types of radiation treatment units and their operating principles. This course contains a review of mathematics, basic principles of physics, atomic structure, electro-magnetic and particulate radiation.

Distribution: General Education. Offered: Fall Semester.

### RTH 205 - CLINICAL RADIATION ONCOLOGY (3)

This course will explore cancer: its detection, diagnosis and prognosis. The management of neoplastic disease and its mechanism of spreading through a multidisciplinary approach will be discussed. Rationale for treatment techniques such as beam type, dose fractionation, volume, simulation, beam modification devices, field arrangements, dose limiting critical structures as well as surgical and chemotherapeutic considerations are presented.

Distribution: General Education. Offered: Fall Semester.

### RTH 206 - SIMULATION AND MEDICAL IMAGING (3)

This course introduces simulation equipment and techniques. Topics include patient immobilization, localization, simulation, documentation, patient positioning, treatment delivery parameters, prescriptions, and patient care. Imaging techniques specific to radiation therapy will also be discussed. A lab component is included in this course.

Distribution: Health Services. Offered: Fall Semester.

### RTH 207 - RADIATION BIOLOGY (ONLINE) (1)

This online course covers the biological effects of ionizing radiation in living tissue, including specific cell and tissue radiosensitivity, radiation syndromes and related effects, as well as basic biological mechanisms that bring about somatic and genetic effects. Prerequisites: All previous technical courses.

Distribution: Health Services. Prerequisite: RTH200 RTH201 RTH202 RTH203. Offered: Spring Semester.

### RTH 209 - RADIATION THERAPY TOPICS (ONLINE) (2)

This online course is designed to explore various radiation therapy topics. Topics included in the course are quality control programs and protocols for the radiation therapy department, various radiation therapy operational issues and CQI project development, basic concepts of radiation safety and protection and, billing and reimbursement. Specific focus is placed on various image guided radiation therapy and image guided adaptive radiation therapy strategies. In addition, infection control and pharmacology will be reviewed.

Distribution: Health Services. Prerequisite: All technical courses. Offered: Spring Semester.

### RTH 210 - CLINICAL PRACTICUM I (10)

(35 hours clinical experience per week for entire semester) - The clinical practicum serves as an orientation to radiation therapy where students are given an opportunity to develop technical and patient care skills and knowledge through structured rotations and assignments in the radiation therapy department. Treatment competencies and related objectives will be used to measure clinical outcomes. Prerequisite: All technical courses.

Distribution: Health Services. Prerequisite: RTH200 RTH201 RTH202 . Offered: Spring Semester.

### RTH 211 - MODERN RADIATION THERAPY/RESEARCH (ONLINE) (3)

This course is designed to discuss the emerging technologies taking place in the world of radiation therapy. The student will be expected to write a scientific paper and prepare an oral presentation.

Distribution: Health Services. Prerequisite: All technical courses. Offered: Summer Semester.

### RTH 212 - REGISTRY REVIEW I (ONLINE) (2)

This course is designed to prepare students for the required national certification exam. Mock board exams will be given along with various assignments geared to reinforcement of previously discussed concepts. Prerequisite: All technical courses.

Distribution: Health Services. Offered: Spring Semester.

### RTH 213 - CLINICAL PRACTICUM II (8)

Clinical Practicum II is a continuation of RTH 210 and provides the student the opportunity to exercise professional judgement and discretion in the technical performance of radiation therapy procedures. Students are expected to complete all required competencies in this rotation. The final section of clinical education ensures that the student is ready for employment. Prerequisite: All technical courses.

Distribution: Health Services. Prerequisite: RTH210. Offered: Summer.

### RTH 214 - REGISTRY REVIEW II (ONLINE) (2)

This online course, a continuation of RTH 212, is designed to prepare students for the required national certification exam. Mock board exams will be given along with various assignments geared to reinforce previously discussed concepts.

Distribution: Health Services. Prerequisite: RTH212. Offered: Summer Semester.

## SD - SCADA

### SD 100 - INTRODUCTION TO PROGRAMMING (2)

An introduction to programing structured text languages using languages such as Blockly, C and Python. The use of a Microcontroller, on the VEX Robotics Platform, will give the student the basic concepts to understand code structure, Boolean logic, variables, strings, lists, and other data structures. The goal is for the student to learn the methods and thought processes behind

planning a good set of instructions and steps before the programming process begins.

Distribution: Engineering Technologies. Offered: Fall.

### SD 120 - INTRODUCTION TO MOTOR CONTROL (3)

This course consists of the study of electrical and electromagnetic control systems for both AC and DC systems. Ladder logic and wiring diagrams will be used in a lab-based environment to allow students to understand, design, and wire proper operating control systems. Topics covered include pilot devices, starting equipment, relays, and other electrical devices used to start, stop, and control electric motors and other industrial equipment.

Distribution: Engineering Technologies. Offered: Summer Semester.

### SD 135 - INTRODUCTION TO ETHERNET NETWORKS (3)

This course covers basic concepts of ethernet networks used at home, in business and on the internet.

Offered: Spring.

### SD 136 - PROGRAMMING FOR SCADA (3)

An introduction to program script languages using P- Basic and Python. The use of Microcontroller, Raspberry Pi and Arduino will give the student the basic concept of the understanding of variables, strings, lists, and other data structures. The goal is for the student to design a home automation system using Raspberry Pi and Arduino.

Distribution: Engineering Technologies. Offered: Spring Semester.

### SD 142 - CONTROL CIRCUIT ANALYSIS (4)

Gain practical experience with control circuits through lessons in power supplies, digital circuits, semi conductor switching devices and sensors. Emphasis on troubleshooting and oscilloscope usage. Electrical drawings will also be introduced.

Distribution: Engineering Technologies. Offered: Spring Semester.

### SD 157 - SCADA ELECTRONICS LAB (3)

Semiconductors and integrated circuit devices are discussed. Emphasis is placed on troubleshooting of more complex electronic circuits, push pull amplifiers,



discrete components, operational amplifiers and basic digital circuits. An introduction to programming micro-controllers and various types of sensors is also introduced. Prerequisite: Successful completion of all first semester SCADA classes or equivalent.

Distribution: Engineering Technologies. Prerequisite: All previous SCADA coursework. Offered: Spring Semester.

### SD 159 - PROGRAMMABLE LOGIC CONTROLLERS (3)

This course introduces students to programmable logic controllers (PLC's) using the Allen Bradley SLC500, MicroLogix and Compactlogix controllers and RSLogix 500 and Studio500 programming software. Elementary ladder logic and discrete I/O instructions, counters, timers, program development techniques and troubleshooting are covered. Students will gain experience programming software simulated machines in this introductory course. Prerequisite: Prerequisite: successful completion of all SCADA courses previously required up to this point.

Distribution: Engineering Technologies. Prerequisite: SD120. Offered: Summer Semester.

