

DICKINSON-IRON INTERMEDIATE SCHOOL DISTRICT
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Dickinson-Iron Technical Center

Course Descriptions

2019-2020

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Health Occupations – Core - Blocks 1 & 2

Prerequisite: None

Health Occupations at the Technical Education Center provides students with a core of medical theory and skills needed to enter the health care profession. Core tasks that all students study include: medical ethics, safety, asepsis, body structure and function, assessment, vital signs, communication, emergency procedures (including CPR certification), transporting/transferring/ambulating/positioning, nutrition, hygiene/personal care/comfort, basic medical terminology, medical math and career exploration. Students may choose “Nurse Assisting Certification” or “Health Cluster”. Either choice involves work-based learning/clinical experiences that are completed in nursing homes, hospitals, and private health care offices throughout our community. Students are responsible for their own transportation to and from clinical sites (in some cases existing bus routes may be utilized). This course prepares students both for entry-level job positions and college programs. Students enrolling in this course are required to under-go a **background check** to verify their eligibility to participate in clinical placements and/or to pursue a career in the health field. In addition students must provide proof they are free of active tuberculosis (**recent TB test**) and have up to date **immunizations**. Some facilities now mandate, prior to clinical placement, students receive a **full drug screen**. If required, the cost of drug screens and background checks will be covered by the Technical Center. Dual enrollment credit is available to students who enroll with Bay College. Specific criteria must be met to earn this credit.

Articulated credit available.

Certifications: C.N.A. Certified, CPR, First Aid, Pharmacist Assistant

Bay College Credits available

Health Occupations – Medical Terminology - Block 3

Prerequisite: None

Health Occupations – Medical Terminology at the Technical Education Center is a college level body systems medical terminology course. Medical terminology is required to interact and function clinically in the health care field. This course is designed to provide a thorough investigation into suffixes, prefixes, and word components. Students will be able to utilize medical terminology as it relates to anatomical structures, pathophysiology and the general healthcare field. Dual enrollment credits are available to students who register with Bay College. Specific criteria must be met to earn these credits.

Articulated credit available.

Bay College Credits available

Construction Trades I & II – Blocks 1, 2 & 3

Prerequisite: None

This Course provides students with a wide variety of hands-on experiences, all related to the multi-faceted construction industry. Students have opportunities to use a wide array of power and hand-held tools. Student will be able to learn and practice rough and finish carpentry; basic plumbing and electrical installation; insulation, drywall hanging and finishing; building codes and laws; and general construction safety inside our new Trades Center. Students will be able to practice on the grounds of the Tech Center leveling and layout instruments; proper installation techniques of both concrete flat work and masonry. Students will learn work place safety, how to read architectural drawings, construction materials, construction tools and equipment, common construction practices, codes and laws, heavy equipment/civil construction techniques, and construction business management. Students in their second year will have the opportunity to be involved in work-based learning to enhance their skills in different trades. Students are prepared for entry-level employment skills in the construction field, entering a trade school apprentice program and for participation in post-secondary construction related programs such as construction management, construction engineering, architecture or becoming a licensed contractor.

Articulated credit available.

Certifications: OSHA10

Electrical & Mechanical Systems in Industry I, II – Blocks 1, 2 & 3

Prerequisite: None

The demand for engineers, industrial maintenance, and trades people is at an all time high. Manufacturing growth and the retirement of the baby-boomers have created steady growth, high paying careers. This course will prepare you for these careers with state of the art trainers to teach you technical skills. These skills include wiring an electrical panel, aligning a mechanical system with motors, shafts, belts, chains and gears, setting up and operating pneumatic and hydraulic systems, wiring and conduit for power distribution, programming Programmable Logic Controllers and FANUC robots, and designing and cutting on computerized CNC machines. During this course, you will have hands-on training and visits to local industries. Certifications include OSHA 10 safety training and FANUC robotics. You can show your skills during the annual Wiring Skills competition. This course also offers Early Middle College and dual enrollment opportunities.

