



# PROGRAM OF STUDIES

2021-2022



# About the JVS

Established in 1971, the Lorain County JVS offers exemplary, nationally accredited career and technical education for students in grades 9-12 and adult learners. Through the specialized programs offered, our students are gaining the technical skills, knowledge and training necessary to be successful in high-demand careers. Located on a 100-acre campus in Oberlin, Ohio, the JVS is one of the largest career-technical facilities in the state and serves high school students from 13 school districts: Amherst, Avon, Avon Lake, Clearview, Columbia, Elyria, Firelands, Keystone, Midview, North Ridgeville, Oberlin, Sheffield –Sheffield Lake and Wellington along with adult learners from surrounding communities.

## Mission

We create opportunities for students to achieve success in their careers.

## Vision

By 2023, the Lorain County JVS will be the model Career and Technical Education Center in the state of Ohio.

## Core Beliefs

- We believe in the engagement of all stakeholders.
- We believe in providing pathways of success for all students.
- We believe in a rigorous and relevant curriculum that increases achievement.
- We believe in recruiting, developing and retaining highly qualified employees.
- We believe we are all responsible for the success of students.
- We believe in developing and sustaining partnerships.

# Lorain County JVS Board of Education

The Lorain County JVS Board of Education is the policy-making body for the Lorain County JVS. Each of the 13 associate school districts appoints one of their board members to serve on the JVS Board of Education.

## Amherst



Mr. Rex Engle  
Vice President

## Avon



Mr. Art Goforth

## Avon Lake



Mr. Dale Cracas

## Clearview



Dr. Richard Marcucci

## Columbia



Mr. Stephen Coleman

## Elyria



Ms. Annie Carstarphen

## Firelands



Mr. Dwayne Becker

## Keystone



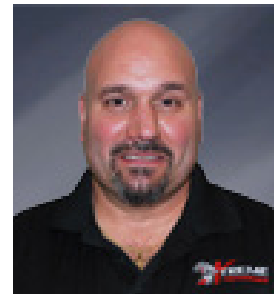
Ms. Deborah Melda  
President

## Midview



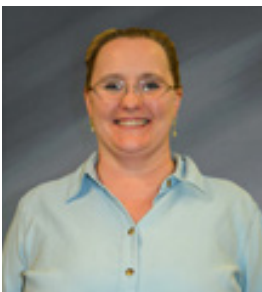
Ms. Kathy Quintiliano

## N. Ridgeville



Mr. Steve Ali

## Oberlin



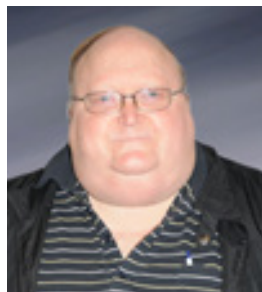
Ms. Anne Schaum

## Sheffield



Ms. Sandy Jensen

## Wellington



Mr. Ayers Ratliff

# Student Services

Students at the Lorain County JVS are served by their Associate School Counselors as well as their JVS School Counselors. Students who receive special education services at their Associate Schools will continue to receive services at the JVS.

**Mrs. Denise Scarpucci**



Special Education  
Supervisor

**Ms. Joanne Gleason**



Counselor  
Avon, Brookside, Midview,  
Wellington

**Ms. Shannon Meadows**



Counselor  
Amherst, Avon Lake,  
Columbia, North Ridgeville,  
Oberlin

**Mr. Chris Wilde**



Counselor  
Clearview, Elyria, Firelands,  
Keystone

**Ms. Becky Nemeth**



Social Worker  
Grades 9 & 10

**Ms. Kelly Thomas**



Social Worker  
Grades 11 & 12

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The Lorain County Joint Vocational School District does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities, and provides equal access to the Boy Scouts and other designated youth groups.

## Planning Your Path to Success

The Lorain County JVS celebrates that student success can come along many different pathways. The JVS offers students many different routes to achievement, including Industry Credentials, core academics, College Credit Plus, work-based learning and virtual schooling. It is important for students and their families to map out the path they plan to take to accomplish their goals.



