Dallas County Technical Center



DCTC COURSE CATALOG

www.dctc.bisonpride.org
120 S Spruce St. Buffalo, MO 65622
phone: 417-345-1460 fax: 417-345-1440

WELCOME TO THE

Dallas County Technical Center

Dear Students and Parents:

Here at DCTC we are interested in your child's education and the career pathway that is most appropriate to meet his/her goals. Please know that the faculty will diligently work toward meeting your child's needs. One of the standards that the Dallas County R-1 School District must meet in order to maintain accreditation from the Missouri Department of Elementary and Secondary Education relates to successful placement in occupations, continued education, or military service related to his/her career and technical training. Our goal is to place students in the "right program" to best fit each student's educational and career goal. DCTC strives to establish a culture where all students have a quality and positive learning experience.

Sincerely,

The DCTC Team



OUR VISON:

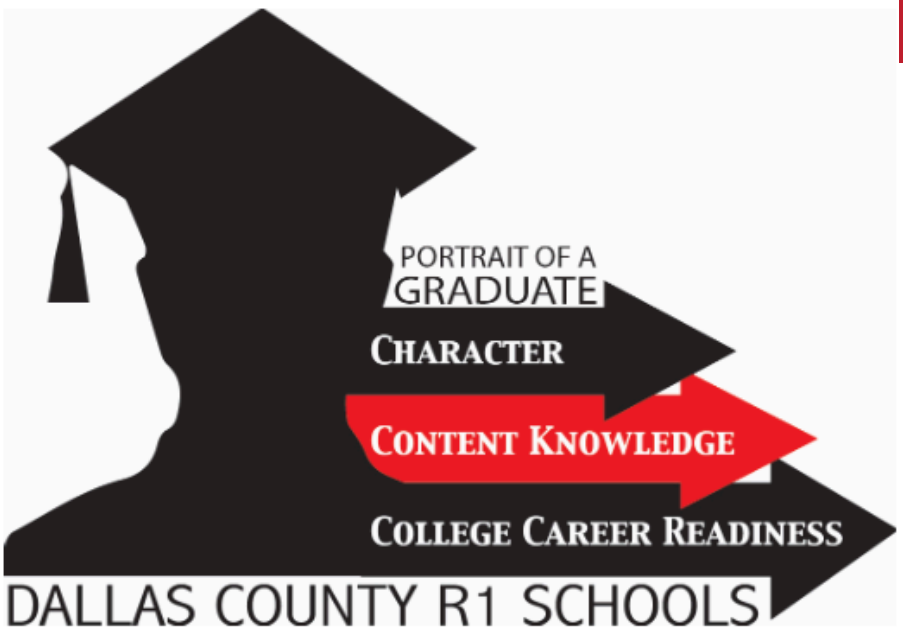
Commitment to educational excellence through career and technical preparation

OUR MISSION:

To equip all students for lifelong learning and responsible citizenship

OUR MOTTO:

Education Unlocks Opportunity; CTE is the Key



The Dallas County R-1 School District, as an Equal Opportunity Employer, complies with applicable federal and state laws prohibiting discrimination, including Title IX of the Education Amendment of 1972 and Section 504 of the Rehabilitation Act of 1973. It is the policy of the school district that no person, based on race, color, national origin, sex, age or handicap, shall be discriminated against in employment, educational programs and activities or admissions. Inquiries or complaints concerning the Dallas County R-1 School District's compliance with the regulations implementing Title VI, Title IX, or section 504 may be directed to the Superintendent of School.

TABLE OF
Contents

Our Staff..... 1
About Us..... 2-3
Agriculture..... 4-5
Automotive Technology..... 6-7
Business..... 8-9
Collision Repair Technology..... 10-11
Construction Technology..... 12-13
Criminal Justice..... 14-15
Health Science..... 16-17
Information Technology & Cybersecurity..... 18-19
Teaching Pathways..... 20-21
Welding Technology..... 22-23
Career and Technical Student Organizations..... 24-29
Hourly Course Descriptions..... 30-39
Work-Based Learning (WBL) 40
DCTC Application..... 41
Missouri Army National Guard..... 42-44

Our Staff



MELANIE RYAN
DIRECTOR

- Ed.S. - CTE Administration, University of Central Missouri
- M.S. - Teaching Leadership, University of Central Missouri
- B.S.N. - Nursing, Rockhurst University/Research College of Nursing
- 18 Years Industry Experience
- 16 Years Educational Experience



BRIAN FISHER
ASSISTANT DIRECTOR

- M.S. - Educational Administration, Southwest Baptist University
- M.S. - Curriculum and Learning, Concordia University
- B.S. - History Education, Ashford University
- 14 Years Educational Experience



JULIE CONDREN
ADMIN ASSISTANT

- Buffalo High School Graduate
- DCTC Graduate
- 14 Years Banking Experience



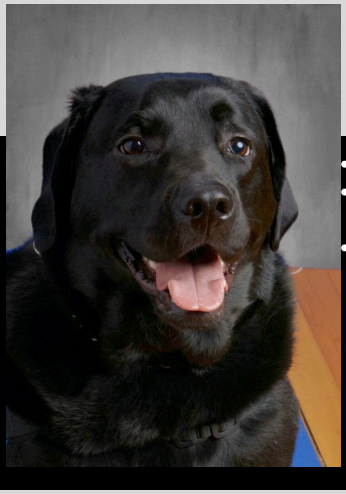
STACIE FOHN
COUNSELOR

- M.S. - Counseling, Missouri State University
- B.S. - Communication Sciences and Disorders with an emphasis in Deaf Education, Missouri State University
- 5 years Industry Experience
- 24 Years Educational Experience



ADOLFO MARQUEZ
CAREER RESOURCE AIDE

- B.S. - Business, National University
- A.A. - Special Education, Pima College
- 7 Years Educational Experience



BUNKER FOHN
PROFESSIONAL THERAPY DOG

- C.A.R.E.S Certified
- 3 Years Education Experience
- 4 Years Old

About Us

Purpose – The purpose of Technical Education is to provide students with high quality training that is realistic to the world of work and opportunities for gainful employment. To attain this purpose, courses have been designed to assist students in the development of attitudes, skills, information, and understandings essential for entry and advancement in occupational areas by industry. Business leaders across the country are seeking well-qualified, professionally-skilled workers to assist them with their growth and business development. By enrolling at DCTC you will be taking the first steps to establish the necessary skills for a successful career in today's world.

High School Credit – One unit of credit (Practical Art or Elective) for each hour of instruction is allowed toward graduation requirements. Additionally, students may earn .5 credit in English and .5 credit in math each year they attend DCTC block courses.

Dual & Articulated Credit - All programs at DCTC offer either dual and/or articulated college credit. Articulated credit is college credit students can earn at certain post-secondary schools with whom the articulation agreement is held. Unlike dual credit these credits are not transferable to other post-secondary schools.

Industry Recognized Credentials (IRCs) - Students who successfully complete a CTE Program will be required to take an IRC exam related to their program of enrollment. An IRC is a portable, recognized credential that validates an individual has successfully demonstrated skill competencies in a core set of content and performance standards in a specific set of work-related tasks, single occupation area, or a cluster of related occupational areas. All IRC offerings are subject to change based on the Missouri Department of Elementary and Secondary Education policies, available courses and industry standards.

National Career Readiness Certificate (NCRC) and WorkKeys Exam - All seniors who attend DCTC block programs will take the WorkKeys exam. The WorkKeys exams are a culmination of the skills they have learned throughout their block course. Students who successfully pass the WorkKeys assessments with a level 3 (Bronze) or higher on each assessment will earn the NCRC Certificate.

About Us

Attendance– Block students attend the Technical Center one-half day and their home high school one-half day. The development of good attendance habits is essential to success in training for employment. It is important to remember that one day in a DCTC block program is equal to three class hours on student attendance. Students missing 7 or more class hours will be required to make up time in order to receive credit for the course. See DCTC policies for more information.

Transportation– All home high schools will provide bus transportation between the student's home high school and the Technical Center. All students are required to use this means of transportation. Students are not allowed to drive their cars to and from the Technical Center. Exceptions are made on a case by case basis.

School Schedule– The school calendar and daily time schedule are the same as those established for all schools in the Dallas County R-1 School District.

