The Genesee Career Institute (GCI) programs featured in this guide are available to Genesee County students in grades 11 and 12. Students should contact their high school counselor to apply to attend GCI.

- Courses for Genesee County high school students in grades 11 and 12, and US Army Junior Reserve Officer Training Corps (JROTC) in grades 9 through 12
- College credit may be earned in most courses
- State and national certification testing available in many programs
- Job placement assistance available to students and graduates
- Transportation to and from student’s high school provided

## AGRISCIENCE

### AGRICULTURE, FOOD, AND NATURAL RESOURCES

- Work with professionals and explore career areas such as plant science, animal production, soil and water conservation and urban and rural agriculture
- Engage in hands-on activities using technology in animal, plant, and environmental sciences to solve real-world problems
- Visit local agricultural businesses, and become a leader by participating in FFA at the local, state, and national levels
- Get a head-start by earning college credit through MSU, Baker College, and other colleges and universities
- Develop marketable skills for immediate employment and earn industry recognized certifications

Junior completers may return for a senior year of advanced studies with internship placement.
VETERINARY MEDICINE
- Handle and care for a wide variety of live animals from small to large, building the human animal bond
- Develop knowledge of animal medical terminology, anatomy, infections, ethics, safety, and employability
- Perform activities essential for the operation and management of a typical veterinary clinic
- Visit a large zoo and participate in FFA local, state, and national conventions and competitions
- Get a head-start by earning college credit through MSU and Baker College; earn industry recognized certifications

Junior completers may return for a senior year of advanced studies with internship placement.

ARCHITECTURE AND CONSTRUCTION

CONSTRUCTION TRADES
- Use professional tools and technology to install electrical wire, switches, and fixtures found in homes and businesses
- Read electrical plans, bend steel conduit, use national codes to plan layouts of power outlets, lights, and controls
- Attend field trips related to electricians, and travel to regional, state, and national Skills USA competitions
- Qualify for a paid apprenticeship through the Department of Labor; get a head-start by earning college credit
- Develop skills for immediate employment with contractors and energy companies, and earn industry certifications

Junior completers may return for a senior year of advanced studies with internship placement.

ELECTRICAL WIRING
- Use professional tools and technology to install electrical wire, switches, and fixtures found in homes and businesses
- Read electrical plans, bend steel conduit, use national codes to plan layouts of power outlets, lights, and controls
- Attend field trips related to electricians, and travel to regional, state, and national Skills USA competitions
- Qualify for a paid apprenticeship through the Department of Labor; get a head-start by earning college credit
- Develop skills for immediate employment with contractors and energy companies, and earn industry certifications

Junior completers may return for a senior year of advanced studies with internship placement.

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ARTS, AUDIO/VIDEO TECHNOLOGY, AND COMMUNICATIONS

DIGITAL MEDIA ARTS (DMA)
- Operate high-tech video and audio equipment in a modern production studio
- Work alongside a professional news director to edit raw footage using industry software and top quality computers
- Create story boards, scripts, and production schedules for team projects and public service announcements
- Visit a TV news studio and related college programs; travel to compete in state and national student organizations
- Get a head-start by earning college credit; develop marketable skills for immediate employment

Junior completers may return for a senior year of advanced studies in sound and film production.

VISUAL DESIGN COMMUNICATIONS (VDC)
- Operate high tech equipment in a modern print and design studio
- Work alongside professional art directors using industry software and quality computers
- Create solutions to client-driven jobs while honing artistic skills in drawing, graphic design, photography, & animation/video
- Visit college campuses and other field trips related to the graphic arts
- Get a head-start by: earning college credit; earning industry recognized certifications; and developing marketable skills for immediate employment

Junior completers may return for a senior year of advanced VDC studies, VDC LinkLab, or Animation and Character Design.

DIGITAL ANIMATION AND CHARACTER DESIGN (2ND YEAR STUDENTS ONLY)
- Develop 3D characters and scenes using modeling, lighting, camera work, and frame animation
- Incorporate visual effects, rendering, match moving, sequencing, and composing using industry software
- Get a head-start by earning college credit; develop marketable skills for immediate employment

VDC LINKLAB (2ND YEAR STUDENTS ONLY)
- Apply your creative design, illustration, and photography skills to develop real world projects for clients
- Do screen printing projects, large digital printing, vinyl banner production, and dye sublimation
- Build a substantial print portfolio including logo design, point of purchase displays, packaging, and signage
- Get a head-start by earning college credit; develop marketable skills for immediate employment
EDUCATION AND TRAINING

EARLY CHILDHOOD EDUCATION
• Provide engaging learning opportunities to children ages 3-5 while assisting early childhood school teachers
• Focus on planning educational activities, leadership, and child development through online and face-to-face learning
• Get a head-start by earning multiple college credits through Mott Community College
• Develop marketable skills for immediate employment, and earn CPR and First Aid certifications

Junior completers may return for a senior year of advanced studies.

