DCA Direct Courses **2019-2020**	Disclaimer: WIVA course offerings are subject to student interest and staffing. WIVA will make every effort to meet individual student course requests but some courses may not be available. (**Availability is based on enrollment and ability to staff course.**)
BUSINESS PATHWAY	
BUS065: Marketing I **SEM 1**	New Project based Learning Course
BUS075: Marketing II **SEM 2**	New Project Based Learning Course
BUS111: General Accounting I **SEM 1**	
BUS112: General Accounting II **SEM 2**	
HST030: Summit Economics **SEM 2**	
TCH112: Microsoft Word 2016/365 with exam Prep **SEM 1**	Become Microsoft Word Certified!
TCH122: Microsoft Excel 2016/365 with Exam Prep **SEM 1**	Become Microsoft Excel Certified!
TCH132: Microsoft PowerPoint 2016 with Exam Prep **SEM 2**	Become Microsoft PowerPoint Certified!
TCH142: Microsoft Access 2016/365 with Exam Prep **SEM 2**	Become Microsoft Access Certified!
BUS024: Principles of Business 1 **SEM 1**	New
Work Experience (CO-OP) **SEM 1 & 2**	Work placement, internship, apprenticeship, job shadow, and volunteer.
IT Pathway	
TCH110: Introduction to Computer Science **SEM 1**	NEW – Project Based
TCH211: Programming Logic & Design **SEM 2**	NEW
TCH321: Java Programming 1 **SEM 1**	
TCH322: Java Programming 2 **SEM 2**	
TCH541: Network+ Guide to Networks with Exam Prep 1 **SEM 1**	
TCH542: Network+ Guide to Networks with Exam Prep 2 **SEM 2**	
TCH112 Microsoft Word 2016/365 with exam Prep **SEM 1**	Become Microsoft Word Certified!
TCH122: Microsoft Excel 2016/365 with Exam Prep **SEM 1**	Become Microsoft Excel Certified!
TCH132: Microsoft PowerPoint 2016 with Exam Prep **SEM 2**	Become Microsoft PowerPoint Certified!
TCH142: Microsoft Access 2016/365 with Exam Prep **SEM 2**	Become Microsoft Access Certified!
TCH010: Computer Literacy **SEM 2**	
TCH562: A+ Computer Management with Exam Prep 2	Work 1:1 with teacher/Independent Study

DCA Direct Courses 2019-2020	Disclaimer: WIVA course offerings are subject to student interest and staffing. WIVA will make every effort to meet individual student course requests but some courses may not be available. **(Availability is based on enrollment and ability to staff course.)**
TCH060: C++ Programming	Work 1:1 with teacher/Independent Study
TCH351: HTML5 and CSS3 Programming	Work 1:1 with teacher/Independent Study
Work Experience (CO-OP) **SEM 1 & 2**	Work placement, internship, apprenticeship, job shadow, and volunteer. Work 1:1 with teacher/Independent Study
HEALTHCARE PATHWAY	
HTL121: Health Sciences II **SEM 1**	
HTL212: Introduction to Medical Terms **SEM 2**	
SCI321: Anatomy & Physiology I **SEM 1**	
SCI322: Anatomy & Physiology II **SEM 2**	
HLT511-CEN: Nursing Assistant with Exam Prep 1 **SEM 1**	
CNA Technical School Coursework/Certification **SEM 1 or 2**	Placement at local technical school for certification coursework. Talk with your counselor!
Work Experience (CO-OP)/Youth Apprenticeship **SEM 1 & 2**	Work placement, internship, apprenticeship, job shadow, and volunteer.
CONSTRUCTION PATHWAY	
MFG201: Basic Construction Equipment Fundamentals **SEM 1**	
MFG202: Basic Maintenance of Mobile Equipment **SEM 2**	
MFG010: Basic Grade and Construction Math **SEM 1**	
OTH240: CDL Competency Course **SEM 2**	Combined with SkillsUSA
TCH010: Computer Literacy **SEM 2**	
MFG210-INT Fundamentals of Manufacturing **SEM 1**	New Advanced Manufacturing Course
MFG220: Manufacturing Systems (New) **SEM 2**	**New Advanced Manufacturing Course**