Selection of Students – All students must enroll in a program that is related to their chosen career pathway. Students who are interested in DCTC must complete the online DCTC Application provided by their school counselor and attend a prearranged Shadow Day of their chosen program. Selection of students for technical programs will be the result of the combined efforts of the participating schools and DCTC. Careful attention is given to the acceptance of each student for admission into DCTC. Students are selected on the basis of attendance, academic performance, career pathway-as identified in his/her ICAP, completion of the course request form by the due date, and discipline. DCTC models placement in courses based on students chosen career paths. These career pathways, designed by the Missouri Department of Education, serve as a guide for alignment of DCTC courses. Local school recommendation will be given highest priority toward selection of students; however, DCTC retains the right to reject any student. If you wish to be considered for enrollment, it is imperative that you contact your home school counselor by the deadline announced. Students must pass their respective safety unit first semester in order to continue in their program second semester. Students must pass their CTE classes their junior year to return their senior year. Students over the age of 18 years old, at the time of enrollment, will be required to obtain a background check.

Enrollment Priorities – Priorities for enrollment will be as follows for all two-year programs:

- Seniors returning for a second year in the same program.
- Juniors enrolling for the first time.
- Seniors returning for a second year, but changing programs.
- Seniors enrolling for the first time.

Note: The Dallas County Technical Center will not exclude participation in any program offered by the school to any person on the basis of race, creed, color, national origin, or gender and will not accept students from a school where selection of students for enrollment in a vocational program is based on race, creed, national origin, or gender.

Joseph Stokes

EdS Leadership
M.S. Administration
B.S. Ag Education

MaryAnn Boro

EdS Leadership
M.S. Natural & Applied Science
B.S. Ag Education
B.S. Horticulture





Agriculture

Course Description

Agriculture courses include Ag Science 1, Ag Science 2 Horticulture, Ag Science 2 Mechanics, Ag Science 2 Advanced Livestock, Ag 2 Advanced Livestock and Marketing, Greenhouse/Landscaping, Ag Leadership, Conservation, Agribusiness, Floral Design/Greenhouse 2, Ag 2 Food Science and Technology, and Ag 2 Construction. These courses provide rigorous and relevant instruction designed to prepare students for high-demand occupations in a wide array of careers. The program includes a metal and woodworking shop, greenhouse, and school farm for hands-on learning. Students gain leadership experience through the National FFA Organization, and career skills through Supervised Agricultural Experiences. Courses available for Buffalo students only.

Certifications

- Missouri Agriculture Skills and Knowledge
- OSHA 10 (Ag Construction Course Only)
- CTE Certificate

College Credit

- OTC (Dual): 11 Credit Hours
- OTC (Articulated): 18 Credit Hours
- MSU WP (Dual): 23 Credit Hours
- MSU WP (Articulated): 23 Credit Hours

Course Objectives

- To enhance math, science, social, and communication arts skills through practical, hands-on applications of agriculture curriculum.
- To develop the ability to utilize higher order thinking, problem solving, and reasoning skills.
- To develop awareness of current agricultural trends and technologies being used in industry today.
- To develop their abilities to become authentic leaders through their involvement in the FFA.
- To learn career skills through hands-on projects in Supervised Agricultural Experiences.







Suggested Pathway

9th Grade	10th Grade	11th Grade	12th Grade
Agriculture I	Ag II Horticulture --- Ag II Mechanics --- Ag II Livestock --- Ag II Food Science	Landscaping/Greenhouse --- Construction --- Livestock Production and Marketing	Floral Design/Greenhouse II --- Ag Business --- Conservation --- Ag Business

*This Is only a suggested progression. Courses can be taken at different grade levels. See descriptions on page 30-33 for more details.

Employment

Agriculture Education courses prepare students to enter into our nation's largest industry. Career pathways include Agriculture Mechanics Power, Technical, and Structural Systems, Animal Science, Agribusiness, Food Science, Plant Science, and Conservation/Natural Resources. Leadership and communication skills gained through the FFA and agriculture education are universal, and will make students more successful in any occupation they choose to pursue.

Related Careers

- Production Agriculture
- Agribusiness Professional
- Veterinarian
- Livestock Manager
- Food Scientist
- Soil Scientist
- Agronomist
- Horticulturist
- Building and Construction Trades
- Welder
- Engine Technician/Machinist
- Conservation Agent

Greg Perryman, Instructor

ASE Certified
Motor Vehicle Inspector
GM Mark of Excellence



Automotive Technology

Course Description

Automotive Technology is a two-year program for juniors and seniors. This course is designed to meet the needs of the automotive industry in maintenance and light repair by introducing students to the diagnosis and repair of today's automobiles with their precision-built automatic mechanisms, complex electronic circuitry, and advanced power units. Students need a solid understanding of math and science in order to be successful in the program.

Certifications

- ASE - Entry Level Certification
- OSHA 10 Certification
- OSHA Forklift Certification
- Motor Vehicle Inspection Certification
- Valvoline Certification
- National Career Readiness Certificate
- CTE Certificate

Course Objectives

- Practice safe, clean, trade-like working habits.
- Understand, express, and apply the principles and theory underlying the design, construction and operating of various automotive engine components that relate to engine diagnosis, maintenance, and repair.
- Communicate using trade terms pertaining to engines, parts, components, materials and their uses.
- Demonstrate the skills, knowledge and attitudes necessary to be a competent automotive technician. Identify and demonstrate personal qualifications that are important in acquiring and maintaining employment as an automotive technician.
- Independently use shop-service manuals, flat rate manuals and other reference materials as necessary in order to prepare and present accurate job cost estimates.

College Credit

- OTC (Articulated): 16 Credit Hours







SkillsUSA®

Employment

A majority of automotive technicians are employed by new car dealers, independent repair shops, or parts distributors. Some are self-employed. With the increasing complexity of automotive technologies and growing vehicle price tags, the highest demanding and best paying jobs as an automotive service professional will be plentiful for those who finish a post secondary formal training program. Employees in this industry earn on average $42,570 per year.

Related Careers

- Automotive Service Technician
- Alignment Tech
- Service Manager
- State Motor Vehicle Inspector
- Insurance Adjuster
- Parts Sales / Distribution
- Dealership / Independent Shop Owner
- Fleet Service Tech
- Mobile Service Tech
- Automotive Engineer
- Machinist
- Lube / Maintenance Tech
- Automotive Audio / Entertainment / Electronics Tech



Jacque Rice
M.S. Instructional Tech
B.S. Elementary Ed.
Certified Business Ed.
Certified Elementary Ed.

Bradley Nyberg
M.S.Education
B.S. Administrative Management
A.A. Applied Science





Business

Course Description

This program provides students with a comprehensive introduction to the fundamental principles and concepts of business. It explores the dynamic and evolving nature of the business environment, equipping students with essential knowledge and skills to navigate the complexities of the corporate world. The program covers key areas such as management, marketing, finance, entrepreneurship, and organizational behavior. Courses offered Include Intro to Business, Business Management, Computer Apps, Personal Finance, Desktop Publishing, Entrepreneurship, Business Communication, Web Design, Digital Media Production, Supervised Business Experience, and Senior Capstone.

Certifications

- Fundamental Business Concepts (ASK)
- CTE Certificate

College Credit

- MSU-WP (Dual) 12 Credit Hours
- MSU-WP (Articulated) 12 Credit Hours

Course Objectives

- Understand the basic concepts and principles of various business disciplines.
- Analyze and evaluate real-world business situations.
- Develop critical thinking and problem-solving skills applicable to business contexts.
- Recognize the ethical implications of business decisions.
- Communicate effectively in a business environment.







*This Is only a suggested progression. Courses can be taken at different grade levels. See descriptions on page 34-36 for more details.

Suggested Pathway

9th Grade	10th Grade	11th Grade	12th Grade
Intro to Business --- Computer Apps	Business Management --- Digital Media Production	Business Communication --- Desktop Publishing --- Personal Finance	SBE/RYA --- Senior Leadership Capstone --- Entrepreneurship

Employment

Careers in business encompass a wide range of opportunities, making it a dynamic and versatile field for professionals. Whether in finance, marketing, human resources, or entrepreneurship, individuals in business play a crucial role in the success and growth of organizations. Business careers often require a combination of analytical skills, strategic thinking, and effective communication. Professionals may find themselves navigating the complexities of global markets, developing innovative strategies, managing teams, or driving financial decision-making. The ever-evolving nature of the business world offers room for continuous learning and adaptation, making it an exciting and challenging domain for those seeking diverse and rewarding career paths. Successful business careers often hinge on a blend of education, experience, and the ability to navigate the complexities of a competitive and fast-paced environment.