Articulated credit available.

Up to 16 Bay College Credits available.

Students interested in Electrical and Mechanical Systems in Industry should consider the *Dickinson-Iron Technical Early College program*. For more information see page 6.

A+ Certification – Block 1 & 2

Prerequisite: None

This course prepares students to take the CompTIA A+ certification exam. The A+ Certification program can lead to an international industry certificate that validates the knowledge of computer service technicians with the equivalent of 500 hours of hands-on experience focusing on computer hardware and software installation, troubleshooting, and repair. The exams cover a broad range of hardware and software technologies, but are not bound to any vendor-specific products. The skills and knowledge measured by the CompTIA A+ exams were derived from an industry-wide and worldwide job task analysis. To date, more than 500,000 individuals have obtained CompTIA A+ certification. Acquiring A+ certification will certainly lead to higher salary, more career options and qualification for college credits at a variety of colleges.

Articulated credit available.

Certifications: A+ Certification

Up to 8 Bay College Credits available.

Network+ Certification Blocks 1 & 2

Prerequisite: B or better in A+ Certification or Instructor Permission

Network+ prepares students to take the CompTIA Network+ Certification Exam and CCNP, Route and Switching exam. The course validates the knowledge and skills of networking professionals. It is a vendor-neutral certification that recognizes a technician's ability to describe the features and functions of networking components and to install, configure and troubleshoot basic networking hardware, protocols and services. The demand for skilled network support professionals continues to grow, and CompTIA Network+ is a valuable credential to help start or enhance a networking career. Many IT certifications integrate CompTIA Network+ into their curriculums. Microsoft added CompTIA Network+ into their Microsoft Certified Systems Administrator (MCSA) program, and other corporations such as Novell, Cisco, HP, Lotus and 3Com also recognize CompTIA Network+ as part of their certification tracks. **Students in this class are expected to compete in BPA, either Computer Networking or Cisco Administration.**

Articulated credit available.

Up to 8 Bay College Credits available.

Certifications: Network+ and CCNA, Route/Switch

Students interested in Information Technology should consider the *Dickinson-Iron Technical Early College program*. For more information see page 6.

Computer Coding for Gaming – Block 3 only

Prerequisite: Algebra I

This one year course will utilize game programming to develop the core skills needed to begin coding with the **C++ or C# formats** which are the two most popular programming languages used by professionals. Student's skills will be challenged by creating progressively complex games. The course will culminate with students creating one ambitious game project which will test their creativity and mastery of the curriculum. There are numerous lucrative employment opportunities for computer and gaming programmers. Students who continue their education in this area will benefit from the foundation this course provides as they prepare to acquire valuable certifications such as; CLA: C Programming Language Certified Associate, CPA: C++ Certified Associate Programmer, CPP: C++ Certified Professional Programmer.

Articulated credit available.

Marketing & Entrepreneurship I, II – Block 1, 2 & 3

Prerequisite: None

This is an innovative course designed for students with an interest in marketing and advertising. Instruction will include an introduction to the fundamental marketing concepts through a variety of marketing topics and activities. There will be a strong emphasis on employability skills and communication in the work force. Students will learn how products are developed, branded, and sold to businesses and consumers. Students will analyze industry trends and gain hands-on experience in the marketing of goods, services, and ideas. Students will be able to actively practice these theories through The Market Place (our school store). Topics covered will also include professionalism in the workplace, product planning and positioning, promotion, pricing, selling, economic issues, and the impact of technology on the marketplace. Guest speakers along with field trips will also service as a learning opportunity the students. An integral part of the program is participation in the school's DECA Chapter activities. DECA offers marketing students opportunities in leadership, community service, and competitive events.

Articulated credit available.

