



TRANSCRIPTED CREDIT COURSE MENU - 2026-2027

High school instructor minimum qualifications are outlined below. For General Studies courses, all HLC requirements must be met by 9/1/2026. High School Teachers with an experiential based licensure will need to submit a resume for

Updated 3/12/26

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
Accounting I Credit Value 4 Grade Level 9-12	10101110 ACCOUNTING 1 ...accounting principles, financial statements, business transactions, accounting cycles/systems, specialized journals, accounting for cash and receivables for sole proprietorships in service or merchandising businesses.	DPI License 250 Business Education, 281 Business and Office-Voc	60	Finance
Agribusiness Economics Credit Value 3 Grade Level 11-12	10090303 AGRIBUSINESS ECONOMICS ...basic knowledge of macro and micro economics will be taught, proficiency in developing basic cash flows, cost benefit analysis, enterprise analysis, budget development, profit loss statements and developing cost of production. Student should be able to develop adequate information for farm manager to analyze business proposals.	DPI License 200 Agriculture	45	Agriculture, Food and Natural Resources
Aquaculture/Aquaponics Credit Value 2 Grade Level 9-12	10090115 AQUACULTURE/AQUAPONICS ...investigate hydroponic plant growing and fish farming operations; designs, suitable species, maintenance, costs efficiencies and yields. Plan a system, develop a budget, explore markets, trends, and analyze benefits and obstacles in this business.	DPI License 200 Agriculture, Completion of Train the Trainer prior to teaching.	30	Agriculture, Food and Natural Resources
Automation 1: Control Logic Credit Value 1 Grade Level 10-12	10664100 AUTOMATION 1 - CONTROL LOGIC ...Electric motor control components such as switches, relays, starters, transformers; and safely mount and install motor and motor control components and perform related wiring and troubleshooting of motor control circuits.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Automation 2: Motor Control Credit Value 1 Grade Level 10-12	10664101 AUTOMATION 2 - MOTOR CONTROL ...Electric motor control components such as sensors, timers and counters.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Automotive Service Fundamentals Credit Value 2 Grade Level 11-12	10602107 AUTOMOTIVE SERVICE FUNDAMENTALS ...safety and the use of basic hand/power tools in accordance with industry standards. Introduced to the automotive service industry and learn to use both comprehensive and manufacturer's service information to perform basic under-hood and under-car services.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching. Prior experience working in an automotive shop is required.	30	Transportation, Distribution, and Logistics
Basic Anatomy Credit Value 3 Grade Level 11-12	10806189 BASIC ANATOMY ...examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems.	Science related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Anatomy & Physiology or related subfield they are teaching. Transcripts must identify at least 9 graduate/undergraduate credits in Anatomy & Physiology and another 9 graduate/undergraduate credits in the related discipline.	45	Science, Technology, Engineering and Math
Basic Mechanics Credit Value 1 Grade Level 9-12	10620144 BASIC MECHANICS ...Introduction to basic mechanical devices and tools used for assembly, disassembly and adjustment.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Beekeeping & Pollinators Credit Value 1 Grade Level 11-12	10090118 BEEKEEPING & POLLINATORS ...bees pollinate our crops and orchards; they are an environmental quality indicator species and they provide honey. Explore beekeeping using onsite hives; explore pollinators and habitats, and network with local beekeepers.	DPI License 200 Agriculture, Completion of Train the Trainer prior to teaching.	15	Agriculture, Food and Natural Resources
BIM Architectural 1 Credit Value 2 Grade Level 10-12	10614216 BIM ARCHITECTURAL 1 ...incorporates the use of Revit for building information modeling. Basic to intermediate modeling and documentation tools will be explored. Simple building information models will be generated, edited, and documented.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching.	60	Architecture and Construction
Building Codes - Carpentry Credit Value 1 Grade Level 11-12	10410108 BUILDING CODES - CARPENTRY ... the basic requirements for the erection of buildings inhabited by the public for living, work and pleasure.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching. Prior experience interpreting the Uniform Building Code is highly recommended.	15	Architecture and Construction
Business - Principles Credit Value 3 Grade Level 9-12	10102158 BUSINESS PRINCIPLES ...economics and business; global business; ethics and social responsibility; types of business ownership; entrepreneurship; role of management; operations management; human resources; marketing; managing financial resources and legal issues impacting business.	DPI License 250 Business Education or 281 Business and Office-Voc	45	Business, Management and Administration
Business Law Credit Value 3 Grade Level 9-12	10102150 BUSINESS LAW ...common law contracts and sales contracts; formation, interpretation, performance, and discharge; the law of agency; corporations; and introduction to the American legal system: criminal and tort law, and global business issues.	DPI License 250 Business Education or 281 Business and Office-Voc	45	Business, Management and Administration
CAD Intro Credit Value 1 Grade Level 11-12	10606116 CAD (COMPUTER AIDED DRAFTING)-INTRODUCTION ...CAD terminology, drawing preliminaries, basic inquiry and setting commands, layer setting and manipulation, basic drawing and display commands, basic edit commands, and plotting, using AutoCAD software.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Architecture and Construction
Career Planning Credit Value 1 Grade Level 9-12	10105101 CAREER PLANNING ...experiential learning introduction. Learn how personal branding allows candidates to differentiate themselves from the competition through appearance, personality, and marketing competency. Career portfolio introduced.	DPI License 250 Business Education, 281 Business and Office-Voc, 285 Marketing Education, and earned "B" or better in Train the Trainer course	15	Business, Management and Administration
CNC Milling and G-Code Credit Value 2 Grade Level 11-12	31420363 CNC MILLING AND G-CODE ...shop safety around CNC milling machines, CNC basics, Cartesian coordinate systems, CNC milling controls and preparing basic G-Code milling programs.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	60	Manufacturing
College Tech Math 1A Credit Value 3 Grade Level 11-12	10804113 COLLEGE TECHNICAL MATH 1A ...topics include solving linear equations; graphing; percent; proportions; measurement systems; computational geometry, and right triangle trigonometry. Emphasis will be on the application of skills to technical problems.	Math related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Mathematics or related subfield they are teaching. Transcripts must identify at least 8 graduate/undergraduate credits in Calculus and another 10 graduate/undergraduate credits in the related discipline/subfield.	45	Science, Technology, Engineering and Math
College Tech Math 1B Credit Value 2 Grade Level 11-12	10804114 COLLEGE TECHNICAL MATH 1B ...topics include: performing operations on polynomials; solving quadratic and rational equations; formula rearrangement; solving systems of equations; and oblique triangle trigonometry. Emphasis will be on the application of skills to technical problems. (Prerequisite: 10-804-113 College Tech Math 1A with a "C" or better).	Math related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Mathematics or related subfield they are teaching. Transcripts must identify at least 8 graduate/undergraduate credits in Calculus and another 10 graduate/undergraduate credits in the related discipline/subfield.	30	Science, Technology, Engineering and Math
Construction Blueprint Reading 1	10410110 CONSTRUCTION BLUEPRINT READING 1 ...the carpentry profession, tools of the trade, job site	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching.	30	Architecture and

Credit Value 1 Grade Level 11-12	etiquette and safety, carpentry math, and fundamentals of construction blueprint reading.			Construction
Contemporary Healthcare Practices Credit Value 2 Grade Level 11-12	10501104 CONTEMPORARY HEALTHCARE PRACTICES...prepares learners to work in the healthcare environment as part of a healthcare team. Learners will investigate the healthcare community, patient privacy standards, and the professional behavior that is expected in today's medical community. Learner will examine various aspects of verbal and written communication skills, customer service principles, and problem solving techniques necessary to be a vital member of the healthcare workforce.	DPI License in Health, 210 Family and Consumer Education, and earned "B" or better in NWTC course.	30	Health Sciences
Customer Experience Credit Value 3 Grade Level 9-12	10104191 CUSTOMER EXPERIENCE ...examine customer service culture, develop communication and listening skills, explore diversity in the workplace, develop skills for handling challenging customers, and explore the impact of technology on customer service and engagement.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed, or 285 Marketing Education.	45	Marketing, Sales and Service
DC1: Introduction Credit Value 1 Grade Level 10-12	10660104 DC 1: INTRODUCTION ...introduction to the concepts of DC electricity and simple series circuits. Voltage, current, resistance, Ohm's Law, power and Kirchoff's Voltage Law are defined.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching. Only for schools who had his class prior to 2025.	30	Manufacturing
Developmental Psychology Credit Value 3 Grade Level 10-12	10809188 DEVELOPMENTAL PSYCHOLOGY ...defines human development; examines theories; heredity and environmental effects; prenatal development and birth; evaluates biosocial, cognitive psychosocial development through the life span; aging, death, and dying.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Psychology or related subfield they are teaching.	45	Liberal Arts and Sciences
Diesel Service Fundamentals Credit Value 2 Grade Level 11-12	10412101 DIESEL SERVICE FUNDAMENTALS...introduces diesel shop environment, safety, the use of manufacturer's service information and literature, handling hazardous materials, emphasizes general shop safety and general shop practices, basic equipment operation, rigging and lifting, hazardous material handling procedures, resume development, mock interviewing, and exploring industry career pathways.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching.. Prior experience working in a diesel shop is required.	30	Transportation, Distribution, and Logistics
Digital Literacy for Healthcare Credit Value 2 Grade Level 11-12	10501107 DIGITAL LITERACY FOR HEALTHCARE...the course will explore the use of the electronic health record, the role of social media in health care communication, the uses of wearable technologies that monitor activity and heart rate, the use of data to manage population health and the impact of new developments on the healthcare workforce.	DPI License in Health, 210 Family and Consumer Education, and earned "B" or better in NWTC course.	30	Health Sciences
ECE: Child Development Credit Value 3 Grade Level 10-12	10307179 ECE: CHILD DEVELOPMENT...child development in the early childhood education setting. Social, cultural, and economic influences on child development; child development theories; development of children age three to eight; child development research; heredity and environment.	DPI License 210 Family and Consumer Education, WTCS Certification for Early Childhood Education preferred, and completion of NWTC course with "B" grade or better.	45	Education and Training
ECE: Foundations of Early Childhood Credit Value 3 Grade Level 10-12	10307148 ECE: FOUNDATIONS OF EARLY CHILDHOOD ... integrate strategies that support diversity and anti-bias perspectives; summarize early childhood education settings; identify components of a quality program; summarize responsibilities of early childhood professionals; explore early childhood curriculum models.	DPI License 210 Family and Consumer Education, WTCS Certification for Early Childhood Education preferred, and completion of NWTC course with "B" grade or better.	45	Education and Training
ECE: Health Safety & Nutrition Course Credit Value 3 Grade Level 11-12	10307167 ECE: HEALTH/SAFETY/NUTRITION ...health, safety, and nutrition in early childhood settings. Anti-bias perspectives; governmental regulations and professional standards; safe, healthy, and nutritionally sound early childhood programs; child abuse/neglect mandates; SIDS risk reduction; Shaken Baby Syndrome.	DPI License 210 Family and Consumer Education, WTCS Certification for Early Childhood Education preferred, and completion of NWTC course with "B" grade or better.	45	Education and Training
ECE: Infant & Toddler Development Credit Value 3 Grade Level 11-12	10307151 ECE: INFANT/TODDLER DEVELOPMENT...infant and toddler development in an early childhood education setting. Development of infants/toddlers; prenatal conditions and development; child development theories; heredity and the environment; culturally and developmentally appropriate environments.	DPI License 210 Family and Consumer Education, WTCS Certification for Early Childhood Education preferred, and completion of NWTC course with "B" grade or better.	45	Education and Training
ECE: Social Studies, Art & Music Credit Value 3 Grade Level 11-12	10307110 ECE: SOCIAL STUDIES, ART & MUSIC ...This 3-credit course will focus on beginning level curriculum development in the specific integrated content areas of social studies, art, music, & movement (SSAMM).	DPI License 210 Family and Consumer Education, WTCS Certification for Early Childhood Education preferred, and completion of NWTC course with "B" grade or better.	45	Education and Training
EDU: Child and Adolescent Development Credit Value 3 Grade Level 9-12	10522106 EDU: CHILD & ADOLESCENT DEVELOPMENT ...growth and development birth through adolescence. Acquaints the learner with the fundamental tasks of physical, motor, perceptual, cognitive social/emotional and language development.	DPI License 210 Family and Consumer Education	45	Education and Training
EDU: Intro to Educational Practices Credit Value 3 Grade Level 9-12	10522103 EDU: INTRODUCTION TO EDUCATIONAL PRACTICES ...fundamentals of teaching methodologies, history of education, issues in trends, learning styles, instructional cycle, characteristics of diverse classroom, questioning techniques and assessment practices.	DPI License 210 Family and Consumer Education	45	Education and Training
EDU: Technology in Education Credit Value 3 Grade Level 9-12	10522104 EDU: TECHNOLOGY IN EDUCATION ...students develop the knowledge and skills to use trending classroom technologies and gain experience creating and using web tools including portfolios. Students create presentations for educational environments and identify ISTE Standards.	DPI License 210 Family and Consumer Education	45	Education and Training
English Composition 1 Credit Value 3 Grade Level 11-12	10801136 ENGLISH COMPOSITION 1 ...learners develop knowledge/skills in planning, organizing, writing, editing. Students will also analyze audience/purpose, use elements of research, format documents using standard guidelines, and develop critical reading skills.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in English or related subfield they are teaching.	45	Liberal Arts and Sciences
Floor Framing Systems - requires project Credit Value 3 Grade Level 11-12	10410104 FLOOR FRAMING SYSTEMS ...this course teaches all aspects of floor construction and flooring system construction. □	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching., and meeting NWTC FQAS Carpentry instructor qualifications required (contact NWTC Associate Dean, Construction, for details).	90	Architecture and Construction
Fluids 1: Basic Pneumatics Credit Value 1 Grade Level 10-12	10620100 FLUIDS 1: BASIC PNEUMATICS ...what fluid power is, differentiate between hydraulics and pneumatics, implement basic pneumatic circuits, utilize schematics, apply Pascal's Law, define properties of fluids, implement airflow control and hydraulics cylinder circuits.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Flux Cored Arc Welding 1 Credit Value 1 Grade Level 11-12	31442329 FLUX CORED ARC WELDING 1...Course provides the opportunity for the learner to develop the knowledge, skills, process and understanding of surfacing welds in the flat position as well as fillet and groove welds in the flat, horizontal position using gas shielded flux cored arc welding.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Gas Metal Arc Welding 1 Credit Value 1 Grade Level 11-12	31442348 GAS METAL ARC WELDING ...course provides the opportunity for the learner to develop the knowledge, skills, process and understanding of welding in the flat and horizontal positions, fillet, pipe to plate and groove welds on plain carbon steel.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Gas Tungsten Arc Welding 1 Credit Value 1 Grade Level 11-12	31442359 GAS TUNGSTEN ARC WELDING 1...Course provides the opportunity for the learner to develop the knowledge, skills, process and understanding of GTAW equipment set-up as well as the basic skills needed to make welds on plain carbon steel. Weld quality will be discussed but this course is only used to understand the basics of the GTAW process.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
G-Code and Cam Credit Value 2	31420364 G-CODE AND CAM ...learn basic programming with computer-aided manufacturing (CAM) software, along with G- and M-code programming of computer numerically controlled (CNC) milling and turning machines.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	60	Manufacturing