Related Careers

- Business Owner
- Entrepreneurship
- Administrative Assistant
- Insurance
- Real Estate
- Medical Coding
- Hospital Administration
- Hospitality Management
- Sports Management
- Entertainment Management

Bobbie Davidson, Instructor

I-CAR Certified Instructor
SP/2 Certified



Collisional Repair Technology

Course Description

The Collision Repair Technology program provides the student with the basic knowledge and skills that are necessary for the repair and refinishing of the modern automobile. It provides an understanding of how cars and trucks are constructed through study in class. It also covers a wide range of manipulative skills through shop work which includes sheet metal straightening, welding, fiberglass and plastic work, panel replacement, glass replacement, as well as painting and refinishing, and damage appraisal. Students need a solid understanding of math and art in order to be successful in the program.

Certifications

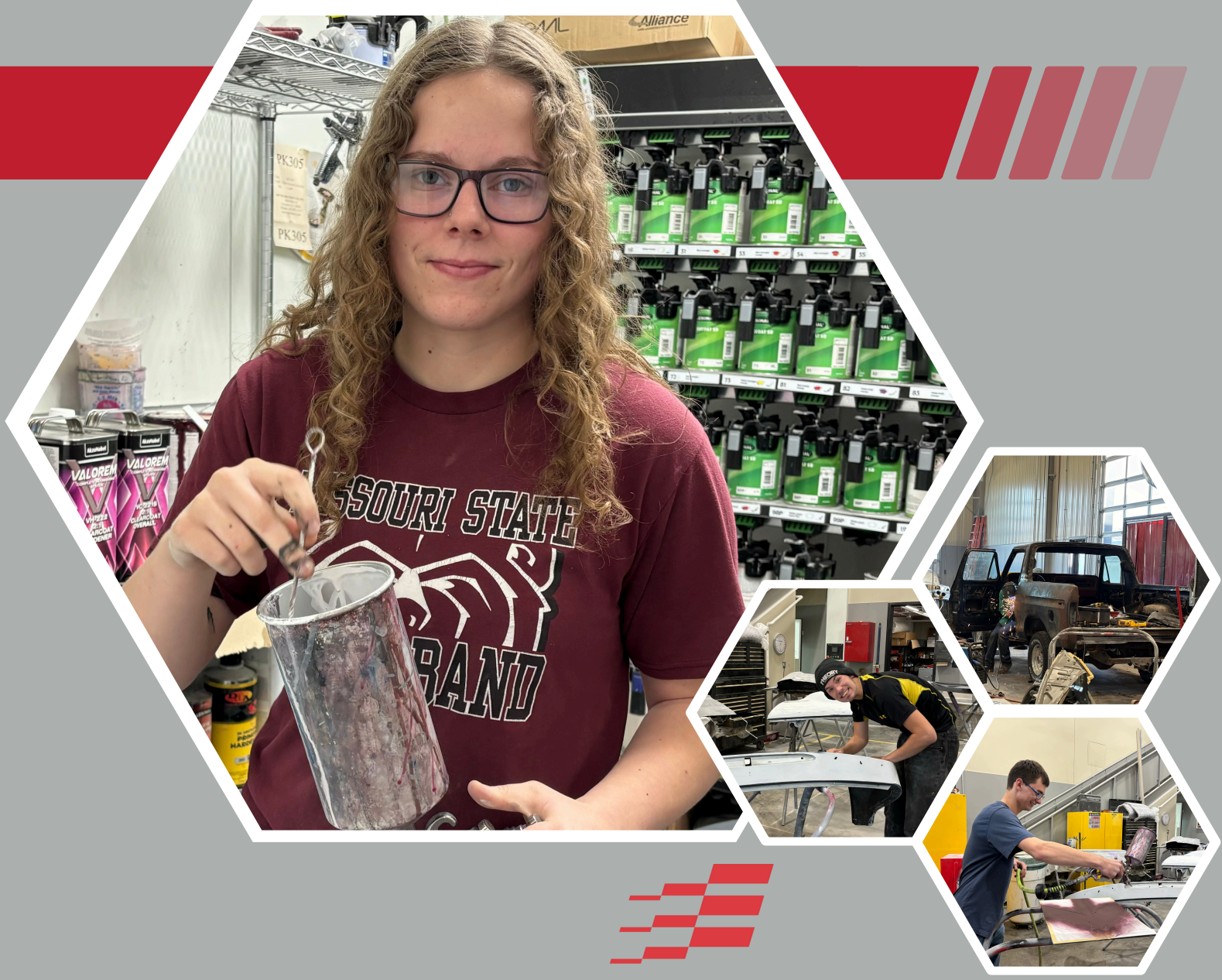
- I-CAR Certification
- ASE - Entry Level Certification
- OSHA 10 Certification
- OSHA Forklift Certification
- National Career Readiness Certificate
- CTE Certificate

College Credit

- OTC (Articulated): 24 Credit Hours

Course Objectives

- Identify opportunities in the collision repair industry.
- Demonstrate safety procedures necessary in the auto repair collision repair industry.
- Demonstrate metal straightening techniques.
- Demonstrate body-filling techniques.
- Demonstrate body panel Installation and alignment techniques.



SkillsUSA®

Employment

Auto Collision Repair technicians are employed by new car dealers, independent repair shops, or parts distributors. Some are self-employed. Collision Repair Technicians can expect to work on a wide variety of vehicles and situations. Most technicians tend to specialize in certain areas such as refinishing, frame repair, etc. Employees in this industry earn on average $46,220 per year.

Related Careers

- Automotive Service Technician
- Automotive Mechanic
- Claims Adjuster/Appraiser
- Automotive Body Repair
- Auto Glass Installers
- Electric Motor Repairers
- Glaziers
- Mechanic and Repairer Helpers
- Metal and Plastic Processing Workers
- Painting and Coating Machine Operators
- Precision Assemblers
- Sheet Metal Workers
- Vehicle Painters
- Welders and Solderers

DC TC
CONSTRUCTION
TECHNOLOGY

Tim Phillips, Instructor

OSHA Certified Instructor
Business Owner/Operator



Construction Technology

Course Description

Construction Technology is a two-year course for high school juniors and seniors interested in careers in the construction industry. The course is designed for students considering professions in general construction, carpentry, concrete, electrical, plumbing, and HVAC. Students may apply learning concepts to build projects on the campus of DCTC and then transported to customers or at local construction sites. Examples of building projects may include hunting or fishing cabins, tiny homes, or she-sheds. Students may also have opportunities to help with Habitat for Humanity building projects within the local community. Students enrolled in the construction trades class are expected to act like professionals at all times.

Certifications

- Carpentry Career Connections
- OSHA 10 Certification
- OSHA Forklift Certification
- National Career Readiness Certificate
- CTE Certificate

College Credit

- OTC (Articulated): 15 Credit Hours

Course Objectives

- Perform math operations such as estimating and distributing materials and supplies to complete jobsite/worksite tasks.
- Apply principles of physics as they relate to worksite/job site situations to work with materials and load applications.
- Use vocabulary and visual cues commonly used in design and construction to be successful in workplace/jobsite communications.
- Create and implement project plans considering available resources and requirements of a project/problem to accomplish realistic planning in design and construction situations.







SkillsUSA®

Employment

Construction and building inspectors ensure that construction meets local and national building codes and ordinances, zoning regulations, and contract specifications. Most careers in this industry require a high school diploma or equivalent and on-the-job training while some may require advanced technical training. Employees in this industry earn on average $57,390 per year.

Related Careers

- Construction Contractor
- Builder
- General Construction Worker
- Carpenter
- Mason
- Electrician
- Plumber
- HVAC
- Roofer
- Flooring Installer
- Concrete
- Heavy Equipment Operator

DCTC
CRIMINAL JUSTICE

Riley Ankrom, Instructor

Drury Law Enforcement Academy
Class A Peace Officer
Commissioned Dallas County Deputy
D.A.R.E. Instructor & Trained SRO



Criminal Justice

Course Description

This course is designed for students who are interested in working in the criminal justice field. The goal is to teach skills that students can use in every aspect of life while focusing on the functions and duties of the criminal justice field. The course combines academic instruction with hands-on labs that compliment classroom instruction. Classroom instruction includes the history of policing, constitutional law, patrol procedures, criminal law, judicial process, corrections, ethical issues, current trends, report writing, and more.