### SD 160 - INDUSTRIAL WIRING (3)

This course focuses on the principles and applications of industrial wiring. Topics include electrical safety practices, NFPA70E, basic National Electrical Code as it relates to industrial wiring, circuit design, transformers, switch gear, and generation principles. Students will also read, understand and create electrical schematics using AutoCAD electrical edition.

Distribution: NULL. Offered: NULL.

### SD 205 - PROCESS CONTROLS (3)

The objective of this class is to prepare the student for work in the exciting and challenging field of Supervisory Control and Data Acquisition involving process control. Process control involves applying technology to an operation that alters raw materials into a desired product. In this course, students will be introduced to the concepts and characteristics of various sensors and control processes. PID control, hydraulics, pneumatics, robotics, sensor applications, safety circuit design, frequency drive applications and advanced system troubleshooting will be some of the major topics covered. This broad study of basic system concepts will be linked to applications being used in SD 270 SCADA Testing and Control Lab. There may be

times when this class will involve practical application for the concepts studied by going directly into the lab setting. This will allow for the understanding of the design, activation, and operation of actual data acquisition and control system circuits. Course concepts and techniques will be studied primarily through classroom lecture, computer training software, and discussions. Prerequisite: successful completion of all SCADA courses previously required up to this point.

Distribution: Engineering Technologies. Offered: Spring Semester.

### SD 225 - INTRO TO SCADA SOFTWARE (4)

Along with the advanced control systems that are appearing throughout the country, the revolution of graphical software to make it possible to control a very complex system has evolved. This course will cover the basics of using a graphical software package to create a user friendly control screen. The basics of using this type of software to interface with PLC's either directly or using an OPC server will be covered. The graphical software packages used in the SCADA lab are FactoryTalk, Ignition and WonderWare. Prerequisite: successful completion of all SCADA courses previously required up to this point.

Distribution: Engineering Technologies. Prerequisite: All previous SCADA coursework. . Offered: Fall Semester.

### SD 229 - NETWORKING CONCEPTS I (3)

Knowing how to install, configure, and troubleshoot a computer network is a highly marketable and exciting skill. This course first introduces the fundamental building blocks that form a modern network, such as protocols, media, topologies, and hardware. It then provides in-depth coverage of the most important concepts in contemporary networking, such as TCP/IP, Ethernet, wireless transmission, virtual networks, security, and troubleshooting. After completing this course and completing the exercises, students will be prepared to select the best network design, hardware, and software for an environment. Students will also master the skills to build a network from scratch and maintain, upgrade, troubleshoot, and manage an existing network. This course culminates in the opportunity to test for CompTIA's Network+ N10-006 certification. Prerequisite: successful completion of all SCADA courses previously required up to this point.

Distribution: Engineering Technologies. Offered: Fall Semester.

**SD 239 - ADVANCED INDUSTRIAL NETWORKING (3)**

A complete overview of the rapidly evolving field of wireless networks. Device level bus structures, industrial network protocols, data cabling and local area networks found in today's industrial communication networks will be examined. Students will design and construct a telemetry system using a variety of communications media such as 900Mhz, 2.4 Ghz, and 5 Ghz wireless technologies; serial communications including RS232, RS485, DH+, DH 485, Ethernet/IP, Modbus, and Data Highway. Students will learn to select the appropriate technologies and standards for a given application and ensure that the best practice is followed in designing, installing and commissioning the data links for fault-free operation. Messaging between PLCs and other industrial devices will also be covered. Students will also become proficient in the use of the Windows operating system in a virtual environment and learn proper network segmentation with using VLAN and firewall applications as they pertain to the the Purdue model of networking. *Prerequisite: successful completion of all SCADA courses previously required up to this point.*

**Distribution:** Engineering Technologies. **Prerequisite:** SD229. **Offered:** Spring Semester.

**SD 259 - ADV PROGRAMMABLE LOGIC CONTROLLERS (4)**

Continuation of SD 159 and an introduction to programmable automation controllers (PACs) primarily using the Allen-Bradley Logix controllers and Studio 5000 programming software. Study the use of Siemens and other industrial controllers. Advanced ladder logic and discrete I/O instructions, counters, timers, network control of remote IO and motor drives, motion control, program development techniques and troubleshooting are covered. Skills will be reinforced by using a variety of software simulation and mock process models. *Prerequisite: successful completion of all SCADA courses previously required up to this point.*

**Distribution:** Engineering Technologies. **Prerequisite:** SD159. **Offered:** Fall Semester.

**SD 270 - SCADA TESTING CONTROL LAB (7)**

With the breakthrough in communications and microprocessor technologies, it has become possible for industry to automate control systems and permit the collection of data through the use of very complex electronic equipment. The objective of this class is to prepare the student for work in the exciting and

challenging field of Supervisory Control and Data Acquisition. Using personal computers, Remote Terminal Units, and Programmable Logic Controllers, students will learn how to design, program, and construct many of the systems used in industry today.

Laboratory work will provide the student with the experiences in the identification, selection and programming of equipment needed to make a fully operational SCADA system. *Prerequisite: successful completion of all SCADA courses previously required up to this point.*

**Distribution:** Engineering Technologies. **Prerequisite:** SD225 SD229 IST230 SD259. **Offered:** Spring Semester.

**SLPA - Speech-Language Pathology Asst****SLPA 101 - INTRO TO SLPA (3)**

This course provides an overview of the field of speech-language pathology, including professional standards, legal and ethical issues and scope of responsibilities of the speech-language pathologist and the speech-language pathology assistant in health care and educational settings.

**Distribution:** Health Services. **Offered:** Fall Semester.

**SLPA 102 - CLINICAL OBSERVATION (1)**

This course covers beginning clinical observation of practices and procedures in speech-language pathology and combines on-site observations with class discussion. Eight hours of observation in educational settings is required.

**Distribution:** Health Services. **Prerequisite:** SLPA 101, SLPA 104, SLPA 105, SLPA 106. **Offered:** Spring Semester.

**SLPA 103 - CAREER SEMINAR (1)**

This course covers the promotion of professional growth opportunities for speech language pathology assistants. Students will explore tools and concepts necessary during the job seeking process and examine professional development as a new employee.

**Distribution:** Health Services. **Offered:** Spring Semester.

**SLPA 104 - ANATOMY/PHYSIO OF SPEECH & HEARING (3)**

This course covers the fundamentals of anatomy, physiology and neurology related to speech production and hearing. Systems studied include respiration, phonation, articulation, resonance, hearing and neurological. In addition, information regarding feeding and feeding strategies will be covered.

Distribution: Health Services. Offered: Fall Semester.

#### SLPA 105 - SPEECH & LANGUAGE DEVELOPMENT (3)

This course covers the study of normal speech and language development. Topics include communication development and differentiation of normal from disordered communication. Hearing development, literacy development and language diversity will also be addressed.

Distribution: Health Services. Offered: Fall Semester.