# Graduation Requirements

#EachChildOurFuture

## Ohio's High School Graduation Requirements Classes of 2021 and 2022

It's Your **Future.** Get **Ready.**

Before you know it, you'll be receiving your high school diploma. Ohio is giving you new ways to show the world what you can do with it.

As a student entering ninth grade between **July 1, 2017** and **June 30, 2019**, Ohio's new high school graduation requirements give you more flexibility to choose a graduation pathway that builds on your strengths and passions – one that ensures you are ready for your next steps and excited about the future.

### Cover the basics

You must earn a minimum total of 20 credits in specified subjects and take your required tests. Then, decide how you will round out your diploma requirements.

English language arts	4 credits
Health	½ credit
Mathematics	4 credits
Physical education	½ credit
Science	3 credits
Social studies	3 credits
Electives	5 credits

#### Other Requirements

You also must receive instruction in economics and financial literacy and complete at least two semesters of fine arts. Your district may require more than 20 credits to graduate.

You have the option to show you are ready by meeting the **original three graduation pathways** below that were available when you entered high school.

### Show you are ready

Use at least one pathway to show that you are ready for college or a job.

#### 1. Ohio's State Tests

Earn at least 18 points on seven end-of-course state tests. End-of-course tests are:

**Algebra I or Integrated Math I**      **English I**  
**Geometry or Integrated Math II**      **English II**  
**American Government**              **Biology**  
**American History**

Each test score earns you up to five graduation points. You must have a minimum of four points in math, four points in English and six points across science and social studies. Your school and district receive grades on the Ohio School Report Cards for all students' scores and participation on state tests.

OR

#### 2. Industry credential and workforce readiness

Earn a minimum of 12 points by receiving a State Board of Education-approved, industry-recognized credential or group of credentials in a single career field and earn the required score on WorkKeys, a work-readiness test. The state of Ohio will pay one time for you to take the WorkKeys test.

OR

#### 3. College and career readiness tests

Earn remediation-free scores in mathematics and English language arts on either the ACT or SAT.

The Ohio Department of Higher Education works with Ohio's universities to set the remediation-free scores for the ACT and SAT tests. Periodically, for a variety of reasons, these scores may be adjusted. For all high school juniors, the remediation-free scores set by Feb. 1 of their junior year will be used to meet their graduation requirement. The most up-to-date information regarding remediation-free scores can be found on the Department's graduation requirements webpage.

OR

(see reverse side)

# Graduation Requirements

#EachChildOurFuture

You can meet **new requirements** by demonstrating competency and readiness for a job, college, military or a self-sustaining profession.

## Show competency

Earn a passing score on Ohio's high school Algebra I and English II tests. Students who do not pass the test will be offered additional support and must retake the test at least once.

**Is testing not your strength?** After you have taken your tests, there are three additional options to show competency!

### Option 1.

#### Demonstrate Two Career-Focused Activities\*:

**Foundational**  
Proficient scores on WebXams  
A 12-point industry credential  
A pre-apprenticeship or acceptance into an approved apprenticeship program

**Supporting**  
Work-based learning  
Earn the required score on WorkKeys  
Earn the OhioMeansJobs Readiness Seal

\*At least one of the two must be a Foundational skill

### Option 2.

#### Enlist in the Military

Show evidence that you have signed a contract to enter a branch of the U.S. armed services upon graduation.

### Option 3.

#### Complete College Coursework

Earn credit for one college-level math and/or college-level English course through Ohio's free College Credit Plus program.

## AND

## Show readiness

Earn two of the following diploma seals, choosing those that line up with your goals and interests. These seals give you the chance to demonstrate academic, technical and professional skills and knowledge that align to your passions, interests and planned next steps after high school.