Certifications

- Missouri Law Enforcement Skills and Knowledge (MOLESK)
- Missouri Peace Officers Association
- CPR/AED
- CTE Certificate
- National Career Readiness Certificate

College Credit

- MSU (Dual): 6 Credit Hours
- MSU-WP (Dual/Articulated): 12 Credit Hours

Course Objectives

- Demonstrate an understanding of the current state of law enforcement along with the need, variety, and extent of police services.
- Develop an understanding of the crime scene investigation process.
- Demonstrate an understanding of the causes of crime.
- Demonstrate the ability to evaluate current events and criminal proceedings to identify the roles of key players and the stages of the criminal justice system including: trial adjudication, sentencing, punishment and or rehabilitation.
- Simulate traffic stops, searches, and arrest procedures.







SkillsUSA®

Employment

Students completing the Criminal Justice program are currently working in emergency communications and as corrections officers in local jails. There are other opportunities to work in state level corrections. Students may pursue a college degree in Criminal Justice or attend a Law Enforcement Academy. Employees in this industry earn on average $61,668 per year.

Related Careers

- Police Officer
- Corrections Officer
- Probation and Parole
- Conservation Agent
- Police Dispatcher
- Court Bailiff
- Security Officer
- Forensics
- Court Personnel Law
- State Trooper

HEALTH SCIENCE

DALLAS COUNTY TECHNICAL CENTER

Melanie Varner, RN
A.S.N. Nursing
CNA Instructor/Examiner
Level 1 Med Aide/Insulin Admin
BLS/Heartsaver Instructor

Carley McConnell, RN
M.S. Nursing Education
B.S.N. Nursing
A.S.N. Nursing
CNA Instructor/Examiner
Level 1 Med Aide/Insulin Admin
BLS/Heartsaver Instructor





Health Science

Course Description

This program is designed to provide students with a comprehensive exploration of the fundamental principles, skills, and applications within the dynamic field of health science. This course encompasses a diverse range of topics, including anatomy, physiology, pathology, safety practices, phlebotomy, and healthcare systems, providing a solid foundation for those interested in pursuing careers in healthcare or related fields. The curriculum blends theory with hands-on applications, promoting critical thinking and problem-solving. Students participate in diverse activities, including lab work, clinical simulations, and real-world case studies, enhancing their comprehensive grasp of health science concepts.

Certifications

- Basic Life Support (BLS)/AED
- Certified Nurse Assistant (CNA)
- Patient Care Technician (PCT)
- Phlebotomy
- OSHA 10 General Industry (Healthcare)
- EKG
- CTE Certificate
- National Career Readiness Certificate

College Credit

- OTC (Dual): 9 Credit Hours
- SBU (Dual): Pending
- MSU-WP (Dual): 6 Credit Hours
- MSU-WP (Articulated): 6 Credit Hours

Course Objectives

- Develop a solid understanding of fundamental concepts In health science including anatomy, physiology, pathology, phlebotomy, and safety practices.
- Explore career paths within the health science field, understanding educational and professional requirements, and creating a personalized plan for future growth and advancement.
- Gain hands-on experience through clinical rotations, simulations, or practical exercises to apply theoretical knowledge In real-world healthcare settings.



hosa future health professionals

Suggested Pathway

Foundations of Health Science
9th -12th Grade
Buffalo ONLY

→ Medical Terminology & Pathophysiology
10th -12th Grade
Buffalo ONLY

→ Health Science Certification
11th Grade
ALL Sending Schools

→ Health Science Senior Capstone
12th Grade
ALL Sending Schools

*This Is only a suggested progression. Courses can be taken at different grade levels. See descriptions on page 37 for more details.

Related Careers

- Certified Nurse Assistant
- Medication Technician
- Physical Therapy Assistant
- Dental Assistant
- Registered Nurse
- Licensed Practical Nurse
- Physician's Assistant
- Medical Assistant
- Nurse Practitioner
- Patient Care Technician
- Doctor
- Physician
- Sports Therapist

Employment

The healthcare industry is ever changing and offers a wide range of employment settings. Opportunities for employment include private facilities, hospitals, surgery centers, home health, physical therapy centers, and community health settings. Patients will be from diverse backgrounds and range in age from infant to elderly. Depending on the area and nature of work salaries will range between $25,000 and $100,000 per year.

DALLAS COUNTY TECHNICAL CENTER

INFORMATION TECHNOLOGY

& Cybersecurity

Kent Hulsey, Instructor

M.S. Cybersecurity
B.A. Elementary Education



Information Technology & Cybersecurity

Course Description

The Information Technology and Cybersecurity program provides students the opportunity to prepare to choose and enter the Information Technology career field of their choice at an introductory level. Students need knowledge of basic computer skills and a strong math background to be successful in this program. Buffalo students may choose to enroll in this program as a two year, 3-hour block course their junior and senior years or take computer science in hourly sections starting their freshman year.

*Students who enroll in an Information Technology and Cybersecurity class may now count the class as either a math credit, a science credit, or a practical art credit. However, this credit may not take the place of a required EOC class (Algebra, Biology).

Certifications

- TestOut Cybersecurity Pro
- TestOut Security Pro
- CTE Certificate
- National Career Readiness Certificate

College Credit

- OTC (Articulated): 12 Credit Hours
- SBU (Dual): 6 Credit Hours
- MSU-WP (Dual/Articulated): 15 Credit Hours

Course Objectives

- Learn the basics of computer and networking hardware.
- Understand and practice configuring network components according to protocols in use.
- Learn and use Cybersecurity basics to protect and secure networks.
- Troubleshoot PCs and networks.
- Identify job opportunities within the IT and Cybersecurity fields.







SkillsUSA®

Suggested Pathway

Computer Science Discoveries
9th Grade
Buffalo ONLY

→

Logic and Programming
10th Grade
Buffalo ONLY

→

ITCS I
11th Grade Block
ALL Sending Schools

Computer Science Application
11th Grade Hourly
Buffalo ONLY

→

ITCS II
12th Grade Block
ALL Sending Schools

Senior Computer Science Capstone
11th Grade Hourly
Buffalo ONLY

*This Is only a suggested progression. Courses can be taken at different grade levels. See descriptions on page 38-39 for more details.

Employment

The number of jobs in computer and networking related industries based on projected growth: Computer Support Specialist jobs are expected to increase by 11%. Information Security Analysts jobs are expected to increase by 28%. Software Developer jobs are expected to increase by 24%. Employees in this industry earn on average $39,000 - 90,000 per year. Senior Cybersecurity engineers average $130-140,000 with a college degree.

Related Careers

- Computer User Support Specialists
- Network and Computer System
- Administrator
- Software Developer
- Information Security Analysts
- Computer Programmer (coding)
- Web Developer
- Computer Network Architect
- Computer and Network Forensics

Jamie Martin

M.S. Education
B.S. Education



Teaching Pathways

Course Description

The Teaching Pathways program is designed for students considering a career in the field of elementary, middle, or high school education or as an educator. This course is offered to juniors or seniors as a one or two-year program in which there will be a combination of rigorous classroom instruction accompanied by intense student teaching experiences. This course will follow guidelines established by the Career Pathways for the Teaching Profession as outlined by DESE originating in the Family and Consumer Science cluster. Students will have opportunities for cadet teaching and can earn A+ tutoring hours. Students must demonstrate good moral character, good work habits, responsibility, organization, and integrity. A high level of work is expected of students enrolled in the Teaching Pathways program and students will be expected to act like professionals at all times. Students will be required to participate in the Educators Rising student organization. Students need to have a solid understanding of child development, content area of teaching interest, and strong public speaking skills to be successful in this program.

Certifications

- Paraprofessional Certification
- Substitute Teacher Certificate
- CTE Certificate
- National Career Readiness Certificate

College Credit

- OTC (Dual): 3 Credit Hours
- MSU (Dual): 12 Credit Hours
- SBU (Dual): 6 Credit Hours
- MSU-WP (Dual/Articulated): 13 Credit Hours

Course Objectives

- Apply oral and written communication skills to create, express, and interpret information and ideas, including technical terminology and information
- Identify and evaluate characteristics and responsibilities of effective teachers.
- Recognize and demonstrate effective management of diversity in the classroom.
- Explain and analyze the influence of historical, philosophical, and sociological roles and the impact on today's education system
- Identify and assess the impact of educational policy, school law, and legal reforms on American education.