#### SLPA 106 - INTRO TO PHONETICS (3)

This course provides a study of the articulatory foundations of the description and classification of speech sounds. It introduces the International Phonetic Alphabet (IPA), physiological properties of the speech mechanism, methods of transcription and dialectal variations. The emphasis will be on the auditory discrimination necessary for recording normal and disordered articulatory production.

Distribution: Health Services. Offered: Fall Semester.

#### SLPA 111 - INTRO TO COMMUNICATION DISORDERS AND TREATMENT (3)

This course provides an overview of communication disorders, including classification, assessment and remediation of speech, language, literacy, swallowing and hearing disorders in children and adults. It addresses the role of the speech-language pathologist and audiologist in educational and medical settings and examines multicultural and multilingual diversity, developmental disabilities and collaboration with educators.

Distribution: Health Services. Prerequisite: SLPA 101, SLPA 105, SLPA 104, SLPA 106. Offered: Spring Semester.

#### SLPA 112 - CHILD GROWTH AND DEVELOPMENT (3)

This course covers developmental stages of children from conception through adolescence including major theories of development and their application to

parenting, teaching and other interactions with children.

Distribution: Health Services. Offered: Spring Semester.

#### SLPA 115 - BEHAVIOR MANAGEMENT (3)

This course will review principles of behavior management that apply to individuals with communication disorders. Theories of behavioral learning, causes of challenging behaviors, techniques for measuring behavior, and strategies for preventing and decreasing problem behaviors, and increasing cooperative/functional behaviors will be addressed. Students will practice behavior observation, measurement, and management techniques needed to promote prosocial skills of individuals with communication disorders and implement speech and language treatment services more effectively.

Distribution: Health Services. Prerequisite: SLPA 101, SLPA 105. Offered: Spring Semester.

#### SLPA 200 - INTRO TO AUDIOLOGY & AURAL REHAB (2)

This course is an introduction to audiology, audiograms, hearing screening and hearing assessments. Also provided is an introduction to aural rehabilitation, hearing aids and hearing assistive technologies (HAT).

Distribution: Health Services. Prerequisite: SLPA 102, SLPA 103, SLPA 111. Offered: Fall Semester.

#### SLPA 202 - CLINICAL OBSERVATION II (2)

This course covers continued clinical observation of practices and procedures required in speech-language pathology in preparation for clinical fieldwork and combines on-site observations with class discussion. Seventeen hours of observation in educational settings is required.

Distribution: Health Services. Prerequisite: SLPA 102, SLPA 103, SLPA 111. Offered: Fall Semester.

#### SLPA 205 - NEUROGENIC COMMUNICATION DISORDERS (2)

This course provides an introduction to adult neurogenic communication disorders and speech and language therapy techniques used to treat these disorders. It examines the communication disorders of aphasia, dysarthria, apraxia, right hemisphere disorders, dementia, and traumatic brain injury.

Distribution: Health Services. Prerequisite: SLPA 101, SLPA 104, SLPA 105, SLPA 111. Offered: Fall

Semester.

### **SLPA 210 - ALTERNATIVE & AUGMENTATIVE COMM (2)**

This course provides an introduction to common forms of augmentative and alternative communication, including manual communication and low- and high-tech AAC systems.

Distribution: Health Services. Prerequisite: SLPA 200, SLPA 202, SLPA 220, SLPA 230. Offered: Spring Semester.

### **SLPA 211 - SCREENING AND ASSESSMENT PROCESSES (2)**

This course covers screening tools and processes used for speech, language, and hearing screening, and assessment tools and processes for speech and language assessment. It includes the administration of both screening and assessment, and completion of protocols with clients of varied ages.

Distribution: Health Services. Prerequisite: SLPA 200, SLPA 202, SLPA 220, SLPA 230. Offered: Spring Semester.

### **SLPA 220 - SPEECH DISORDERS & INTERVENTION (3)**

This course focuses on speech sound disorders and therapy techniques to implement articulation and phonological therapy. Session planning, reporting progress and organization of therapy interaction are introduced. Cueing, reinforcement, feedback and choosing materials are covered. This course also reviews therapy approaches for neuromotor speech disorders, fluency and voice disorders.

Distribution: Health Services. Prerequisite: SLPA 102, SLPA 103, SLPA 111. Offered: Fall Semester.

### **SLPA 230 - LANGUAGE DISORDERS & INTERVENTION (3)**

This course explores language disorders and various intervention approaches. Students are introduced to therapy techniques appropriate for treating language delays and acquired disorders with toddler, preschool and school-aged populations. The course also addresses intervention for culturally and linguistically diverse children, as well as intervention for students with learning and developmental disabilities.

Distribution: Health Services. Prerequisite: SLPA 102, SLPA 105, SLPA 111. Offered: Fall Semester.

### **SLPA 235 - CLINICAL MGT & PROCEDURES (4)**

This course covers organizational and functional skills required in the speech-language pathology workplace. Topics include interdisciplinary and supervisory relationships, client and public interaction, therapy plans, lesson plans, safety issues, technical writing, data collection, record keeping, computer applications, multicultural issues and behavior management.

Distribution: Health Services. Prerequisite: SLPA 200, SLPA 202, SLPA 220, SLPA 230. Offered: Spring Semester.

### **SLPA 240 - CLINICAL FIELDWORK (6)**

This course is an eight-week, full-time field placement in an educational setting under the supervision of a state licensed speech-language pathologist. The field placement allows the student to practice the knowledge and skills related to speech and language interventions. Students will have an opportunity to request fieldwork site placements based on their areas of interest, strengths and goals for employment.

Distribution: Health Services. Prerequisite: SLPA 200, SLPA 202, SLPA 205, SLPA 210, SLPA 211, SLPA 220, SLPA 230, SLPA 235. Offered: Spring Semester.

## **SOC-Sociology**

### **SOC 100 - INTRODUCTION TO SOCIOLOGY (3)**

This comprehensive course provides an up-to-date presentation of the essentials of sociological study. Students will learn a wide range of classical and contemporary perspectives of diverse roles, interests, opportunities, contributions, and experiences in social life. The socialization process, including social structure, social interaction, and social groups is examined in the context of how human society developed. Topics include race, ethnicity, deviance, gender, class, age, marriage and family, politics, education, religion, population, and social change. Upon completion, students should be able to analyze how cultural differences evolve and objectively evaluate those differences, thus enabling them to appreciate diversity in their workplaces and communities.

Distribution: General Education. Offered: Fall Semester, Spring Semester, Summer Semester.

## **SPCM - Speech Communications**

### **SPCM 101 - FUNDAMENTALS OF SPEECH (3)**

Intensive practice of oral presentations. The material lays the foundation for a study of speech principles and provides exercises in guiding students through preparation and delivery. The course will include units on informative, persuasive (research), small group, and special occasion presentations, and use of visual aids.

Distribution: General Education. Offered: Summer.