Grade Level 11-12	Using Microsoft Word to create programming or computer hardware exercises (HW) using and saving matrices.	Mathematics		
General Anatomy & Physiology Credit Value 4 Grade Level 11-12	10806177 GENERAL ANATOMY & PHYSIOLOGY ...overview of the human anatomy/physiology using a body-systems approach, emphasizing the interrelationships between form/function at the gross and microscopic levels. (Prerequisite: 10-806-134, Chemistry-Basic, OR High School Lab Chemistry with a "C" or better).	Science related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Anatomy & Physiology or related subfield they are teaching. Transcripts must identify at least 9 graduate/undergraduate credits in Anatomy & Physiology and another 9 graduate/undergraduate credits in the related discipline. NWTTC course completion with a "B" grade or better. Requirement to complete a Safety Walk, led by NWTTC STEM Lab Manager. Annual requirement to bring HS students to visit NWTTC A&P lab for the blood and cadaver labs; permission slip completion by students/parents.	75	Science, Technology, Engineering and Math
General Chemistry Credit Value 4 Grade Level 10-12	10806134 GENERAL CHEMISTRY ...covers chemistry fundamentals. Topics: metric system, problem-solving, periodic relationships, chemical reactions, chemical equilibrium, properties of water; acids, bases, and salts; and gas laws.	Science related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Chemistry or related subfield they are teaching. Transcripts must identify at least 9 graduate/undergraduate credits in Chemistry and another 9 graduate/undergraduate credits in the related discipline/subfield.	75	Science, Technology, Engineering and Math
General Physics 1 Credit Value 4 Grade Level 11-12	10806154 GENERAL PHYSICS I . . . Applications/theory of basic physics principles: problem solving, laboratory investigation, and applications including unit conversion and analysis, vectors, translational and rotational kinematics/dynamics, heat/temperature, and harmonic motion and waves.	Science related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Physics or related subfield they are teaching. Transcripts must identify at least 9 graduate/undergraduate credits in Physics and another 9 graduate/undergraduate credits in the related discipline/subfield.	75	Science, Technology, Engineering and Math
Illustrator Fundamentals Credit Value 3 Grade Level 9-12	1011161 ILLUSTRATOR FUNDAMENTALS ...develop basic knowledge and skills using digital illustration software (i.e. Adobe Illustrator), apply vector graphic strategies into graphic design medias and integration into other software packages. Course content covers creating basic shapes, drawing, transforming elements, working with type, blending, layers and special effects.	DPI License 250 Business Education, 285 Marketing Education, Art Education 550, Technical Education 220 and Adobe Creative Suite Experience	60	Arts, Audiovisual Technology and Communication
Interm Algebra with Applications Credit Value 4 Grade Level 11-12	10804118 INTERM ALGEBRA WITH APPLICATIONS . . . Algebra content with application. Topics include properties of real numbers, orders of operations, algebraic solution for linear equations and inequalities, operations with polynomial and rational expressions, operations with rational exponents and radicals, algebra of inverse, logarithmic and exponential functions.	Math related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Mathematics or related subfield they are teaching. Transcripts must identify at least 8 graduate/undergraduate credits in Calculus and another 10 graduate/undergraduate credits in the related discipline/subfield.	60	Science, Technology, Engineering and Math
Intro to American Government Credit Value 3 Grade Level 11-12	10809122 INTRO TO AMER GOVERNMENT ...introduces American political processes and institutions: focusing on rights/responsibilities of citizens and the process of participatory democracy. Examines separation of powers and checks/balances & the roles of different groups.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Government or related subfield they are teaching	45	Liberal Arts and Sciences
Intro to Cybersecurity Credit Value 1 Grade Level 9-12	10151100 INTRO TO CYBERSECURITY ...learners will develop an understanding of cybersecurity methods, terms, and key technical concepts to identify and protect assets against attacks.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed, 285 Marketing Education, 405 Computer Science or 400 Math and "B" or better in Train the Trainer course.	15	Information Technology
Intro to Dairy Science Credit Value 3 Grade Level 10-12	1090326 INTRO TO DAIRY SCIENCE ...this course provides basic knowledge of the dairy science field. Topics include animal health, anatomy and physiology, genetics and reproduction, basic breed characteristics and animal feedstuffs.	DPI License 200 Agriculture, Completion of Train the Trainer prior to teaching.	45	Agriculture, Food and Natural Resources
Intro to Environmental Science Credit Value 3 Grade Level 11-12	10506146 INTRO TO ENVIRONMENTAL SCIENCE ...an introduction to the basic principles of environmental science including ecology, energy, resources, waste management, air, water, and soil pollution.	DPI License 606 Life and Environmental Science or 615 Environmental Studies Minimum of 20 semester credits drawn from the recognized science disciplines of Biology, Chemistry, Earth Science, or Physics, with a minimum of 12 credits in Chemistry.	45	Science, Technology, Engineering and Math
Intro to Psychology Credit Value 3 Grade Level 10-12	10809198 INTRODUCTION TO PSYCHOLOGY ...survey of theoretical foundations of human behavior such as sensation and perception, motivation, emotions, learning, personality, psychological disorders, therapy, stress, and human diversity in personal, social and vocational settings.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Psychology or related subfield they are teaching.	45	Liberal Arts and Sciences
Intro to Sociology Credit Value 3 Grade Level 10-12	10809196 INTRODUCTION TO SOCIOLOGY ...the nature and variety of groups; inequality, race and ethnicity; family, population, social integration, and change; collective behavior; politics, economics, religion, education, and the effects of technology.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Sociology or related subfield they are teaching.	45	Liberal Arts and Sciences
Introduction to Human Services Credit Value 3 Grade Level 11-12	10520101 INTRODUCTION TO HUMAN SERVICES ...Examine the evolution of the human services field. Distinguish the various types of human service agencies and occupations available in the field. Demonstrate the qualities of the field professionals. Complete 10 hours of community service at an agency of learner's choice outside of class time. Assess boundaries and ethical issues commonly found in the human services profession. Apply reflective practitioner techniques.	DPI License in 745 Sociology or 701 Broadfield Social Studies and minimum of 20 semester credits drawn from the recognized social science disciplines of Psychology, Sociology, Political Science, Economics, History, Anthropology, Geography, or Philosophy.	45	Human Services/Education
Marketing Principles Credit Value 3 Grade Level 9-12	10104110 MARKETING PRINCIPLES ...marketing management, market segmentation, market research, consumer behavior, product decisions and management of distribution, pricing, promotional decisions for strategy planning.	DPI License 250 Business Education, 285 Marketing Education	45	Marketing, Sales and Service
Mathematical Reasoning Credit Value 3 Grade Level 11-12	10804134 MATHEMATICAL REASONING ...This course provides an alternative pathway to earning credit for a college level liberal arts mathematics course. All college students, regardless of their college major, need to be able to make reasonable decisions about fiscal, environmental, and health issues that require quantitative reasoning skills. An activity based approach is used to explore numerical relationships, graphs, proportional relationships, algebraic reasoning, and problem solving using linear, exponential and other mathematical models. Students will develop conceptual and procedural tools that support the use of key mathematical concepts in a variety of contexts. This course is not designed for Science, Technology, Engineering, or Math (STEM) students and/or others who require calculus.	DPI License 400 and Master's degree and a combination of 18 graduate/undergraduate credits in Mathematics or related subfield they are teaching. Transcripts must identify at least 8 graduate/undergraduate credits in Calculus and another 10 graduate/undergraduate credits in the related discipline/subfield.	45	Science, Technology, Engineering and Math
Mechanical Design-Exploring Credit Value 1 Grade Level 9-12	10606111 MECHANICAL DESIGN EXPLORING ...philosophy/organization/procedure of the Mechanical Design Technology Program, brief overview of the engineering profession by involvement in a design project to illustrate basic concepts/methods of machine design.	DPI License 220 Technical Education.	30	Science, Technology, Engineering and Math
Medical Terminology Credit Value 3 Grade Level 11-12	10501101 MEDICAL TERMINOLOGY ...focuses on the component parts of medical terms: Prefixes, suffixes, and root words. Students practice formation, analysis and reconstruction of terms. Emphasis on spelling, definition and pronunciation. Introduction to operative, diagnostic, therapeutic and symptomatic terminology of all body systems, as well as systemic and surgical terminology.	DPI License 605 Biology/Life Science: 210,211,213 or 214 F/CS (with biology and/or anatomy/physiology) transcript review and completion of NWTTC course with a "B" grade or better	45	Health Sciences
MS Excel Intro Credit Value 1 Grade Level 9-12	10103131 MS EXCEL INTRO ...creating worksheets, enhancing worksheet appearance, moving data between worksheets and workbooks, using formulas and functions, creating charts and using clip art. Windows experience improves success.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration
MS Excel Part 2 Credit Value 1 Grade Level 9-12	10103132 MS EXCEL PART 2 ...covers advanced formatting techniques and functions, working with templates, collaborating with multiple Excel users, creating macros, Excel's database features and analysis tools. (Corequisite: 10-103-131, MS Excel Intro)	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration
MS Outlook Credit Value 1	10103161 MS OUTLOOK ...create and organize E-mail, schedule meetings, create tasks, and manage contacts.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration

MS PowerPoint Credit Value 1 Grade Level 9-12	10103151 MS POWERPOINT ...presentation skills using: graphics, diagrams, design themes, sounds, animations, slide transitions, and integration with other software. Windows experience improves success. (Corequisite: 10-103-121, MS Word Intro)	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration
MS Word Intro Credit Value 1 Grade Level 9-12	10103121 MS WORD INTRO ... word processing basics including creating, revising, formatting, printing; sections, tabs, multiple-page numbering; manipulating text; creating headers/footers; creating/formatting tables, graphics; and merging documents.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration
Nutrition Credit Value 1 Grade Level 9-12	10316128 NUTRITION ...focuses on the major nutrients (carbohydrates, proteins, fats, minerals, vitamins and water) in the planning of well-balanced diets and the nutritional analysis of well-balanced diets.	DPI License 210, 211 in F/CS and completion of NWTCC Course with a "B" or better.	15	Hospitality & Tourism
Oral/Interpersonal Communications Credit Value 3 Grade Level 10-12	10801196 ORAL/INTERPERSONAL COMMUNICATION ...the communication process, perception and self-concept, language, listening, nonverbal communication, interpersonal relationships, communication in groups and public communication; prepare and deliver an oral presentation.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Communication or related subfield they are teaching.	45	Liberal Arts and Sciences
Organic Livestock Practices Credit Value 2 Grade Level 11-12	10090120 ORGANIC LIVESTOCK PRACTICES ... How do organic farmers manage livestock successfully? Principles covered include organic health care, strategies for reproduction, feeding, housing, and young stock. Review rules and organic certification standards.	DPI License 200 Agriculture, Completion of Train the Trainer prior to teaching.	30	Agriculture, Food and Natural Resources
Personal Wellness & Fitness Credit Value 3 Grade Level 11-12	10546101 PERSONAL WELLNESS & FITNESS ... This course introduces the seven-dimension model of wellness. Learners will apply the seven dimensions of wellness to develop and implement a personal wellness plan.	DPI License 910 Health or 530 Physical Education with a minimum of a bachelor's degree in Wellness, Exercise Science, or Physical Education	60	Education and Training
Photography- Digital Credit Value 3 Grade Level 9-12	10203104 PHOTOGRAPHY-DIGITAL ...capturing digital images, exposure, shutter speed, aperture, composition, camera operations, lenses, lighting, camera accessories, types of photography, photo challenges, importing, editing and storing images. Access to a digital camera required.	DPI License 250 Business Education, 285 Marketing Education , 550 Art Education, 220 Technical Education and Adobe Creative Suite Experience.	60	Arts, Audiovisual Technology and Communication
Photoshop Fundamentals Credit Value 3 Grade Level 9-12	10111101 PHOTOSHOP FUNDAMENTALS ...perform raster Image Editing. Course content covers functions of Adobe Photoshop. Create image selections, extractions and composite files using Adobe software, and apply common photo adjustments using fundamental design solutions, creating composite images.	DPI License 250 Business Education, 285 Marketing Education , 550 Art Education, 220 Technical Education and Adobe Creative Suite Experience.	60	Arts, Audiovisual Technology and Communication
Principles of Sanitation Credit Value 1 Grade Level 9-12	10316118 PRINCIPLES OF SANITATION ...food service sanitation principles of contamination/food borne illness with National Restaurant Association ServSafe Certification upon successful completion.	DPI License 210, 211 in F/CS and completion of NWTCC Course with a "B" or better.	15	Hospitality & Tourism
Renewable Energy and Sustainability Credit Value 4 Grade Level 10-12	10480101 RENEWABLE ENERGY AND SUSTAINABILITY ...an overview of various renewable energy technologies and sustainable design practices and their current applications. Emphasis will be placed on energy consumption, efficiency, and conservation.	DPI License 606 Life and Environmental Science or 615 Environmental Studies or DPI License 220 Technical Education	60	Agriculture, Food and Natural Resources
Robotics - Introduction to Credit Value 1 Grade Level 11-12	10620170 ROBOTICS - INTRODUCTION TO ...Introductory study of the application, operation, programming and troubleshooting of industrial robots.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Safety Devices and Application Credit Value 1 Grade Level 11-12	10664170 SAFETY DEVICES AND APPLICATIONS ...introduction to the function of commonly used machinery safety devices, wiring of these devices to complete safety circuits, overview of safety system design.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Shielded Metal Arc Welding 1 Credit Value 1 Grade Level 11-12	31442342 SHIELDED METAL ARC WELDING 1 ...course provides the opportunity for the learner to develop the knowledge, skills, process and understanding of surfacing welds in the flat position, fillet and groove welds on plain carbon steel.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Solidworks Fundamentals Credit Value 1 Grade Level 11-12	10606160 SOLIDWORKS FUNDAMENTALS ...introduces terminology; software operation and interface layout. It also exposes the student to creating basic models, assemblies & using the drawing environment.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching.	30	Architecture and Construction
Solidworks Intermediate Credit Value 2 Grade Level 11-12	10606106 SOLIDWORKS INTERMEDIATE ...introduces using intermediate features such as patterns, revolve, and sweep. Students learn how to measure center of gravity on assemblies and to create completely dimensioned orthographic drawings. (Prerequisite: 10-606-160, Solidworks Fundamentals)	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching.	60	Architecture and Construction
Stress Management Techniques Credit Value 2 Grade Level 11-12	10546107 STRESS MANAGEMENT TECHNIQUES ... Understand the effects of stress on personal well-being. Learn, assess, and apply stress management techniques (relaxation, guided imagery, deep breathing techniques, and other holistic methods) for personal and client utilization.	DPI License 910 Health or 530 Physical Education with a minimum of a bachelor's degree in Wellness, Exercise Science, or Physical Education	30	Education and Training
Sustainable AG: Issues & Practices Credit Value 2 Grade Level 11-12	10090111 SUSTAINABLE AG: ISSUES & PRACTICES ...use critical thinking skills to compare organic and sustainable agricultural practices with industrial agriculture. Explore food production issues including antibiotics, herbicides, hormones, GMOs, animal welfare, crop yields, nutrients, and pollution.	DPI License 200 Agriculture, Completion of Train the Trainer prior to teaching.	30	Agriculture, Food and Natural Resources
Transportation Welding 1 Credit Value 1 Grade Level 11-12	10412170 TRANSPORTATION WELDING 1 ...focuses on welding and cutting safety; develops skills in welding and cutting of metals used in the transportation trades. Methods of welding include gas metal arc welding (MIG) in the horizontal, vertical, and overhead positions. Methods of cutting include oxy-fuel and plasma arc cutting of metals. Students will learn to set up and maintain welding equipment and weld and cut a variety of types and thicknesses of materials commonly used in the transportation trades.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching. Prior experience with basic MIG welding and oxy-fuel and plasma arc cutting is required.	30	Transportation, Distribution, and Logistics
Trigonometry with Apps Credit Value 3 Grade Level 11-12	10804196 TRIGONOMETRY WITH APPLICATIONS ...topics include circular functions, graphing of trigonometry functions, identities, equations, trigonometric functions of angles, inverse functions, solutions of triangles complex numbers, DeMoivre's Theorem, polar coordinates, and vectors. (Prerequisite: Completion of 10-804-118 Intern Algebra with Applications with a "C" or better).	DPI License 400 and Master's degree in Mathematics or Master's degree and a combination of 18 graduate/undergraduate credits in math or related subfield they are teaching.	60	Science, Technology, Engineering and Math
Vocational Math A Credit Value 1 Grade Level 10-12	31804304 VOCATIONAL MATH A ...This course provides the opportunity for the learner to develop the knowledge and skills to apply the concepts of whole numbers, fractions, decimals, measurement, proportions, and percent to their career.	Related DPI License and: • Have at least a baccalaureate degree from an accredited institution, and • Have at least a minor or twenty semester credits drawn from the Mathematics department, or • Have a major in Engineering, Physics, or Statistics.	30	Science, Technology, Engineering and Math
Vocational Math B Credit Value 1 Grade Level 10-12	31804305 VOCATIONAL MATH B ...This course provides the opportunity for the learner to develop the knowledge and skills to apply the concepts of algebra, geometry, and trigonometry to their career. (Prerequisite: Completion of 31-804-304 Vocational Math A with a "C" or better)	Related DPI License and: • Have at least a baccalaureate degree from an accredited institution, and • Have at least a minor or twenty semester credits drawn from the Mathematics department, or • Have a major in Engineering, Physics, or Statistics.	30	Science, Technology, Engineering and Math
Website Coding Credit Value 3 Grade Level 9-12	10152185 WEBSITE CODING ...Create code for generating the structure, function, and design of static websites using standards-based HTML5 and CSS3; validate code; test multi-browser and multi-device functionality.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed, 405 Computer Science and "B" or better in NWTCC course.	60	Information Technology
Windows Client Essentials	10150177 WINDOW CLIENT ESSENTIALS ...this course will provide the learner the opportunity to develop the	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed, 405	60	Information Technology

Credit Value 2
Grade Level 10-12

knowledge, skills, process, and understanding of client OS installation, configuration, administration, including troubleshooting, network connectivity, standard system maintenance procedures, and command line introduction.

Computer Science or 400 Math and CISCO certification: Teacher's experience in IT will be assessed to determine if Trainer the Trainer is required.

Credit Value 2 Grade Level 10-12	knowledge, skills, process, and understanding of client OS installation, configuration, administration, including troubleshooting, network connectivity, standard system maintenance procedures, and command line introduction.	Computer Science or 400 Math and CISCO certification: Teacher's experience in IT will be assessed to determine if Trainer the Trainer is required.		
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Agriculture, Food and Natural Resources

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
Agribusiness Economics Credit Value 3 Grade Level 11-12	10090303 AGRIBUSINESS ECONOMICS ...basic knowledge of macro and micro economics will be taught, proficiency in developing basic cash flows, cost benefit analysis, enterprise analysis, budget development, profit loss statements and developing cost of production. Student should be able to develop adequate information for farm manager to analyze business proposals.	DPI License 200 Agriculture	45	Agriculture, Food and Natural Resources
Aquaculture/Aquaonics Credit Value 2 Grade Level 9-12	10090115 AQUACULTURE/AQUAPONICS ...investigate hydroponic plant growing and fish farming operations; designs, suitable species, maintenance, costs efficiencies and yields. Plan a system, develop a budget, explore markets, trends, and analyze benefits and obstacles in this business.	DPI License 200 Agriculture, Completion of Train the Trainer prior to teaching.	30	Agriculture, Food and Natural Resources
Beekeeping & Pollinators Credit Value 1 Grade Level 11-12	10090118 BEEKEEPING & POLLINATORS ...bees pollinate our crops and orchards; they are an environmental quality indicator species and they provide honey. Explore beekeeping using onsite hives; explore pollinators and habitats, and network with local beekeepers.	DPI License 200 Agriculture, Completion of Train the Trainer prior to teaching.	15	Agriculture, Food and Natural Resources
Intro to Dairy Science Credit Value 3 Grade Level 10-12	10090326 INTRO TO DAIRY SCIENCE ...this course provides basic knowledge of the dairy science field. Topics include animal health, anatomy and physiology, genetics and reproduction, basic breed characteristics and animal feedstuffs.	DPI License 200 Agriculture, Completion of Train the Trainer prior to teaching.	45	Agriculture, Food and Natural Resources
Organic Livestock Practices Credit Value 2 Grade Level 11-12	10090120 ORGANIC LIVESTOCK PRACTICES ... How do organic farmers manage livestock successfully? Principles covered include organic health care, strategies for reproduction, feeding, housing, and young stock. Review rules and organic certification standards.	DPI License 200 Agriculture, Completion of Train the Trainer prior to teaching.	30	Agriculture, Food and Natural Resources
Renewable Energy and Sustainability Credit Value 4 Grade Level 10-12	10480101 RENEWABLE ENERGY AND SUSTAINABILITY ...an overview of various renewable energy technologies and sustainable design practices and their current applications. Emphasis will be placed on energy consumption, efficiency, and conservation.	DPI License 606 Life and Environmental Science or 615 Environmental Studies or DPI License 220 Technical Education	60	Agriculture, Food and Natural Resources
Sustainable AG: Issues & Practices Credit Value 2 Grade Level 11-12	10090111 SUSTAINABLE AG: ISSUES & PRACTICES ...use critical thinking skills to compare organic and sustainable agricultural practices with industrial agriculture. Explore food production issues including antibiotics, herbicides, hormones, GMOs, animal welfare, crop yields, nutrients, and pollution.	DPI License 200 Agriculture, Completion of Train the Trainer prior to teaching.	30	Agriculture, Food and Natural Resources