EDUCATORS RISING

Employment

Right out of high school, students can work as teacher assistants in a preschool or as paraprofessionals after passing an exam. After 30 college hours, students can work as a substitute teacher, paraprofessional and a preschool teacher. After a bachelor degree, students can work as a teacher. With additional education (masters, specialist, doctorate) and experience, students can be a counselor, administrator, athletic director, or superintendent. There is a national teacher shortage resulting in higher than average job opportunities. Teachers earn an average of $50,000 per year for 9 months of employment, but with additional education and increased responsibilities in the industry may earn well over $90,000.

Related Careers

- Paraprofessional
- Substitute Teacher
- Counselor
- Child Care Provider
- Preschool Teacher
- Speech and Language Pathologist
- Athletic Coach / Activity Adviser
- Instructional Coach and Instructional
- Technology Coach
- Reading Specialist
- Curriculum Specialist

Dallas County Technical Center

WELDING
TECHNOLOGY

Darin Newman David Miller

Associate Degree OSHA/Forklift Certified
AWS Certified Welder Inspector/ Instructor
8 Years Military Experience

Bachelor of Arts in Biblical Literature
Welding Technology Aide
OSHA 10 Certified





Welding Technology

Course Description

The Welding Technology program is designed to follow the AWS SENSE (Schools Excelling through National Skill Standards Education) certification program and teaches all major welding and cutting processes as set forth by the American Welding Society. Whether students go to work or choose to further their education, they will excel because of the knowledge and skills they have obtained in the welding program. Students have the opportunity to become an AWS Certified Welder and obtain AWS SENSE Level 1 National Certification. Students are also given the opportunity to become a member of the DCTC Student Chapter of the American Welding Society, AWS District 17 – Section 136/Ozark Section, as well as a member of SkillsUSA. Students should have a good math and science background, mechanical aptitude, dexterity, and good hand-eye coordination.

Certifications

- AWS SENSE Level 1 Certification
- AWS Welder Certification
- OSHA 10 Safety Certification
- OSHA Forklift Certification
- National Career Readiness Certificate
- CTE Certificate

College Credit

- OTC (Articulated): 16 Credit Hours
- SFCC (Articulated): 14 Credit Hours
- MSU-WP (Articulated): 30 credit hours

Course Objectives

- To become aware of the occupational opportunities and requirements in the field of welding.
- To obtain a basic knowledge of the welding process, electrode and equipment.
- To develop basic welding skills.
- To be able to read and interpret blueprints for welders.
- To have an understanding of the fabrication of metals.
- To learn the common methods of testing welds.
- To develop employability traits for the workplace.
- To develop in the student a realization of his/her civic and moral obligations.







SkillsUSA®

Employment

While most welding students will be ready to enter the vast field of welding right out of high school, there are many opportunities available beyond entry level positions that require additional education and training. Examples include specialized welding process training in pipe and underwater welding, welding engineering, welding metallurgy, business manager, Government, US Military, and research. There is an increase by 26% for jobs across the nation. The average salary for an entry level welding career is $60,000.

Related Careers

- Pipe Welder
- Welder Fitter
- Welder Operator
- Owner
- Quality Control
- Metal Fabrication
- Manufacturing
- Shipbuilding
- Underwater Welding
- Auto/Motorsports
- Oil and gas Construction
- Power generation
- Welding Engineering

SkillsUSA®

SkillsUSA

Lead Advisors:
Darin Newman
Tim Phillips

Description

SkillsUSA is a partnership of students, teachers and industry representatives working together to ensure America has a skilled workforce. SkillsUSA helps each student to excel. SkillsUSA is a national organization serving teachers and high school and college students who are preparing for careers in technical, skilled and service occupations, including health occupations and for further education.

Mission

SkillsUSA empowers its members to become world-class workers, leaders and responsible American citizens. SkillsUSA improves the quality of America's skilled workforce through a structured program of citizenship, leadership, employability, technical and professional skills training. SkillsUSA enhances the lives and careers of students, instructors and industry representatives as they strive to be champions at work.

Membership

More than 300,000 students and advisors join SkillsUSA annually, organized into more than 17,000 sections and 52 state and territorial associations. Combining alumni and lifetime membership, the total number reached this year is more than 335,000. SkillsUSA has served more than 11.2 million members since its founding in 1965.

Programs

SkillsUSA programs include local, state and national competitions in which students demonstrate occupational and leadership skills. At the annual national-level SkillsUSA Championships, nearly 6,000 students compete in 99 occupational and leadership skill areas.

EDUCATORS RISING

Educators Rising

Lead Advisor: Jamie Martin

Description

Educators Rising is a national membership organization for aspiring teachers and their mentors. If you are leading or participating in a school-based program that helps young people explore teaching — in secondary or postsecondary — consider joining Educators Rising to connect with peers and experts around the country who are focusing on the same issues and challenges.

Mission

Educators Rising is cultivating a new generation of educators by guiding young people on a path from high school through college and into their teaching careers. By working with aspiring educators who reflect the demographics of their communities and who are passionate about serving those communities through public education, Educators Rising is changing the face of teaching.

Membership

Educators Rising is a career and technical student organization (CTSO) in which chapters provide our students a place for support and networking, a strong curriculum delivers a structured way for students to prepare for their future profession, while competitions give students a chance to prove themselves as professionals, and conferences provide a national stage in which to network and be recognized for their achievements to the profession and develop the community that comes from being part of a network, a family of professionals, and a movement.

Programs

Educators Rising is a permanent member of the National Coordinating Council of Career and Technical Student Organizations (NCC-CTSO). As a CTSO, Educators Rising offers resources and opportunities that integrate directly into the academic programs of "teacher academy" career and technical education courses at the high school level. You can still sign up to join Educators Rising even if your program is not part of career and technical education.

National FFA Organization

Lead Advisors:
MaryAnn Boro
Joey Stokes

Description

FFA is a dynamic youth organization that changes lives and prepares members for premier leadership, personal growth and career success through agricultural education. FFA develops members' potential and helps them discover their talent through hands-on experiences, which give members the tools to achieve real-world success.

Programs

Career Development Events (Agronomy, Ag Mechanics, Dairy Cattle, Dairy Foods, Entomology, Food Science, Floriculture, Forestry, Grassland Evaluation, Horse Judging, Livestock Judging, Meat Evaluation, Nursery/Landscaping, and Soil Science competitions)
Leadership Development Events (Public Speaking, Parliamentary Procedure, etc.)
Chapter and Greenhand Officer Team
Summer Trips (Washington DC, National Parks, etc.)
Showing Livestock and Mechanics Projects
Community Service Projects
Ag Ed on the Move
Elementary Petting Zoo
Officer Retreat
Local, District and State Fairs
Proficiency Awards for Supervised Agricultural Exp.
State FFA Convention (Columbia, MO)
National FFA Convention (Indianapolis, IN)
National FFA Week

Membership

The National FFA Organization is the nation's largest high school leadership organization with over 700,000 members across all 50 states, Puerto Rico and the Virgin Islands. It was founded in 1928 in Kansas City, Missouri. The Buffalo FFA Chapter was chartered in 1931, and currently has about 140 members.

Mission

FFA makes a positive difference in the lives of youth by developing their potential for premier leadership, personal growth, and career success through agricultural education.

Health Occupations Students of America

Lead Advisors:
Carley McConnell
Melanie Varner

Description

HOSA is a global student-led organization recognized by the U.S. Department of Education and the Department of Health and Human Services and several federal and state agencies. HOSA provides a unique program of leadership development, motivation, and recognition exclusively for secondary, postsecondary, middle school, adult, and collegiate students enrolled in health science education and biomedical science programs or who have interests in pursuing careers in health professions. HOSA is 100% health care! We incorporate HOSA into our classroom weekly at DCTC. Those who join the HSE-HOSA Partnership recognize the importance of providing students with training far beyond the basic technical skills needed for entry into the healthcare field. The rapidly changing healthcare system needs dedicated workers who, in addition to their technical skills, are people-oriented and capable of playing a leadership role as a member of a healthcare team.

