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2019-20 Course Registration Information

Title	Term	Prerequisites	College Credits	High School Credits	Lab days/times and Location
Introduction to Medical and Health Careers	Fall 2019	None	2	1	Hybrid model instruction on Tue and Thur, 8:00 to 9:30 a.m. at Minnesota West (Granite Falls) with online work and health care based experiences.
Introduction to Manufacturing and Engineering	Fall 2019	None	3	1	Hybrid model instruction on Tue, Wed, Thur, 8:00 to 9:30 a.m. at Minnesota West (Granite Falls) with online work and job related experiences.
Electrical Controls	Fall 2019	None	5	1	Hybrid model instruction on Tue, Wed, Thur, Fri, 8:00 to 9:30 a.m. at Minnesota West (Granite Falls) with online work and job related experiences.
Information Technology Exploration	Fall 2019	None	2	1	Hybrid model with online instruction at home school district and up to six field trips with the instructor
Introduction to Residential Electrical/Plumbing/HV	Fall 2019	None	None	1	T, W, Th, F 8:00 am ~ 9:30 am MN West-Granite Falls
Food and Nutrition	Fall 2019 & Spring 2020	None	None	1	Hybrid model with online instruction at home school district and 3-4 lab experiences with the instructor
Child Development	Fall 2019 & Spring 2020	None	None*	1	Hybrid model with online instruction at home school district and 3-4 lab experiences with the instructor
Nursing Assistant	Fall 2019 & Spring 2020	None	3	1	Hybrid model instruction on Tue and Thur, 8:00 to 9:30 a.m. at Minnesota West (Granite Falls) with online work and health care based experiences.
Networking Basics	Spring 2020	None	2	1	Hybrid model with online instruction at home school district and up to six field trips with the instructor
Introduction to Education	Spring 2020	None	3	1	Hybrid model instruction on Tue and Thur, 8:00 to 9:30 a.m. at Minnesota West (Granite Falls) with online work and education field experiences.
Industrial Construction Methods	Spring 2020	None	None	1	T, W, Th, F 8:00 am ~ 9:30 am Fagen Warehouse-Granite Falls
Tiny House/Fish House Construction	Spring 2020	None	None	1	T, W, Th, F 8:00 am ~ 9:30 am MN West-Granite Falls
Introduction to Traditional and Renewable Energy	Spring 2020	None	3	1	Hybrid model instruction on Tue, Wed, Thur, 8:00 to 9:30 a.m. at Minnesota West (Granite Falls) with online work and job related experiences.

*This course is articulated and students possibly can earn MN West credit

Course Descriptions

Introduction to Medical and Health Careers

Introduction to Medical and Health Careers provides students the opportunity to explore a wide variety careers in an assortment of medical/healthcare settings. The course is designed to provide students the chance to see if a career in medical/health science is right for them; and if they determine they have an interest, it can help them narrow down the possible careers they might consider. Students will participate in in-depth study and exposure to medical/health science careers, career planning, employability skills, basic terminology, ethics, wellness, disease and safety. Students may also be required, by participating health care organizations, to have up to date Mantoux tests and vaccinations.

Introduction to Manufacturing and Engineering

This course is open to all students interested in discovering more about developing skills needed for a career in manufacturing or engineering. Concepts covered in this class will be production technologies and information to start on a high-performance manufacturing and/or engineering career pathway. Students will be given opportunities to develop important workplace knowledge and skills in the areas of safety, welding processes, precision machining, mechanical systems, fluid power, electrical controls, and automated systems.

Electrical Controls

The Electrical Controls course will actually combine Electrical Controls I (2 credits - 48 Hours) and Electrical Controls II (3 credits - 80 Hours). The course will combine online academic work and supervised lab work on the MN West campus. Electrical Controls I introduces basic electrical concepts. Students will be introduced to electrical theory, analyze electrical safety hazards and requirements, and demonstrate electrical circuit wiring and measurement. Course will cover identification and application of electrical control components used in an industrial environment. Students will develop the introductory skills necessary for designing, wiring, troubleshooting, and operation of electrical control circuits. Electrical Controls II is an in depth analysis of electrical control circuits. This course includes the control of electromechanical devices, AC and DC motors, and solid state control devices. Electrical schematics are used to interpret logic and circuit function. Students will design, wire, and troubleshoot electromechanical and motor starter circuits using common industrial devices and components.

Information Technology Exploration

This course is open to all students interested in discovering more about and developing skills needed for a career in Information Technology. Concepts covered in this class will include careers in information technology, system administration and networking, internet research, software and application development, information security concepts, social media, and business analytics and software.