**At least one of the two must be Ohio-designed:**

- |   |  |
|---|--|
| <input type="checkbox"/> OhioMeansJobs Readiness Seal (Ohio)        | <input type="checkbox"/> Honors Diploma Seal (Ohio)            |
| <input type="checkbox"/> Industry-Recognized Credential Seal (Ohio) | <input type="checkbox"/> Seal of Biliteracy (Ohio)             |
| <input type="checkbox"/> College-Ready Seal (Ohio)                  | <input type="checkbox"/> Technology Seal (Ohio)                |
| <input type="checkbox"/> Military Enlistment Seal (Ohio)            | <input type="checkbox"/> Community Service Seal (Local)        |
| <input type="checkbox"/> Citizenship Seal (Ohio)                    | <input type="checkbox"/> Fine and Performing Arts Seal (Local) |
| <input type="checkbox"/> Science Seal (Ohio)                        | <input type="checkbox"/> Student Engagement Seal (Local)       |

# Graduation Requirements

#EachChildOurFuture

## Ohio's High School Graduation Requirements Classes of 2023 and Beyond



It's Your **Future.** Get **Ready.**

Before you know it, you'll be receiving your high school diploma. Ohio is giving you new ways to show the world what you can do with it.

As a student entering ninth grade on or after **July 1, 2019**, Ohio's new high school graduation requirements give you more flexibility to choose a graduation pathway that builds on your strengths and passions – one that ensures you are ready for your next steps and excited about the future.

### First, cover the basics

You must earn a minimum total of 20 credits in specified subjects and take your required tests. Then, decide how you will round out your diploma requirements.

English language arts	4 credits
Health	½ credit
Mathematics	4 credits
Physical education	½ credit
Science	3 credits
Social studies	3 credits
Electives	5 credits

#### Other Requirements

You also must receive instruction in economics and financial literacy and complete at least two semesters of fine arts. Your district may require more than 20 credits to graduate.

### Second, show competency

Earn a passing score on Ohio's high school Algebra I and English II tests. Students who do not pass the test will be offered additional support and must retake the test at least once.

**Is testing not your strength?** After you have taken your tests, there are three additional ways to show competency!

#### Option 1.

##### Demonstrate Two Career-Focused Activities\*:

###### Foundational

Proficient scores on WebXams  
A 12-point industry credential  
A pre-apprenticeship or acceptance into an approved apprenticeship program

###### Supporting

Work-based learning  
Earn the required score on WorkKeys Earn the OhioMeansJobs Readiness Seal

\*At least one of the two must be a Foundational skill.

#### Option 2.

##### Enlist in the Military

Show evidence that you have signed a contract to enter a branch of the U.S. armed services upon graduation.

#### Option 3.

##### Complete College Coursework

Earn credit for one college-level math and/or college-level English course through Ohio's free College Credit Plus program.

# Graduation Requirements

#EachChildOurFuture

## **Third, show readiness**

Earn two of the following diploma seals, choosing those that line up with your goals and interests. These seals give you the chance to demonstrate academic, technical and professional skills and knowledge that align to your passions, interests and planned next steps after high school.

### **At least one of the two must be Ohio-designed:**

- OhioMeansJobs Readiness Seal (Ohio)
- Industry-Recognized Credential Seal (Ohio)
- College-Ready Seal (Ohio)
- Military Enlistment Seal (Ohio)
- Citizenship Seal (Ohio)
- Science Seal (Ohio)
- Honors Diploma Seal (Ohio)
- Seal of Biliteracy (Ohio)
- Technology Seal (Ohio)
- Community Service Seal (Local)
- Fine and Performing Arts Seal (Local)
- Student Engagement Seal (Local)

**Want to learn more?** Contact your school counselor or visit [education.ohio.gov/graduation](http://education.ohio.gov/graduation)



2 | Ohio Graduation Requirements: Classes of 2023 and Beyond | August 2019

**Ohio** | Department of Education



# Career-Tech Honors Diploma

JVS Students can gain state recognition for exceeding Ohio's graduation requirements through a Career-Tech Honors Diploma. High-level coursework, college and career readiness tests and real-world experiences challenge students.