#### SPCM 140 - HEALTH COMMUNICATION (3)

This course is a comprehensive guide to learning essential communication skills that will prepare students for success as healthcare professionals. There are multiple patient components to effective communication in a healthcare setting: diversity of patients and their experiences; healthcare literacy with techniques to assess and evaluate patient education and improve patient compliance; caring for patients with mental and physiologic illnesses; and recognizing language barriers and how to overcome many barriers to communication. The various communication styles used today will be discussed and the delivery method required for various situations. This course will use a broad range of examples, role plays, and scenarios from healthcare fields for mastering communication skills.

### SSS - Student Success

#### SSS 100 - STUDENT SUCCESS (1)

Provides a foundation for gaining the knowledge, skills and attitudes necessary for college success. Students will learn to make a successful transition to higher education by setting up a pattern of success that will last the rest of their lives. Students will define goals and develop thinking skills, learning strategies and personal qualities essential to both academic and career success. Please note: Students who have served active military duty (excluding basic training and AIT) may be exempt from the Student Success course. Student must provide a copy of DD214 or other official military documentation to the registrar for verification.

Distribution: General Education. Offered: Fall Semester, Spring Semester.

#### SSS 101 - ONLINE SEMINAR I (1)

Online Seminar will focus on specific challenges unique to online students as well as ways to address them including tips for improving time management, presentations and test-taking skills. Student will be expected to complete surveys throughout the semester and participate in discussion groups. Instructor input will help identify what courses to take, how to register

for classes and help design a graduation plan. This course will be a bi-weekly virtual meeting.

Distribution: General Education. Offered: Fall Semester, Spring Semester.

### TRAN-Transportation-CDL

#### TRAN 100 - INDUSTRIAL TRANSPORTATION CDL (1)

Instruction in commercial transportation. Opportunities are provided for obtaining a Class A commercial drivers license. Arrangements are made for taking the test(s) required by the state. A Class A CDL is a requirement for graduation from several programs. A valid South Dakota driver's license is required in order to complete the CDL training course. For students enrolling in a two-year program, this course must be completed by the end of their first year. This class is offered for credit as a Pass/No Pass course. Please note: Students are required to show proof of a valid Class A CDL by the end of the 10th day of the semester in which the student is enrolled in order to drop this class.

Distribution: Energy Production Technologies. Offered: 12 month term, Fall Semester, Spring Semester.

### WBT-Wi-Fi and Broadband Technologies

#### WBT 100 - INTRODUCTION BROADBAND (2)

Study of the history of broadband technologies. Regulatory milestones will be explained. Students will gain an overview of data network infrastructure, be able to define modulation schemes and describe analog to digital conversion. Students will also be introduced to broadband's physical infrastructure. The components of the outside plant will be introduced.

Distribution: Engineering Technologies. Offered: Fall Semester.

#### WBT 120 - VIDEO DISTRIBUTION TECHNOLOGIES (3)

Students will study Internet Protocol Television (IPTV) and the convergence of two technological revolutions, the Internet and digitization of television. Students explore topics ranging from the basics of television distribution systems to the transition to IPTV.

Distribution: Engineering Technologies. Offered: Fall Semester.

**WBT 151 - BROADBAND LAB I (3)**

Hands-on instruction covering hand tools, safety, component identification, color codes, Ohm's law and reading schematic diagrams will be covered. Students will construct basic circuits, predict circuit values, and measure current voltage and resistance. Knowledge in the proper operation of electronic test equipment will be stressed. This lab will supplement the student of Theory and DC/AC classes.

Distribution: Engineering Technologies. Offered: Spring Semester.

**WBT 210 - VOICE OVER INTERNET PROTOCOL (VOIP) (3)**

The fundamentals necessary to understand VoIP, gateways and their capabilities, and to describe how phone calls are made on VoIP networks. Students will understand components, standards and architectures. Identify and explain key components, jargon, buzzwords, plus the main standards and protocols. Understand packetized voice, how it happens. Examine carrier's IP network technologies and the important topic of using MPLS to implement Differentiated Services for Quality of Service (QoS). Discover Session Initiated Protocol, what it is, how it works, how it fits in with soft-switches, call managers and trace the establishment of a IP phone call step by step.

Distribution: Engineering Technologies. Offered: Fall Semester, Spring Semester.

**WBT 211 - WI-FI & WIRELESS TECHNOLOGIES (3)**

Studies the current state of advanced digital wireless technologies including cellular radio, Wi-Fi, 4G and 5G technologies. Fixed and Mobile Wireless Access (Wi-Fi), WiMAX and WLANs is studied. Students will focus their studies on the wireless Industry and how it pertains to telephony. Provides fundamental concepts from the basis of wireless communications.

Distribution: Engineering Technologies. Offered: Fall Semester.

**WBT 246 - CENTRAL OFFICE TRANSPORT (3)**

This course will focus on the Central Office environment and transport equipment of the telecommunications industry. Upon successful completion of this class, students will be able to work professionally, safely and efficiently in a central office environment. Students will comprehend the digital hierarchy scheme as it applies to the world of telephony. Learning will include the public switched telephone

network and its signaling structure.

Distribution: Engineering Technologies. Offered: Spring Semester.

**WBT 249 - OUTSIDE PLANT (3)**

Installation and repair of outside plant technologies, copper, fiber, coax, able to analyze problems in outside plant systems and make effective repairs. Students will understand Fiber To The Home (FTTH) concepts and terminology, and comprehend terminology and acronyms. The locating of underground cable and fault location, reading staking sheets and telecommunication maps and diagrams will be covered. The required steps in testing OSP will be identified. Students will have an opportunity to discuss residential services and to hone their customer service skills.

Distribution: Engineering Technologies. Prerequisite: EC105. Offered: Spring Semester.

**WBT 251 - BROADBAND LAB II (4)**

Hands-on lab supports for the following classes: WBT 105, WBT 210, and WBT 211. This lab serves as a real world environment for the students and staff to apply the theories studied. Understand proper safety techniques, comprehend FCC and industry standards. Properly identify test equipment and tools. Properly install, test and troubleshoot broadband systems.

Distribution: Engineering Technologies. Prerequisite: WBT151. Offered: Fall Semester.

**WBT 257 - BROADBAND LAB III (5)**

This lab serves as a real world environment for the students and staff to apply the theory studied in the previous classes. Exercise proper safety techniques. Properly identify and use test equipment in the broadband services industry. Install, test and troubleshoot broadband systems to customer's premise and business locations. Exercise VoIP knowledge, install, operate and maintain a central office and head-end video equipment.

Distribution: Engineering Technologies. Offered: Spring Semester.

**WBT 290 - INTERNSHIP (6)**

Supervised work experience in a position related to the telecommunications industry. Required for graduation.

Distribution: Engineering Technologies. Offered: Summer Semester.