Graphic Communications I, II, III – Blocks 1, 2 & 3

Prerequisite: None

The Graphic Communications program at the Technical Education Center will prepare students for post-secondary college programs or entry into the work force in the production printing industry. Students will be exposed to and learn foundational skills relative to computer layout and design, press operation, bindery work and customer service. This is an excellent course for male or female students interested in computers, computer graphics, advertising, newspaper work, commercial art, photography, digital photography, tele-finder communications, business communications and commercial production printing. With the advanced software provided in this program, students will be encouraged to use their creative skills in the design of advertisements, product labels, identity marks (logos), brochures, presentations etc. Students will also learn to edit and manipulate photographs as standalone work or to include in their design projects. Projects will be completed for area business and organizations providing students firsthand experience working with clients. A variety of program related equipment and processes common to the design and print industry will be included.

Articulated credit available.

Up to 8 Bay College Credits available.

Welding Technologies I & II– Blocks 1, 2, & 3

Prerequisite: None

The Welding Technologies program at the Technical Education Center prepares students for entry level job skills in the Welding field or participation in a community or technical college program. The instructional format is “self-paced” thus allowing students to progress at their own speed. Instruction is provided in safety, cutting and bending steel, shielded metal ARC welding, gas metal ARC welding (wire feed), gas tungsten ARC Welding (TIG), oxyacetylene torch cutting, project layout and construction, daily maintenance of shop and equipment and employability skills. Students are required to complete welding and cutting operations as well as a required project. New to the program are American Welding Society Certification tests available to students in ARC, MIG, and Flux Core ARC Welding. If a student passes any of these certification tests he/she will receive a nationally recognized certificate which is valuable for securing employment. Time in this course is split between lectures and hands on activities including the completion of required welding operations, a required project and a project of the students choosing. Students enrolled as a second year student in the Welding Technologies program will receive advanced training in 5 welding processes and will participate in the completion of advanced projects. In some cases students will be encouraged to participate in advance student competitions. Students may also qualify for a work-based learning placement depending on their skill level and availability of placements.

Articulated credit available.

Up to 8 Bay College Credits available.

Certification: AWS Certification

Students interested in Welding should consider the *Dickinson-Iron Technical Early College program*. For more information see page 6.

Auto Body & Fabrication I & II – Blocks 1, 2, & 3

Prerequisite: None

The Technical Center offers a comprehensive Auto Body program. Students will leave the program having attained entry-level job skills or with the necessary background to enroll in advanced post-secondary programs. Tasks are performed on state of the art equipment utilizing advanced technological techniques. While enrolled in the Auto Body program, students will explore a variety of Auto Body Technology processes including: Dent removal and panel replacement, plastic repair, welding techniques, restorations and more. Students are encouraged to work in both group and individual settings where the skills they acquire can be mastered. If you enjoy working on cars and are interested in a high paying job in this fascinating field, enroll in the Auto Body program at the Dickinson-Iron Technical Education Center.

Articulated credit available.

Automotive Technology – NATEF Maintenance and Light Repair-Block 1, 2 & 3

Prerequisite: None

This program follows National Automotive Technicians Education Foundation (NATEF) standards for Maintenance and Light Repair. During the two year program students will learn shop and personal safety, tools and equipment, preparing vehicles for service and workplace employability skills. The program is broken down into modules to develop a general knowledge and understanding of the following topics: Engine Repair, Engine Performance, Suspension and Steering, Electrical systems. Upon completing of the two year program students will have the base knowledge to pursue further education in the auto repair industry.

Articulated credit available.

Certifications: NATEF MLR

Dickinson – Iron Technical Early College

D. I. T. E. C.

The Dickinson-Iron Technical Early College is partnering with Bay College to offer students in the Welding, Electrical and Mechanical Systems in Industry and Information Technology programs an early college experience. DITEC is a grade 11-13 program. Students will complete some of their coursework at the Technical Center in grades 11 and 12 through articulated programs while continuing their required graduation classes at their local high school. They will complete their college requirements through Bay College. For more information please contact the Technical Center at 906-779-2697 or Bay College West at 906-302-3010.