Architecture and Construction

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
BIM Architectural 1 Credit Value 2 Grade Level 10-12	10614216 BIM ARCHITECTURAL 1 ...incorporates the use of Revit for building information modeling. Basic to intermediate modeling and documentation tools will be explored. Simple building information models will be generated, edited, and documented.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching.	60	Architecture and Construction
Building Codes - Carpentry Credit Value 1 Grade Level 11-12	10410108 BUILDING CODES - CARPENTRY ... the basic requirements for the erection of buildings inhabited by the public for living, work and pleasure.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching. Prior experience interpreting the Uniform Building Code is highly recommended.	15	Architecture and Construction
CAD Intro Credit Value 1 Grade Level 11-12	10606116 CAD (COMPUTER AIDED DRAFTING)-INTRODUCTION ...CAD terminology, drawing preliminaries, basic inquiry and setting commands, layer setting and manipulation, basic drawing and display commands, basic edit commands, and plotting, using AutoCAD software.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Architecture and Construction
Construction Blueprint Reading 1 Credit Value 1 Grade Level 11-12	10410110 CONSTRUCTION BLUEPRINT READING 1 ...the carpentry profession, tools of the trade, job site etiquette and safety, carpentry math, and fundamentals of construction blueprint reading.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching.	30	Architecture and Construction
Floor Framing Systems - requires project Credit Value 3 Grade Level 11-12	10410104 FLOOR FRAMING SYSTEMS ...this course teaches all aspects of floor construction and flooring system construction. □	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching., and meeting NWTC FQAS Carpentry instructor qualifications required (contact NWTC Associate Dean, Construction, for details).	90	Architecture and Construction
Solidworks Fundamentals Credit Value 1 Grade Level 11-12	10606160 SOLIDWORKS FUNDAMENTALS ...introduces terminology; software operation and interface layout. It also exposes the student to creating basic models, assemblies & using the drawing environment.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching.	30	Architecture and Construction
Solidworks Intermediate Credit Value 2 Grade Level 11-12	10606106 SOLIDWORKS INTERMEDIATE ...introduces using intermediate features such as patterns, revolve, and sweep. Students learn how to measure center of gravity on assemblies and to create completely dimensioned orthographic drawings. (Prerequisite: 10-606-160, Solidworks Fundamentals)	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching.	60	Architecture and Construction

Arts, Audiovisual Technology and Communication

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
Illustrator Fundamentals Credit Value 3 Grade Level 9-12	10111161 ILLUSTRATOR FUNDAMENTALS ...develop basic knowledge and skills using digital illustration software (i.e. Adobe Illustrator), apply vector graphic strategies into graphic design medias and integration into other software packages. Course content covers creating basic shapes, drawing, transforming elements, working with type, blending, layers and special effects.	DPI License 250 Business Education, 285 Marketing Education, Art Education 550, Technical Education 220 and Adobe Creative Suite Experience	60	Arts, Audiovisual Technology and Communication
Photography- Digital Credit Value 3 Grade Level 9-12	10203104 PHOTOGRAPHY-DIGITAL ...capturing digital images, exposure, shutter speed, aperture, composition, camera operations, lenses, lighting, camera accessories, types of photography, photo challenges, importing, editing and storing images. Access to a digital camera required.	DPI License 250 Business Education, 285 Marketing Education , 550 Art Education, 220 Technical Education and Adobe Creative Suite Experience.	60	Arts, Audiovisual Technology and Communication
Photoshop Fundamentals Credit Value 3 Grade Level 9-12	10111101 PHOTOSHOP FUNDAMENTALS ...perform raster Image Editing. Course content covers functions of Adobe Photoshop. Create image selections, extractions and composite files using Adobe software, and apply common photo adjustments using fundamental design solutions, creating composite images.	DPI License 250 Business Education, 285 Marketing Education , 550 Art Education, 220 Technical Education and Adobe Creative Suite Experience.	60	Arts, Audiovisual Technology and Communication

Business, Management and Administration

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
Business - Principles Credit Value 3 Grade Level 9-12	10102158 BUSINESS PRINCIPLES ...economics and business; global business; ethics and social responsibility; types of business ownership; entrepreneurship; role of management: operations management; human resources; marketing; managing financial resources and legal issues impacting business.	DPI License 250 Business Education or 281 Business and Office-Voc	45	Business, Management and Administration
Business Law Credit Value 3 Grade Level 9-12	10102150 BUSINESS LAW ...common law contracts and sales contracts: formation, interpretation, performance, and discharge; the law of agency; corporations; and introduction to the American legal system: criminal and tort law, and global business issues.	DPI License 250 Business Education or 281 Business and Office-Voc	45	Business, Management and Administration
Career Planning Credit Value 1 Grade Level 9-12	10105101 CAREER PLANNING ...experiential learning introduction. Learn how personal branding allows candidates to differentiate themselves from the competition through appearance, personality, and marketing competency. Career portfolio introduced.	DPI License 250 Business Education, 281 Business and Office-Voc, 285 Marketing Education, and earned "B" or better in Train the Trainer course	15	Business, Management and Administration
MS Excel Intro Credit Value 1 Grade Level 9-12	10103131 MS EXCEL INTRO ...creating worksheets, enhancing worksheet appearance, moving data between worksheets and workbooks, using formulas and functions, creating charts and using clip art. Windows experience improves success.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration
MS Excel Part 2 Credit Value 1 Grade Level 9-12	10103132 MS EXCEL PART 2 ...covers advanced formatting techniques and functions, working with templates, collaborating with multiple Excel users, creating macros, Excel's database features and analysis tools. (Corequisite: 10-103-131, MS Excel Intro)	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration
MS Outlook Credit Value 1 Grade Level 9-12	10103161 MS OUTLOOK ...create and organize E-mail, schedule meetings, create tasks, and manage contacts.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration
MS PowerPoint Credit Value 1 Grade Level 9-12	10103151 MS POWERPOINT ...presentation skills using: graphics, diagrams, design themes, sounds, animations, slide transitions, and integration with other software. Windows experience improves success. (Corequisite: 10-103-121, MS Word Intro)	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration
MS Word Intro Credit Value 1 Grade Level 9-12	10103121 MS WORD INTRO ... word processing basics including creating, revising, formatting, printing; sections, tabs, multiple-page numbering; manipulating text; creating headers/footers; creating/formatting tables, graphics; and merging documents.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration

Education and Training

Finance

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
Accounting I Credit Value 4 Grade Level 9-12	10101110 ACCOUNTING 1 ...accounting principles, financial statements, business transactions, accounting cycles/systems, specialized journals, accounting for cash and receivables for sole proprietorships in service or merchandising businesses.	DPI License 250 Business Education, 281 Business and Office-Voc	60	Finance

Health Sciences

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
Contemporary Healthcare Practices Credit Value 2 Grade Level 11-12	10501104 CONTEMPORARY HEALTHCARE PRACTICES ...prepares learners to work in the healthcare environment as part of a healthcare team. Learners will investigate the healthcare community, patient privacy standards, and the professional behavior that is expected in today's medical community. Learner will examine various aspects of verbal and written communication skills, customer service principles, and problem solving techniques necessary to be a vital member of the healthcare workforce.	DPI License in Health, 210 Family and Consumer Education, and earned "B" or better in NWTC course.	30	Health Sciences
Digital Literacy for Healthcare Credit Value 2 Grade Level 11-12	10501107 DIGITAL LITERACY FOR HEALTHCARE ...the course will explore the use of the electronic health record, the role of social media in health care communication, the uses of wearable technologies that monitor activity and heart rate, the use of data to manage population health and the impact of new developments on the healthcare workforce.	DPI License in Health, 210 Family and Consumer Education, and earned "B" or better in NWTC course.	30	Health Sciences
Medical Terminology Credit Value 3 Grade Level 11-12	10501101 MEDICAL TERMINOLOGY ...focuses on the component parts of medical terms: Prefixes, suffixes, and root words. Students practice formation, analysis and reconstruction of terms. Emphasis on spelling, definition and pronunciation. Introduction to operative, diagnostic, therapeutic and symptomatic terminology of all body systems, as well as systemic and surgical terminology.	DPI License 605 Biology/Life Science; 210,211,213 or 214 F/CS (with biology and/or anatomy/physiology) - transcript review and completion of NWTC course with a "B" grade or better	45	Health Sciences

Hospitality & Tourism

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
Nutrition Credit Value 1 Grade Level 9-12	10316128 NUTRITION ...focuses on the major nutrients (carbohydrates, proteins, fats, minerals, vitamins and water) in the planning of well-balanced diets and the nutritional analysis of well-balanced diets.	DPI License 210, 211 in F/CS and completion of NWTC Course with a "B" or better.	15	Hospitality & Tourism
Principles of Sanitation Credit Value 1 Grade Level 9-12	10316118 PRINCIPLES OF SANITATION ...food service sanitation principles of contamination/food borne illness with National Restaurant Association ServSafe Certification upon successful completion.	DPI License 210, 211 in F/CS and completion of NWTC Course with a "B" or better.	15	Hospitality & Tourism

Human Services/Education

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
Introduction to Human Services Credit Value 3 Grade Level 11-12	10520101 INTRODUCTION TO HUMAN SERVICES. ..Examine the evolution of the human services field. Distinguish the various types of human service agencies and occupations available in the field. Demonstrate the qualities of the field professionals. Complete 10 hours of community service at an agency of learner's choice outside of class time. Assess boundaries and ethical issues commonly found in the human services profession. Apply reflective practitioner techniques.	DPI License in 745 Sociology or 701 Broadfield Social Studies and minimum of 20 semester credits drawn from the recognized social science disciplines of Psychology, Sociology, Political Science, Economics, History, Anthropology, Geography, or Philosophy.	45	Human Services/Education

Information Technology

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
Intro to Cybersecurity Credit Value 1 Grade Level 9-12	10151100 INTRO TO CYBERSECURITY ...learners will develop an understanding of cybersecurity methods, terms, and key technical concepts to identify and protect assets against attacks.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed, 285 Marketing Education, 405 Computer Science or 400 Math and "B" or better in Train the Trainer course.	15	Information Technology
Website Coding Credit Value 3 Grade Level 9-12	10152185 WEBSITE CODING ...Create code for generating the structure, function, and design of static websites using standards-based HTML5 and CSS3; validate code; test multi-browser and multi-device functionality.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed, 405 Computer Science and "B" or better in NWTC course.	60	Information Technology
Windows Client Essentials Credit Value 2 Grade Level 10-12	10150177 WINDOW CLIENT ESSENTIALS ...this course will provide the learner the opportunity to develop the knowledge, skills, process, and understanding of client OS installation, configuration, administration, including troubleshooting, network connectivity, standard system maintenance procedures, and command line introduction.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed, 405 Computer Science or 400 Math and CISCO certification. Teacher's experience in IT will be assessed to determine if Trainer the Trainer is required.	60	Information Technology