CAREER PATHWAY COURSES

TECHNOLOGY AND COMPUTER SCIENCE

TCH010: Computer Literacy

Students must be able to effectively use technology to research, organize, create, and evaluate information. In this introductory course, students become familiar with the basic principles of a personal computer, including the internal hardware, operating system, and software applications. Students gain practice in using key applications, such as word processing, spreadsheet, and presentation software, as well as understand social and ethical issues around the Internet, information, and security. In the first part of the course, the focus is on the fundamentals: learning and using the applications and understanding the basic roles and responsibilities of the software, hardware, and operating system. In the second part, the focus is on gathering and analyzing data, and using the right tools and methods to collect and present data with the basic principles of a personal computer, including the internal hardware, the operating system, and software applications. Students will gain practice in using key applications, such as word processors, spreadsheets, and presentation software, as well as understand social and ethical issues around the Internet, information, and security. In the first semester, the focus is on the fundamentals, learning and using the applications, and understanding the basic roles and responsibilities of the software, hardware, and operating system.

TCH072 Game Design II

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Course Description: We live in a technologically advanced world. And a huge part of that world is based in virtual reality and video games. Do you enjoy playing video games? Have you ever thought about designing your own video game? By signing up for Game Design II, you will have the opportunity to explore all things related to video game design. This course will give you the skills to conceptualize, design, and fully create your very own video game. Explore various video game software and hardware, sharpen your coding skills, learn about game storylines, player progression, and algorithmic decision making. This course allows you to analyze player goals, player actions, rewards, and challenges, among many other game play components. Utilize twenty-first century skills involving creativity, critical thinking, communication, collaboration, and technical expertise. When you sign up for Game Design II, you are putting yourself at the forefront of a future in technology!

Course Length: 1 Semester

Pre-requisite: Game Design I

TCH110: Introduction to Computer Science

Course Description: This course provides a solid foundation using an algorithm-driven approach that is ideal for students' first course in computer science. Students learn about emerging topics, such as privacy, drones, cloud computing, and net. Students also are introduced to programming languages such as C++, Java™, Python, C#, and Ada.

Course Length: One Semester

TCH060: C++ Programming
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Course Description: In this introductory course, students learn basic programming concepts through a series of hands-on projects. They also learn about software development careers, the software development process, and industry best practices. Using Microsoft® Visual Studio 2013, students master the building blocks of programming: functions, variables, loops, arrays, and classes.

TCH211-CEN: Programming Logic & Design (Elective)

Course Description: This course prepares student programmers for success by teaching them the fundamental principles of developing structured program logic. This course takes a unique, language independent approach to programming, with a distinctive emphasis on modern conventions and prepares students for all programming situations with introductions to object-oriented concepts, UML diagrams, and databases.

Course Length: One semester

Materials: None

Prerequisites: None (Course difficulty is high)

TCH075: 2D Animation

Course Description: In 2D Animation, students will learn about and create objects in a two-dimensional artistic space. They will learn the necessary skills to conceptualize and bring animation to life using a variety of software and design programs. They will design, define, and complete a variety of digital design projects, including creating their own website. Learning about 2D Animation could lead to a thriving career in the growing world of technology and animation.

Note System Requirements: Software: Software is a free download called "Unity" System Requirements: Microsoft® Windows 7® or higher, 64 bit versions only; macOS 10.11 or higher.

TCH110-CEN Introduction to Computer Science

This course provides a solid foundation using an algorithm driven approach that is ideal for students' first course in computer science. Students learn about emerging topics, such as privacy, drones, cloud computing, and net. Students also are introduced to programming languages such as C++, Java™, Python, C#, and Ada.

Materials: None

Prerequisites: None

TCH321-CEN Java Programming 1

These courses introduce programmers to the power of Java for developing applications while learning the basic principles of structured and object-oriented programming. These courses incorporate the latest version of Java with meaningful real-world exercises, and a wealth of case problems helps students build skills critical for ongoing programming success.