Students must meet all but one of the criteria below, including all criteria that are also a graduation requirement (such as 4 credits of mathematics). Students can use Advanced Placement, International Baccalaureate, College Credit Plus and Credit Flexibility coursework to meet the unit requirements of the honors diploma. A single course can meet multiple criteria if it fits under multiple subject areas.

## CRITERIA FOR CAREER-TECH HONORS DIPLOMA:

4 Units of Mathematics, including Algebra II

4 Units of Science, including 2 units of advanced science

4 Units of Social Studies

2 Units of one World Language

4 Units of Career-Technical courses

3.5 on a 4.0 scale

27 or high ACT score, 1280 or higher SAT score, OR >6 in Reading for Information and Applied Mathematics on WorkKeys

Successful completion of a field experience and portfolio

Comprehensive Portfolio

Industry-Recognized Credential or achieve proficiency benchmark for appropriate Ohio CT Competency Assessment

## Scheduling Process

Current students will make course selections with their counselors and AI Instructors. Incoming students will make course selections upon acceptance. Families should read and discuss this document prior to choosing courses so students can make the best decisions. The schedule will be built in the Spring and finalized over the summer. The only schedule changes permitted once school begins will be for the following reasons:

- Error in a student schedule by the JVS
- Course closed due to low enrollment
- Student failure of a prerequisite course
- Adding a course (if room in class for another student)
- Change in a CCP course
- New enrollment to the JVS
- Changes recommended by an IEP team

## Grades, Credits, Class Schedules Course Credit

You may earn the following credits while attending the JVS each year:

- Academics and Electives = .5 credit per semester
- Career-Technical Lab = 3 credits per year
- Related (1 Period) = 1 credit per year
- Course Pathway = varies per career-technical program

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## Grade Cards

Grades are readily available to parents on PowerSchool and Canvas. Only end of year grade cards will be mailed home.

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## Canvas

Parents and students are encouraged to monitor students' progress using the Canvas LMS. Both parents and students will be provided log on information at the beginning of the school year or at enrollment. Canvas usernames and passwords can be obtained from the High School Office throughout the year if they become lost. Canvas is an LMS, Learning Management System, that makes teaching and learning easier by connecting all the digital tools teachers use in one easy place. Parents can create an observer account in Canvas with their child automatically, allowing them to view grades, upcoming assignments and due dates, missing work, and teacher communication. Teachers can send individual, group, and course-wide messages to students and parents, and students can communicate safely with teachers and each other.

## PowerSchool

As a parents of a Lorain County JVS student, you are encouraged to view your child's grades and attendance often using PowerSchool. To access PowerSchool, you will need to have an active internet connection and a username/password, which will be assigned in the beginning of the school year. To access this information, go to <https://ps-lj.metasolutions.net/public/>. For questions or problems accessing your child's information, please contact the Principal's Office at (440) 774-1051 extension 22270 or 22237.

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## Lorain County JVS Grading Schedule

SCORE LETTER	GRADE	VALUE
90-100	A	Outstanding
80-89	B	Above Average
70-79	C	Average
60-69	D	Below Average
0-59	F	Failing Work
	I	Incomplete

An incomplete must be made up within two weeks after the end of a grading period; otherwise, an "F" may be entered as the student's grade.

\*College Courses may be graded on a weighted scale.

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## Early Job Placement

Students on early job placement receive their lab grade from the employer. If a student is fired from their job, they may receive an F in lab for the time spent on the job for that grading period. All requirements and expectations for Early Job Placement are detailed in the Student Handbook.

## Articulated Credits

JVS graduates may be eligible to receive college credits for the successful completion of their program. Students who meet all requirements agreed to by the JVS and the college for the junior and senior years may qualify for articulated credit at LCCC, or other colleges. Graduating seniors should contact their instructor or the Student Services Office to check their eligibility.