Liberal Arts and Sciences

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
Developmental Psychology Credit Value 3 Grade Level 10-12	10809188 DEVELOPMENTAL PSYCHOLOGY ...defines human development; examines theories; heredity and environmental effects; prenatal development and birth; evaluates biosocial, cognitive psychosocial development through the life span; aging, death, and dying.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Psychology or related subfield they are teaching.	45	Liberal Arts and Sciences
English Composition 1 Credit Value 3 Grade Level 11-12	10801136 ENGLISH COMPOSITION 1 ...learners develop knowledge/skills in planning, organizing, writing, editing. Students will also analyze audience/purpose, use elements of research, format documents using standard guidelines, and develop critical reading skills.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in English or related subfield they are teaching.	45	Liberal Arts and Sciences
Intro to American Government Credit Value 3 Grade Level 11-12	10809122 INTRO TO AMER GOVERNMENT ...introduces American political processes and institutions: focusing on rights/responsibilities of citizens and the process of participatory democracy. Examines separation of powers and checks/balances & the roles of different groups.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Government or related subfield they are teaching.	45	Liberal Arts and Sciences
Intro to Psychology Credit Value 3 Grade Level 10-12	10809198 INTRODUCTION TO PSYCHOLOGY ...survey of theoretical foundations of human behavior such as sensation and perception, motivation, emotions, learning, personality, psychological disorders, therapy, stress, and human diversity in personal, social and vocational settings.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Psychology or related subfield they are teaching.	45	Liberal Arts and Sciences
Intro to Sociology Credit Value 3 Grade Level 10-12	10809196 INTRODUCTION TO SOCIOLOGY ...the nature and variety of groups; inequality, race and ethnicity; family, population, social integration, and change; collective behavior; politics, economics, religion, education, and the effects of technology.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Sociology or related subfield they are teaching.	45	Liberal Arts and Sciences
Oral/Interpersonal Communications Credit Value 3 Grade Level 10-12	10801196 ORAL/INTERPERSONAL COMMUNICATION ...the communication process, perception and self-concept, language, listening, nonverbal communication, interpersonal relationships, communication in groups and public communication; prepare and deliver an oral presentation.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Communication or related subfield they are teaching.	45	Liberal Arts and Sciences
Basic Anatomy Credit Value 3 Grade Level 11-12	10806189 BASIC ANATOMY ...examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems.	Science related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Anatomy & Physiology or related subfield they are teaching. Transcripts must identify at least 9 graduate/undergraduate credits in Anatomy & Physiology and another 9 graduate/undergraduate credits in the related discipline.	45	Science, Technology, Engineering and Math
Basic Mechanics Credit Value 1 Grade Level 9-12	10620144 BASIC MECHANICS ...Introduction to basic mechanical devices and tools used for assembly, disassembly and adjustment.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing

Beekeeping & Pollinators Credit Value 1 Grade Level 11-12	10090118 BEEKEEPING & POLLINATORS ...bees pollinate our crops and orchards; they are an environmental quality indicator species and they provide honey. Explore beekeeping using onsite hives; explore pollinators and habitats, and network with local beekeepers.	DPI License 200 Agriculture, Completion of Train the Trainer prior to teaching.	15	Agriculture, Food and Natural Resources
BIM Architectural 1 Credit Value 2 Grade Level 10-12	10614216 BIM ARCHITECTURAL 1 ...incorporates the use of Revit for building information modeling. Basic to intermediate modeling and documentation tools will be explored. Simple building information models will be generated, edited, and documented.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching.	60	Architecture and Construction
Building Codes - Carpentry Credit Value 1 Grade Level 11-12	10410108 BUILDING CODES - CARPENTRY ... the basic requirements for the erection of buildings inhabited by the public for living, work and pleasure.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching. Prior experience interpreting the Uniform Building Code is highly recommended.	15	Architecture and Construction
Business - Principles Credit Value 3 Grade Level 9-12	10102158 BUSINESS PRINCIPLES ...economics and business; global business; ethics and social responsibility; types of business ownership; entrepreneurship; role of management: operations management; human resources; marketing; managing financial resources and legal issues impacting business.	DPI License 250 Business Education or 281 Business and Office-Voc.	45	Business, Management and Administration
Business Law Credit Value 3 Grade Level 9-12	10102150 BUSINESS LAW ...common law contracts and sales contracts: formation, interpretation, performance, and discharge; the law of agency; corporations; and introduction to the American legal system: criminal and tort law, and global business issues.	DPI License 250 Business Education or 281 Business and Office-Voc.	45	Business, Management and Administration
CAD Intro Credit Value 1 Grade Level 11-12	10606116 CAD (COMPUTER AIDED DRAFTING)-INTRODUCTION ...CAD terminology, drawing preliminaries, basic inquiry and setting commands, layer setting and manipulation, basic drawing and display commands, basic edit commands, and plotting, using AutoCAD software.	DPI License 220 Technical Education or 292 Technical Occ-Mfg. Completion of Train the Trainer prior to teaching.	30	Architecture and Construction
Career Planning Credit Value 1 Grade Level 9-12	10105101 CAREER PLANNING ...experiential learning introduction. Learn how personal branding allows candidates to differentiate themselves from the competition through appearance, personality, and marketing competency. Career portfolio introduced.	DPI License 250 Business Education, 281 Business and Office-Voc, 285 Marketing Education, and earned "B" or better in Train the Trainer course.	15	Business, Management and Administration
CNC Milling and G-Code Credit Value 2 Grade Level 11-12	31420363 CNC MILLING AND G-CODE ...shop safety around CNC milling machines, CNC basics, Cartesian coordinate systems, CNC milling controls and preparing basic G-Code milling programs.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	60	Manufacturing
College Tech Math 1A Credit Value 3 Grade Level 11-12	10804113 COLLEGE TECHNICAL MATH 1A ...topics include solving linear equations; graphing; percent; proportions; measurement systems; computational geometry; and right triangle trigonometry. Emphasis will be on the application of skills to technical problems.	Math related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Mathematics or related subfield they are teaching. Transcripts must identify at least 8 graduate/undergraduate credits in Calculus and another 10 graduate/undergraduate credits in the related discipline/subfield.	45	Science, Technology, Engineering and Math

College Tech Math 1B Credit Value 2 Grade Level 11-12	10804114 COLLEGE TECHNICAL MATH 1B ...topics include: performing operations on polynomials; solving quadratic and rational equations; formula rearrangement; solving systems of equations; and oblique triangle trigonometry. Emphasis will be on the application of skills to technical problems. (Prerequisite: 10-804-113 College Tech Math 1A with a "C" or better).	Math related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Mathematics or related subfield they are teaching. Transcripts must identify at least 8 graduate/undergraduate credits in Calculus and another 10 graduate/undergraduate credits in the related discipline/subfield.	30	Science, Technology, Engineering and Math
Construction Blueprint Reading 1 Credit Value 1 Grade Level 11-12	10410110 CONSTRUCTION BLUEPRINT READING 1 ...the carpentry profession, tools of the trade, job site etiquette and safety, carpentry math, and fundamentals of construction blueprint reading.	DPI License 220 Technical Education. Completion of Train the Trainer prior to teaching.	30	Architecture and Construction
Contemporary Healthcare Practices Credit Value 2 Grade Level 11-12	10501104 CONTEMPORARY HEALTHCARE PRACTICES ...prepares learners to work in the healthcare environment as part of a healthcare team. Learners will investigate the healthcare community, patient privacy standards, and the professional behavior that is expected in today's medical community. Learner will examine various aspects of verbal and written communication skills, customer service principles, and problem solving techniques necessary to be a vital member of the healthcare workforce.	DPI License in Health, 210 Family and Consumer Education, and earned "B" or better in NWTC course.	30	Health Sciences
Customer Experience Credit Value 3 Grade Level 9-12	10104191 CUSTOMER EXPERIENCE ...examine customer service culture, develop communication and listening skills, explore diversity in the workplace, develop skills for handling challenging customers, and explore the impact of technology on customer service and engagement.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed, or 285 Marketing Education.	45	Marketing, Sales and Service
DC1: Introduction Credit Value 1 Grade Level 10-12	10660104 DC 1: INTRODUCTION ...introduction to the concepts of DC electricity and simple series circuits. Voltage, current, resistance, Ohm's Law, power and Kirchoff's Voltage Law are defined.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Developmental Psychology Credit Value 3 Grade Level 10-12	10809188 DEVELOPMENTAL PSYCHOLOGY ...defines human development; examines theories; heredity and environmental effects; prenatal development and birth; evaluates biosocial, cognitive psychosocial development through the life span; aging, death, and dying.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Psychology or related subfield they are teaching.	45	Liberal Arts and Sciences
Diesel Service Fundamentals Credit Value 2 Grade Level 11-12	10412101 DIESEL SERVICE FUNDAMENTALS ...introduces diesel shop environment, safety, the use of manufacturer's service information and literature, handling hazardous materials, emphasizes general shop safety and general shop practices, basic equipment operation, rigging and lifting, hazardous material handling procedures, resume development, mock interviewing, and exploring industry career pathways.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching.. Prior experience working in a diesel shop is required.	30	Transportation, Distribution, and Logistics
Digital Literacy for Healthcare Credit Value 2 Grade Level 11-12	10501107 DIGITAL LITERACY FOR HEALTHCARE ...the course will explore the use of the electronic health record, the role of social media in health care communication, the uses of wearable technologies that monitor activity and heart rate, the use of data to manage population health and the impact of new developments on the healthcare workforce.	DPI License in Health, 210 Family and Consumer Education, and earned "B" or better in NWTC course.	30	Health Sciences

ECE: Child Development Credit Value 3 Grade Level 10-12	10307179 ECE: CHILD DEVELOPMENT ...child development in the early childhood education setting. Social, cultural, and economic influences on child development; child development theories; development of children age three to eight; child development research; heredity and environment.	DPI License 210 Family and Consumer Education, WTCS Certification for Early Childhood Education preferred, and completion of NWTC course with "B" grade or better.	45	Education and Training
ECE: Health Safety & Nutrition Course Credit Value 3 Grade Level 11-12	10307167 ECE: HEALTH/SAFETY/NUTRITION ...health, safety, and nutrition in early childhood settings. Anti-bias perspectives; governmental regulations and professional standards; safe, healthy, and nutritionally sound early childhood programs; child abuse/neglect mandates; SIDS risk reduction; Shaken Baby Syndrome.	DPI License 210 Family and Consumer Education, WTCS Certification for Early Childhood Education preferred, and completion of NWTC course with "B" grade or better.	45	Education and Training
ECE: Infant & Toddler Development Credit Value 3 Grade Level 11-12	10307151 ECE: INFANT/TODDLER DEVELOPMENT ...infant and toddler development in an early childhood education setting. Development of infants/toddlers; prenatal conditions and development; child development theories; heredity and the environment; culturally and developmentally appropriate environments.	DPI License 210 Family and Consumer Education, WTCS Certification for Early Childhood Education preferred, and completion of NWTC course with "B" grade or better.	45	Education and Training
ECE: Social Studies, Art & Music Credit Value 3 Grade Level 11-12	10307110 ECE: SOCIAL STUDIES, ART & MUSIC ...This 3-credit course will focus on beginning level curriculum development in the specific integrated content areas of social studies, art, music, & movement (SSAMM).	DPI License 210 Family and Consumer Education, WTCS Certification for Early Childhood Education preferred, and completion of NWTC course with "B" grade or better.	45	Education and Training
EDU: Child and Adolescent Development Credit Value 3 Grade Level 9-12	10522106 EDU: CHILD & ADOLESCENT DEVELOPMENT ...growth and development birth through adolescence. Acquaints the learner with the fundamental tasks of physical, motor, perceptual, cognitive social/emotional and language development.	DPI License 210 Family and Consumer Education	45	Education and Training
EDU: Intro to Educational Practices Credit Value 3 Grade Level 9-12	10522103 EDU: INTRODUCTION TO EDUCATIONAL PRACTICES ...fundamentals of teaching methodologies, history of education, issues in trends, learning styles, instructional cycle, characteristics of diverse classroom, questioning techniques and assessment practices.	DPI License 210 Family and Consumer Education	45	Education and Training
EDU: Technology in Education Credit Value 3 Grade Level 9-12	10522104 EDU: TECHNOLOGY IN EDUCATION ...students develop the knowledge and skills to use trending classroom technologies and gain experience creating and using web tools including portfolios. Students create presentations for educational environments and identify ISTE Standards.	DPI License 210 Family and Consumer Education	45	Education and Training
English Composition 1 Credit Value 3 Grade Level 11-12	10801136 ENGLISH COMPOSITION 1 ...learners develop knowledge/skills in planning, organizing, writing, editing. Students will also analyze audience/purpose, use elements of research, format documents using standard guidelines, and develop critical reading skills.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in English or related subfield they are teaching.	45	Liberal Arts and Sciences
Floor Framing Systems - requires project Credit Value 3 Grade Level 11-12	10410104 FLOOR FRAMING SYSTEMS ...this course teaches all aspects of floor construction and flooring system construction. □	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching., and meeting NWTC FQAS Carpentry instructor qualifications required (contact NWTC Associate Dean, Construction, for details).	90	Architecture and Construction

