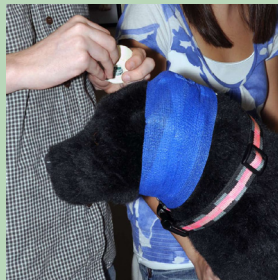
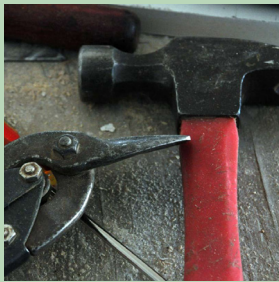


Education for Employment

Kalamazoo RESA

2017.2018
C O U R S E
C A T A L O G



*Preparing today's students
for tomorrow's careers*



Education for Employment



**Interested in college credit?
Need Michigan Merit credit?**

See **Page 2**

EDUCATION FOR EMPLOYMENT IS FOR EVERYONE!

Consider your special interests, abilities and talents as you continue your career planning. Don't limit your choices to traditional male and female occupations. EFE is available for all 9th-12th grade students in Kalamazoo County: public, non-public and home schooled. Explore your possibilities -- there are no limits.

SKILLS FOR THE WORKPLACE

All EFE programs incorporate employability and workplace skills training. Employability skills include topics such as resume writing, interviewing tips, completing a job application and much more. Workplace skills include being a team player, good attendance, punctuality, initiative, honesty and many more skills crucial to success in any career.

LIFE AFTER SCHOOL

What are your plans after graduation... are you clueless? Did you know that many students change their minds about what they want to do within two years of graduating from high school? Education for Employment can help you with your career decision through a wide variety of career programs!

How would you like to experience hands-on career training in your field of interest while learning current business and industry skills through the latest technology? Many programs take you right into the work site for training -- such as hospitals, clinics, businesses, hotels, manufacturing facilities, offices, construction sites, etc. These programs teach tools and techniques of the trade -- brake systems, animal healthcare, emergency medical care, CPR, welding, carpentry, etc.

Not only do you receive business and industry-credentialed training and academic credit in the math, science or arts areas, but you may also receive free college credit from local colleges and universities!

Open the pages. Check out the many Education for Employment programs. Find the one that is right for you. It is our mission to prepare YOU for tomorrow's careers . . . TODAY!

Debra J. Miller
Assistant Superintendent
Kalamazoo RESA, Education for Employment
deb.miller@kresa.org, 269.250.9300



Education for Employment

Education for Employment is a fantastic career training opportunity for students. They experience hands-on career training in their field of interest, learning current business and industry skills through the latest technology. Did you know EFE is also a great opportunity for MICHIGAN MERIT ACADEMIC credit and COLLEGE credit?

MICHIGAN MERIT ACADEMIC CREDIT

Students enrolled in EFE programs will receive credit for their EFE course and will also obtain equivalent academic credit needed for Michigan Merit Curriculum graduation requirements.

ACADEMIC CREDIT

EFE PROGRAM AVAILABLE FOR ACADEMIC CREDIT

2nd World Language Credit

All EFE Programs

3rd Science Credit

All EFE Programs

4th Related Math Credit

Accounting/Finance; Art & Design Career Skills; Automotive Technology; Aviation Technology; Banking & Finance; Business Administration Management & Operations (BMA); Computer Technology; Computerized Manufacturing; Construction Trades; Culinary Arts; Drafting Technology; Electrical Technology; Electronics & Robotics; Engineering Design; Engineering in Wood Technology; Heating, Ventilation & Air Conditioning; Marketing; Principles of Engineering; Welding

Visual, Performing and Applied Arts Credit

Art & Design Career Skills; Business Administration Management & Operations (BMA); Cosmetology/Barbering; Culinary Arts; Digital Video Production; Drafting Technology; Electronics & Robotics; Engineering in Wood Technology; Marketing; Radio Broadcasting; Teacher Academy; Welding

Algebra II Credit

Automotive Technoogy; Drafting Technology; Electronics & Robotics

NOTE: Please check with your local district regarding 2nd & 3rd science credit or world language credit as this varies by local district.

EARLY/MIDDLE COLLEGE

The Early/Middle College program is an opportunity for students to earn an associate’s degree or certificate along with their high school diploma. Students are enrolled in a focused program of study at Kalamazoo Valley Community College. Students have an additional year of high school for program completion. The local school district pays the tuition and fees up to an allocated amount.

COLLEGE CREDIT

AP courses and dual enrollment in high school aren’t the only options for high school students to get college credit. Students may also receive FREE college credit through their EFE programs. EFE students can obtain from three credit hours to an associate’s degree in their chosen career path at participating colleges and universities.

PARTICIPATING COLLEGES

Baker College

Ferris State University

Michigan Career Tech Institute

Central Michigan University

Kalamazoo Valley Community College

Northwestern Michigan College

Davenport University

Kellogg Community College

University of Northwest Ohio



Education for Employment

EFE PROGRAMS AVAILABLE FOR COLLEGE CREDIT

Accounting/Finance

Animal Technology

Art & Design Career Skills

Automotive Technology

Aviation Technology

BMA

Banking & Finance

Computer Science

Computer Technology

Computerized Manufacturing

Conservation Biology

Construction Trades

Cosmetology/Barbering

Culinary Arts

Dental Assisting

Digital Video Production

Drafting Technology

Electrical Technology

Electronics & Robotics

Emergency Medical Technician

Engineering

Engineering in Wood Technology

Fundamentals of Health Science

Health Science/Professional Health Sci.

Heating, Ventilation & Air Conditioning

Law Enforcement

Marketing

Radio Broadcasting

Teacher Academy

Veterinary Science

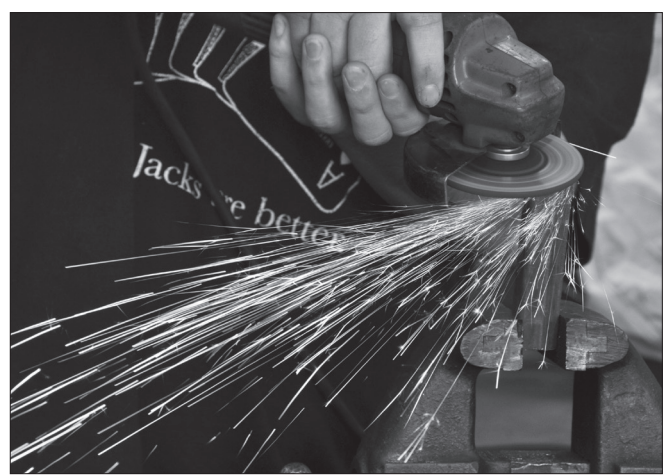
Welding





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Pathway to:

Arts & Communications

- Arts & Design Career Skills
- Digital Video Production
- Radio Broadcasting



Art & Design Career Skills

► Is this course right for you?

If you like to design, create graphics like cards and posters, design interiors, illustrate, make fine art paintings, or design on a computer, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- Visual Performing & Applied Arts Credit
- College Credit (Articulation):
Baker College, Davenport University,
Ferris State University,
Kalamazoo Valley Community College

Eligibility // Prerequisites

- Freshman, Sophomore, Junior or Senior
- Dress code for presentations

NOTE: This is an Early/Middle College eligible program

Career Data // Jobs

**animator, art director, art teacher,
fashion designer, fine artist,
graphic designer, illustrator,
interior designer, post-production
videographer, product and
packaging designer**

**For salary information go to:
www.bls.gov/careeroutlook/**

“I walked into this classroom thinking I’d learn how to make a font . . . I ended up learning how to make a career in making blockbuster movies.”

- Brandon Frederick Jones, DI Supervisor,
Walden Media, Alumnus



Art & Design Career Skills Arts & Communications Pathway

This course allows students to explore and perfect skills in various art media, use professional quality art materials, work on Macintosh computers and tablets and learn the Adobe Creative Suites programs including Photoshop, Illustrator and InDesign. Students will attend trips to art exhibitions and performances, design firms and school of art tours. Students will research various post-secondary programs and careers in commercial art and design, which may include: animation, digital art, fashion design, graphic design, interior design, photography, printmaking, visual art and more.

Designers working in the industry as well as representatives from post-secondary institutions will visit the classroom to consult with students. Students will create a resume, assemble a professional portfolio and attend a portfolio review in preparation for college admissions and internships.

This class can be taken for multiple years.



Digital Video Production

► Is this course right for you?

Do you like telling stories and expressing yourself through video or writing? Are you creative? Do you like directing others? If you like solving creative problems with real world skills, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- Visual Performing & Applied Arts Credit
- College Credit (Articulation):
Davenport University, Ferris State University

Eligibility // Prerequisites

- Junior or Senior
- Occasional Extended Hours



Career Data // Jobs

**animator, audio technician,
director, key grip, lighting director,
producer, technical director,
scriptwriter, videographer**

**For salary information go to:
www.bls.gov/careeroutlook/**

“Inspired . . . hands-on training. This class gets me used to the field, working with the equipment and making my own production.”