Membership

Membership dues are required to be a part of HOSA. Becoming a member allows you to actively compete in State competitions, attend conferences, and our CTSO days.

Mission

HOSA's mission is to empower HOSA-Future Health Professionals to become leaders in the global health community, through education, collaboration, and experience. HOSA actively promotes career opportunities in the health industry and enhances the delivery of quality health care to all people.

Courses

Foundations of Health Sciences
Medical Terminology & Pathophysiology
Health Science Certification
Health Science Senior Capstone

National Technical Honor Society

National Technical Honor Society

Lead Advisor: Stacie Fohn

Description

The National Technical Honor Society is an educational non-profit that exists to honor, recognize, and empower students and teachers in Career & Technical Education. As the honor society for Career & Technical Education, NTHS serves over 100,000 active members annually in both secondary and postsecondary chapters across country. Since its founding in 1984, nearly 1 million students have become NTHS alumni. NTHS honors the achievements of top CTE students, provides close to $300,000 in scholarships annually, and strives to help connect education and industry to build a highly skilled workforce.

Membership

Membership dues are required to be a part of NTHS. Membership Is Invitation only based on requirements set forth by the DCTC and National Chapter Bylaws. Students must have a 3.0 overall GPA and a 3.5 GPA In their DCTC classes. Other requirements apply, see bylaws for more Information.

Mission

The purposes of NTHS is to promote the ideals of honesty, service, leadership, and skill development among America's future workforce by rewarding scholastic achievement in career and technical education and to award Scholarships. NTHS helps to build and maintain a stronger, more positive image for career and technical students, programs and schools in the local community and throughout the nation by encouraging the practice of high standards of personal and professional conduct and individual responsibility.

Programs

ALL DCTC CTE Programs and Hourly Courses
Membership in the Society and the local NTHS Chapter shall be composed of persons who are enrolled in workforce education programs or majors, and who shall qualify for membership according to the regulations of the Society and the local NTHS Chapter. Members may be from any and/or all occupational departments, programs or majors within the institution and must have been duly approved by the local chapter advisor or school administration.

Missouri FBLA

Future Business Leaders of America

Lead Advisors:
Jacque Rice
Bradley Nyberg

Description

Future Business Leaders of America, Inc. (FBLA) is the largest business Career and Technical Student Organization in the world. Each year, FBLA helps over 230,000 members prepare for careers in business.

Membership

FBLA offers students the opportunity to success in college and their future careers. With over 196,950 members in 5,200+ chapters across the country, your FBLA journey can start today! As a membership organization, FBLA relies on dues to help support the mission. This includes, but is not limited to, program development, resources, training, technology, services to chapters, and event production.

FBLA members and advisers should develop an awareness of the image one's appearance projects. The purpose of the dress code is to uphold the professional image of the association and its members and to prepare students for the business world.

Appropriate attire is required for all attendees—advisers, members, and guests—at all general sessions, competitive events, regional meetings, workshops, and other activities unless otherwise stated in a conference program. Conference name badges are part of this dress code and must be worn for all conference functions. For safety reasons, do not wear name badges when touring.

Mission

FBLA inspires and prepares students to become community-minded business leaders in a global society through relevant career preparation and leadership experiences.

Programs

Enhance leadership skills in school and community through FBLA programs such as the Business Achievement Awards. High school students create a portfolio of real-world accomplishments and develop their business and leadership skills across levels. The Business Achievement Awards (BAA) are an individual achievement award program for active, paid high school student members in FBLA. Participating students have the opportunity to enhance their leadership skills, expand their business knowledge, contribute to their local communities, and earn recognition by immersing themselves in their school and communities. There are four levels to the Business Achievement Awards.

Hourly Course Descriptions

Agriculture

Agricultural Science I (Prerequisite: paid FFA dues)

1 credit (Grades 9-10)

This is an introductory course to Agricultural Education for first year agricultural students. Emphasis is placed on the study of basic animal production including livestock identification and selection, care and maintenance of dairy cattle, horses, swine, sheep, beef cattle and small animals. Other areas included in this course of study are beginning record keeping, Agri-careers, supervised occupational experience program, basic agri-mechanics (welding), and basic leadership skills which prove to be of great importance in the FFA and beyond high school. Approximately four weeks of this course is spent on the study of Agri-mechanics which includes shop work. Students are required to pay FFA dues, as it is an integral component to ag education, equal to class instruction and SAE (work experience). There will be alternative options to cover the dues cost if payment cannot be acquired. Record books and an SAE component is essential and will be required in class.

Ag Science II (Horticulture/Plant Science) (Prerequisite: Must have passed Ag Science I and paid FFA dues)

1 credit (Grades 10-11)

This course is a continuation of the basic Agri-science dealing primarily with the plant side of agriculture. Emphasis is placed on basic plant make-up, small grains, soils, field crops, career development, advanced record keeping, improved S.A.E.P., and advanced leadership development. Students are required to pay FFA dues, as it is an integral component to ag education, equal to class instruction and SAE (work experience). There will be alternative options to cover the dues cost if payment cannot be acquired. Record books and an SAE component is essential and will be required in class.

Ag Science II (Mechanics/Structures) (Prerequisite: Must have passed Ag Science I and paid FFA dues)

1 credit (Grades 10-11)

This course is a continuation of the basic agriculture mechanics, structures and construction. Emphasis is placed on basics mechanics, structures, construction, welding, soils, career development, advanced record keeping, improved S.A.E.P., advanced leadership development and woodworking. The class does include extensive shop work. Students are required to pay FFA dues, as it is an integral component to ag education, equal to class instruction and SAE (work experience). There will be alternative options to cover the dues cost if payment cannot be acquired. Record books and an SAE component is essential and will be required in class.

Hourly Course Descriptions

Ag Science II (Food Science and Technology) (Prerequisite: Must have passed Ag Science I and paid FFA dues)

1 credit (Grades 10-11)

(Dual Credit (3) MSU-WP, Articulated Credit (3) OTC)

In Food Science, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Food Science is the study of the nature of foods, the causes of deterioration, the principles underlying food processing, and the improvement of foods for the consuming public.

Ag Science II Livestock (Prerequisite: Must have passed Ag Science I and paid FFA dues)

1 credit (Grades 10-12)

(Dual Credit (4) MSU-WP, Articulated Credit (4) OTC)

Students are required to pay the dual credit tuition to the school the student is receiving college credit from.

Students may earn 3 college credits per semester from Missouri State University – West Plains. This course includes advanced study in animal production, breeding, selection, health, nutrition, feeding, facilities, herd management, marketing, production records, enterprises, and leadership. Students are required to pay FFA dues, as it is an integral component to ag education, equal to class instruction and SAE (work experience). There will be alternative options to cover the dues cost if payment cannot be acquired. Record books and an SAE component is essential and will be required in class.

Livestock Production and Marketing (Prerequisite: Must have passed Ag Science I, obtain instructor approval, and paid FFA dues)

1 credit (Grades 11-12)

This course will be developed into a project construction class reinforcing learned skills through practical application. Each student will be required to complete projects assigned and/or projects of their choice. Students are required to pay FFA dues, as it is an integral component to ag education, equal to class instruction and SAE (work experience). There will be alternative options to cover the dues cost if payment cannot be acquired. Record books and an SAE component is essential and will be required in class.

Hourly Course Descriptions

Landscaping/Greenhouse (Prerequisite: Must have passed Ag Science I and paid FFA dues)

1 credit (Grades 11-12)

(Dual Credit (4) MSU-WP, Articulated Credit (3) OTC) Students are required to pay the dual credit tuition to the school the student is receiving college credit from.
There is an opportunity for 4 hours college credit: 3 - Plant Science
1 - Greenhouse. Articulation credit possible through MSU-WP for qualifying students. This course deals with the basic understanding of greenhouse and nursery landscaping concepts. The production of greenhouse crops will be used to demonstrate these procedures. Plants that are started from cutting, seeds, grafts or by layering will be used for plant identifications. Students will manage their own crop as identification will also be a large part of this course. Students are required to pay FFA dues, as it is an integral component to ag education, equal to class instruction and SAE (work experience). There will be alternative options to cover the dues cost if payment cannot be acquired. Record books and an SAE component is essential and will be required in class.