FINANCE

RISK MANAGEMENT
• Investigate the field of insurance, including marketing, claims adjusting, underwriting, and financial planning
• Work with industry professionals to gain insights on the details of personal and commercial insurance and finance
• Visit local insurance companies; participate in a student organization and travel to compete at state and nationals
• Get a head-start by earning direct college credits through Olivet College and possible paid summer internship
• Earn a national insurance designation from the Insurance Institutes of America, and develop skills for employment

Junior completers may return for a senior year of advanced studies with internship placement.

GOVERNMENT AND PUBLIC ADMINISTRATION

US ARMY JUNIOR RESERVE OFFICER TRAINING CORPS (JROTC)
• Develop leadership, teamwork, citizenship, and self-discipline, in a positively structured military environment
• Perform physical fitness activities, explore military science and history, government, geography, and more
• Participate in community service by presenting colors with the honor guard, and by helping those in need
• Get a head-start by attending military schools and qualify for scholarships to multiple college ROTC programs
• Earn advanced rank placement if enlisting in any military branch
• Develop marketable skills for immediate employment, and earn industry recognized certifications

All completers may return for years of advanced studies – enlistment is not required.

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HEALTH SCIENCE

ALLIED HEALTH PROFESSIONALS – ADVANCED STUDIES
(2ND YEAR STUDENTS ONLY)
• For senior students that have successfully completed EMC, MA1, MCF, or Sports Medicine as a junior
• Choose to study Online Dental Assisting, or Online Pharmacy Technician
• Work daily alongside professionals in one of the above areas, gaining months of clinical experience
• Get a head-start by earning college credit recognized at multiple colleges and universities
• Prepare for industry certification exams, develop marketable skills for immediate employment or internships
• Upon successful completion, be eligible to take the State of Michigan Certified Nurse Assistant certification exam
• Get a head-start by earning up to five college credits at Mott Community College
• Enhance marketable skills that employers desire, and earn/update healthcare industry certifications

EMERGENCY MEDICAL CONCEPTS (EMC)
• Work alongside industry professionals providing medical assistance in simulated emergency situations
• Practice Basic Life Support and CPR; Increase comprehension of medical terminology and anatomy
• Treat traumas by using techniques for back-boarding, splinting, and give immediate care for wounds or ailments
• Get a head-start by earning college credit, participate in student organizations and travel to competitions
• Develop marketable skills for immediate employment, and earn healthcare related certifications

Junior completers may return for a senior year of advanced studies Emergency Medical Technician (EMT).

EMERGENCY MEDICAL TECHNICIAN (EMT) ADVANCED STUDIES
(2ND YEAR STUDENTS)
• Ride along with an ambulance service, observe in a hospital emergency room, and attend other clinical situations
• Assess patients, manage airways, use a defibrillator, learn legal and ethical issues, and size up an emergency scene
• Upon successful completion of the course, be eligible to take the National EMT certification exam
• Get a head-start by earning college credit recognized at multiple colleges, participate in a student organization
• Enhance marketable skills desired by employers, and earn/update industry recognized certifications

CERTIFIED NURSING ASSISTANT (CNA) – ADVANCED STUDIES
(2ND YEAR STUDENTS ONLY)
• Work alongside professionals in clinical settings at long term healthcare facilities in Genesee County
• Provide personal care to patients, including taking vitals, transferring locations, and assisting with daily living needs
• Get a head-start by earning up to five college credits at Mott Community College
• Enhance marketable skills that employers desire, and earn/update healthcare industry certifications
FORENSIC SCIENCE
• Solve crimes using the scientific problem solving method, industry technology, and safe operating procedures
• Investigate and process crime scenes, analyze physical evidence, and perform chemical laboratory experiments
• Visit related college programs, and participate in community service and a student organization with competitions
• Get a head-start by earning college credit recognized by multiple colleges and universities
• Develop marketable skills for immediate employment, and earn industry related certifications

Junior completers may return for a senior year of advanced studies with internship placement.