- Adrian Lopez, Loy Norrix High School, Alumnus

Digital Video Production

Arts & Communications Pathway

This course provides students with entry-level skills in the expanding field of digital production for corporate video departments, broadcast television stations, advertising agencies, media production companies and independent production companies. This course emphasizes the skills and work ethic needed for these exciting careers. Areas of study and practice will focus on documentaries, educational programming and television journalism projects. This class provides students with the opportunity to enter local and national competitions as well as airing student work on Public Media Network stations.

All these skills revolve around the use of proper techniques to produce high-quality video and audio using digital technology.

Whether you want to see your name in lights or scrolling by in the end credits, this course will teach you how to use technology to communicate effectively with the audience.

LIGHTS - CAMERA - and YOU!

Students may take this course for two years.



Radio Broadcasting WKDS - 89.9 FM

► Is this course right for you?

Do friends tell you that you have a good voice, that you are a leader or that you are funny or creative? If you love journalism or if you love music and love to talk about it, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- Visual Performing & Applied Arts Credit
- College Credit (Articulation):
Ferris State University

Eligibility // Prerequisites

- Junior or Senior
- Occasional extended hours

Career Data // Jobs

announcer, chief engineer, general manager, news director, program director, program host, radio sales, sportscaster

**For salary information go to:
www.bls.gov/careeroutlook/**



Radio Broadcasting Arts & Communications Pathway

This course is ideal for students who want to work in the field of radio broadcasting. Students will gain work experience on a student run and managed radio station, 89.9 FM WKDS.

This course explores all aspects of the radio broadcasting industry including radio production, being an on-air personality, marketing, sales, promotion, engineering, writing for radio news and the history of the industry.

Students may take this course for two years.

“Taking the radio broadcasting class is the reason why I know the audio field is the right choice for me.”

- Maya Ablao, Portage Northern High School Alumna

A hand is shown holding a stack of US dollar bills, including a one-dollar bill and a two-dollar bill. The background is a blurred image of a computer keyboard and a mouse. The scene is set on a desk with some papers and a pen.

Pathway to:
**Business, Management,
Marketing & Technology**

- Accounting/Finance
- Banking & Finance
- Business Administration Management & Operations (BMA)
- Computer Science/Software Engineering
- Computer Technology
- Culinary Arts
- Marketing/Entrepreneurship



Accounting/Finance

► Is this course right for you?

If you are analytical, enjoy working with numbers, are detail oriented, have good time management skills, and enjoy working with technology, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- College Credit (Articulation):
Baker College, Davenport University,
Kalamazoo Valley Community College

Eligibility // Prerequisites

- none

NOTE: This is an Early/Middle College eligible program



Accounting/Finance Business, Management, Marketing & Technology Pathway

Basic Accounting/Accounting I

This course provides students with basic recordkeeping skills in small businesses. Using both manual and computerized methods, students start accounting systems, record business transactions for sole proprietorships and partnerships, and practice petty cash and payroll procedures.

Advanced Accounting/Accounting II

Students who enroll in the second year become proficient in computerized systems, advanced application, analysis and financial decision making. Competencies include departmentalized accounting procedures, completing payroll, budgeting, and financial analysis.

Career Data // Jobs

**accountant, accounts receivable/
payables clerk, auditor, banker,
bookkeeper, certified public
accountant, chief financial officer,
controller, entrepreneur, financial
consultant, forensic accounting,
investment analyst, payroll clerk,
wealth management**

**For salary information go to:
www.bls.gov/careeroutlook/**

“Didn’t consider an accounting major until I took this class. My first accounting class at Kansas University was my easiest; I only refreshed while others struggled . . . led to scholarships in the Multicultural Business Scholars.”

- Anna Bliss, Portage Alumna



Banking & Finance

► Is this course right for you?

Do you like money and working with numbers? Do you like talking to people?
Do you like routine, organized work habits? If you do, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- College Credit (Articulation):
Davenport University

Eligibility // Prerequisites

- none



Career Data // Jobs

accountant, accounts clerk,
bank teller, banker, billing clerk,
finance manager, loan officer,
mortgage officer,
quality control auditor

For salary information go to:
www.bls.gov/careeroutlook/

Banking & Finance

Business, Management, Marketing & Technology Pathway

This course provides students with a background in customer service, personal finance, budgeting, investment planning, and business financial management. Students gain exposure to the various career options in the field. They learn how the financial decisions that they make today affect their future.

“Banking & Finance is a great class. It covers a lot of what you need to know and gives you a head start on achieving or even making your final decision about what you want to do. This class is worth taking.”

- Travis Gearhart, Galesburg-Augusta High School
Alumnus



Business Administration Management & Operations (BMA)

► Is this course right for you?

Do you like multitasking and organizing things? Do you enjoy being a leader on a project? Do you like using technology to present your ideas? If these things sound like you, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- Visual Performing & Applied Arts Credit
- College Credit (Articulation):
Baker College, Davenport University,
Ferris State University, Kalamazoo Valley
Community College

Eligibility // Prerequisites

- none

NOTE: This is an Early/Middle College eligible program



Career Data // Jobs

administrative assistant, compliance manager, director/human resources, entrepreneur, general manager, global operations director, office manager, procurement specialist, project manager, quality control analyst, training and development specialist, VP of operations

For salary information go to:
www.bls.gov/careeroutlook/

Business Administration Management & Operations (BMA)

Business, Management, Marketing & Technology Pathway

This course provides students with a solid foundation of business skills, knowledge and understanding that are necessary for success in a global society. Topics include human resources, operations and quality management, communications, business management and leadership, project management, business ethics, international business, employability skills, career exploration and more.

Students will utilize information technology and software applications to complete business projects and share ideas. Students will learn to solve business problems that occur in the working environment. This exciting business class prepares students for employment and for the pursuit of a business degree after high school.

“Thank you. The business skills you taught in my class over ten years ago I still use today.”

- Erica Garrett, Alumna



Computer Science Software Engineering

Is this course right for you?

Are you into gaming? Do you like working with computers? Are you detail oriented? Do you like complex problem solving, critical thinking and systems analysis? If you do, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- College Credit (Articulation):
Davenport University

Eligibility // Prerequisites

- Junior or Senior

Career Data // Jobs

application specialist, certified associate, computer programmer, computer systems analysts, microcomputer specialist, software developer, and software engineer

For salary information go to:
www.bls.gov/careeroutlook/

“Starting from an idea in our head, maybe I want to be this someday, to actually going through the class is a new experience. Along the way there were obstacles we have faced but here we are now, working on our way to the near future.”

- Taralyn Smith, Gull Lake High School



Computer Science Software Engineering Business, Management, Marketing & Technology Pathway

Computer Science Software Engineering provides an excellent introduction into the computer science world through engaging students in computational thinking. In this course, students create interactive stories using a programming language called Scratch; work in teams to create simple apps for mobile devices using App Inventor; learn introductory elements of text-based programming in Python, and analyze data using Excel. Students will use Arduino Microprocessors to configure circuitry for modern day lifestyles. Students will learn the impact of a computing society and the application of computing across career paths.



Computer Technology

► Is this course right for you?

Is I.T. right for you? If you like to work with computer systems, networks, and keeping your data safe, then this is the course for you.

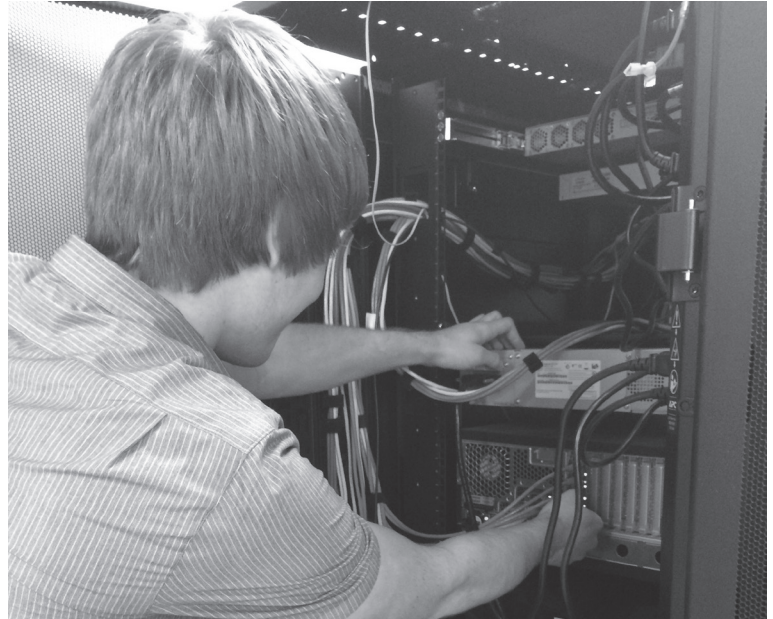
Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- College Credit (Articulation):
Baker College, Davenport University,
Kalamazoo Valley Community College
- CompTIA A+ (1st year)
- CompTIA Network+ (2nd year)
- CompTIA Security+ (2nd year)

Eligibility // Prerequisites

- Sophomore, Junior or Senior

NOTE: This is an Early/Middle College eligible program



Career Data // Jobs

business analyst, chief information security officer, computer/network security, data analyst, help desk technician, network administrator, PC desktop technician, project manager, security analyst, service technician

For salary information go to:
www.bls.gov/careeroutlook/

“I went into this program with only a basic knowledge of computers and no idea how to do what I knew correctly. This class provided me with plenty of opportunities to learn how to properly perform tasks and get certifications that will help me with my entire career.”