Materials: None

Prerequisites: None

TCH322-CEN Java Programming 2

These courses introduce programmers to the power of Java for developing applications while learning the basic principles of structured and object-oriented programming. These courses incorporate the latest version of Java with meaningful real-world exercises, and a wealth of case problems helps students build skills critical for ongoing programming success.

Materials: None
Prerequisites: TCH321-CEN Java Programming 1

TCH541-CEN Network+ Guide to Networks with Exam Prep 1

These courses give students the technical skills and industry know-how to begin an exciting career installing, configuring, and troubleshooting computer networks. These courses prepare students for success on CompTIA's Network+ N10-006 certification exam. Students explore on-the-job stories, application activities, and hands-on projects to develop real-world problem-solving skills.

Materials: None
Prerequisites: None

TCH542-CEN Network+ Guide to Networks with Exam Prep 2

These courses give students the technical skills and industry know-how to begin an exciting career installing, configuring, and troubleshooting computer networks. These courses prepare students for success on CompTIA's Network+ N10-006 certification exam. Students explore on-the-job stories, application activities, and hands-on projects to develop real-world problem-solving skills.

Materials: None
Prerequisites: TCH541-CEN Network+ Guide to Networks with Exam Prep 1

TCH351 - CEN HTML5 and CSS3 Programming

Course Description: This course is designed to teach students to build effective websites using real-world case scenarios. Each tutorial is based on a case problem that leads students through the creation of a website while they master new techniques and complex concepts. The course covers concepts such as page layout, basic graphic design, mobile design, working with tables and columns, designing forms, using multimedia, JavaScript, and exploring arrays, loops and conditional statements.

TCH112-CEN Microsoft Word 2016/365 with Exam Prep

This course covers the latest that Microsoft Office Word has to offer. While completing projects, students learn how to use the programs as well as why each step in the process is necessary. The course engages students in critical thinking and problem-solving skills to create their own solutions using Microsoft Word. For instance, students learn how to create a variety of documents and use a variety of document collaboration and integration tools. Students have the opportunity to learn about Cloud and Web technologies.

Materials: None
Prerequisites: None

TCH122-CEN Microsoft Excel 2016/365 with Exam Prep

This course covers the latest that Microsoft Office Excel has to offer. While completing projects, students learn how to use the program as well as why each step in the process is necessary. The course engages students in critical thinking and problem-solving skills to create their own solutions using Microsoft Excel. For instance, students learn how to use Excel worksheets for many purposes and work with trend-lines, pivot tables, and slicers. Students have the opportunity to learn about Cloud and Web technologies. Microsoft Office 2013 is currently supported (Microsoft Office 2016 and Microsoft Office 365 will be available in September 2016).

Materials: None
Prerequisites: None

TCH132-- CEN Microsoft PowerPoint 2016 with Exam Prep

Course Description: Using a project-based approach, students are introduced to Microsoft® PowerPoint® 2016. This course walks student through basic to advanced features by experimenting with presentation creation. Types of activities include, creating presentations that

include, text, images, sound, animation, and transition. Students work through these hands-on projects to master skills commonly used in presentation software.
Support Study

TCH142-CEN Microsoft Access 2016/365 with Exam Prep

Course Description: This course teaches basic and advanced skills in Microsoft Access 2016/365. Students work with projects that model the real working environment. Students learn the basics of Microsoft Access such as querying, reporting, and creating forms. Once the basics are mastered, students are challenged to learn more advanced concepts such as filtering, working in design and layout view, creating new tables within a database, and adding conditional values.
Supported Study

TCH561 - CEN A+ Computer Management with Exam Prep 1

Course Description: This is the first semester of a two-semester course. The course provides a comprehensive introduction to managing and maintaining computer hardware and software. The course closely integrates the CompTIA A+ Exam objectives to prepare students for the 220-901 and 220-902 certification exams. The course includes the latest trends in hardware, security, virtualization, coverage of cloud computing, Linux and Mac OS, and increased emphasis on mobile devices.