FORENSIC SCIENCE – ADVANCED STUDIES
(2ND YEAR STUDENTS ONLY)
• Examine car accident reconstruction, arson investigation, and bioterrorism defense
• Expand studies to incorporate biomedical and scientific research, chemistry, toxicology, and advanced pathology
• Perform DNA analysis and environmental forensics by focusing on advanced laboratory and technology skills
• Get a head-start by earning college credit, travel to regional, state, and national student competitions
• Enhance marketable skills for immediate employment or internships, and earn/ update industry certifications

MEDICAL ASSISTANT I (MA1)
• Take patients’ medical history, vital signs, and perform other tasks required in a healthcare office environment
• Increase comprehension of medical terminology, anatomy, and physiology
• Visit college related programs, and participate in a student organization, traveling to state and national competitions

• Get a head-start by earning college credit recognized at multiple colleges and universities
• Develop marketable skills for immediate employment, and earn certifications in CPR, HIPAA, and OSHA

Junior completers may return for a senior year of advanced studies in Medical Assistant II.

MEDICAL ASSISTANT II (MA2) – ADVANCED STUDIES
(2ND YEAR STUDENTS ONLY)
• Work alongside professionals in a clinical experience; administer medications and practice taking blood samples
• Perform electrocardiograms, practice insurance medical billing, and explore legal and ethical issues
• Upon successful completion of the class, be eligible to take the Medical Assistant Registry exam

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• Get a head-start by earning college credit recognized by multiple colleges and universities
• Enhance marketable skills desired by employers, and earn/update industry recognized certifications

*MEDICAL CAREER FOUNDATIONS (MCF)

• Work alongside healthcare professionals at local hospitals for many weeks gaining clinical experience
• Practice taking vital signs; increase comprehension of medical terminology, anatomy, emergency procedures
• Visit college programs; participate in a student organization at regional, state, and national competitions
• Contribute to team building and community service activities; get a head-start by earning college credit
• Develop marketable skills for immediate employment, and earn several health industry required certifications

Junior completers may return for her/his senior year for Allied Health, CNA, EMT, or Nursing.

*NURSING – ADVANCED STUDIES (2ND YEAR STUDENTS ONLY)

• Work alongside professionals in clinical settings at long term healthcare facilities in Genesee County
• Prepare for college nursing programs by advanced studies of pharmacology, nutrition, CPR, anatomy, and physiology
• Upon successful completion, be eligible to take the State of Michigan Certified Nurse Assistant certification exam
• Get a head-start by earning up to seven college credits at Mott Community College
• Enhance marketable skills desired by employers, and earn/update industry recognized certifications

*SPORTS MEDICINE

• Evaluate athletic injuries and provide immediate medical attention; perform physical therapy exercises with patients
• Increase comprehension of the human anatomy, with a focus on joints, muscles, common injuries and rehabilitation
• Visit related college programs, and participate in a student organization, traveling to state and national competitions
• Get a head-start by earning college credit recognized by multiple colleges and universities
• Develop marketable skills for immediate employment, and earn industry recognized certifications

Junior completers may return for a senior year of advanced studies.

HOSPITALITY AND TOURISM

CULINARY ESSENTIALS I

• Work alongside real chefs preparing dishes using recipes that you research and gather ingredients for
• Cook and serve food safely to customers in the onsite restaurant and attendees at the GCI conference center
• Visit a farmers market and related college programs; participate in a student organization and travel to competitions
• Get a head-start by earning college credit recognized at multiple colleges and culinary schools
• Develop marketable skills for immediate employment, and earn industry recognized certifications

Junior completers may return for a senior year of Culinary Essentials II.

CULINARY ESSENTIALS II – ADVANCED STUDIES
(2ND YEAR STUDENTS ONLY)

• Expand your baking, cutlery, and food preparation skills by working in the kitchen daily with professional chefs
• Compete in hot and cold food contests using commercial kitchen equipment and technology
• Visit restaurant suppliers, plan and prepare meals for hundreds of people, compete in a student organization
• Get a head-start by earning college credit recognized at multiple colleges and culinary schools
• Enhance marketable skills desired by employers, and earn industry recognized certifications

HUMAN SERVICES

COSMETOLOGY I

• Work alongside professionals as you cut and style hair, provide nail services, apply make-up and skin care products
• Increase comprehension of the theory of cosmetology and develop practical skills by doing hands-on activities
• Attend a national hair show in Chicago; participate in a student organization, traveling to competitions
• Get a head-start by earning college credit recognized at multiple colleges and other schools of cosmetology

Junior completers may return for a senior year of Cosmetology II.