Agricultural Construction (Prerequisite: Must have passed Ag Science I, Mechanics, and paid FFA dues)

1 credit (Grades 11-12)

This course will be developed into a project construction class reinforcing learned skills through practical application. Each student will be required to complete projects assigned and/or projects of their choice. Students are required to pay FFA dues, as it is an integral component to ag education, equal to class instruction and SAE (work experience). There will be alternative options to cover the dues cost if payment cannot be acquired. Record books and an SAE component is essential and will be required in class.

Floral Design/Greenhouse II (Prerequisite: Must have passed Ag Science I and paid FFA dues)

1 credit (Grades 11-12)

(Dual Credit (1) MSU-WP, Articulated Credit (1) OTC)
Fundamentals of design, techniques, and skills practiced in the florist industry. Includes designs, mechanics, guides to design; introduction to flower and foliage shapes and their use; cut flower care; corsage practice; containers and designer aids.

Hourly Course Descriptions

Conservation I and II (Prerequisite: paid FFA dues)

1 credit (Grades 11-12)

(Dual Credit (3) MSU-WP, Articulated Credit (3) OTC) Students are required to pay the dual credit tuition to the school the student is receiving college credit from.
Students may earn 3 college credits per semester from Missouri State University- West Plains. This course is designed for the study of fish and wildlife as it affects and interacts with mankind. Emphasis is put on how wildlife interacts with man in the rural and urban settings. Areas covered may include grasslands, basic forestry, habitat management. Students are required to pay FFA dues, as it is an integral component to ag education, equal to class instruction and SAE (work experience). There will be alternative options to cover the dues cost if payment cannot be acquired. Record books and an SAE component is essential and will be required in class.

Agri Business Sales, Marketing (Prerequisite: Must have passed Ag Science I, and an Ag II class with a C or better)

1 credit (Grades 11-12)

(Dual Credit (3) MSU-WP, Articulated Credit (3) OTC)
Can be taken for high school credit only, or for dual credit through Missouri State West Plains (AGR 112 Introduction to Agricultural Business). Students are required to pay the dual credit tuition to the university, if receiving college credit.
This year-long course introduces students to the requirements for starting and operating a successful agricultural-based business. Students will learn how to assess the business environment and identify potentially viable business opportunities. Business start-up, planning, organization, management, marketing, accounting, and financing are also covered in this practical course. Students may take this course in lieu of Personal Finance, if the student passes the Personal Finance EOC upon the completion of the course.

Agricultural Leadership (Prerequisites: Ag I and a C avg. and FFA dues; limited to chapter FFA officers unless special permission is granted)

1 credit (Grades 10-12)

In the world of business successful leadership skills are recognized and rewarded. This class is recommended for FFA officers and those interested in learning the skills required to run a successful organization. Students will create, plan, execute and complete various activities. The model for the class will, of course, be the FFA but these skills and activities will be normal operations for nearly every club or organization. Some skills covered in leadership will be chapter operations, scrap booking, officer duties and responsibilities, parliamentary procedure, setting up and running meetings, leadership and personal development activities, activity planning, fundraising, applications to recognize success and record book keeping. Students are required to pay FFA dues, as it is an integral component to ag education, equal to class instruction and SAE (work experience). There will be alternative options to cover the dues cost if payment cannot be acquired. Record books and an SAE component is essential and will be required in class.

Hourly Course Descriptions

Business

Introduction to Business

1 credit (Grade 9) (Annual dues will be decided upon by the FBLA Chapter)

The Introduction to Business course provides students with a comprehensive foundation in the key elements of the business world. Students will gain insights into consumer roles, economic principles, and essential employability skills while exploring how economic factors impact individuals and businesses. Through engaging lessons and practical projects, students will develop a well-rounded understanding of economic principles, consumer behavior, and the government's role in consumer affairs.

Critical employability skills—such as professional communication, problem-solving, ethical decision-making, and presentation skills—are integrated into the curriculum, preparing students for college and future careers. Designed for high school students at all levels, this course is ideal for those seeking a broad overview of the business environment and the economic forces shaping it. By mastering the standards in this course, students will be well-prepared to pursue higher-level business courses and explore entrepreneurship or business studies further.

Computer Applications

1 credit (Grade 9)

This course is designed to help students master beginning level skills in the areas of word processing, database management, spreadsheet applications, desktop publishing, multimedia, Internet usage, and integrated software applications using MS Office. Students will work with software for both Mac and PC including, but not limited to Adobe, Microsoft, Apple, and IOS.

Business Management (Prerequisite: Introduction to Business)

1 credit (Grade 10) (Must be a paid up FBLA member, Annual dues will be decided upon by the FBLA Chapter.)

(Dual Credit (3) MSU-WP, Articulated Credit (3) OTC) This comprehensive Business Management course provides students with a solid foundation in essential business concepts, covering areas critical to understanding and managing modern organizations. Students will study basic management principles, explore diverse leadership styles, and gain insights into business ownership, planning, operations, marketing, finance, economics, communications, the global marketplace, and human relations. Students will engage in quality concept activities, project management, problem-solving, and ethical decision-making to enhance their understanding. Contextual instruction and active participation in co-curricular career and technical student organization (FBLA) activities will foster leadership, interpersonal, and career skills.

Hourly Course Descriptions

Digital Media Production (Prerequisite: Computer Applications or teacher approval)

1 Credit (Grade 10)

Unleash your creativity while learning to use various forms of digital media to produce a variety of publications including audio, video, and digital displays. Digital video production students will be responsible for preparation, delivery and post production of the Bison Beat, daily news, public service announcements, podcasts, etc. Enrollment in this class may require work outside of the regular school day.

Business Communication (Prerequisite: Business Management)

1 credit (Grade 11)

(Dual Credit (3) MSU-WP, Articulated Credit (3) OTC) This course provides reinforcement of students' basic language arts skills (composition, grammar, spelling, punctuation, etc.) and development of essential competencies for oral and written communication in today's technological workplaces. Emphasis is placed on using the computer to compose and produce accurate and effective documents (including e-mail messages, letters, memos, reports, etc.) for personal and professional purposes. Using technology (presentation software and telecommunications) to develop oral communication skills such as making presentations, giving instructions, interviewing and making reports in an effective manner is reinforced in this course.

Desktop Publishing (Prerequisite: Computer Applications)

1 Credit (Grades 11, 12)

(Dual Credit (3) MSU-WP, Articulated Credit (3) OTC) The skills learned in this class will help students complete the Buffalo High School yearbook. Students will cover such areas as page layouts, creating graphics, importing and manipulating graphics and text, designing effective publications, and photography. Students will be required to take photos during school and at extracurricular events.

Hourly Course Descriptions

Personal Finance (Required for Graduation)

1/2 Credit (Grade 11)

This semester course is based on the Missouri Personal Finance Competencies and presents essential knowledge and skills to make informed decisions about real world financial issues. Students will learn how choices influence occupational options and future earning potential. Students will also learn to apply decision-making skills to evaluate career choices and set personal goals. The course content is designed to help the learner make wise spending, saving, and credit decisions and to make effective use of income to achieve personal financial success.

Entrepreneurship (Prerequisite: Must have previously earned 1 business credit)

1 Credit (Grades 11, 12)

(Dual Credit (3) MSU-WP, Articulated Credit (3) OTC) This course is designed to provide students with the fundamental knowledge needed for organizing, developing and implementing a business within the private free enterprise system. Topics of study will include learning the advantages and disadvantages of owning a business, preparing a business plan, choosing a location, securing a loan, determining organizational structure and promoting a business.

Business Senior Capstone Project and Work Experience (Prerequisite: Must have previously earned 3 business credits)

1 Credit (Grade 12)

This hands-on course is the culmination of your high school business studies, designed to transform your ideas into action. Students will integrate knowledge from previous business courses to create, develop, and present their own entrepreneurial ventures or innovative business solutions. Through project-based learning, collaboration, and mentorship from industry professionals, you'll gain real-world experience in areas like business planning, marketing, finance, and leadership. By the end of the course, students will showcase their projects in a professional presentation or pitch competition, preparing them for future academic and career opportunities in the business world.