## WLD - Welding

### WLD 101 - WELDING SAFETY AND DISCONTINUITIES (2)

The AWS Safety in Welding provides a comprehensive overview of welding hazards, safety equipment. At the completion of the course, participants will have the opportunity to sit for a certification exam. Students will also be introduced to discontinuities AND defects that go hand in hand with the welding processes. They will be able to correctly place the discontinuity or defect into precise categories.

Distribution: Construction Technologies. Offered: Fall Semester, Spring Semester.

### WLD 102 - BASIC WELDING (2)

An introductory course providing skills for entry-level welders. Specific projects will be related to industry applications.

Distribution: Construction Technologies. Offered: Fall Semester, Spring Semester.

### WLD 103 - BASIC SMAW (1)

Students will gain the proper skills to operate all shop equipment and produce quality welds to pass specific weld position tests. Some of the assignments will include: Lab safety; applying proper technique with the SMAW process; manipulate hand held plasma equipment in a skillful assignment; demonstrate the ability to properly operate an oxy-fuel cutting torch.

Distribution: Construction Technologies. Offered: NULL.

## WMT-Welding-Manufacturing-Tech

### WMT 117 - CRANE AND FORKLIFT OPERATION (2)

The class covers basic safety principles related to Crane and Forklift activities. The application and inspection of cable, chain, and synthetic lifting devices will be covered along with verbal and non-verbal signals involved in safe operations. Students will gain experience in reading load charts, identifying working parts of a crane, operation of overhead bridge cranes and learn how to inspect cranes prior to use.

Distribution: Construction Technologies. Offered:

Spring Semester.

### WMT 120 - MANUFAC SYMBOLS MEASUREMENTS (1)

Exercise the ability of micrometer use, reading of fraction/ metric tape measure, applying the use of a fillet weld gauge, operating dial indicators, dial calipers, identifying weld symbols, analyzing welding symbols on weld drawings and demonstrating actual welding scenarios with a comprehensive view of welding manufacturing blueprints.

Distribution: Construction Technologies. Offered: Spring Semester.

### WMT 121 - BLUEPRINT READING (1)

Interpretation of blueprints, creation of weld maps, applying weld symbols to corresponding parts, study of current manufacturing blueprints, draw fabricated parts in detail with weld symbols, formulate math problems into created drawing and research blueprints with unknowns.

Distribution: Construction Technologies. Offered: Spring Semester.

### WMT 132 - METALLURGY (2)

Introduction to metallurgy of carbon steel, aluminum, and stainless steel. Set up and illustrate proper mechanical requirements for welding steel, aluminum with GMAW/GTAW/ SMAW processes; create electrical diagrams for specific current needed to weld steel/aluminum; acquire proper meanings for welding terminology; exchange of carbon in steel; allotropy of iron atoms; transformation temperatures; treatment of metals with heat; adhere to the ASTM designation system; summarize the classification of carbon steels and aluminum for proper filler metal selection; and illustrate heat affected zone. Acquaint self with acceptable, unacceptable welds through the interpretation of relevant welding codes.

Distribution: Construction Technologies. Offered: Fall Semester.

### WMT 142 - WELDING ECONOMICS (2)

A close look at welding manufacturing economics with specifics in welding productivity, do's goal, method for computing operation factor, putting it all together and summary of key concepts. Reduce weld metal volume, reduce arc time per weldment, reduce rejects, rework and scrap, reduce work effort, reduce motion and delay time, method for computing operating factor and

understanding welding productivity.

Distribution: Construction Technologies. Offered: Spring Semester.

#### WMT 149 - BASIC WELDING LAB (2)

Proper skills to operate all shop equipment and produce quality welds in order to pass specific weld position tests. Some of the assignments will include: Lab safety; applying proper technique with GMAW processes; manipulate hand held plasma equipment in a skillful assignment; demonstrate the ability to properly operate an oxy-fuel cutting torch.

Distribution: Construction Technologies. Offered: Fall Semester, Spring Semester.

#### WMT 150 - WELDING LAB I (4)

Student will gain the proper skills to operate all shop equipment and produce quality welds in order to pass specific weld position tests. Some of the assignments will include: working on a class room project; applying proper technique with GMAW, GTAW and GMAW-P to properly pass an AWS qualification exam.

Distribution: Construction Technologies. Offered: Fall Semester.

#### WMT 151 - WELDING LAB II (4)

The student will gain the proper skill to operate all shop equipment and produce quality welds on aluminum and steel in order to pass specific weld position tests. Band saw operations, introduction to the basic operations of a forming Iron Worker, demonstrating proper techniques in various positions with GMAW/GTAW/SMAW/GMAW-P process, and fabrication of a classroom project.

Distribution: Construction Technologies. Offered: Spring Semester.

#### WMT 201 - QUALITY & PRODUCTIVITY IMPROVEMENT (2)

Quality and productivity improvement. Will appeal to everyone concerned with enhancing productivity in the Welding workplace. Reviews management systems for welding supervisors, requirements of welds, welding instruction, and application of welding standards, welding inspection, health, safety, work reports, and records.

Distribution: Construction Technologies. Offered: Fall Semester.

#### WMT 230 - WELDING ROBOTIC LAB (3)

Introduction to welding robotics. Goal is to help students develop the necessary skills to thrive in an advanced manufacturing environment with the use of Weldpro Fanuc Robot. Education will assure complete part make up from programming to weldment.

Distribution: Construction Technologies. Offered: Fall Semester, Summer Semester.

#### WMT 231 - MANUAL MACHINING LAB (3)

Set up and operation of manual machining equipment. Birmingham Mill and Nardini Engine Lathe will be introduced as the machining stations as well as manual operation of CNC equipment. Instructions on, set up, and quality part production will be the key attributes.

Distribution: Construction Technologies. Offered: Fall Semester.

#### WMT 232 - NONDESTRUCTIVE TESTING (NDT) (4)

Discovering code related testing methods and practice of various nondestructive and destructive applications to weldments in order to comply to code testing requirements. Methods include, Die Penetrant, Magnetic Particle, Radiographic and Ultrasound.

Distribution: Construction Technologies. Offered: Spring Semester.

#### WMT 240 - MANUF PROGRAMMING & INSTALLATION (3)

Introduction to Solidworks CAD software that helps create files that operate most automated manufacturing equipment. Students will draft and model formed parts and create cut files that will simulate a machine cutting a specified material and drawn part. Students will use these files that are drawn in the fourth semester CNC machining lab.

Distribution: Construction Technologies. Offered: Fall Semester.

#### WMT 242 - WELDING CODE (2)

A welding code clinic designed to fit manufacturing needs in order to create a reputable welding program within a company's requirements. Code interpretation would evaluate code books published from the American Welding Society, American Society of Mechanical Engineers and the American Petroleum Institute.



Distribution: Construction Technologies. Offered: Fall Semester.

#### WMT 250 - LASER CUTTING TECHNOLOGY (3)

Introduction to the basic operations of the most up-to-date automated laser cutting system. The learning objectives will be focused on cutting, engraving, and rastering along with recognizing the ultimate advancement in the human machine interface controller. Education will assure complete part make up from drafting to piece part.