- Galen Patrick, Vicksburg High School Alumnus
Certified in A+, Network+, and Security+

Computer Technology Business, Management, Marketing & Technology Pathway

Computer Technology I

This course is designed to provide students with the knowledge and skills necessary to pursue a career in the computer technology industry. Material covered will be aligned specifically with the CompTIA A+ exams which are necessary to earn CompTIA's A+ certificate. A+ certification is required by most employers in the IT/computer repair industry. There will be a significant amount of hands-on experience including maintaining, upgrading, troubleshooting, and repairing computers, computer components and software.

Computer Technology II

The second-year course concentrates on the requirements of the CompTIA Network+ and CompTIA Security+ certifications, which are industry-recognized standards for technicians pursuing a career in network administration/implementation, data center management, and data security. A growing number of high tech firms and companies dealing with the Federal Government are requiring Security+ certification for their IT staff. Study will focus on all aspects of computer network technologies, network & data security, implementation, maintenance, and troubleshooting. In addition, interested students can pursue their MCSA Microsoft Server Certification. The MCSA is needed to qualify for a position as a network or computer systems administrator or a computer support specialist. Successful completion of Computer Tech I and teacher approval required.



Culinary Arts

► Is this course right for you?

Do you like to create good food for your family and friends, try new recipes, work with people and be creative? Can't get enough of the Food Network? If so, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- Visual Performing & Applied Arts Credit
- College Credit (Articulation):
Baker College, Davenport University,
Ferris State University, Kalamazoo Valley
Community College
- ServSafe Manager Certification Training
- ServSafe Allergens Certification Training
- Standard First Aid & Adult CPR Certificate

Eligibility // Prerequisites

- Junior or Senior

NOTE: This is an Early/Middle College eligible program

Career Data // Jobs

**baker, caterer, chef, dietician,
food services worker/manager,
food preparation worker,
institution cook, meat cutter,
nutritionist, pastry chef,
restaurant owner, sous chef**

**For salary information go to:
www.bls.gov/careeroutlook/**

“The culinary arts program has inspired me to pursue a career in the food industry. I’ve learned basic culinary skills and we created a family. In the food industry your attitude with people really counts. Joining this class showed me a new kind of love and improved my people skills. Culinary arts is for you if you love working with others and you have a passion for food.”

- Sarah Hensley, Portage Central High School Alumna



Culinary Arts

Business, Management, Marketing & Technology Pathway

Students taking this course will learn the fundamentals of cooking and baking as well as the science of food safety, the fundamentals and science of food handling, food prep and service, sanitation and safety, maintenance of tools and equipment, and nutritional guidelines. Students also develop the cooking and baking skills necessary to be successful in the culinary industry.

The course will emphasize creative, hands-on food preparation, as well as professionalism and work habits required in this industry. Students will have the opportunity to receive work-based training such as job shadowing, field trips and other experiences at area restaurants. The curriculum includes the National Food Industry standards for the ServSafe Manager/Allergens Certification, an industry credential that verifies that an applicant entering the workforce has the necessary skills for employment.



Marketing/Entrepreneurship

► Is this course right for you?

Do you enjoy using your creative talents to promote ideas? Do you aspire to own your own business and be your own boss? Do you find satisfaction in providing great customer service?

If this sounds like you, then this course is for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- Visual Performing & Applied Arts Credit
- College Credit (Articulation):
Baker College, Davenport University,
Kalamazoo Valley Community College

Eligibility // Prerequisites

- none

Career Data // Jobs

account manager, advertising agent, corporate sales/marketing, department team leader, entrepreneur, fashion merchandise buyer, manufacturer's representative, public relations specialist, regional merchandiser, sales associate, social media manager, sports marketing, store manager, supply chain manager, VP of communications for non-profit agency

**For salary information go to:
www.bls.gov/careeroutlook/**

"I have learned so much and the projects we do helped me a lot. I found a great job as a marketing assistant for a non-profit organization, and the skills I have acquired from this class make my job so much easier."

- Logan Dankert, Comstock High School Alumnus



Marketing/Entrepreneurship Business, Management, Marketing & Technology Pathway

Marketing is the process of planning, pricing, promoting, selling and distributing ideas, goods or services to create exchanges that satisfy a customer.

Course work teaches the principles of advertising, display, sales, merchandising, economics and marketing in a global economy. Students train in techniques that businesses and organizations use to persuade consumers to buy products or use services. Students will learn about types of social media and the social media strategies businesses utilize to meet their marketing goals. This exciting course teaches many transferable skills that students can use immediately in the workplace or to pursue a business degree at a post-secondary institution.



Pathway to:

Engineering, Manufacturing & Industrial Technology

- Automotive Technology
- Aviation Technology
- Computerized Manufacturing
- Construction Trades
- Drafting Technology: Architecture
- Drafting Technology: Engineering
- Electrical Technology
- Electronics & Robotics
- Engineering
- Engineering in Wood Technology
- Heating, Ventilation & Air Conditioning
- Welding



Automotive Technology

► Is this course right for you?

If you like engines and automotive service, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- College Credit (Articulation):
Baker College, Kalamazoo Valley Community
College, University of Northwest Ohio
- NATEF Training

Eligibility // Prerequisites

- Sophomore, Junior or Senior

NOTE: This is an Early/Middle College eligible program

Career Data // Jobs

auto mechanic, service repair technician

**For salary information go to:
www.bls.gov/careeroutlook/**



Automotive Technology Engineering, Manufacturing & Industrial Technology Pathway

This National Automotive Technician Education Foundation (NATEF) certified program covers these areas of automotive service: engine, brakes, electrical and electrical systems, steering and suspension, automatic and manual transmissions and air conditioning.

Students may have the opportunity to become state certified, as well as to earn credit towards completion of an associate degree or other post-secondary training.

Students may take this course for two years.

“This class is really fun; it’s all hands-on!”

- Austin Eaton, Vicksburg High School Alumnus



Aviation Technology

► Is this course right for you?

Do you want to jump-start your career in aviation? Do you enjoy science and math?
If you do, then this course is for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- College Credit (Articulation):
Baker College, Northwestern Michigan College
- Dual enrollment at Kellogg Community College with bridge agreement to WMU-College of Aviation.

Eligibility // Prerequisites

- Junior or Senior; dual enrolled
- Suggest a background in math and science
- Must follow dual enrollment policies at Kellogg Community College

Career Data // Jobs

A&P mechanic, aeronautical engineer, air traffic controller, airfield operations specialist, airplane repair specialist, astronaut, FAA inspector, flight engineer, flight instructor, pilot

**For salary information go to:
www.bls.gov/careeroutlook/**

“The Aviation Technology course has had a deep impact on my life. Being able to take this class has developed my love for aviation and has made my future clear. For anyone who has ever wondered about aviation as a future career, I would highly recommend this course because of its curriculum, hands-on experiences, and excellent instruction.”

- Steven Noonan, Portage Central High School
Alumnus



Aviation Technology Engineering, Manufacturing & Industrial Technology Pathway

Students in this course are dually enrolled and have the opportunity to earn college credit through Kellogg Community College (KCC) in addition to high school credit. The KCC aviation coursework is part of a bridge agreement with Western Michigan University, College of Aviation and is delivered as on-line courses. Wrap-around instruction is provided by EFE to ensure student success at the college level.

This program is designed to introduce students to every aspect of the aviation industry and is intended for students with an interest in pursuing any career related to aviation. Students will develop a broad knowledge base in subject areas ranging from evolution of airplanes and commercial aviation, flight operations, weather, airspace, navigation, regulations, and aircraft systems. Students have the opportunity to interact with industry experts and visit leaders in the field of aviation for career exploration. The program features many hands-on labs.

Students may take this course for two years.



Computerized Manufacturing

► Is this course right for you?