COSMETOLOGY II – ADVANCED STUDIES
(2ND YEAR STUDENTS ONLY)

• Provide multiple services for public customers in a newly renovated salon on the campus of GCI
• Communicate effectively with customers and perform tasks relative to running your own salon business
• Accumulate the required instructional hours to qualify for the Michigan State License of Cosmetology
• Get a head-start by earning a cosmetology license that allows you to work in any salon in Michigan
• Enhance marketable skills desired by employers, and earn/update industry recognized certifications

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INFORMATION TECHNOLOGY

*COMPUTER HARDWARE TECHNICIAN
- Build, maintain, troubleshoot, and repair personal computers
- Install hardware, configure systems, upgrade components, diagnose and fix problems
- Visit related college programs, and participate in a student organization, traveling to competitions
- Get a head-start by earning college credit recognized by multiple colleges and universities
- Develop marketable skills for immediate employment, and earn industry recognized certifications

Junior completers may return for a senior year of advanced studies with internship placement.

*COMPUTER HARDWARE – NETWORKING AND SUPPORT – ADVANCED STUDIES (2ND YEAR STUDENTS ONLY)
- Diagram, configure and secure computer networks used for business, gaming, mobile computing and social networking

*CYBER SECURITY
- Learn fundamental networking and computer hardware skills necessary to detect threats
- Detect criminal activity on computers and mobile devices and identify perpetrators through cyber forensics
- Implement countermeasures and methods of deception; explore cryptography and source code auditing
- Visit a cyber security college program, and participate in a student organization, traveling for competitions
- Get a head-start by earning college credit recognized by multiple colleges and universities
- Develop marketable skills for immediate employment, and earn industry recognized certifications

Junior completers may return for a senior year of advanced studies with internship placement.

*INTRODUCTION TO 3D GAME PROGRAMMING
- Write object oriented programming code to create your own 3-D virtual environment, including characters
- Play X-box and other systems to research themes, sequencing, scoring, and other aspects of game creation
- Visit related college programs, and participate in a student organization, traveling for competitions
- Get a head-start by earning college credit recognized by multiple colleges and universities
- Develop marketable skills for immediate employment, and earn industry recognized certifications
APP DEVELOPMENT AND WEB DESIGN PROGRAMMING AND ANIMATION

• Create apps and websites with animations, graphics, and forms, using JAVA, HTML and other program languages
• Master software like Adobe Dreamweaver, Photoshop, and others, while working toward Webmaster certification
• Visit related college programs, and participate in a student organization, traveling for competitions
• Get a head-start by earning college credit recognized by multiple colleges and universities
• Develop marketable skills for immediate employment, and earn industry recognized certifications

LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY

PUBLIC SAFETY AND HOMELAND SECURITY

• Work with current and former police officers to perform traffic stops, learn to cuff and take down unruly suspects
• Maneuver as a team to defeat terrorists, search campus for perpetrators, and expand knowledge of the law
• Visit a 911 call center and the county jail, and participate in a student organization, traveling for competitions
• Get a head-start by earning college credit recognized by multiple colleges and universities
• Develop marketable skills for immediate employment, and earn industry recognized certifications

Junior completers may return for a senior year of advanced studies with internship placement.

PUBLIC SAFETY AND HOMELAND SECURITY – ADVANCED STUDIES (2ND YEAR STUDENTS ONLY)

• Perform tactical building searches, conduct felony traffic stop scenarios, and investigate crime scenes
• Explore the juvenile justice system, offender classifications, and role play in county-wide disaster training
• Work alongside professional law enforcement personnel, gaining months of valuable experience and insights
• Get a head-start by earning college credit recognized by several colleges and universities
• Enhance marketable skills that employers desire, and earn/update industry recognized certifications

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MANUFACTURING

*COMPUTER NUMERICAL CONTROL (CNC) MACHINING

• Operate power mills, lathes, and other machining equipment to precisely cut and shape metal parts at Baker College
• Create metal components of assemblies using machining processes commonly found in this high demand industry
• Visit manufacturers that have CNC machines, and participate in a student organization, traveling for competitions
• Get a head-start by earning several direct credits from Baker College that are also transferable to other colleges
• Develop marketable skills for immediate employment, and make progress toward industry recognized certifications

WELDING

• Melt metal at high temperatures using four welding processes to cut or fuse parts to create usable products
• Read prints and create plans for your own customized project, applying various welding methods and skills
• Visit manufacturers that weld, and participate in a student organization, traveling for competitions
• Get a head-start by earning college credit recognized by colleges and universities, prepare for an apprenticeship
• Develop marketable skills for immediate employment, and earn industry recognized certifications

Junior completers may return for a senior year of advanced studies with internship placement.