Distribution: Construction Technologies. Offered: Spring Semester.

#### WMT 251 - CNC MACHINING STATION LAB (3)

Introduction to a CNC machining lathe and mill stations. Using proprietary conversational operating systems that make modeling parts and creating part programs nearly effortless. Through an interactive graphical environment -using full-color graphics on liquid crystal displays. Operations such as tool and work offsets using the Renishaw probing system, drilling and tapping, pocket milling, engraving, facing, and boring. Education will assure complete part make up from drafting to piece part.

Distribution: Construction Technologies. Offered: Spring Semester.

#### WMT 252 - MECHANICAL WORKMANSHIP LAB (3)

The first and second year students will be working together to complete a large fabrication project. Example of past years projects would include a 20-foot (16' long with 4' stationary deck) tilt utility trailer. During this lab the students will be taking all of the skills they have developed in the WMT program and applying them to fabricate the final project.

Distribution: Construction Technologies. Offered: Spring Semester.

#### WMT 260 - ADVANCED MACHINING (4)

Introduction to a CNC Programming on Haas lathe and milling stations. Using proprietary computer aided machining software that makes G coding parts and creating part programs nearly effortless. Through an interactive graphical environment using full-color graphics laptop displays. Operations such as constant Z machining of three dimensional parts, drilling Cann Cycles and rough and finish cut programming to complete finished parts on the CNC milling and lathe stations.

Distribution: Construction Technologies. Offered: Spring Semester.

#### WMT 262 - ADVANCED WELDING PROCESSES (4)

Advanced skill learning with various welding process that include gas metal arc, gas tungsten arc, shielded metal arc, and flux core arc. Difficult joint configurations along with various structure and pipe practices.

Distribution: Construction Technologies. Offered: Fall Semester.

#### WMT 271 - ADV. ROBOT WELDING QUALIFICATION (2)

Designed to help prepare the student to accomplish an American Welding Society welding robot operator qualification. Various practice assignments will help the student acquire the skill level to accomplish most scenarios in a manufacturing environment.

Distribution: Construction Technologies. Offered: Spring Semester.

#### WMT 272 - ADV. WELDING QUALIFICATION (2)

A student will have the opportunity to sit and test for an American Welding Society qualification exam. Based on previous education and skill a welder will have the time to practice and select a qualifying welding procedure specification and administer an exam.

Distribution: Construction Technologies. Offered: Spring Semester.

#### WMT 290 - INTERNSHIP (6)

Employer based student work experience. Student completion of a 240 hour internship. Completion of employer qualification testing if applicable.

Distribution: Construction Technologies. Offered: NULL.

### WTT - Wind Turbine Technology

#### WTT 100 - TURBINE SAFETY (1)

Students are introduced to the correct climbing techniques in accordance with OSHA and standard industry practices. The students will learn the definition of "100% tie off" and understand tower rescue.

Distribution: Energy Production Technologies. Offered: Fall Semester.

### WTT 101 - INTRODUCTION TO WIND TECHNOLOGY (2)

An overview of major and minor components in the construction of a wind turbine. This includes the function of the bottom control cabinet, top control cabinet and hub control panel or hydraulic system. The different types of generators, gearboxes and gear reduction drives used in yawing the nacelle and pitching of the blades are explained. Students will also study the characteristics of different types of air foils when dealing with blade designs.

Distribution: Energy Production Technologies. Offered: Fall Semester.

### WTT 102 - BASIC TURBINE MECHANICS (3)

Students are given an in-depth look at the tools and the types of mechanical systems that are typically encountered on a wind turbine. Students will learn the safe usage of large tools as well as their proper use. They will gain an understanding of documenting gear, shaft and bearing failure concepts as well as what to look for when performing general inspections.

Distribution: Energy Production Technologies. Offered: Fall Semester.

### WTT 104 - SCHEMATICS (2)

Students will be taught wiring diagram symbols. They will be able to identify both parallel and series circuits; draw pictorial and ladder diagrams; identify abbreviations for common electrical components; and be able to read the legend of a wiring schematic.

Distribution: Energy Production Technologies. Offered: Fall Semester.

### WTT 108 - HYDRAULICS (2)

Students will learn industry relevant skills related to accumulators, DCVs, cylinder types, check valves and remote pressure control. Operation, installation and performance analysis. Also introduces electro-fluid concepts and applications.

Distribution: Energy Production Technologies. Offered: Spring Semester.

### WTT 112 - ELECTRONICS I (3)

The study of alternating current (AC) circuits begins with the generation of a sine wave and review of trigonometric functions and continues through resonance and filter circuits. In-depth look at inductors

and capacitors and how they affect an AC and DC circuit differently. Introduction to the components of electronics, both passive and active. Subjects studied include power supplies, solid state components, frequency, resistance, capacitance, modulation, wave theory, testing devices and electronic systems as they are used in the control of a wind turbine.

Distribution: Energy Production Technologies. Offered: Spring Semester.

### WTT 120 - INDUSTRIAL MOTOR CONTROLS (3)

Fundamentals of motor controls, including start stop stations, time delay circuits, sequence starting, synchronized starting, auto starting via pressure switch, etc. are taught. Students will use the knowledge they obtain to efficiently negotiate the different control devices as well as implement the information received from schematic reading.

Distribution: Energy Production Technologies. Offered: Spring Semester.

### WTT 130 - FIELD TRAINING I (2)

The student will learn to correctly identify and inspect the necessary lanyards, hardware and harnesses used in tower work and complete a job safety analysis worksheet prior to climbing. The student will then properly put on the climb safety harness and perform a safe tower climb on the ladder in the ETC lab.

Distribution: Energy Production Technologies. Offered: Fall Semester.

### WTT 131 - FIELD TRAINING II (2)

The student will learn how to properly perform a tower rescue of a mannequin who is suspended from the lab ladder with a ladsafe and harness. The student will learn how to use a tractel lifting device to safely lift the mannequin from his connection to the tower and correctly lower the mannequin to the ground. The student will also climb the 300-foot GE tower at Crow Lake and gain an understanding of the requirements of climbing to that height.

Distribution: Energy Production Technologies. Offered: Spring Semester.

### WTT 213 - ELECTRONICS II (3)

Students learn the theory of power supplies in this introduction to the components of electronics, both passive and active. Subjects studied include power supplies, solid state components, frequency, resistance,

capacitance, modulation, wave theory, testing devices and electronic systems as they are used in the control of a wind turbine.

Distribution: Energy Production Technologies. Offered: Fall Semester.

#### WTT 214 - THEORY OF POWER GENERATION (4)

The theory of generators and typical uses. Students will gain an understanding of generator construction and the operational theories which can be applied toward generator troubleshooting. Construction, function and logic of power regulators and power converters is discussed.

Distribution: Energy Production Technologies. Offered: Spring Semester.

