



DAYTON
PUBLIC SCHOOLS
Career Technical Education
2023-2024

MEADOWDALE CTC

BIOMEDICAL SCIENCE

Engage in compelling, hands-on activities and work together to find solutions to real-world problems. Use scientific inquiry in areas of microbiology, biochemistry, genetic engineering, medical interests, immunology, and bioethics. Sharpen lab skills such as micropipetting, aseptic technique, molecular biology techniques, inoculating and streaking agar plates, checking vital signs.

BUSINESS - SUPPLY CHAIN

Students will learn how to move products from the manufacturer to the customer. Students will learn how technology is used to monitor the product through the various supply and transportation systems as well as how to improve the systems used to move products to consumers in a cost effective and efficient manner.

CYBERSECURITY

Identify and protect internet-connected systems from cyber attacks. Build and support networks. Connect users' devices to each other and the internet.

DIGITAL DESIGN

Explore the applications behind the creation of today's hottest design trends. Get hands-on experience with digital photography using state-of-the-art tools. Learn how to design and develop modern websites for mobile and desktop platforms.

EXERCISE SCIENCE

Explore a wide range of exercise science, fitness and physical therapy careers. Learn to prevent and treat injuries using techniques based on the principles of anatomy and physiology. Exercise science professionals are needed to address the general wellness needs of the public.

INFORMATION TECHNOLOGY

Obtain a working knowledge of computer concepts, including computer hardware and software. Learn to install, repair, and troubleshoot computer hardware systems. Perform preventative maintenance practices. Install, configure, and troubleshoot network hardware and peripherals.

PRE-NURSING

Develop skills to care for patients who are ill, injured, or disabled. Prepare for a career working in hospitals or nursing homes under the direction of nurses and doctors. Explore a range of medical careers through practical lab experiences, clinicals, and related coursework. Develop a professional work ethic and communication and patient care skills.

PROGRAMMING AND GAME DESIGN

Learn the basics of building simple interactive applications. Prepare to design and program games using commercial and open source programs and applications. Learn industry standard programming language constructs to write programs that integrate classes, class methods, and class instances. Learn input method handling, animation, collision detection, and game physics.

ROBOTICS ENGINEERING

Invent, design and manufacture the tools and components for a wide range of production needs. Use advanced computer-controlled technology to create steel, aluminum and plastic components. Work daily with the same equipment and techniques as industry leaders.

URBAN TEACHER ACADEMY

Explore the field of education and related career options in the urban setting. Receive an in-depth view of the teaching profession through project-based experiences and culturally relevant teaching.

STIVERS SCHOOL OF PERFORMING ARTS

DIGITAL CINEMA

Students will learn pre-production, production, and post-production of varied genres of short films. Students will learn professional level editing, special effects software, and HD camera operation.

PHOTOGRAPHY

Learn the latest technology and gain an understanding of fine art and studio photography. Gain a solid foundation in the conceptual, technical, and studio coursework. Learn the foundations of traditional darkroom and digital photography, printing, studio lighting, Adobe Creative Suite photo software, and web-based applications.

THEATRICAL DESIGN AND PRODUCTION

This program covers instruction in designing and producing technical elements for the performing arts disciplines. These studies prepare students for a wide variety of jobs, including: working on Broadway productions, working in film and television art departments, managing large scale events, and concert touring.

ALLIED HEALTH

Develop skills to care for patients who are ill, injured, or disabled. Prepare for a career working in hospitals or nursing homes under the direction of nurses and doctors. Explore a range of medical careers through practical lab experiences, clinicals, and related coursework. Develop a professional work ethic and communication and patient care skills.

AUTOMOTIVE TECHNOLOGY

Diagnose, service and repair a wide range of vehicles. Use advanced diagnostic equipment to troubleshoot and repair complex automotive systems all while learning customer service skills.

BIOTECHNOLOGY

Discover how living organisms like cells, plants, and animals can be used to solve real life problems related to crime, hunger, the environment, nutrition, and health. Use scientific inquiry in areas of pharmacy, water quality, forensics, biomedical, botany, research, food science, and microbiology. Sharpen lab skills such as micropipetting, aseptic technique, pouring, inoculating and streaking agar plates.

BUSINESS - FINANCE

Gain a basic understanding of the business world, including economics, owning and operating a business, globalization, marketing, and personal finance planning. Learn and apply essential business technology and software to earn Microsoft Office Specialist certifications. Expand career awareness and related skills to make career choices and become employable in a variety of business careers. Design and implement powerful marketing and management plans to solve real-world business challenges.

CONSTRUCTION TECHNOLOGIES

Learn the fundamentals of carpentry, including framing, installation of windows and doors, stairs, and roofing. Students will also learn computer aided design and develop skills in remodeling and renovation.

COSMETOLOGY

This program is designed in accordance with the State Board of Cosmetology. The student must complete 1500 hours in-school training to become eligible to take the State Licensing Examination.

CRIMINAL JUSTICE

Students will engage in hands-on experiences in the criminal justice field. Students will obtain proficiency in handcuffing techniques, weapon retention, and vehicle extractions, as well as the use of force continuum.

CULINARY ARTS

Create professional foods, cakes, and pastries with an artistic presentation. Plan, prepare, and serve meals for casual dining and upscale events. Be a key part of the team that develops complete meals and unique dining experiences.

DENTAL ASSISTING

Develop the necessary skills to assist dentists and hygienists with patient care, office tasks, and lab duties. Learn patient's oral health education, mixing dental materials, exposing, developing and mounting oral x-rays, infection control, sterilization and chairside assisting for operative and emergency dentistry. Learn general office procedures, patient record keeping, and dental charting.

ENGINEERING TECHNOLOGIES

Prepares students to be innovative and productive leaders using engineering principles, mathematics, and critical thinking skills. Students are exposed to the engineering pathways and learn the skills of a high demand of the global economy.

GRAPHIC ART AND DESIGN

Explore all aspects of the graphic communications industry. Develop skills in computer design, photography, screen printing, and printing digital and large-format operations.

MEDIA ARTS

Students learn the fundamentals of broadcasting production in audio, video, and marketing while using a fully equipped television studio, video edit lab, FM studio, and audio production booths. The program is designed to build skills so students can independently produce video and audio pieces for broadcast. Students will push their creative potential and explore the world through the eyes of media.

PHARMACY TECH

Explore a wide range of pharmaceutical principles, career concepts, and skills needed to become a pharmacy technician. Students will learn how to read, interpret, and dispense prescriptions. They will learn how medications are classified and administered. Students will study the impact of drugs on different systems of the body, interaction of drugs, side effects and effectiveness in relation to dosages.