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## College Credit Plus

Ohio's College Credit Plus program can help students earn college and high school credits at the same time by taking college courses from community colleges or universities. The purpose of this program is to promote rigorous academic pursuits and to provide a wide variety of options to college-ready students. Taking a college course through College Credit Plus is free of charge.

For the 2021-22 school year, the following courses may be offered on-site at JVS in partnership with LCCC: English Composition 161 and 162, History – United States I and II, Sociology, and College Algebra and Precalculus.

Students can also take college courses on campus at LCCC and/or online. Students must meet LCCC requirements in order to participate in these courses.

For more information on College Credit Plus, contact the Student Services office or visit the Ohio Department of Education webpage at <http://education.ohio.gov/Topics/Quality-School-Choice/College-Credit-Plus> or the Ohio Board of Regents webpage at <https://www.ohiohighered.org/ccp.20>.

## Early Release/Late Start

Upperclassmen may request early release or late start instead of a study hall if they have availability in their schedule. Neither early release nor late start will be scheduled if a student is missing any academic courses. Students must have their own transportation in order to participate.

# Course Descriptions

## CAREER-TECHNICAL PROGRAMS

### Allied Health Sciences

Allied Health Sciences students get a solid foundation to begin health and medical careers. This program integrates rigorous academic preparation with hands-on technical instruction. Students are exposed to a wide variety of careers as they explore roles of many health care related jobs and are trained and educated to be successful in those careers. They will learn about medical ethics, infection control, safety, body mechanics, nutrition, communication, employability skills, teamwork, and professionalism. College credits are available upon successful completion of this program.

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### Automotive Technology

Students are instructed in diagnosis, repair, and make adjustments of all phases of automotive mechanics. Instruction covers work on both gas and diesel engines. Students use the latest automotive testing equipment including computerized diagnostic equipment.

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### Bakery & Pastry Arts

Students learn the basic techniques of baking and then move into more advanced methods working with marzipan, chocolate, and meringues. The science of baking is included in the course as well as sanitation procedures and safety practices. Students work in an on-site bakery with the most modern equipment as they train for a career in the industry.

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### Culinary Arts

The Culinary Arts program trains students in all areas of the demanding and competitive world of food service. Basic cooking techniques, baking, salad preparation, cafeteria operation and advanced culinary skills are taught by chef instructors and guest chefs. Students operate a full-service restaurant in their senior year and cater functions before, during and after school.



# Course Descriptions

## CAREER-TECHNICAL PROGRAMS CONTINUED

### Carpentry

Carpentry students learn basic carpentry skills to repair, construct, and remodel buildings and homes in a real-world practical setting. The program includes the layout of floors, walls and rafters, framing, stairway construction, and interior/ exterior trim and finish.



### Career-Based Intervention—12th Grade Program

The Career Based Intervention program is designed for senior students who are academically on track for graduation and are looking for a real-world work experience during the lab portion of their school day. The program attempts to reorient students' attitudes toward higher levels of achievement in school and work to reinforce their social responsibility to our society. It is hoped this can be accomplished by arranging suitable, on-the-job training and related instruction to develop feelings of accomplishment and success. Career Based Intervention students must work during the lab portion of their school day in the local business community and they receive high school credit for this work experience. This program is for students who:

- Have a valid driver's license
- Are physically able to work
- Have been recommended by school personnel
- Students are required to maintain employment for the entire school year.
- Transportation to and from school and the job site is the responsibility of the student.

# Course Descriptions

## CAREER-TECHNICAL PROGRAMS CONTINUED

### Career Exploration—10th Grade Program

The Career Exploration Program is designed to provide students with a hands-on, career-based experience. Career Exploration students will shadow a JVS career-technical lab each quarter. Upon completion, students will be able to make an informed decision when applying for a two-year career-technical program. Students qualified to enroll in this program are: Sophomores, 15 years old, and have 3-6 high school credits. To be considered for this program, students must have: A school counselor recommendation and a JVS application on file. Upon successful completion of the Career Exploration Program students can apply to a two-year career-technical program.