Fluids 1: Basic Pneumatics Credit Value 1 Grade Level 10-12	10620100 FLUIDS 1: BASIC PNEUMATICS ...what fluid power is, differentiate between hydraulics and pneumatics, implement basic pneumatic circuits, utilize schematics, apply Pascal's Law, define properties of fluids, implement airflow control and hydraulics cylinder circuits.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Flux Cored Arc Welding 1 Credit Value 1 Grade Level 11-12	31442329 FLUX CORED ARC WELDING 1 ...Course provides the opportunity for the learner to develop the knowledge, skills, process and understanding of surfacing welds in the flat position as well as fillet and groove welds in the flat, horizontal position using gas shielded flux cored arc welding.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Gas Metal Arc Welding 1 Credit Value 1 Grade Level 11-12	31442348 GAS METAL ARC WELDING ...course provides the opportunity for the learner to develop the knowledge, skills, process and understanding of welding in the flat and horizontal positions, fillet, pipe to plate and groove welds on plain carbon steel.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Gas Tungsten Arc Welding 1 Credit Value 1 Grade Level 11-12	31442359 GAS TUNGSTEN ARC WELDING 1 ...Course provides the opportunity for the learner to develop the knowledge, skills, process and understanding of GTAW equipment set-up as well as the basic skills needed to make welds on plain carbon steel. Weld quality will be discussed but this course is only used to understand the basics of the GTAW process.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
G-Code and Cam Credit Value 2 Grade Level 11-12	31420364 G-CODE AND CAM ...learn basic programming with computer-aided manufacturing (CAM) software, along with G-and M-code programming of computer numerically controlled (CNC) milling and turning machines.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	60	Manufacturing
General Anatomy & Physiology Credit Value 4 Grade Level 11-12	10806177 GENERAL ANATOMY & PHYSIOLOGY ...overview of the human anatomy/physiology using a body-systems approach, emphasizing the interrelationships between form/function at the gross and microscopic levels. (Prerequisite: 10-806-134, Chemistry-Basic, OR High School Lab Chemistry with a "C" or better).	Science related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Anatomy & Physiology or related subfield they are teaching. Transcripts must identify at least 9 graduate/undergraduate credits in Anatomy & Physiology and another 9 graduate/undergraduate credits in the related discipline. NWTC course completion with a "B" grade or better. Requirement to complete a Safety Walk, led by NWTC STEM Lab Manager. Annual requirement to bring HS students to visit NWTC A&P lab for the blood and cadaver labs; permission slip completion by students/parents.	75	Science, Technology, Engineering and Math

General Chemistry Credit Value 4 Grade Level 10-12	10806134 GENERAL CHEMISTRY ...covers chemistry fundamentals. Topics: metric system, problem-solving, periodic relationships, chemical reactions, chemical equilibrium, properties of water; acids, bases, and salts; and gas laws.	Science related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Chemistry or related subfield they are teaching. Transcripts must identify at least 9 graduate/undergraduate credits in Chemistry and another 9 graduate/undergraduate credits in the related discipline/subfield.	75	Science, Technology, Engineering and Math
General Physics 1 Credit Value 4 Grade Level 11-12	10806154 GENERAL PHYSICS I . . . Applications/theory of basic physics principles: problem solving, laboratory investigation, and applications including unit conversion and analysis, vectors, translational and rotational kinematics/dynamics, heat/temperatie, and harmonic motion and waves.	Science related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Physics or related subfield they are teaching. Transcripts must identify at least 9 graduate/undergraduate credits in Physics and another 9 graduate/undergraduate credits in the related discipline/subfield.	75	Science, Technology, Engineering and Math
Illustrator Fundamentals Credit Value 3 Grade Level 9-12	10111161 ILLUSTRATOR FUNDAMENTALS ...develop basic knowledge and skills using digital illustration software (i.e. Adobe Illustrator), apply vector graphic strategies into graphic design medias and integration into other software packages. Course content covers creating basic shapes, drawing, transforming elements, working with type, blending, layers and special effects.	DPI License 250 Business Education, 285 Marketing Education, Art Education 550, Technical Education 220 and Adobe Creative Suite Experience	60	Arts, Audiovisual Technology and Communication
Interm Algebra with Applications Credit Value 4 Grade Level 11-12	10804118 INTERM ALGEBRA WITH APPLICATIONS . . . Algebra content with application. Topics include properties of real numbers, orders of operations, algebraic solution for linear equations and inequalities, operations with polynomial and rational expressions, operations with rational exponents and radicals, algebra of inverse, logarithmic and exponential functions.	Math related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Mathematics or related subfield they are teaching. Transcripts must identify at least 8 graduate/undergraduate credits in Calculus and another 10 graduate/undergraduate credits in the related discipline/subfield.	60	Science, Technology, Engineering and Math
Intro to American Government Credit Value 3 Grade Level 11-12	10809122 INTRO TO AMER GOVERNMENT ...introduces American political processes and institutions: focusing on rights/responsibilities of citizens and the process of participatory democracy. Examines separation of powers and checks/balances & the roles of different groups.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Government or related subfield they are teaching	45	Liberal Arts and Sciences
Intro to Cybersecurity Credit Value 1 Grade Level 9-12	10151100 INTRO TO CYBERSECURITY ...learners will develop an understanding of cybersecurity methods, terms, and key technical concepts to identify and protect assets against attacks.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed, 285 Marketing Education, 405 Computer Science or 400 Math and "B" or better in Train the Trainer course.	15	Information Technology
Intro to Dairy Science Credit Value 3 Grade Level 10-12	10090326 INTRO TO DAIRY SCIENCE ...this course provides basic knowledge of the dairy science field. Topics include animal health, anatomy and physiology, genetics and reproduction, basic breed characteristics and animal feedstuffs.	DPI License 200 Agriculture, Completion of Train the Trainer prior to teaching.	45	Agriculture, Food and Natural Resources

Intro to Environmental Science Credit Value 3 Grade Level 11-12	10506146 INTRO TO ENVIRONMENTAL SCIENCE ...an introduction to the basic principles of environmental science including ecology, energy, resources, waste management, air, water, and soil pollution.	DPI License 606 Life and Environmental Science or 615 Environmental Studies Minimum of 20 semester credits drawn from the recognized science disciplines of Biology, Chemistry, Earth Science, or Physics, with a minimum of 12 credits in Chemistry.	45	Science, Technology, Engineering and Math
Intro to Psychology Credit Value 3 Grade Level 10-12	10809198 INTRODUCTION TO PSYCHOLOGY ...survey of theoretical foundations of human behavior such as sensation and perception, motivation, emotions, learning, personality, psychological disorders, therapy, stress, and human diversity in personal, social and vocational settings.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Psychology or related subfield they are teaching.	45	Liberal Arts and Sciences
Intro to Sociology Credit Value 3 Grade Level 10-12	10809196 INTRODUCTION TO SOCIOLOGY ...the nature and variety of groups; inequality, race and ethnicity; family, population, social integration, and change; collective behavior; politics, economics, religion, education, and the effects of technology.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Sociology or related subfield they are teaching.	45	Liberal Arts and Sciences
Introduction to Human Services Credit Value 3 Grade Level 11-12	10520101 INTRODUCTION TO HUMAN SERVICES ...Examine the evolution of the human services field. Distinguish the various types of human service agencies and occupations available in the field. Demonstrate the qualities of the field professionals. Complete 10 hours of community service at an agency of learner's choice outside of class time. Assess boundaries and ethical issues commonly found in the human services profession. Apply reflective practitioner techniques.	DPI License in 745 Sociology or 701 Broadfield Social Studies and minimum of 20 semester credits drawn from the recognized social science disciplines of Psychology, Sociology, Political Science, Economics, History, Anthropology, Geography, or Philosophy.	45	Human Services/Education
Marketing Principles Credit Value 3 Grade Level 9-12	10104110 MARKETING PRINCIPLES ...marketing management, market segmentation, market research, consumer behavior, product decisions and management of distribution, pricing, promotional decisions for strategy planning.	DPI License 250 Business Education, 285 Marketing Education	45	Marketing, Sales and Service
Mathematical Reasoning Credit Value 3 Grade Level 11-12	10804134 MATHEMATICAL REASONING ...This course provides an alternative pathway to earning credit for a college level liberal arts mathematics course. All college students, regardless of their college major, need to be able to make reasonable decisions about fiscal, environmental, and health issues that require quantitative reasoning skills. An activity based approach is used to explore numerical relationships, graphs, proportional relationships, algebraic reasoning, and problem solving using linear, exponential and other mathematical models. Students will develop conceptual and procedural tools that support the use of key mathematical concepts in a variety of contexts. This course is not designed for Science, Technology, Engineering, or Math (STEM) students and/or others who require calculus.	DPI License 400 and Master's degree and a combination of 18 graduate/undergraduate credits in Mathematics or related subfield they are teaching. Transcripts must identify at least 8 graduate/undergraduate credits in Calculus and another 10 graduate/undergraduate credits in the related discipline/subfield.	45	Science, Technology, Engineering and Math
Mechanical Design-Exploring Credit Value 1 Grade Level 9-12	10606111 MECHANICAL DESIGN EXPLORING ...philosophy/organization/procedure of the Mechanical Design Technology Program, brief overview of the engineering profession by involvement in a design project to illustrate basic concepts/methods of machine design.	DPI License 220 Technical Education.	30	Science, Technology, Engineering and Math