#### WTT 217 - ADVANCED MOTOR CONTROLS (3)

Applications of control devices are reviewed. Photoelectric controls, logic modules, sequential motor starting, troubleshooting, acceleration and deceleration methods are studied.

Distribution: Energy Production Technologies. Offered: Fall Semester.

#### WTT 221 - WIND TURBINE PLC WIRING (4)

A Programmable Logic Controller (PLC) acts as an emulator for the wind turbine. Data from the PLCs is transmitted to a control center where engineers perform statistical analysis, program the PLCs, and turbine controllers, and analyze data to predict failures before they happen. PLCs are part of the turbine tower control unit within the nacelle. They can control everything from blade pitch to hydraulics to the direction of the yaw. Students will have hands-on practice working with ladder diagrams and digital logic to troubleshoot procedures.

Distribution: Energy Production Technologies. Offered: Spring Semester.

#### WTT 225 - UTILITY SAFETY (2)

Specific OSHA, APPA and NESC rules that apply to operating and maintaining wind turbines.

Distribution: Energy Production Technologies. Offered: Fall Semester.

#### WTT 230 - FIELD TRAINING III (2)

The student will perform climbs on the 300-foot GE

tower at Crow Lake and perform a hub entry. The student will perform a mannequin rescue inside the tower and satisfactorily remove the mannequin to the area outside the tower.

Distribution: Energy Production Technologies. Offered: Fall Semester.

#### WTT 231 - FIELD TRAINING IV (2)

The student will continue in climbs on the 300-foot GE tower and perform checks on the system. The student will continue to gain confidence in climbing and performing rescues.

Distribution: Energy Production Technologies. Offered: Spring Semester.

#### WTT 240 - SCADA CONCEPTS (3)

Students are introduced to the fundamentals of supervisory controls and data acquisition (SCADA) as those concepts relate to the operation of wind turbines and the generation and transmission of power.

Distribution: Energy Production Technologies. Offered: Spring Semester.

## Faculty

(Year of Appointment in Parentheses)

**ALARCON, ASHLEY (2022)**

Radiologic Technology Instructor  
B.S., University of South Dakota

**APPLETOFT, DONNA, CMA, CPC, CPB (2011)**

Health Sciences  
A.A.S., Mitchell Technical College

**BENJAMIN, MICHAEL (2007)**

Wi-Fi & Broadband Technologies  
B.S., University of Management and Technology

**BRINKMAN, NOAH (2022)**

Wind Turbine Technology Instructor

**BRTNA, JOE (2012)**

Diesel Power Technology  
A.A.S., Mitchell Technical College

**BULTJE, JAMES (2022)**

Information Systems Technology Instructor  
A.A.S., Mitchell Technical College

**CAREY, BLAINE (2017)**

SD Center for Farm/Ranch Management  
B.S., South Dakota State University

**CARPENTIER, MIKE (2017)**

Commercial Truck Driving (CDL)  
Diploma, Mitchell Technical College

**DEGEN, CHRIS (2013)**

Power Sports Technology  
A.A.S., Mitchell Technical College

**EHLKE, JERRY (2012)**

Electrical Utilities and Substation Technology  
Diploma, Mitchell Technical College

**ELLIS, SARAH (2017)**

General Education (Communications)  
M.S., South Dakota State University

**FENSKI, DEZARAE, MSN, RN (2017)**

Nursing  
M.S.N., Grand Canyon University

**FLYNN, DEBORAH, MA, CCC-SLP (2010)**

Speech-Language Pathology Assistant  
M.A., University of South Dakota

**FREEMAN, PAULA, RT (R), (T) (2005)**

Radiation Therapy  
M.S. Ed., Southwest Minnesota State University

**FUERST, DOUGLAS (1998)**

Electrical Construction and Maintenance  
A.A.S., Mitchell Technical College

**GIBLIN, DEBRA (2002)**

Administrative Office Specialist  
M.A., University of South Dakota

**GILBERT, TAMMY, MSN, RN (2018)**

Nursing  
M.S.N., Grand Canyon University

**GOLDAMMER, IZAAK (2021)**

Diesel Power Technology  
A.A.S., Mitchell Technical College

**GOLDAMMER, TIM (2017)**

Culinary Academy of South Dakota  
B.S., South Dakota State University

**GRABER, MICHELLE (2013)**

General Education (Communications)  
M.A., Minnesota State University, Mankato

**GROSS, JULIE (2011)**

General Education (Communications)  
M.A., University of South Dakota

**GROSZ, NICOLE (2021)**

Power Line Construction and Maintenance  
Diploma, Mitchell Technical College

**GUERICKE, JANELLE (2012)**

Agricultural Business  
B.A., Dakota Wesleyan University

**GUINDON, RAYNE (2015)**

Power Sports Technology  
A.A.S., Mitchell Technical College

**HANTKE, LAYNE (2015)**

Electrical Construction & Maintenance  
A.A.S., Mitchell Technical College

**HART SCHUTTE, JULIE (2015)**

Human Services Technician  
M.S., South Dakota State University

**HENKEL, JOHN (2013)**

Electrical Construction and Maintenance  
A.A.S., Mitchell Technical College

**HERLL, DIXIE (2015)**

Human Services Technology  
B.A., Dakota Wesleyan University

**HERRMANN, LISA, M. Ed., RT (R), (T) (2006)**

Radiologic Technology  
M.Ed., South Dakota State University

**HOCKETT, TYLER (2020)**

Accounting  
B.A., Dakota Wesleyan University

**JARDING, CARENA, DNP, RN (2016)**

Director of Nursing  
D.N.P., American Sentinel University

**JOHNSON, LEE (2018)**

Natural Gas Technology/Heating & Cooling  
Technology  
A.A.S., Mitchell Technical College

**JOHNSON, LISA, LPN (2013)**

Medical Assistant  
A.A.S., Mitchell Technical College

**JUHNKE, JASON (2010)**

Heating and Cooling Technology  
Diploma, Mitchell Technical College

**KONRAD, SARAH, MSN, RN (2021)**

Nursing  
M.S.N., Grand Canyon University

**KORTAN, SCOTT (2018)**

General Education (Mathematics)  
M.S., Northern State University

**KOTH, HEATH (2022)**

Accounting/Business Management Instructor

**KRANZ, JOSH (2012)**

Culinary Academy  
A.A.S., Mitchell Technical College

**KRCIL, AMBER (2022)**

Radiologic Technology Instructor  
B.S., University of Sioux Falls

**KRIESE, RICK (2011)**

Agronomy  
Diploma, Lake Area Technical College

**MAHONEY, JIM (2004)**

Architectural Design and Building Construction

B.S., Dakota State University

**MAREK, KASSIE, MSN, RN (2017)**

Licensed Practical Nursing (LPN)  
M.S.N., Grand Canyon University

**MOHR, KIM, MSN, RN (2021)**

Nursing  
M.S.N., Grand Canyon University

**MOKE, DALE (2012)**

Industrial Controls  
A.A.S., Mitchell Technical College

**MOORE, MATT (2019)**

Information Systems Technology  
B.A., Dakota Wesleyan University

**MUNSEN, MARK (1997)**

Architectural Design and Building Construction  
Diploma, Mitchell Technical College