If you like computerized design followed by computerized programming of CNC machines and basic machining skills, this program blends the two in a high-technology manufacturing environment.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- Visual Performing & Applied Arts Credit
- College Credit (Articulation):
Ferris State University,
Kalamazoo Valley Community College

Eligibility // Prerequisites

- none

Note: This is an Early/Middle College eligible program

Career Data // Jobs

CAD Designer, CAD/CAM programmer, CNC machinist, industrial machine repair, lathe operator, machine operator, machine tool setter, metrology specialist, millwright, quality inspector, tool and die maker, tool room specialist

**For salary information go to:
www.bls.gov/careeroutlook/**



Computerized Manufacturing Engineering, Manufacturing & Industrial Technology Pathway

This exciting, fast-paced pre-engineering course provides advanced technology training in computer-aided design and computer manufacturing systems. All equipment is state of the art including Haas and Mazak CNC machining centers. The course uses CAD software including MasterCam and Autodesk Inventor HSM. It also features demonstrations and maximizes student laboratory work (80% hands-on).

Students gain planning, organizing and decision-making skills while also developing acceptable attitude, interpersonal and equipment-related skills. Paid co-op opportunities are available to second-year students who are placed at local manufacturers.

Computerized Manufacturing prepares students for immediate employment, advanced schooling and/or apprenticeship opportunities with local area employers.

Students may take this course for three years.

“Computerized Manufacturing taught me valuable knowledge about complex machines that are a large part of today’s society. The skills that you learn from this class are what employers will look for on your resume. You may even get a job because you have the ability to operate these machines.”

- Ethan Richards, Vicksburg High School Alumnus



Construction Trades

► Is this course right for you?

Do you like to build things, work with your hands, and work outside using the most modern trends in building science? If so, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- Visual Performing & Applied Arts Credit
- College Credit (Articulation):
Kalamazoo Valley Community College

Eligibility // Prerequisites

- Sophomore, Junior or Senior
- Dress appropriately for working in all kinds of weather conditions
- May be responsible for transportation

Career Data // Jobs

bricklayer, carpenter, construction manager, contractor, concrete finisher, drywaller, electrician, energy auditor, excavator, general laborer, HVAC technician, iron worker, job superintendent, painter, plumber, project manager, safety manager

**For salary information go to:
www.bls.gov/careeroutlook/**

“Construction Trades has taught me skills that I never thought I’d be good at, that it’s ok to make a mistake as long as you learn from it and move forward, and where there’s a will there’s a way to accomplish a job.”

- Mitch Taber, Kalamazoo Central High School Alumnus



Construction Trades Engineering, Manufacturing & Industrial Technology Pathway

This course exposes students to many aspects of the new construction and revitalization industry including site layout, carpentry, electrical, masonry, plumbing, tile setting, HVAC, painting and other construction skill areas.

Both male and female students will enjoy the hands-on training experience in remodeling and/or new construction of a home that this course has to offer. Classroom training is also an important component of the class. Students interested in this course should understand basic concepts of measurement and mathematics and be able to work indoors or outdoors.

Students may take this course for two years.

* This program is a partnership with Kalamazoo Valley Habitat for Humanity. www.habitatkalamazoo.org



Drafting Technology - Architecture

Is this course right for you?

Do you like to design buildings? Would you like to see your designs come to life?

If you answered yes to these questions, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- Visual Performing & Applied Arts Credit
- College Credit (Articulation):
Baker College, Davenport University,
Kalamazoo Valley Community College

Eligibility // Prerequisites

- Sophomore, Junior or Senior
- Preferred - Maintained a “B” average or higher in all high school math courses

NOTE: This is an Early/Middle College eligible program

Career Data // Jobs

architect, BIM manager, civil engineer, drafter, interior designer, landscape architect, project manager

**For salary information go to:
www.bls.gov/careeroutlook/**

“While I still took basic architectural drawing courses in college, I was very much ahead of the game. I found that I was able to spend more time analyzing and designing, flushing out ideas quickly, rather than putting my effort into learning programs like AutoCAD, which I already knew because of my background in Kalamazoo Central’s drafting courses.”

- Hannah Dewhirst, Kalamazoo Central High School Alumna, University of Michigan Taubman College of Architecture and Urban Planning



Architectural Drafting 1 - Residential Engineering, Manufacturing & Industrial Technology Pathway

This course allows students to explore the field of architecture or interior design. Using a hands-on approach, students are given the opportunity to use their creativity and imagination to design residential structures. Exercises include hand and computer drafting to design residential building floor plans, sections and elevations which are typical of those used by contractors. Green Architecture, design concepts, and professional vocabulary will be emphasized. Students use high-tech software to create their own designs on the computer.

Architectural Drafting 2 - Commercial

This course is an introduction to commercial design. Students are required to create a comprehensive building design project that includes site design, building design and development of architectural details. Students will be given the unique opportunity to work with a mentor architect on their design project. Students will research Green Architecture, building requirements, commercial building codes and handicap accessibility, and will use this in their design.

Students may take this course for two years.



Drafting Technology - Engineering

► Is this course right for you?

Do you like to design things? Would you like to see your designs come to life?

If you answered yes to these questions, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- Visual Performing & Applied Arts Credit
- College Credit (Articulation):
Baker College, Davenport University,
Kalamazoo Valley Community College

Eligibility // Prerequisites

- Sophomore, Junior or Senior

NOTE: Introduction to Engineering and Design (ONLY) is an Early/Middle College eligible program

Career Data // Jobs

biomedical engineer, CAD manager, CAD operator, design engineer, drafter, engineer manager, industrial engineer, mechanical engineer, project engineer

**For salary information go to:
www.bls.gov/careeroutlook/**

“As a sophomore I enrolled in the Introduction to Engineering and Design class hoping to apply my computer and art skills into something I could later make a career of. This class helped me find a talent that might have gone unnoticed. The skills I developed have helped me complete some very exciting projects. I was amazed at how much fun I had. The skills that I developed in this class, I will be using for a very long time.”

- Sonnet Woolf, Kalamazoo Central High School Alumna, Western Michigan University, College of Engineering and Applied Sciences



Mechanical Drafting 1 - Introduction to Engineering and Design Engineering, Manufacturing & Industrial Technology Pathway

This is a course for students with limited or no Computer-Aided Drafting (CAD) experience. Use of standard drafting technique will be developed: geometric construction, orthographic projection, auxiliary views, section views, and dimensioning practices will be emphasized. Students will focus on design and assembly of 3-D parametric models, assembling parts, creating 2-D drawings and adding animation to their assembly. Students will use high-tech software to do their design work.

Mechanical Drafting 2 - Applied Engineering and Design

This course is project based. It gives students the opportunity to use their creativity to solve problems and calculate how things are designed. Students will be given the unique opportunity to work with a mentor engineer to help them with their design project. Projects will be in areas of bio-medical, alternative energies, inventions, and vehicle design among others. Students will use the rapid prototype machine, CNC router, laser cutter and various metal and woodworking machines. A thorough study of machine component design, tolerancing of mating parts, and creating assemblies will be taught in this course.

Students may take this course for two years.



Electrical Technology

► Is this course right for you?

If you like troubleshooting, working with your hands, and working with tools — and if you're steady, alert, and focused, then this course is for you!

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- Dual enrollment at Kalamazoo Valley Community College - 7 College Credits
- College Credit (Articulation): Baker College

Eligibility // Prerequisites

- Seniors only; dual enrolled
- Students provide own transportation
- Students follow dual enrollment policies and KVCC calendar requiring an extended day and loss of high school spring break

Career Data // Jobs

alarm installer, electrical supply company representative, electronics installer/repairer, journeyman electrician, residential wiring electrician, telephone/cable/burglar/fire power line worker, wind energy tech/mechanic

For salary information go to:
www.bls.gov/careeroutlook/

“The U.S. is facing a critical shortage of trained professionals to maintain the existing electric power system and to design, build, and operate the future electric system.”

- Task Force on America's Future Energy Jobs convened by NCEP.



Electrical Technology Engineering, Manufacturing & Industrial Technology Pathway

Students in this course are dually enrolled and have the opportunity to earn college credit through Kalamazoo Valley Community College.

This course provides instruction and training in the areas of applied electricity, residential wiring and code, and safety and first aid. Students will learn basic electrical theory and practices as well as wiring theory and gain lab experience. Upon successful completion of this course, the student should have the knowledge and ability to wire a residence according to the national electrical code. Throughout the program, students gain valuable practical experience working on residential, commercial and industrial wiring. Students interested in this class should enjoy working with mathematical formulas and algebraic concepts.



Electronics & Robotics Project Lead the Way (PLTW)

► Is this course right for you?