### Career Readiness—9th Grade Program

The Career Readiness Program is designed for students who would excel in a hands-on career-based high school experience. Students are placed in a lab based on their preference on application, and on availability. They will develop skills and knowledge necessary for acceptance in our career technical programs as juniors and seniors. Students will spend four quarters in the Career Readiness program, where using different types of equipment, projects, and career modules, they will learn appropriate safety procedures and obtain a variety of skills that will help them focus on a successful career choice. Students qualified to enroll in this program are Freshmen, age 14 years old, with 0 to 3 high school credits. To be considered for this program a student must have: A school counselor recommendation and a JVS application on file. Upon completion of the Career Readiness Program students can apply to the 10th grade Career Exploration Program.



### Cosmetology

Cosmetology students receive instruction and hands-on training in the art and science of hair, skin, and nail care. Students receive technical, practical and customer service skills in both a classroom and salon environment. Seniors operate a full-service salon open to the public and are required to take the Ohio State Board Exam for license.



# Course Descriptions

## CAREER-TECHNICAL PROGRAMS CONTINUED

### Collision Repair

Students work on vehicles requiring frame and body straightening, welding, refinishing, and painting. Training includes replacing glass, installing upholstery, estimating costs of parts, labor, and preparation of insurance forms.



### Commercial Truck Technology

Commercial Truck Technicians repair and maintain diesel engines that power transportation equipment such as heavy trucks and buses. In addition to basic skills such as welding, using oxyfuel equipment and digital electronics, students learn to service, repair, and maintain vehicles using hand and power tools as well as modern computer diagnostics.



### Cybersecurity & Networking

Learn about cyber threats and how to secure networks and devices from harmful intrusions. Build, upgrade, and repair computers and maintain laptops and mobile devices.



# Course Descriptions

## CAREER-TECHNICAL PROGRAMS CONTINUED

### Digital Media Arts

Students in the Digital Media Arts program learn the fundamental principles and processes of computer-based design using a variety of traditional and non-traditional media with an emphasis on problem-solving and creative exploration. Using such media as high-definition video, sound, animation, installation art, print and digital photography, students work in a digitally integrated computer lab and studio environment to gain hands-on experience. Students apply color theory, visual design and conceptualization to project-based assignments that focus on growing their skill sets and technical abilities, while building a portfolio for post-secondary and internship opportunities. Throughout the two-year program, students have the opportunity to apply their knowledge and critical analysis skills by participating in student critiques. Using industry-standard hardware and software, students will create digital content that can be applied to a career in video/film production, 2d/3d animation, photography and print media.



### Early Childhood Education

Early Childhood Education students teach three to five-year old children in our ODE licensed preschool classrooms. They plan, conduct, and assess developmentally appropriate lessons and activities based on themes and studies. Using the Creative Curriculum and studies, student teachers promote exploration and discovery through learning. Students also plan field trips, carry out assessments, provide ongoing communications to parents, conduct parent-teacher conferences, and develop a positive relationship with their preschool students. Students also gain experience working with infants, toddlers, and school-age students at local daycare centers, Head Start programs, and elementary schools. Through these experiences, students observe mentor teachers in classrooms outside of the JVS, learn to work with children of all ages and background, and learn new teaching strategies and ideas. Students have the opportunity to earn 120 classroom hours towards a National Child Development Association credential.





# Course Descriptions

## CAREER-TECHNICAL PROGRAMS CONTINUED

### Engineering Design and Technologies

Students prepare solid models and detailed technical drawings used to build everything from spacecraft to bridges to buildings. Students learn both manual and computer design skills, working with software packages including AutoCAD, SolidWorks, Inventor, and REVIT Architecture. They learn problem-solving techniques and precision measurements through correlated machining projects with Precision Machine Technology. Students have opportunities to build many hands-on models and prototypes of their designs. They will also be receiving training in coding and flight of unmanned aerial vehicles (UAV Drones) preparing them for careers in engineering, agriculture, transportation and more.