**MUNSEN, TAMARA (2002)**

Engineering Division (Computers)  
M.S., Dakota State University

**OSBORNE, TOM (2009)**

Power Line Construction and Maintenance  
Diploma, Mitchell Technical College

**PETERSON, TRAVIS (2012)**

Welding and Manufacturing Technology  
A.A.S., Mitchell Technical College

**PUETZ, BRANDON (2020)**

Electrical Construction & Maintenance  
A.A.S., Mitchell Technical College

**PUETZ, MICHAEL (1998)**

Power Line Construction and Maintenance  
Diploma, Mitchell Technical College

**RAAK, NATHANIEL (2014)**

General Education (Mathematics)  
M.A., University of South Dakota

**RASSEL, JOEL (2015)**

Diesel Power Technology  
A.A.S., Mitchell Technical College

**REIMNITZ, TRAVIS (2017)**

Professional Truck Driving  
B.S., Black Hills State University

**RENKEN, JOSH (2013)**

Automation Controls/SCADA

A.A.S., Mitchell Technical College

**REPENNING, LORI, DVM (2012)**

Animal Science

D.V.M, Kansas State University

**ROYSTON, JESSE (2020)**

Wi-Fi & Broadband Technologies

A.A.S., Mitchell Technical College

**RUSSELL-MANKE, ANNIKA (2008)**

Accounting/Business Management

M.A., University of Nebraska-Lincoln

**RUSSELL, DEVON (2014)**

Precision Technology Specialist

M.A., South Dakota State University

**SCHMIDT, PAULA, CMA, CPC (2012)**

Medical Office Professional

A.A.S., Mitchell Technical College

**SCHOENFELDER, JED (2017)**

Welding & Manufacturing Technology

**SCHRAMM, ERIC (2017)**

Architectural Design & Building Construction

B.S., South Dakota State University

**SCHULTZ, JENNIFER, MA, CCC-SLP (2012)**

Speech-Language Pathology Assistant

M.A., University of Iowa

**SIELER, DAN (2021)**

Precision Technology Specialist

B.S., Dakota Wesleyan University

**SMITH, LYNNE, M.Ed., MT(ASCP) (2002)**

Medical Laboratory Technology

M.Ed., South Dakota State University

B.S., South Dakota State University

**THIBODEAU, GREGG (2013)**

Welding and Manufacturing Technology/

Machining and Manufacturing

A.A.S., Community College of the Air Force

**VAN ZEE, RYAN (2021)**

Accounting/Business Management

Ed.D., University of South Dakota

**WEISSER, SHIRLYCE, MLT(ASCP) (2009)**

Medical Office Professional

B.A., University of South Dakota

**WRIGHT, BARBARA, RT(R), RDMS (2019)**

Radiologic Technology

B.S., University of South Dakota

# Administration/Staff

## **BAMSEY, MELINDA**

Administrative Specialist  
A.A.S., Mitchell Technical College

## **BERG, MATEYA**

Student Success Coach/Disability Services Coordinator  
B.A., Augustana College

## **BOOS, DAVID**

Dean of Technology Systems  
M.B.A., Dakota State University

## **BOYD, ANNA**

Financial Specialist  
B.S., Dakota Wesleyan University

## **BRUINSMA, WHITNEY**

Student Success Coach/Counselor  
B.S., University of South Dakota

## **BRUNTZ, JEFF**

Maintenance Manager

## **DEINERT, JESSICA**

Student Success Coach/Counselor  
M.S., University of South Dakota

## **DEUTER, CLAYTON**

Vice President for Enrollment Services  
B.S., South Dakota State University

## **ELLINGSON, LISA**

Bistro Clerk

## **ETTSWOLD, MELISSA**

SIM Technician  
A.A.S., Mitchell Technical College

## **FOSSUM, SCOTT**

Vice President for Operations and Human Resources  
Ed.S., University of South Dakota

## **GOUGH, AMY**

Media Specialist  
A.A.S., Mitchell Technical College

## **GREENWAY, JANET**

Career Services & Advising Director  
B.A., Dakota Wesleyan University

## **GREENWAY, JILL**

Registrar  
M.A., Dakota Wesleyan University

## **GRODE-HANKS, CAROL**

Vice-President for Academics  
Ed.D., University of South Dakota

## **HOFER, JARED**

Dean of Financial Operations  
M.B.A., University of South Dakota

## **HUBER, MORGAN**

Financial Aid Director  
B.A., Dakota Wesleyan University

## **HYLTON, LISA**

Custodial Services

## **JACOBSEN, ROBIN**

Scholarship Advisor  
A.A.S., Mitchell Technical College

## **JOHNSON, ANNA**

Custodial Services

## **KING, LORRAINE**

Custodial Services

## **KIRKEGAARD, DONENE**

Custodial Services

## **KOBERNUSZ, BOB**

Marketing Director  
B.S., Northern State University

## **KUBIK, DUSTIN**

Client Systems Manager  
A.A.S., Mitchell Technical College

## **KULM, HEATHER**

Admissions Representative  
B.S., University of South Dakota

## **LARSON, LISA**

Instructional Support Specialist  
M.A., Dakota Wesleyan University

## **LUCAS, DANITA**

Director of Student Success  
M.Ed., South Dakota State University

**MORGAN, SARAH**

Accounts Payable & Financial Specialist  
A.A.S., Southeast Technical College

**NEUGEBAUER, CARMEN**

Assistant Director of Financial Aid  
Diploma, Mitchell Technical College

**NICOLAUS, JIMMIE**

Service Technician  
A.A.S, Mitchell Technical College

**NIELSEN, KELLIE**

Student Success Coach/Counselor  
M.S., South Dakota State University

**PETERSON, DONNA**

Bistro Clerk

**PLAGMANN, SHERYL**

Assistant Director, MTC Foundation  
Diploma, Mitchell Technical College

**POPP, NICOLE**

Financial Aid Specialist  
B.A., Dakota State University

**SAYLES, PATTY**

Custodial Services

**SIEVERDING, JOHN**

Director of Buildings & Grounds  
A.A.S., Mitchell Technical College

**SIMMERMON, NICOLE**

Admissions Representative  
B.A., Dakota Wesleyan University

**SMITH, MARLA**

Accreditation & Institutional Effectiveness Director  
B.A., Brigham Young University

**STERK, KELLY**

Custodial Services

**SWETT, AMYA**

Admissions Representative

A.A.S., Mitchell Technical College

**VINING, HILLARY**

Enrollment Services Coordinator  
A.A.S., Mitchell Technical College

**WILSON, MARK**

President  
M.Ed., University of North Dakota





## **Index**