Do you like figuring out how things work and using your creativity to solve problems?
If you do, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- Visual Performing & Applied Arts Credit
- College Credit (Articulation):
Davenport University,
Kalamazoo Valley Community College

Eligibility // Prerequisites

- Sophomore, Junior or Senior

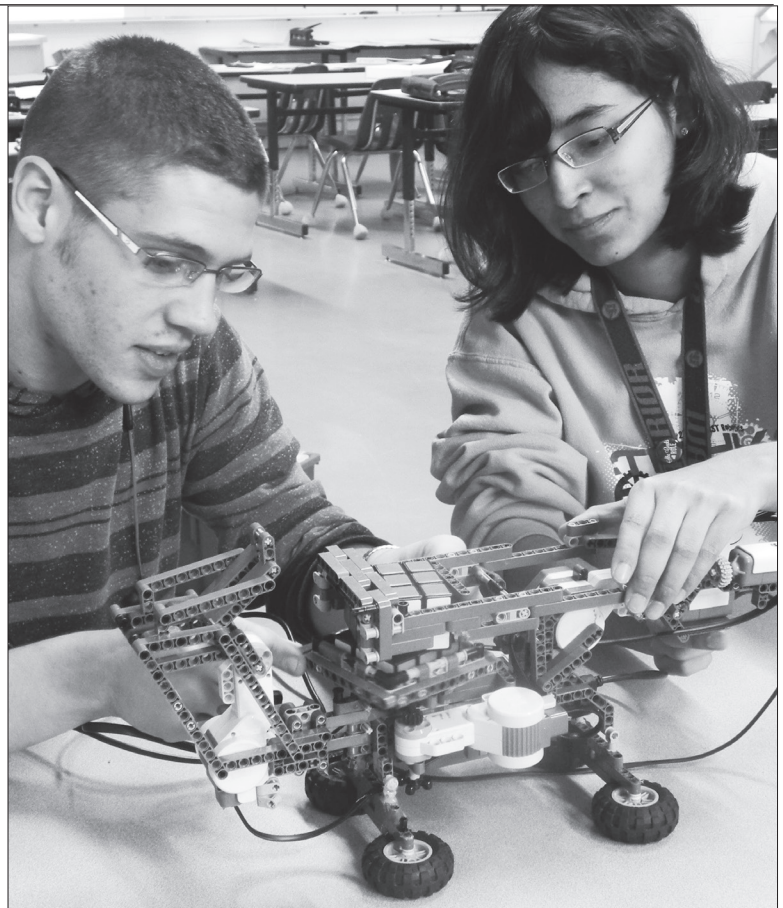
Career Data // Jobs

alternative energy specialist,
computer engineer, electrical
engineer, electrician,
environmental engineer,
manufacturing engineer,
mechanical engineer, sales,
technical engineer, technician,
wind power technician

For salary information go to:
www.bls.gov/careeroutlook/

“This course introduced me to electronics and started me on my career path. Now I’m working for a top aerospace company designing state-of-the-art satellite communication systems.”

- Sean Reminga, Northrup Grunman, Alumnus



Electronics & Robotics Engineering, Manufacturing & Industrial Technology Pathway

This is an excellent course for students to use their creativity to solve problems and figure out how things work. A hands-on approach will introduce students to concepts and skills in current and emerging technical fields. The course features high-tech equipment and programs in a student-centered classroom. Projects challenge and engage students’ minds to provide a strong foundation that could launch them into engineering or other high-tech careers such as alternative energies, robotics and automated systems, optics, biomedical, and nanotechnology.

Students may take this course for two years.



Engineering Project Lead the Way (PLTW)

Is this course right for you?

Do you like to problem solve working in a group setting? Would you enjoy the chance to utilize engineering design concepts to develop projects? If you answered yes, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- Visual Performing & Applied Arts Credit
- College Credit (Articulation):
Baker College, Ferris State University,
Kalamazoo Valley Community College

Eligibility // Prerequisites

- none

**Note: Engineering Design (ONLY) is an
Early/Middle College eligible program**

Career Data // Jobs

**CAM programmer,
CNC programmer, electrical and
mechanical engineers,
engineering manager, manufactur-
ing/engineering tech, program
manager, project engineer**

**For salary information go to:
www.bls.gov/careeroutlook/**

“The United States will have more than 1.2 million unfilled jobs in STEM-related (Science, Technology, Engineering and Mathematics) fields by 2018, yet employers may be short as many as three million high skilled workers to fill those jobs.”

- Dr. Vince Bertram, CEO & President of Project Lead the Way



Engineering Engineering, Manufacturing & Industrial Technology Pathway

Engineering Design:

The Engineering Design course allows students to dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. Students work individually and in teams to design solutions to a variety of problems using 3-D modeling software and document their work in an engineering notebook.

Principles of Engineering:

Through problems that engage and challenge, students explore a broad range of engineering topics including mechanisms, the strength of structures and materials, automation and robotics. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

Engineering Design and Development (EDD): (Capstone Course)

The knowledge and skills students acquire in PLTW Engineering come together in EDD as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards, completing EDD helps students to get ready to take on any post-secondary program or career.

These courses would benefit students interested in pursuing careers in



Engineering in Wood Technology

► Is this course right for you?

Do you like working with wood and woodworking tools? Do you like designing and making things? If you do, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- Visual Performing & Applied Arts Credit
- College Credit (Articulation):
Michigan Career & Technical Institute

Eligibility // Prerequisites

- Sophomore, Junior or Senior



Career Data // Jobs

carpenter, cabinetmaker,
construction worker, furniture
designer, furniture restorer, wood
machinist, woodworker

For salary information go to:
www.bls.gov/careeroutlook/

Engineering in Wood Technology Engineering, Manufacturing & Industrial Technology Pathway

Engineering in Wood Technology is a course that covers the rudimentary techniques of woodworking and cabinetmaking in relation to industry. This class provides true differentiated training for the real-world of manufacturing and industry, with student directed studies ranging from areas of programming and operation of CNCs, laser engraving and even 3D printing technologies to rustic woodworking using traditional tools such as Japanese pull saws or hand lathes.

This course offers higher-level training in management and student leadership via a complex student-run student-led class structure. Students after leaving this class present skills applicable in all walks of life and will be career or college ready.

“... taught problem-solving skills for common sense answers to complex problems. Learning how to make woodworking projects taught me the value of hard work and the satisfaction of a job well done. There is no other feeling like it!”

- Alex Hicks, Portage Northern High School
Alumnus



Heating, Ventilation & Air Conditioning

► Is this course right for you?

If you like the idea of working with heating and cooling systems, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- Dual Enrollment at Kalamazoo Valley Community College - 12 College Credits

Eligibility // Prerequisites

- Seniors only; dual enrolled
- Students provide own transportation
- Students follow dual enrollment policies and KVCC calendar requiring an extended day and loss of high school spring break

Career Data // Jobs

boilermaker, furnace and air conditioning repair, home appliance repair, HVAC installer/mechanic, refrigerator repair

For salary information go to:
www.bls.gov/careeroutlook/

“Job prospects for heating, air conditioning and refrigeration mechanics and installers are expected to be excellent, particularly for those who have completed training from an accredited technical school or a formal apprenticeship.”

- www.bls.gov



Heating, Ventilation & Air Conditioning Engineering, Manufacturing & Industrial Technology Pathway

Students in this course are dually enrolled and have the opportunity to earn KVCC college credit in addition to high school credit.

This course provides instruction and training in the areas of heating, ventilation, air conditioning and refrigeration as well as the design, installation, and servicing of HVAC/R systems. HVAC prepares students for a technical career upon completion.



Welding

► Is this course right for you?

If you like to design and work with metal, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- 4th Related Math Credit
- Visual Performing & Applied Arts Credit
- Dual Enrollment at Kalamazoo Valley Community College - 6 College Credits
- College Credit (Articulation):
Baker College, Ferris State University

Eligibility // Prerequisites

- Seniors only; dual enrolled
- Students must provide own transportation
- Students follow dual enrollment policies and KVCC calendar requiring an extended day and loss of high school spring break

NOTE: This is an Early/Middle College eligible program

Career Data // Jobs

**boilermaker, iron worker,
machine tool setter, sheet
metal worker, welding machine
operator, welder**

**For salary information go to:
www.bls.gov/careeroutlook/**



Welding

Engineering, Manufacturing & Industrial Technology Pathway

Students in this course are dually enrolled and have the opportunity to earn college credit from Kalamazoo Valley Community College in addition to high school credit. Students must follow all requirements of a dual-enrolled program.

Students learn to weld with the most advanced welding processes used today. Content includes the basic safe operation of MIG (GMAW) and Flux-Cored (FCAW) welding, cutting and brazing systems. Students also receive training in the basic gas Tungsten (GTAW) welding processes and equipment setup, selection and operation. Blueprint reading for welders, welding symbols and basic welder's trade math are included to prepare the student for employment in the welding trade.