TCH562 - CEN A+ Computer Management with Exam Prep 2

Course Description: This is the second semester of a two-semester course. This course continues to provide a comprehensive introduction to managing and maintaining computer hardware and software. The course closely integrates the CompTIA A+ Exam objectives to prepare students for the 220-901 and 220-902 certification exams. The course includes the latest trends in hardware, security, virtualization, coverage of cloud computing, Linux and Mac OS, and increased emphasis on mobile devices.
Supported Study

BUSINESS

BUS024 - CEN Principles of Business 1

Course Description: This course provides complete instruction in business concepts and skills students need in today's competitive environment. This course offers extensive coverage in major business concepts, such as finance, marketing, operations, and management. Students gain valuable information and skills for the workplace.

BUS111-CEN General Accounting 1

Recommended Grade Level: 10
Course Description: These courses provide students with a foundation in the mechanics of accounting, as well as the opportunity to apply accounting concepts to real world situations and make informed business decisions. Students explore case studies of companies such as TOMS Shoes, iTunes, American Eagle, McDonald's, and Google. Students master valued skills, such as critical thinking and technology use, and commercial technology. Students become equipped to work with Microsoft Excel®, Peachtree®, QuickBooks®,and Automated Accounting Online. The courses include units on careers in accounting, ethics, global awareness, financial literacy, and forensic accounting.
Materials: NA
Prerequisites: None

BUS112-CEN General Accounting 2

Recommended Grade Level: 10
These courses provide students with a foundation in the mechanics of accounting, as well as the opportunity to apply accounting concepts to real world situations and make informed business decisions. Students explore case studies of companies such as TOMS Shoes, iTunes, American Eagle, McDonald's, and Google. Students master valued skills, such as critical thinking and technology use, and commercial technology. Students become equipped to work with Microsoft Excel®, Peachtree®, QuickBooks®, and Automated Accounting Online. The courses include units on careers in accounting, ethics, global awareness, financial literacy, and forensic accounting.
Materials: NA
Prerequisites: Successful completion of BUS111-CEN

HST030: Summit Economics

Course Description: Economics is the study of how societies use limited resources to satisfy their unlimited wants and needs. It is the foundation of this course as students learn how fundamental decisions about the four factors of production; land, labor, capital, and entrepreneurship are made. Key topics covered include: law of supply and demand, saving, borrowing, and spending, the Federal Reserve System and the money supply, and the role of government in an open market economy.
Course Length: One Semester

BUS065: Marketing I (NEW)

NEW Project Based Learning Course! Students find out what it takes to market a product or service in today's fast-paced business environment. They learn the fundamentals of marketing using real-world business examples. They learn about buyer behavior, marketing research principles, demand analysis, distribution, financing, pricing, and product management.

Course Length: 1 Semester

BUS075: Marketing II (NEW)

Students find out what it takes to market a product or service in today's fast-paced business environment. They learn the fundamentals of marketing using real-world business examples. They learn about buyer behavior, marketing research principles, demand analysis, distribution, financing, pricing, and product management.

Course Length: One semester

Materials: None

HEALTHCARE

HTL212 Introduction to Medical Terms

This course is designed for the beginning healthcare student and simplifies the process of learning hundreds of complex medical terms. The course helps students understand specialties, pathology, diagnostic techniques, and treatment procedures. The course includes critical thinking exercise scenarios that involve patients and pathology so students can apply their knowledge to the real world.

Materials: None
Prerequisites: None

HTL121 Health Sciences II

Challenging. Variable. Rewarding. These three words can be used to describe many careers in the health sciences. In this course, you will learn more about what it takes to be a successful health science professional, including how to communicate with patients. You'll explore the rights and responsibilities of both patients and health science professionals in patient care and learn more about how to promote wellness among patients and health care staffs. Finally, you'll learn more about safety in health science settings and the challenges and procedures of emergency care, infection control, and blood-borne pathogens.