Introduction to Residential Electrical/Plumbing/HVAC

Residential Electrical, Plumbing & HVAC program introduces students in residential electrical, house wiring and industrial motor control. HVAC (Heating, Ventilation, Air Conditioning and Refrigeration) includes basic electrical, heating equipment installation, sheet metal fabrication and installation, air conditioning installation and refrigeration theory. Students will gain instruction to be able to move into trade-specific and advanced training to learn to design, adjust, repair, install and/or sell in areas related to electrical, plumbing, and HVAC. Instruction is delivered in a hands-on environment, working in small groups or independently, utilizing self-paced materials that offer a wide variety of activities. Students will visit a construction site, performing real job tasks related to their area of training. Co-op and work experience are integral to the program's training methods.

Food and Nutrition

Students will explore the role that food plays in everyday life. Emphasis will be place on students being good decision makers about their holistic health and wellness and the role that food plays in those decisions. Food safety, preparation, presentation, and artistics will be included in all units for this course. Students will be assigned lab work that can be prepared and completed at home. Students will also travel to MN West in Granite Falls 3-4 times in the semester for instructor supervised lab work and team work. This course can provide entry level skills for students wanting to enter a culinary career path or just valuable skills that can carry over to a students personal life.

Child Development

Students will learn about the physical, emotional, social and intellectual development of child from pre-conception to Kindergarten. Numerous studies have shown that pre-Kindergarten years are essential for future success upon the children entering their school years. This course is highly beneficial for any student considering a career pathway in education, no matter if students are considering teaching young students, all the way to senior high education. Even for students no entering a career in education, this is valuable information for future parents who want to provide the best possible environment for their child's future success.

Nursing Assistant

This course emphasizes the role of the nursing assistant and home health aide as a valuable member of any health care team. This course will introduce and prepare students for entry-level jobs in nursing home, hospitals, and other health care facilities. It also serves as an entry point for students interested in careers that require 2 and 4-year degrees. Upon successful completion of classroom/lab studies, the student will participate in a nursing home clinical experience caring for elderly clients. Clinicals will be scheduled during either the week or weekend in 6-hour blocks. Successful students will be eligible to take the Nurse Aide/Home Health Aide competency examination for certification and placement on the Minnesota Nursing Assistant Registry. The student will cover the \$180 fee for the test. Students can be reimbursed for the cost of the test when they become employed at a long-term care facility. Students may also be required by participating health care organizations to have up to date Mantoux tests and vaccinations.

Networking Basics

The Networking Basics course will introduce students to computer networking, including maintenance, troubleshooting and setup of small networks. Students will build cables, learn networking theory, and explore existing network structures including the Internet. Students will setup, configure and test small networks. This is an excellent beginning course for future network administrators.

This course is part of the Information Technology certificate available from Minnesota West Community and Technical College and can be applied toward the Computer and Networking Technology Associate of Applied Science Degree.

The Network Basics course is primarily an online class and includes a maximum of three off campus visits, not including the job shadow portion of the class. This course includes videos, lessons, job shadows, interactive and hands-on labs. The student will spend approximately 4 hours per week on this class, not including job shadows or campus visits. This is an excellent opportunity for students to explore an exciting, growing and financially rewarding job in Information Technology as a Network administrator. Pay for this position is from \$55,000 to \$123,250 according to the Bureau of Labor Statistics in 2016. Demand for this type of work will continue to be in demand in the foreseeable future

Introduction to Education

Have you ever thought about becoming a teacher? Do you like working with children? Are you wondering if you might like teaching as a career? This course offers an introduction to early childhood, elementary, and secondary education. Students will have the opportunity to examine their potential for the teaching profession. You will explore career opportunities, requirements, regulations, and professional ethics. The historical and social foundations of education, as well as schools in a diverse society, will be covered. You will also learn more about challenges and rewards faced by education professional, as well as what types of careers are available in education, in addition to teaching.

Industrial Construction Methods

Industrial Construction Methods is a course in which students will learn skills and knowledge related to residential and commercial construction. Students will address a broad range of topics relevant to a challenging and constantly changing industry. The construction course content will prepare the student for entry-level employment or continue their education in a post-secondary program.

Tiny House/Fish House Construction

Tiny houses are springing up all over the country -- from Vermont to Oregon to post-Katrina New Orleans -- as well as all over the media landscape. They can be affordable and energy efficient, reduce materials consumption, and cut our carbon footprint. In this intensive tiny house course, we shift back and forth between the design studio and the build site, engaging minds and bodies, as we explore design considerations and develop hands-on building skills. Students will also team up to develop and build a fish house for the winter months here in Minnesota. Teams will be touring local facilities and work with industry partners to finish both projects. Students will visit a construction site, performing real job tasks related to their area of training. Co-op and work experience are integral to the program's training methods.

Introduction to Traditional and Renewable Energy

This course is designed to introduce students to various forms of energy stemming from both renewable and non-renewable sources. Students will study many sources of energy including solar thermal power, solar photovoltaics, bioenergy, hydroelectricity, tidal power, wind energy, wave energy, geothermal energy and fossil fuels. The First Law of Thermodynamics is studied, along with conversion and efficiency of various forms of energy. The economics, potential, and environmental impact will be covered for each topic. This course is an entry level course for various energy certification and diploma level careers.