"Favorite course in high school."

- Neal Dunithan, Galesburg-Augusta High School
Alumnus

A black and white photograph of a classroom or laboratory setting. In the center, a woman with dark hair, wearing a plaid top and a dark cardigan, is smiling and looking towards a young man on her right. The man is wearing a dark jacket and is looking at a female anatomical mannequin on the left. The mannequin is shown from the chest up, with its internal organs, including the heart and lungs, visible. In the background, there are other anatomical models, including a full-body skeleton and a chart labeled "Chart 2a". The overall scene suggests a learning environment in a health sciences field.

Pathway to:
Health Sciences

- Dental Assisting
- Emergency Medical Technician (EMT)
- Fundamentals of Health Science
- Health Science
- Professional Health Science



Dental Assisting

► Is this course right for you?

If you like to assist and care for others, enjoy hands-on physical work, readily follow instructions, are organized and take pleasure in working and communicating with the public, then this may be the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- Dual Enrollment at Kalamazoo Valley Community College - 9 college credits
- American Heart Safety & First Aid and CPR

Eligibility // Prerequisites

- Seniors only; dual enrolled
- Proof of immunizations
- Drug testing and background check
- Professional health attire
- Extended hours for internship
- Students provide own transportation
- Students must meet academic and attendance requirements for internship
- Students follow dual enrollment policies and KVCC calendar requiring an extended day and loss of high school spring break



Career Data // Jobs

dental assistant, dental hygienist, dentist, endodontist, orthodontist

**For salary information go to:
www.bls.gov/careeroutlook/**

Dental Assisting Health Sciences Pathway

Students choosing this program will be dually enrolled through Kalamazoo Valley Community College (KVCC) and can earn both high school and college credit for the course. Students will need to meet the college's entrance expectations, as well as having their schedule open to extended class times and the college's calendar. Enrollment in the EFE Dental Assisting program begins a preferred relationship with the KVCC Dental Hygiene program that could later impact a student's acceptance into the KVCC program.

The course prepares students to become dental assistants. Students will learn the fundamental knowledge and skills of dental anatomy, physiology, terminology, dental materials, chairside assisting, sterilization, radiology, laboratory and clinical procedures. Second semester incorporates an internship held in KVCC's Dental clinic and local dental offices.

"If anybody has any interest in dentistry, then this is definitely the best way to figure out if this is something you really want to do."

- Brad Phares, Portage Central High School
Alumnus



Emergency Medical Technician (EMT)

► Is this course right for you?

Do you like to help people in emergency situations? Do you keep calm and collected during stressful conditions? If so, this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- Dual enrollment at Kalamazoo Valley Community College - 9 college credits
- CPR/AED for the Professional Rescuer
- National Registry Basic EMT License available

Eligibility // Prerequisites

- Seniors only; dual enrolled
- Proof of immunizations
- Drug testing and background check
- Professional attire - uniform
- Students provide their own transportation
- Students follow dual enrollment policies and KVCC calendar requiring an extended day and loss of high school spring break

Career Data // Jobs

ambulance driver, EMT instructor, field supervisor, fire service, first responder, medical service technician, paramedic, public/fire safety, rescue squad

For salary information go to:
www.bls.gov/careeroutlook/

“Employment of emergency medical technicians (EMTs) and paramedics is projected to grow 24 percent from 2014-2024, much faster than the average for all occupations.”

- www.bls.gov



Emergency Medical Technician (EMT) Health Sciences Pathway

Students in this class are dually enrolled and have the opportunity to earn both high school and college credit. Basic EMT provides students with instruction in basic emergency medical technology. The EMT course is a study of the topics and skills necessary to make lifesaving interventions and stabilize patients during transport to a medical facility. The course involves lecture and practical skills labs and introduces the clinical component of EMT education, the minimum level of training required for work on a transporting ambulance.

Second semester students will complete clinical hours with a local ambulance service and healthcare agencies. Upon successful completion of this course, students are eligible to sit for the National Registry Basic EMT licensing examination.



Fundamentals of Health Science

► Is this course right for you?

If you like to assist people in need, enjoy math and science, embrace responsibility, have good oral and written skills, and get pleasure from working with others, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- College Credit (Articulation): Baker College, Davenport University, Ferris State University, Kalamazoo Valley Community College
- CPR/AED for the Professional Rescuer

Eligibility // Prerequisites

- Junior or Senior
- Proof of immunizations, drug testing, and background check
- Professional health attire
- Potential fundraising or out of pocket expenses for HOSA participation
- Students provide their own transportation for job shadowing
- Extended hours for 2nd year internship

Career Data // Jobs

certified nurse assistant, home health aide, LPN, massage therapist, medical assistant, medical billing coder, medical laboratory technician, patient care associate, phlebotomist, physical therapy assistant, radiology technician, registered nurse, respiratory technologist, surgical technician

**For salary information go to:
www.bls.gov/careeroutlook/**

“As the baby-boom population ages and the elderly population grows, demand for the services of home health aides to provide assistance will continue to increase.”

- www.bls.gov

Fundamentals of Health Science Health Sciences Pathway

The Fundamentals of Health Science program is ideal for students interested in exploring healthcare careers. Instruction will provide the skills and knowledge (both academic and technical) necessary to pursue entry level, advanced certification and/or a two-year degree. Special emphasis is on physiology, anatomy, medical terminology, patient assessment/vital signs, infection control, medical ethics, job-related safety, CPR, first aid and communication. Students should be dependable, well-motivated, and show a sincere interest in health care.



Professional Health Science (2nd year option)

Professional Health Science provides advanced training and experience in the healthcare field. The course includes internship experiences and enrollment in advanced skill mini courses such as phlebotomy, electrocardiography, patient care assistance, and exercise science/sports medicine. Students successfully completing CPR/AED and medical terminology instruction may receive articulated college credit.

This second-year course represents the most advanced level of study in the health science program. Students applying to the program must meet specific achievement and performance prerequisites within either Health Science or Fundamentals of Health Science before gaining admission.



Health Science

► Is this course right for you?

If you like to help people, love math and science, enjoy high levels of activity, and are dedicated to learning and hard work, then this course is for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- College Credit (Articulation): Baker College, Davenport University, Ferris State University, Kalamazoo Valley Community College
- CPR/AED for the Professional Rescuer

Eligibility // Prerequisites

- Junior or Senior
- Proof of immunizations, drug testing and background check
- Professional health attire
- Potential fundraising or out-of-pocket expenses for HOSA participation
- Students are required to provide their own transportation for job shadowing
- Extended hours for 2nd year internship



Health Science Health Sciences Pathway

Health Science

This course introduces the student to health care, with an emphasis on core skills and knowledge applicable to many professional health care disciplines. The curriculum integrates anatomy and physiology, medical terminology, and basic care skills through practical applications found in the health care setting. Students should enjoy working at a fast pace and should be considering a healthcare career requiring a minimum of four years of post-secondary education.

Professional Health Science (2nd year option)

Professional Health Science provides advanced training and experience in the healthcare field. The course includes internship experiences and enrollment in advanced skill mini courses such as phlebotomy, electrocardiography, patient care assistance, and exercise science/sports medicine. Students successfully completing CPR/AED and medical terminology instruction may receive articulated college credit.

This second-year course represents the most advanced level of study in the health science program. Students applying to the program must meet specific achievement and performance prerequisites within either Health Science or Fundamentals of Health Science before gaining admission.

Career Data // Jobs

athletic trainer, dietician, massage/art/music/dance/speech therapy, medical social worker, medical technologist, occupational therapist, pharmacist, physical therapist, physician, physician's assistant, registered nurse (BSN), speech therapist

**For salary information go to:
www.bls.gov/careeroutlook/**

“I had an internship in the Emergency Room and just seeing the different health care professionals all working together to have a smooth operation was really phenomenal.”

- Amira Saad, Portage Central High School Alumna



Pathway to:
Human Services

- Cosmetology/Barbering
- Law Enforcement
- Teacher Academy



Cosmetology/Barbering

► Is this course right for you?

Do you love working with hair, have an artistic flair, and enjoy working with people?
If so, this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- Visual Performing & Applied Arts Credit
- Cosmetology Licensure available
- College Credit (Articulation):
Ferris State University

Eligibility // Prerequisites

- Junior (2 year obligation)
- Cosmetology Hours: 12:30 - 4:30 pm
- Barbering Hours: 12:30 - 5:30 pm
- 240 summer clock hours for Juniors required
- Dress Code
- Cosmetology has an additional application that needs to be turned in with the EFE application:
www.kresa.org/EFECosmetologyApplication

Career Data // Jobs

barber, beautician, cosmetologist,
hair stylist, manicurist

For salary information go to:
www.bls.gov/careeroutlook/

“... wonderful opportunity to get a head start on life.”