Materials: None
Prerequisites: None

HLT511-CEN Nursing Assistant with Exam Prep 1

These courses prepare nursing assistants for meaningful careers in acute care, long-term care, and home health. Students learn more than 150 procedures, including key skills in patient handling and transfers, wound care, communication, safety, and record keeping. Students also learn about infection control, safety, culture, working with difficult patients, OSHA, communication, age-appropriate care, and legal considerations. Optional materials: To complete lab practicums (optional), students will need access to a standard clinical lab with common furniture, fixtures, tools, equipment, and disposable and consumable materials. For a comprehensive list of equipment and materials, please contact a K12 instructor or representative.

Materials: None
Prerequisites: Pathway Courses

SCI321 Anatomy and Physiology 1

This **Recommended Grade Level:** 11 and 12
Course Description: These courses provide a thorough introduction to the basics required for the study of the human body and how it functions. Students receive a general introduction to life functions, the terminology, and phonetic pronunciations used to describe body parts and their locations, as well as an overall review of human development and body processes. This course also includes infection control and standard precautions, which emphasizes the importance of maintaining health and safety in the health-care work environment, as well as highlights the latest practices and protocols.
Materials: NA
Length: 1 semester   [back to the top]

SCI322 Anatomy and Physiology 2

Recommended Grade Level: 11 and 12
Course Description: These courses provide a thorough introduction to the basics required for the study of the human body and how it functions. Students receive a general introduction to life functions, the terminology, and phonetic pronunciations used to describe body parts and their locations, as well as an overall review of human development and body processes. This course also includes infection control and standard precautions, which emphasizes the importance of maintaining health and safety in the health-care work environment, as well as highlights the latest practices and protocols.
Course Length: 1 Semester
Prerequisite: SCI321 Anatomy and Physiology 1   [back to the top]\

CONSTRUCTION/ADVANCED MANUFACTURING

CAR021 Construction Explorations

This course provides students with an introduction of the basic equipment used in the construction industry. Students learn about basic equipment operations and job responsibilities. This course prepares students to use concepts pertaining to safety, maintenance, mathematics and communication that Operating Engineers may experience.
Materials: None
Prerequisites: None   [back to the top]

MFG201-ALV Basic Construction Equipment Fundamentals

Introduces students to heavy equipment used in the construction industry, students will also be instructed on basic safety, maintenance, and communication methods that operating engineers may be exposed to.
Materials: None
Prerequisites: None   [back to the top]

MFG010-ALV Basic Grade and Construction Math

In this course students, will learn how to use concepts and mathematical calculations with plans sheets to better familiarize themselves with the construction process. (Math level Pre-Algebra).
Materials: None
Prerequisites: None   [back to the top]

MFG202-ALV Basic Maintenance of Mobile Equipment

Instructs students in the basics of maintenance of heavy equipment. Students will learn about engines, hydraulic systems, powertrain systems, lubricants and electrical systems. They will also be taught preventative maintenance, how to use parts and technical manuals, shop safety and tools.
Materials: None
Prerequisites: None   [back to the top]

OTH240-AVL CDL Preparation with Skills USA

Course Description: Instructs students in the basics of heavy equipment operation licensure requirements followed by professional skill building and employment readiness.
Materials: None
Prerequisites: None

MFG210-INT Fundamentals of Manufacturing (NEW)

Course Description: In this course, students will develop foundational skills in basic mechanisms; robotics to include: parts identification and applications of robotic arms in manufacturing; CAD (Computer Aided Design with SpectraCAD); CNC (Computer Numerical Control) machining, and foundational employability skills.

MFG220-INT Manufacturing System (NEW)

Course Description: In this course, students will develop skills in automated systems; developing basic robot programs; CAM (Computer Aided Manufacturing w/SpectraCAM Milling), and the CAD/CAM process of developing CNC milling programs. Students will also work with fluid power (pneumatics), as used in manufacturing systems; hand tools; and be introduced to QC (quality control) and skills measurement.