MARKETING

BUILDING WEALTH

• Create and manage several aspects of business, such as product development, distribution, marketing, and sales
• Work as a team to develop a business plan, maintain a budget, design a webpage, all within a flipped class setting
• Attend Chamber of Commerce meetings, and participate in a student organization, traveling for competitions
• Get a head-start by earning college credit recognized by multiple colleges and universities
• Develop marketable skills for immediate employment, and earn industry recognized certifications

Junior completers may return for a senior year of advanced studies with internship placement.

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH (STEM)

*COMPUTER AIDED DESIGN (CAD)

• Be prepared for entry level design and engineering technology positions
• Learn more about a high wage, high demand occupation
• Create team and individual projects using the CAD system for both the design and manufacturing environment
• Participate in field trips to manufacturing facilities and participate in student organizations
DISCOVER E – ENGINEERING
• Systematically approach problem solving, exploring multiple fields of engineering, technology, and CAD
• Create team and individual projects, program a robot, and work with other high-tech tools used in engineering
• Visit engineering departments, and participate in a student organization, traveling for competitions
• Get a head-start by earning college credit recognized by multiple colleges and universities
• Develop marketable skills for immediate employment, and earn certifications in First Aid, CPR, and OSHA

Junior completers may return for a senior year of advanced studies with internship placement.

TRANSPORTATION, DISTRIBUTION, AND LOGISTICS

*AUTOMOTIVE TECHNOLOGY
• Hoist up a car, diagnose and repair problems with the brakes, electrical system, engine, steering, and suspension.
• Mount tires on rims and repair flats, change oil and filters, work on transmissions, heating, and air conditioning
• Attend an auto show, visit related college programs, and participate in a student organization, traveling to compete
• Get a head-start by earning college credit recognized by multiple trade schools, colleges, and universities
• Develop marketable skills for immediate employment, and earn industry recognized certifications

Junior completers may return for a senior year of advanced studies with internship placement.

AVIATION ACADEMY
• Explore careers for the in-demand field of aviation
• Prepare to pass private pilot knowledge test
• Earn college credit
• Learn from trained pilots
• Visit airports, air traffic control towers, and air museums
• Practice on a flight simulator
• “Fast track” your aviation career

MEDIUM/HEAVY DUTY TECHNICIAN (DIESEL MECHANICS)
• Repair diesel engines and other systems on large vehicles, such as air brakes, hydraulics, suspension, and electrical
• Operate and perform maintenance on construction equipment, such as a dozer, backhoe, and forklift
• Visit related college programs, and participate in a student organization, traveling for competitions
• Get a head-start by earning college credit recognized by multiple trade schools, colleges, and universities
• Develop marketable skills for immediate employment, and earn industry recognized certifications

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High school sophomores should contact their school counselor to apply to attend the Genesee Career Institute in the 2019-2020 school year. Call (810) 591-4462 for questions.
WHAT IS AN EARLY MIDDLE COLLEGE?

The Genesee County Career and Technical Education Early Middle College (GC CTE EMC) is a five-year high school program designed to allow a student to explore and earn an associates degree, credential or transferable credit in a CTE Career Pathway while in high school.

Students will begin blending their high school coursework with college level coursework in 11th grade, adding additional college courses in 12th grade and complete a full schedule of college coursework in a 13th year by following a specific Program of Study.

GC CTE EARLY MIDDLE COLLEGE PROGRAMS

The Program of Study is a guide; an individual sequence of courses will be developed for each student and is subject to change by student readiness, course availability and local school district policy.
- Automotive Technology
- Computer Aided Drafting & Design
- Computer Occupations Technology Applications Developer
- Computer Occupations Technology Computer Security
- Health Fitness Professional
- Industrial and Manufacturing Technology
- Nursing Prerequisites
- Occupational Therapy Assistant Prerequisites
- Physical Therapist Assistant Prerequisites
- Welding Technology

GC CTE EMC BENEFITS

- Get a head start on a career. Whether students earn a career certificate or an associate degree, they will advance through their educational path and start their career years faster than a traditional educational program.
- Save money. The national average cost of attending a four-year public college is more than $28,000 per year. By starting college while in high school, participants could cut college costs in half.
- Students accepted into the GC CTE EMC program will remain students of their high school.

For more information contact:
Genesee County Career Technical Education Early Middle College Coordinator
Phone: (810) 591-3288
Email: gc-cte-emc@geneseeisd.org
Website: www.gccteemc.org
All of the programs at the Genesee Career Institute have advisory committees whose members assist with curriculum, job placement, equipment recommendations, donations, and student clubs. The committee members are professionals in business and industry, as well as counselors and instructors from Genesee County high schools and colleges.

Translation services available upon request. Please call 591-4462.

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