- EFE Promotional DVD

“I can learn skills with my hands. I learn the skills like the back of my hand.”

- Lauren Robinson, Vicksburg High School Alumna



Cosmetology/Barbering Human Services Pathway

This is a state-certified program of instruction designed to prepare students to become a licensed professional cosmetologist or barber. Michigan's cosmetology course includes 1,500 clock hours (barbering includes 2,000) of mandatory attendance. In order to complete this requirement, students must be committed to attending the program during an extended day throughout their junior and senior years and the summer that falls between. Students not meeting this requirement during their EFE enrollment will need to complete the program at their own expense. Upon successful completion of this prerequisite, students will be prepared to take their Michigan State Board Exam.



Law Enforcement

► Is this course right for you?

Do you have what it takes (honor, integrity, good moral principles, physical coordination, problem-solving skills, and a fine eye for detail) to be a law enforcement officer? If so, this course is for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- College Credit (Articulation): Baker College, Davenport University, Ferris State University, Kalamazoo Valley Community College
- First Aid & CPR Training

Eligibility // Prerequisites

- Junior or Senior
- Dress Code
- Hair Requirement: Males - no longer than 1½", Females - hair tied back
- Course includes physical conditioning
- Unlawful behavior may exclude/remove student from program



Law Enforcement Human Services Pathway

Through a partnership between KVCC, Kalamazoo RESA and Kalamazoo Department of Public Safety (KDPS), this program offers a very unique, non-traditional opportunity to high school juniors and seniors. EFE's Law Enforcement program is taught by a Public Safety Officer (PSO) and includes several guest speakers from throughout the criminal justice profession.

Law Enforcement I introduces students to the many different careers available within the field. The program emphasizes the knowledge, skills, and ethics needed to be a successful police/fire academy recruit. Areas of study include criminal law, patrol procedures, fire ground operations, first aid/CPR/AED certifications, defensive tactics, crime scene investigation, and oral & written communication skills. The program follows MCOLES* and police academy standards, as well as current college curriculum.

Law Enforcement II deepens students' understanding of criminal procedures and improves their written and oral communication skills. Eligible students will intern with local public safety agencies during second semester, applying the knowledge, skills, and ethics learned to real world situations.

Partnered with Kalamazoo Department of Public Safety.

*Michigan Commission on Law Enforcement Standards (MCOLES)

Career Data // Jobs

bailiff, corrections officer, detective, FBI agent, fire fighter, fire inspector, forensics, jail guard, judge, lawyer, parking enforcement, police officer, security person

**For salary information go to:
www.bls.gov/careeroutlook/**

"The Law Enforcement EFE program made me realize how fun and interesting it is to be a police officer. It also showed me KDPS is a great department full of great people. This program put me on the path to where I am today, a KDPS PSO."

- PSO Devin Palmer, EFE Law Enforcement Alumnus



Teacher Academy

► Is this course right for you?

If you like to work with young people and have thought about teaching as a career choice, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- Visual Performing & Applied Arts Credit
- College Credit (Articulation):
Central Michigan University

Eligibility // Prerequisites

- Junior or Senior
- Appropriate internship attire

Career Data // Jobs

assistant principal, college professor, educational consultant, educational coordinator, head start teacher, paraprofessional, principal, school psychologist, speech therapist, teacher, teacher's aide, technical assistant

For salary information go to:
www.bls.gov/careeroutlook/

"This class has done so much for me. It has prepared me for...when I am at WMU and how it really feels to be working with kids all day. Because of this class, I found confirmation that being a teacher is really what I want to do."

- Abigail Krause, Kalamazoo Central High School Alumnus



Teacher Academy Human Services Pathway

The Teacher Academy is designed to introduce students to the various careers in the Education and Training Career Cluster. Students participate in a field-based internship that provides students with hands-on experience working in a prekindergarten, elementary or middle school classroom. In addition, students will learn the necessary background knowledge of child development and principles of effective teaching through a hybrid program of learning which may include online assignments, class meetings, extended research projects, field trips and interviews. Students work under the joint direction of an EFE instructor and exemplary teachers in their area of interest as they learn to plan and direct instruction for individuals and groups, develop materials, assist with record keeping and complete other responsibilities of teachers and other school personnel.

Students may take this course for two years.

A black and white photograph of a woman petting a dog, with a sign overlay. The woman is in the foreground, looking down at the dog. The dog is a medium-sized breed with a speckled pattern. In the background, other people are visible, suggesting a public event or a classroom setting. A sign is overlaid on the image, containing text about a pathway to natural sciences and agriscience.

Pathway to:
**Natural Sciences &
Agriscience**

- Animal Technology
- Conservation Biology
- Veterinary Science



Animal Technology

► Is this course right for you?

If you know you would like a career working with animals and would like hands-on experiences in animal-related fields, then this course is for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- College Credit (Articulation):
Davenport University

Eligibility // Prerequisites

- Sophomore, Junior or Senior
- Professional attire

Career Data // Jobs

animal breeder/trainer, animal caretaker, animal groomer, animal husbandry, animal nutritionist, animal scientist, equine trainer/boarder, farmer, rancher, veterinarian, veterinary assistant/technologist

**For salary information go to:
www.bls.gov/careeroutlook/**



Animal Technology

Natural Sciences & Agriscience Pathway

Animal Technology is an introduction to the basic care and management of companion animals including cats, dogs, pocket pets and exotic animals. This course also focuses on the production of animals such as horses, sheep, goats, cattle and pigs; for enjoyment or for food and fiber products.

Topics include the anatomy, health, reproduction and nutritional requirements of animals. Students gain a foundation to better care for their own animals, raise animals for their personal use or for pursuing careers in the veterinary, animal science, food/fiber or agribusiness fields.

Students participate in job shadowing experiences, take part in field trips and learn from guest speakers. This is a laboratory-based class and involves hands-on use of animal equipment and animal dissections.

“Animal Tech has helped me decide what I want to do as a career working with animals.”

- Anonymous



Conservation Biology

► Is this course right for you?

If you want a career in the sciences working in the area of Natural Resource Conservation and working with professionals in the natural environment, this course is for you. This course will involve studying animals, plants and their environments in their natural setting.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- College Credit (Articulation):
Davenport University

Eligibility // Prerequisites

- Sophomore, Junior or Senior
- Dress appropriately for outdoor work

Career Data // Jobs

arborist, biologist, botanist, conservation officer, ecologist, forestry technician, hatchery manager, land use planner, microbiologist, soil scientist, watershed director, wildlife animal control technician, wildlife biologist

**For salary information go to:
www.bls.gov/careeroutlook/**

“Along my path to becoming a Wildlife Biologist, I started with a strong education base in science and math continuing on to a college degree in Wildlife Sciences. I collected as many field work experiences as possible, and I took every opportunity to learn about the tools of the trade. This program is a great way to jumpstart your career experience and build the skills that will help you become a stronger candidate in this profession. I wish I had a class like this when I was in high school.”

- Lauren Dahl, Wildlife Biologist



Conservation Biology

Natural Sciences & AgriScience Pathway

This program introduces students to the exciting careers in Natural Resource Conservation and Wildlife Biology. This laboratory/field-based course involves hands-on learning of ecological science, animal and plant studies (i.e. behavior, identification), job shadowing and field trips. This course will have special emphasis on skills and technology used in this profession. Students will have direct contact with natural resource conservationists and wildlife biologists in this field of study. They will attain the skills necessary to obtain employment in various careers in Natural Resource Conservation and Wildlife Biology.



Veterinary Science

► Is this course right for you?

If you like to take care of animals and work with animal healthcare, then this is the course for you.

Credits // Certification

- 2nd World Language Credit
- 3rd Science Credit
- College Credit (Articulation):
Davenport University

Eligibility // Prerequisites

- Seniors only
- Successfully passed biology
- Dress code
- Students provide own transportation
- Students must meet academic and attendance requirements to complete an internship

Career Data // Jobs

life scientist, livestock inspector,
veterinarian, veterinary assistant

For salary information go to:
www.bls.gov/careeroutlook/

“It’s a great program that is taught by an actual veterinarian. When in EFE, you learn things that you wouldn’t in a traditional classroom setting.”

- Megan Richardson, Portage Northern High School
Alumna



Veterinary Science

Natural Sciences & Agriscience Pathway

During the first semester, students will focus on anatomy, medical terminology, hematology, animal breeds, animal health and care, restraint and handling, veterinary lab procedures and parasitology. The second semester will combine continued classroom instruction on specific skills with field work in area veterinary clinics. This program will introduce students to college level coursework and help prepare students for various jobs in the field of veterinary medicine.

A black and white photograph of a woman with short hair, wearing a headband and a necklace, focused on operating a sewing machine. The background shows shelves with various fabric rolls. The image is overlaid with a signpost graphic and a stylized landscape at the bottom.