Medical Terminology Credit Value 3 Grade Level 11-12	10501101 MEDICAL TERMINOLOGY ...focuses on the component parts of medical terms: Prefixes, suffixes, and root words. Students practice formation, analysis and reconstruction of terms. Emphasis on spelling, definition and pronunciation. Introduction to operative, diagnostic, therapeutic and symptomatic terminology of all body systems, as well as systemic and surgical terminology.	DPI License 605 Biology/Life Science; 210,211,213 or 214 F/CS (with biology and/or anatomy/physiology) - transcript review and completion of NWTC course with a "B" grade or better	45	Health Sciences
MS Excel Intro Credit Value 1 Grade Level 9-12	10103131 MS EXCEL INTRO ...creating worksheets, enhancing worksheet appearance, moving data between worksheets and workbooks, using formulas and functions, creating charts and using clip art. Windows experience improves success.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration
MS Excel Part 2 Credit Value 1 Grade Level 9-12	10103132 MS EXCEL PART 2 ...covers advanced formatting techniques and functions, working with templates, collaborating with multiple Excel users, creating macros, Excel's database features and analysis tools. (Corequisite: 10-103-131, MS Excel Intro)	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration
MS Outlook Credit Value 1 Grade Level 9-12	10103161 MS OUTLOOK ...create and organize E-mail, schedule meetings, create tasks, and manage contacts.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration
MS PowerPoint Credit Value 1 Grade Level 9-12	10103151 MS POWERPOINT ...presentation skills using: graphics, diagrams, design themes, sounds, animations, slide transitions, and integration with other software. Windows experience improves success. (Corequisite: 10-103-121, MS Word Intro)	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration
MS Word Intro Credit Value 1 Grade Level 9-12	10103121 MS WORD INTRO ... word processing basics including creating, revising, formatting, printing; sections, tabs, multiple-page numbering; manipulating text; creating headers/footers; creating/formatting tables, graphics; and merging documents.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed	30	Business, Management and Administration
Nutrition Credit Value 1 Grade Level 9-12	10316128 NUTRITION ...focuses on the major nutrients (carbohydrates, proteins, fats, minerals, vitamins and water) in the planning of well-balanced diets and the nutritional analysis of well-balanced diets.	DPI License 210, 211 in F/CS and completion of NWTC Course with a "B" or better.	15	Hospitality & Tourism
Oral/Interpersonal Communications Credit Value 3 Grade Level 10-12	10801196 ORAL/INTERPERSONAL COMMUNICATION ...the communication process, perception and self-concept, language, listening, nonverbal communication, interpersonal relationships, communication in groups and public communication; prepare and deliver an oral presentation.	Related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Communication or related subfield they are teaching.	45	Liberal Arts and Sciences
Organic Livestock Practices Credit Value 2 Grade Level 11-12	10090120 ORGANIC LIVESTOCK PRACTICES ... How do organic farmers manage livestock successfully? Principles covered include organic health care, strategies for reproduction, feeding, housing, and young stock. Review rules and organic certification standards.	DPI License 200 Agriculture, Completion of Train the Trainer prior to teaching.	30	Agriculture, Food and Natural Resources
Personal Wellness & Fitness Credit Value 3 Grade Level 11-12	10546101 PERSONAL WELLNESS & FITNESS ... This course introduces the seven-dimension model of wellness. Learners will apply the seven dimensions of wellness to develop and implement a personal wellness plan.	DPI License 910 Health or 530 Physical Education with a minimum of a bachelor's degree in Wellness, Exercise Science, or Physical Education	60	Education and Training

Photography- Digital Credit Value 3 Grade Level 9-12	10203104 PHOTOGRAPHY-DIGITAL ...capturing digital images, exposure, shutter speed, aperture, composition, camera operations, lenses, lighting, camera accessories, types of photography, photo challenges, importing, editing and storing images. Access to a digital camera required.	DPI License 250 Business Education, 285 Marketing Education , 550 Art Education, 220 Technical Education and Adobe Creative Suite Experience.	60	Arts, Audiovisual Technology and Communication
Photoshop Fundamentals Credit Value 3 Grade Level 9-12	10111101 PHOTOSHOP FUNDAMENTALS ...perform raster Image Editing. Course content covers functions of Adobe Photoshop. Create image selections, extractions and composite files using Adobe software, and apply common photo adjustments using fundamental design solutions, creating composite images.	DPI License 250 Business Education, 285 Marketing Education , 550 Art Education, 220 Technical Education and Adobe Creative Suite Experience.	60	Arts, Audiovisual Technology and Communication
Principles of Sanitation Credit Value 1 Grade Level 9-12	10316118 PRINCIPLES OF SANITATION ...food service sanitation principles of contamination/food borne illness with National Restaurant Association ServSafe Certification upon successful completion.	DPI License 210, 211 in F/CS and completion of NWTC Course with a "B" or better.	15	Hospitality & Tourism
Renewable Energy and Sustainability Credit Value 4 Grade Level 10-12	10480101 RENEWABLE ENERGY AND SUSTAINABILITY ...an overview of various renewable energy technologies and sustainable design practices and their current applications. Emphasis will be placed on energy consumption, efficiency, and conservation.	DPI License 606 Life and Environmental Science or 615 Environmental Studies or DPI License 220 Technical Education	60	Agriculture, Food and Natural Resources
Robotics - Introduction to Credit Value 1 Grade Level 11-12	10620170 ROBOTICS - INTRODUCTION TO ...Introductory study of the application, operation, programming and troubleshooting of industrial robots.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Safety Devices and Application Credit Value 1 Grade Level 11-12	10664170 SAFETY DEVICES AND APPLICATIONS ...introduction to the function of commonly used machinery safety devices, wiring of these devices to complete safety circuits, overview of safety system design.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Shielded Metal Arc Welding 1 Credit Value 1 Grade Level 11-12	31442342 SHIELDED METAL ARC WELDING 1 ...course provides the opportunity for the learner to develop the knowledge, skills, process and understanding of surfacing welds in the flat position, fillet and groove welds on plain carbon steel.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Solidworks Fundamentals Credit Value 1 Grade Level 11-12	10606160 SOLIDWORKS FUNDAMENTALS ...introduces terminology; software operation and interface layout. It also exposes the student to creating basic models, assemblies & using the drawing environment.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching.	30	Architecture and Construction
Solidworks Intermediate Credit Value 2 Grade Level 11-12	10606106 SOLIDWORKS INTERMEDIATE ...introduces using intermediate features such as patterns, revolve, and sweep. Students learn how to measure center of gravity on assemblies and to create completely dimensioned orthographic drawings. (Prerequisite: 10-606-160, Solidworks Fundamentals)	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching.	60	Architecture and Construction
Stress Management Techniques Credit Value 2 Grade Level 11-12	10546107 STRESS MANAGEMENT TECHNIQUES ... Understand the effects of stress on personal well-being. Learn, assess, and apply stress management techniques (relaxation, guided imagery, deep breathing techniques, and other holistic methods) for personal and client utilization.	DPI License 910 Health or 530 Physical Education with a minimum of a bachelor's degree in Wellness, Exercise Science, or Physical Education	30	Education and Training

Sustainable AG: Issues & Practices Credit Value 2 Grade Level 11-12	10090111 SUSTAINABLE AG: ISSUES & PRACTICES ...use critical thinking skills to compare organic and sustainable agricultural practices with industrial agriculture. Explore food production issues including antibiotics, herbicides, hormones, GMOs, animal welfare, crop yields, nutrients, and pollution.	DPI License 200 Agriculture, Completion of Train the Trainer prior to teaching.	30	Agriculture, Food and Natural Resources
Transportation Welding 1 Credit Value 1 Grade Level 11-12	10412170 TRANSPORTATION WELDING 1 ...focuses on welding and cutting safety; develops skills in welding and cutting of metals used in the transportation trades. Methods of welding include gas metal arc welding (MIG) in the horizontal, vertical, and overhead positions. Methods of cutting include oxy-fuel and plasma arc cutting of metals. Students will learn to set up and maintain welding equipment and weld and cut a variety of types and thicknesses of materials commonly used in the transportation trades.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching. Prior experience with basic MIG welding and oxy-fuel and plasma arc cutting is required.	30	Transportation, Distribution, and Logistics
Trigonometry with Apps Credit Value 3 Grade Level 11-12	10804196 TRIGONOMETRY WITH APPLICATIONS ...topics include circular functions, graphing of trigonometry functions, identities, equations, trigonometric functions of angles, inverse functions, solutions of triangles complex numbers, DeMoivre's Theorem, polar coordinates, and vectors. (Prerequisite: Completion of 10-804-118 Interm Algebra with Applications with a "C" or better).	DPI License 400 and Master's degree in Mathematics or master's degree with at least 18 graduate credits in a combination of the qualifying fields that provide a foundation in the specific subject matter being taught.	60	Science, Technology, Engineering and Math
Vocational Math A Credit Value 1 Grade Level 10-12	31804304 VOCATIONAL MATH A ...This course provides the opportunity for the learner to develop the knowledge and skills to apply the concepts of whole numbers, fractions, decimals, measurement, proportions, and percent to their career.	Related DPI License and: • Have at least a baccalaureate degree from an accredited institution, and • Have at least a minor or twenty semester credits drawn from the Mathematics department, or • Have a major in Engineering, Physics, or Statistics.	30	Science, Technology, Engineering and Math
Vocational Math B Credit Value 1 Grade Level 10-12	31804305 VOCATIONAL MATH B ...This course provides the opportunity for the learner to develop the knowledge and skills to apply the concepts of algebra, geometry, and trigonometry to their career. (Prerequisite: Completion of 31-804-304 Vocational Math A with a "C" or better)	Related DPI License and: • Have at least a baccalaureate degree from an accredited institution, and • Have at least a minor or twenty semester credits drawn from the Mathematics department, or • Have a major in Engineering, Physics, or Statistics.	30	Science, Technology, Engineering and Math
Website Coding Credit Value 3 Grade Level 9-12	10152185 WEBSITE CODING ...Create code for generating the structure, function, and design of static websites using standards-based HTML5 and CSS3; validate code; test multi-browser and multi-device functionality.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed, 405 Computer Science or 400 Math and CISCO certification- Teacher's experience in IT will be assessed to determine if Trainer the Trainer is required.	60	Information Technology
Windows Client Essentials Credit Value 2 Grade Level 10-12	10150177 WINDOW CLIENT ESSENTIALS ...this course will provide the learner the opportunity to develop the knowledge, skills, process, and understanding of client OS installation, configuration, administration, including troubleshooting, network connectivity, standard system maintenance procedures, and command line introduction.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed, 405 Computer Science or 400 Math. Teacher's experience in IT will be assessed to determine if Trainer the Trainer is required.	60	Information Technology

Manufacturing

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
Automation 1 : Control Logic Credit Value 1 Grade Level 10-12	10664100 AUTOMATION 1 - CONTROL LOGIC ...Electric motor control components such as switches, relays, starters, transformers; and safety mount and install motor and motor control components and perform related wiring and troubleshooting of motor control circuits.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Automation 2: Motor Control Credit Value 1 Grade Level 10-12	10664101 AUTOMATION 2 - MOTOR CONTROL ...Electric motor control components such as sensors, timers and counters.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Basic Mechanics Credit Value 1 Grade Level 9-12	10620144 BASIC MECHANICS ...Introduction to basic mechanical devices and tools used for assembly, disassembly and adjustment.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
CNC Milling and G-Code Credit Value 2 Grade Level 11-12	31420363 CNC MILLING AND G-CODE ...shop safety around CNC milling machines, CNC basics, Cartesian coordinate systems, CNC milling controls and preparing basic G-Code milling programs.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	60	Manufacturing
DC1: Introduction Credit Value 1 Grade Level 10-12	10660104 DC 1: INTRODUCTION ...introduction to the concepts of DC electricity and simple series circuits. Voltage, current, resistance, Ohm's Law, power and Kirchoff's Voltage Law are defined.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Fluids 1: Basic Pneumatics Credit Value 1 Grade Level 10-12	10620100 FLUIDS 1: BASIC PNEUMATICS ...what fluid power is, differentiate between hydraulics and pneumatics, implement basic pneumatic circuits, utilize schematics, apply Pascal's Law, define properties of fluids, implement airflow control and hydraulics cylinder circuits.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Flux Cored Arc Welding 1 Credit Value 1 Grade Level 11-12	31442329 FLUX CORED ARC WELDING 1 ...Course provides the opportunity for the learner to develop the knowledge, skills, process and understanding of surfacing welds in the flat position as well as fillet and groove welds in the flat, horizontal position using gas shielded flux cored arc welding.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Gas Metal Arc Welding 1 Credit Value 1 Grade Level 11-12	31442348 GAS METAL ARC WELDING ...course provides the opportunity for the learner to develop the knowledge, skills, process and understanding of welding in the flat and horizontal positions, fillet, pipe to plate and groove welds on plain carbon steel.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Gas Tungsten Arc Welding 1 Credit Value 1 Grade Level 11-12	31442359 GAS TUNGSTEN ARC WELDING 1 ...Course provides the opportunity for the learner to develop the knowledge, skills, process and understanding of GTAW equipment set-up as well as the basic skills needed to make welds on plain carbon steel. Weld quality will be discussed but this course is only used to understand the basics of the GTAW process.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
G-Code and Cam Credit Value 2 Grade Level 11-12	31420364 G-CODE AND CAM ...learn basic programming with computer-aided manufacturing (CAM) software, along with G-and M-code programming of computer numerically controlled (CNC) milling and turning machines.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	60	Manufacturing
Robotics - Introduction to Credit Value 1 Grade Level 11-12	10620170 ROBOTICS - INTRODUCTION TO ...Introductory study of the application, operation, programming and troubleshooting of industrial robots.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Safety Devices and Application Credit Value 1 Grade Level 11-12	10664170 SAFETY DEVICES AND APPLICATIONS ...introduction to the function of commonly used machinery safety devices, wiring of these devices to complete safety circuits, overview of safety system design.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing
Shielded Metal Arc Welding 1 Credit Value 1 Grade Level 11-12	31-442-342 SHIELDED METAL ARC WELDING 1 ...course provides the opportunity for the learner to develop the knowledge, skills, process and understanding of surfacing welds in the flat position, fillet and groove welds on plain carbon steel.	DPI License 220 Technical Education or 292 Technical Occ-Mfg, Completion of Train the Trainer prior to teaching.	30	Manufacturing