Hourly Course Descriptions

Health Science

Foundations of Health Sciences

1 credit (Grades 9-12)

An introduction to health-related professions as well as the demands of a career in health care. This course is designed to prepare students to enter the labor force in a variety of healthcare occupations or continue the pursuit of a college education. Students will learn safety, infection control, anatomy and physiology, basic disease information, and basic nurse assisting skills. Additionally, students will learn professionalism, communication, leadership, time management, problem-solving, legal and ethical responsibilities, and employability skills. Eligible to be a member of HOSA.

Medical Terminology & Pathophysiology

1 credit (Grades 10-12)

(Dual Credit (3) MSU-WP, Articulated Credit (3) OTC) This course focuses on the basic principles of medical terminology and its application to the day-to-day work of allied health personnel. This course will also look at pathophysiology through problem-based learning. SBU and OTC have set requirements to obtain dual credit. Eligible to be a member of HOSA.

Health Science Senior Capstone

3 Credits (Grade 12) (Prerequisite: Health Science Certification Course)

The Health Science Senior Capstone course is designed to provide high school seniors with a comprehensive and integrative learning experience that synthesizes knowledge and skills acquired throughout their health science education. This course serves as a bridge between classroom learning and practical application, allowing students to demonstrate mastery of key concepts while engaging in real-world scenarios within the health science field. Students will participate in an internship/apprenticeship and job shadowing within our community as well. Students would become competent in networking and navigation of competitive work environments and potential college opportunities.

Hourly Course Descriptions

Information Technology

Computer Science Discoveries (Prerequisite: Teacher recommendation due to math and writing requirements)

1 credit (Grades 9-12)

(Dual Credit (3) MSU-WP, Articulated Credit (3) OTC) CS Discoveries introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. This year-long course will be taught as an introductory course - no computer prerequisites required for students new to computer science! (Students will need solid proficiency in math and writing.) CS Discoveries provides a deeper focus on concepts such as how the internet works and the societal impacts of computer science. This course will enhance the students ability to market any business successfully and increase employability options. Students will practice working with JavaScript to create simple animations and games by the end of the course.

Logic and Programming (Prerequisite: Computer Science Discoveries, teacher recommendation or approval)

1 credit (Grades 10-12)

(Dual Credit (3) MSU-WP, Articulated Credit (3) OTC)This will be a one year course introducing the fundamentals of logic and computer programming. Students will learn to design, code, and test their own programs. We will use basic logic, and JavaScript to accomplish our goals. We will also present an overview of basic data structures.

CSA (Computer Science Application) (Prerequisite CS Discoveries and Logic and Programming)

1 Credit (Grades 11-12)

(Dual Credit (3) MSU-WP, Articulated Credit (3) OTC) This is an upper level Java course designed to prepare students for college-level computer science. While the course prepares students to take an AP level exam, DCTC is offering this class instead as a dual credit course with SBU, earning students 3 hours of college credit.
Computer Science Application (CSA) introduces students to software engineering and object-oriented programming and design using the Java programming language. This curriculum covers a broad range of topics, including the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems.

Hourly Course Descriptions

Senior Computer Science Capstone Project (Prerequisite: Computer Science Principles and Logic and Programming, or teacher recommendation and teacher approval)

1 Credit (Grade 12)

(Dual Credit (3) MSU-WP, Articulated Credit (3) OTC) Students will be instructed in applying Computer Science principles to analyze, experiment and design solutions using computers and programming languages. The end goal is for the student to submit a physical, stable, well programmed, working prototype by the end of the course. Students will practice problem solving and observation to take a problem and work through the steps of design, coding, troubleshooting, QA and prototype to arrive at a solution using various resources. This course will include performance standards for 11-12th grades within Computing Systems, Data Analysis, Impacts of Computing, Networks and the Internet, and Algorithms; Programming with discussions touching on Impacts of Computing.

Work-Based Learning (WBL)

Cooperative Occupational Education

1-2 Credits (Seniors enrolled in an approved Career and Technical Education (CTE) class)
Cooperative Education is a chance to use a "business/industry classroom" to connect with what is happening at school, to add value to the educational experience, and to clarify the vast number of options available to students. Students may earn a maximum of two credits towards graduation under the COE program. Students must work a minimum of 10 hours per week per credit hour for the entire duration of the school year. One-half unit of credit per semester may be awarded for an average of 10-19 hours weekly of off-campus experience, or one unit of credit per semester for an average of 20 or more hours weekly of off-campus experience. No more than two units of credit may be awarded for the off-campus experience. Within the first 3 days of school, students must provide proof of employment, upcoming 2-week work schedule, and proof of car insurance. **Qualifying students may enroll in Supervised Ag Cooperative Experience, Supervised Business Experience, Health Science Supervised Experience, Family and Consumer Sciences Cooperative Education, or Trade & Industrial Supervised Employment.** See DCTC administrator for application.

Internship

Students enrolled in a 2-year block program may participate in an internship the second semester of the senior year. To qualify, students must have maintained a GPA of 2.5 or better in their DCTC program, 90% or higher attendance through 3rd semester at DCTC, and be passing all other classes. Students must apply for internship and must have instructor recommendation.

Registered youth Apprenticeship

Students interested in obtaining employment within their career paths or programs of study may qualify for an apprenticeship, a partnership with DCTC, the Department of Labor, and the employer. Students may begin apprenticeships the summer after their junior year and complete after high school graduation. To qualify, students must be enrolled in a career and technical education course and demonstrate attendance of at least 90%. Students must apply for apprenticeship and must have instructor recommendation. See the DCTC Director for more information.

	Grade Level	During Class Time	Outside of Class Time	Summer	Paid	Unpaid	Monitored by Program Instructor	High School Credit Earned	Applica-tion Process	Graded	Cert Available	CTE Cert (50 hrs WBL)
Internship	12	✓				✓	✓		✓	✓		✓
Apprenticeship	11,12		✓	✓	✓				✓		✓	✓
OJT	11,12	✓				✓	✓			✓		✓
COE (Work Release)	12	✓	✓		✓		✓	✓	✓	✓		✓

DCTC Application



NOW HIRING!

MONTHLY SALARY

WEEKEND DRILLS E-1 $232, E-2 $259, E-3 $288
*MUST ATTEND SCHEDULED DRILLS TO RECEIVE THIS PAYMENT *
(JUST LIKE ANY OTHER JOB)
BASIC TRAINING & JOB TRAINING PER MONTH
E-1 $1,733, E-2 $1,943 E-3 $2,043

COMMITMENT

MULTIPLE ENLISTMENT OPTIONS
ONE WEEKEND A MONTH & 2 WEEKS A YEAR=38 DAYS
10 WEEKS FOR BASIC TRAINING
5 WEEKS OR MORE FOR JOB TRAINING
YOU PICK THE JOB

GET A STEP AHEAD OF YOUR PEERS

SECURITY CLEARANCE

LEADERSHIP TRAINING

PROJECT MANAGEMENT SKILLS

PROVEN DEDICATION TO AN ORGANIZATION

NATIONALGUARD.COM/LIVE-MO

COLLEGE EDUCATION

TUITION ASSISTANCE

AMOUNT DETERMINED BY THE COST OF THE UNIVERSITY OF MISSOURI

UP TO 100% STATE TUITION ASSISTANCE

(SAME RATE AS MU PER CREDIT HOUR)

UP TO 100% FEDERAL TUITION ASSISTANCE

($250 PER CREDIT HOUR/ $4,500 PER YEAR)

UP TO $50,000 IN STUDENT LOAN REPAYMENT

INCENTIVES

$20,000 SIGNING BONUS

*MUST ENLIST IN CRITICAL JOB SKILL & SCORE 50 OR HIGHER ON ASVAB *

MONTGOMERY G.I. BILL

$407/ MONTH FOR 36 MONTHS

MUST ENLIST FOR MINIMUM 6 YEARS & COMPLETE JOB TRAINING

G.I. BILL KICKER

$350/ MONTH

*MUST ENLIST IN CRITICAL JOB SKILL & SCORE 50 OR HIGHER ON ASVAB *

SSG Thomas Baxter
(417)410-6410
thomas.w.baxter23.mil@army.mil

108 N Business Route 5 Camdenton, MO 65020



PRODUCTION OF THIS COURSE CATALOG IS PROUDLY SPONSORED BY THE MISSOURI NATIONAL GUARD

FOR MORE INFORMATION ABOUT THE MISSOURI NATIONAL GUARD SEE PAGES 42-43 OR VISIT NATIONALGUARD.COM