Pathway to:
**Capstone Work
Experiences**

- Theatre Technology
- Work-Based Learning



Theatre Technology

► Is this course right for you?

If you want to work side by side with professionals in technical theatre, then this course is for you.

Eligibility // Prerequisites

- Senior
- Dress appropriately for work
- Students provide their own transportation
- Hours extended beyond school day
- Application process

Career Data // Jobs

box office manager, costume designer, director, lighting designer, scenic carpenter, scenic designer, scenic painter, stage manager, technical director

For salary information go to:
www.bls.gov/careeroutlook/

“Now at NYU studying technical theatre, I realize just how much the EFE Theatre Technology program taught me.”

- Bridin Clements, Kalamazoo Central High School Alumna



Theatre Technology Arts & Communication Pathway

Students will work alongside theatre professionals in the areas of scenic construction, lighting/sound/special effects design, costume design, properties design, scenic painting, stage management, and box office management. The course explores all aspects of technical theatre. A once-a-week seminar enhances studies.



Work-Based Learning

► Work-Based Learning

Work-based learning helps students understand how course content applies to their future and allows students to interact with employees/employers to better understand the nature of work and opportunities available.

Cooperative Education (CO-OP)

11th and 12th-grade EFE students can earn while they learn through on-the-job training. This is a capstone experience for students to work in a job related to their EFE class. Applications are available in the guidance office at each school.

Apprenticeship

Employers sponsor students through the Bureau of Apprenticeship Training. Paid experience integrates classroom and work-based learning. Upon completion of high school, the student continues the apprenticeship with the employer and with related post-secondary training. Applications are available in the guidance office at each school.

Internships

EFE students in certain programs may access advanced training in the workplace as part of the curriculum. These experiences may be unpaid or paid.

Field Trips

Many EFE students participate in field trips to area businesses related to their program. This allows the students to observe the work environment in person and understand what opportunities are available in that career.

Job Shadowing

Students spend time at local businesses observing working conditions and skill requirements. All EFE students have an opportunity to participate in a job shadowing experience.



Students involved in Work-Based Learning:

- Are better prepared for future employment and promotion
- May earn money to support future goals
- Have improved attendance and better grades
- Are more interested in additional education and training
- Develop better problem-solving skills and interpersonal skills
- Are more goal-oriented
- Better understand real-life issues
- Have increased focus and purpose

The proper balance between classroom and work-based experiences results in high academic and technical achievement.



Education for Employment

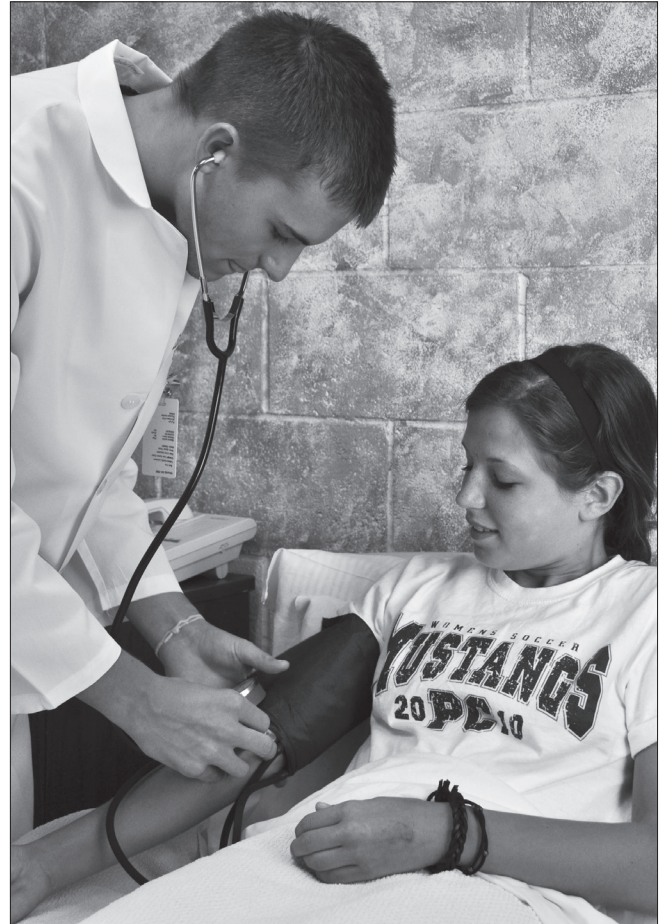
Participating Districts

- Climax-Scotts Community Schools
- Comstock Public Schools
- Galesburg-Augusta Community Schools
- Gull Lake Community Schools
- Kalamazoo Public Schools
- Kalamazoo Regional Educational Service Agency
- Kalamazoo Valley Community College
- Parchment School District
- Portage Public Schools
- Schoolcraft Community Schools
- Vicksburg Community Schools

Also serving non-public and home-schooled students who reside or attend school in Kalamazoo County.

For Further Information Contact:

**Education for Employment
Kalamazoo RESA
1819 East Milham Avenue
Portage, MI 49002
Phone: 269-250-9300
or contact your high school counselor
or visit us at www.kresa.org/efe**



Notice of Non-discrimination: It is the policy of Kalamazoo Regional Educational Service Agency that no discriminating practices based on gender/sex, sexual orientation, race, religion, height, weight, color, age, national origin, disability, genetic information or any other status covered by federal, state or local law be allowed during any program, activity, service or in employment. The following positions at Kalamazoo RESA have been designated to handle inquiries regarding the nondiscrimination policy: Human Resources Administrator, Tom Zahrt; Assistant Superintendents, Margaret McGlinchey & Laurie Montgomery. Contact information: 269-250-9200, 1819 E. Milham Ave, Portage, MI 49002.



**STUDENT APPLICATION
KALAMAZOO RESA
EDUCATION FOR EMPLOYMENT**

Part I: To be completed by the student and parent/guardian.

Student Name		Gender (please check one) Male Female		Date of Birth	Grade Level Next School Year:
High School Attending:	High School of Residence	Home Phone Number	Parent/Guardian Name		Phone Number
Home Street Address		City	Zip Code	Email Address	
Transportation (is district dependent. Check with your counselor for more information) Will you need transportation to this class next fall? Yes or No					

<p>EFE PROGRAM SELECTION: (please check only one program per application)</p> <p><input type="checkbox"/> This is my first year in the selected program below</p> <p><input type="checkbox"/> I am a returning 2nd year student in this program* (requires EFE instructor approval)</p> <p align="center">*EFE Teacher Approval Required: _____ Teacher's Signature</p>
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Arts & Communication

- Art & Design Career Skills
- Digital Video Production
- Radio Broadcasting

Business, Management, Marketing & Technology

- Banking & Finance
- Computer Technology
- Computer Science/Software Engineering
- Culinary Arts

Engineering, Manufacturing & Industrial Technology

- Automotive Technology
- Aviation Technology
- Computerized Manufacturing
- Construction Trades
- Drafting Tech./Architectural
- Drafting Tech./Engineering
- Electrical Technology (*Seniors Only*)
- Electronics & Robotics
- Engineering Design
- Engineering: Principles of Engineering
- Engineering in Wood Technology
- Heating, Ventilation & A/C (*Seniors Only*)
- Welding (*Seniors Only*)

Health Sciences

- Dental Assisting (*Seniors Only*)
- Emergency Med Tech (EMT) (*Seniors Only*)
- Fundamentals of Health Science
- Health Science
- Professional Health Science (*Seniors only; 2nd year Health Science or 2nd year Fund. of Health Science students only*)

Human Services

- Barbering
- Cosmetology
- Law Enforcement
- Teacher Academy

Natural Resources & Agriscience

- Animal Technology
- Conservation Biology
- Veterinary Science (*Seniors Only*)

APPROVAL OF APPLICATION

I/we understand that our daughter/son is applying for a career and technical education program offered by local schools through the Kalamazoo County Education for Employment consortium and that if she/he is accepted:

1. Daily attendance is REQUIRED.
2. Students will be responsible for following the rules established by the EFE instructor. Failure to do so can result in removal.
3. Transportation may be the responsibility of the student if the local school does not provide transportation.
4. **The sending school is making a financial commitment and students are expected to commit to a full-year program.**

I have read the attached information about the program, including the Special Requirements sheet, and give my approval for my son/daughter, _____, to enroll in the above program.

(Name of student)

Parent/Guardian Signature

Student Signature

Date

Counselor Signature

Date



For Further Information,

contact:

Your High School Counselor

or visit us at:

www.kresa.org/efe

or on Facebook:

www.facebook.com/efekresa

Education For Employment

Kalamazoo RESA • 1819 East Milham Avenue • Portage, MI 49002-3035 • 269-250-9300