Marketing, Sales and Service

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
Customer Experience Credit Value 3 Grade Level 9-12	10104191 CUSTOMER EXPERIENCE ...examine customer service culture, develop communication and listening skills, explore diversity in the workplace, develop skills for handling challenging customers, and explore the impact of technology on customer service and engagement.	DPI License 250 Business Education, 281 Business and Office-Voc, 275 Basic Business Ed, or 285 Marketing Education.	45	Marketing, Sales and Service
Marketing Principles Credit Value 3 Grade Level 9-12	10104110 MARKETING PRINCIPLES ...marketing management, market segmentation, market research, consumer behavior, product decisions and management of distribution, pricing, promotional decisions for strategy planning.	DPI License 250 Business Education, 285 Marketing Education	45	Marketing, Sales and Service

Science, Technology, Engineering and Math

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
Basic Anatomy Credit Value 3 Grade Level 11-12	10806189 BASIC ANATOMY ...examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems.	Science related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Anatomy & Physiology or related subfield they are teaching. Transcripts must identify at least 9 graduate/undergraduate credits in Anatomy & Physiology and another 9 graduate/undergraduate credits in the related discipline.	45	Science, Technology, Engineering and Math
College Tech Math 1A Credit Value 3 Grade Level 11-12	10804113 COLLEGE TECHNICAL MATH 1A ...topics include solving linear equations; graphing; percent; proportions; measurement systems; computational geometry; and right triangle trigonometry. Emphasis will be on the application of skills to technical problems.	Math related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Mathematics or related subfield they are teaching. Transcripts must identify at least 8 graduate/undergraduate credits in Calculus and another 10 graduate/undergraduate credits in the related discipline/subfield.	45	Science, Technology, Engineering and Math
College Tech Math 1B Credit Value 2 Grade Level 11-12	10804114 COLLEGE TECHNICAL MATH 1B ...topics include: performing operations on polynomials; solving quadratic and rational equations; formula rearrangement; solving systems of equations; and oblique triangle trigonometry. Emphasis will be on the application of skills to technical problems. (Prerequisite: 10-804-113 College Tech Math 1A with a "C" or better).	Math related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Mathematics or related subfield they are teaching. Transcripts must identify at least 8 graduate/undergraduate credits in Calculus and another 10 graduate/undergraduate credits in the related discipline/subfield.	30	Science, Technology, Engineering and Math
General Anatomy & Physiology Credit Value 4 Grade Level 11-12	10806177 GENERAL ANATOMY & PHYSIOLOGY ...overview of the human anatomy/physiology using a body-systems approach, emphasizing the interrelationships between form/function at the gross and microscopic levels. (Prerequisite: 10-806-134, Chemistry-Basic, OR High School Lab Chemistry with a "C" or better).	Science related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Anatomy & Physiology or related subfield they are teaching. Transcripts must identify at least 9 graduate/undergraduate credits in Anatomy & Physiology and another 9 graduate/undergraduate credits in the related discipline. NWTC course completion with a "B" grade or better. Requirement to complete a Safety Walk, led by NWTC STEM Lab Manager. Annual requirement to bring HS students to visit NWTC A&P Lab for the blood and cadaver labs; permission slip completion by students/parents.	75	Science, Technology, Engineering and Math
General Chemistry Credit Value 4 Grade Level 10-12	10806134 GENERAL CHEMISTRY ...covers chemistry fundamentals. Topics: metric system, problem-solving, periodic relationships, chemical reactions, chemical equilibrium, properties of water; acids, bases, and salts; and gas laws.	Science related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Chemistry or related subfield they are teaching. Transcripts must identify at least 9 graduate/undergraduate credits in Chemistry and another 9 graduate/undergraduate credits in the related discipline/subfield.	75	Science, Technology, Engineering and Math
General Physics 1 Credit Value 4 Grade Level 11-12	10806154 GENERAL PHYSICS I . . . Applications/theory of basic physics principles: problem solving, laboratory investigation, and applications including unit conversion and analysis, vectors, translational and rotational kinematics/dynamics, heat/temperatie, and harmonic motion and waves.	Science related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Physics or related subfield they are teaching. Transcripts must identify at least 9 graduate/undergraduate credits in Physics and another 9 graduate/undergraduate credits in the related discipline/subfield.	75	Science, Technology, Engineering and Math
Interm Algebra with Applications Credit Value 4 Grade Level 11-12	10804118 INTERM ALGEBRA WITH APPLICATIONS . . . Algebra content with application. Topics include properties of real numbers, orders of operations, algebraic solution for linear equations and inequalities, operations with polynomial and rational expressions, operations with rational exponents and radicals, algebra of inverse, logarithmic and exponential functions.	Math related DPI License and Master's degree and a combination of 18 graduate/undergraduate credits in Mathematics or related subfield they are teaching. Transcripts must identify at least 8 graduate/undergraduate credits in Calculus and another 10 graduate/undergraduate credits in the related discipline/subfield.	60	Science, Technology, Engineering and Math
Intro to Environmental Science Credit Value 3 Grade Level 11-12	10506146 INTRO TO ENVIRONMENTAL SCIENCE ...an introduction to the basic principles of environmental science including ecology, energy, resources, waste management, air, water, and soil pollution.	DPI License 606 Life and Environmental Science or 615 Environmental Studies Minimum of 20 semester credits drawn from the recognized science disciplines of Biology, Chemistry, Earth Science, or Physics, with a minimum of 12 credits in Chemistry.	45	Science, Technology, Engineering and Math

Mathematical Reasoning Credit Value 3 Grade Level 11-12	10804134 MATHEMATICAL REASONING ...This course provides an alternative pathway to earning credit for a college level liberal arts mathematics course. All college students, regardless of their college major, need to be able to make reasonable decisions about fiscal, environmental, and health issues that require quantitative reasoning skills. An activity based approach is used to explore numerical relationships, graphs, proportional relationships, algebraic reasoning, and problem solving using linear, exponential and other mathematical models. Students will develop conceptual and procedural tools that support the use of key mathematical concepts in a variety of contexts. This course is not designed for Science, Technology, Engineering, or Math (STEM) students and/or others who require calculus.	DPI License 400 and Master's degree and a combination of 18 graduate/undergraduate credits in Mathematics or related subfield they are teaching. Transcripts must identify at least 8 graduate/undergraduate credits in Calculus and another 10 graduate/undergraduate credits in the related discipline/subfield.	45	Science, Technology, Engineering and Math
Mechanical Design-Exploring Credit Value 1 Grade Level 9-12	10606111 MECHANICAL DESIGN EXPLORING ...philosophy/organization/procedure of the Mechanical Design Technology Program, brief overview of the engineering profession by involvement in a design project to illustrate basic concepts/methods of machine design.	DPI License 220 Technical Education.	30	Science, Technology, Engineering and Math
Trigonometry with Apps Credit Value 3 Grade Level 11-12	10804196 TRIGONOMETRY WITH APPLICATIONS ...topics include circular functions, graphing of trigonometry functions, identities, equations, trigonometric functions of angles, inverse functions, solutions of triangles complex numbers, DeMoivre's Theorem, polar coordinates, and vectors. (Prerequisite: Completion of 10-804-118 Interm Algebra with Applications with a "C" or better).	DPI License 400 and Master's degree in Mathematics or master's degree with at least 18 graduate credits in a combination of the qualifying fields that provide a foundation in the specific subject matter being taught.	60	Science, Technology, Engineering and Math
Vocational Math A Credit Value 1 Grade Level 10-12	31804304 VOCATIONAL MATH A ...This course provides the opportunity for the learner to develop the knowledge and skills to apply the concepts of whole numbers, fractions, decimals, measurement, proportions, and percent to their career.	Related DPI License and: • Have at least a baccalaureate degree from an accredited institution, and • Have at least a minor or twenty semester credits drawn from the Mathematics department, or • Have a major in Engineering, Physics, or Statistics.	30	Science, Technology, Engineering and Math
Vocational Math B Credit Value 1 Grade Level 10-12	31804305 VOCATIONAL MATH B ...This course provides the opportunity for the learner to develop the knowledge and skills to apply the concepts of algebra, geometry, and trigonometry to their career. (Prerequisite: Completion of 31-804-304 Vocational Math A with a "C" or better)	Related DPI License and: • Have at least a baccalaureate degree from an accredited institution, and • Have at least a minor or twenty semester credits drawn from the Mathematics department, or • Have a major in Engineering, Physics, or Statistics.	30	Science, Technology, Engineering and Math

Transportation, Distribution, and Logistics

NWTC Course	Course Description	NWTC and Higher Learning Commission (HLC) Teacher Training Requirements	Required Face to Face Instruction	Career Pathway
Automotive Service Fundamentals Credit Value 2 Grade Level 11-12	10602107 AUTOMOTIVE SERVICE FUNDAMENTALS ...safety and the use of basic hand/power tools in accordance with industry standards. Introduced to the automotive service industry and learn to use both comprehensive and manufacturer's service information to perform basic under-hood and under-car services.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching. Prior experience working in an automotive shop is required.	30	Transportation, Distribution, and Logistics
Diesel Service Fundamentals Credit Value 2 Grade Level 11-12	10412101 DIESEL SERVICE FUNDAMENTALS ...introduces diesel shop environment, safety, the use of manufacturer's service information and literature, handling hazardous materials, emphasizes general shop safety and general shop practices, basic equipment operation, rigging and lifting, hazardous material handling procedures, resume development, mock interviewing, and exploring industry career pathways.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching.. Prior experience working in a diesel shop is required.	30	Transportation, Distribution, and Logistics
Transportation Welding 1 Credit Value 1 Grade Level 11-12	10412170 TRANSPORTATION WELDING 1 ...focuses on welding and cutting safety; develops skills in welding and cutting of metals used in the transportation trades. Methods of welding include gas metal arc welding (MIG) in the horizontal, vertical, and overhead positions. Methods of cutting include oxy-fuel and plasma arc cutting of metals. Students will learn to set up and maintain welding equipment and weld and cut a variety of types and thicknesses of materials commonly used in the transportation trades.	DPI License 220 Technical Education, Completion of Train the Trainer prior to teaching. Prior experience with basic MIG welding and oxy-fuel and plasma arc cutting is required.	30	Transportation, Distribution, and Logistics