### Heating and Air Conditioning

Heating and Air Conditioning students learn to install, and repair air conditioning and heating units used in homes, offices, and businesses. They lay out and fabricate ductwork, electrical components, and pipe fittings. During the senior year, students have the opportunity to take the Environmental Protection Agency (EPA) test for handling refrigeration to receive EPA certification.



### Hospitality Services - A

Hospitality Services - A is a one-year training program which requires a special recommendation from the student's school counselor. Students learn basic skills used in the hotel and restaurant industry. Skills will range from basic food preparation to housekeeping competencies used in the industry.



# Course Descriptions

## CAREER-TECHNICAL PROGRAMS CONTINUED

### Hospitality Services – B

Hospitality Services - B is a one-year training program which requires a special recommendation from the student's school counselor. Students learn job skills that focus on developing employability skills necessary to advance in the food service and hotel industry. Students participate in many lab activities by working in the Culinary Academy, working at the Courtyard Marriott Hotel. This program allows students to work with the most up-to-date equipment as they begin to train for a career in the industry.



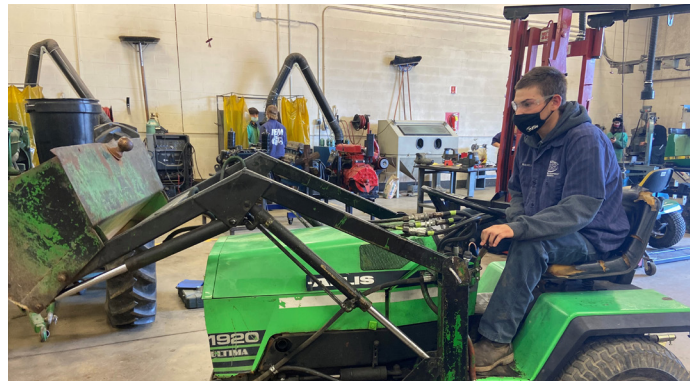
### Industrial Electricity

Industrial Electricity students maintain and install motors, transformers, control instruments, lighting systems and many other different types of electrical equipment used in industrial and residential settings. Students also learn about computer programmable controls, conduit bending and installation of commercial and industrial wiring.



### Industrial Equipment Mechanics

Students repair and maintain gasoline and diesel systems that power such items as agricultural equipment, bulldozers, cranes, and forklifts. Also covered is small engine repair such as lawn and garden tractors and recreational equipment.



### Job Training Program

The Job Training Program is a one-year training program which requires a special recommendation from the student's school counselor. Learn basic work skills such as following written or sample directions, staying on task, working with good speed and quality in order to meet deadlines.



# Course Descriptions

## CAREER-TECHNICAL PROGRAMS CONTINUED

### Landscape & Greenhouse Management

Students are introduced to a diversity of career opportunities within the year-round green industry. They learn aspects of landscape design, greenhouse management and production, equipment operation and maintenance, golf course and sports turf management, floral design, garden center operation, customer service and business management.



### Maintenance Services A/B

The Maintenance Services Program requires a special recommendation from the student's school counselor. Explore basic carpentry, electrical, flooring, HVAC, painting, plumbing, and roofing. Learn proper installation for drywall, windows, and doors. Learn the proper use of hand tools and power equipment related to the residential construction industry.



### Marketing and Entrepreneurship

Obtain knowledge and skills in business activities to develop and implement marketing strategies and techniques. Apply tools, strategies, and processes to communicate digitally with targeted customers and learn the initial steps to establish a business.



### Masonry Trades

Masonry Trades students learn the basics of working with brick, block, stone and concrete as well as other materials such as marble, glazed tile and structural tile. They are taught to use hand tools and bonding materials as they learn to construct walls, partitions, fireplaces, and chimneys.



CONTACT US

[info@lcjvs.com](mailto:info@lcjvs.com) | (440) 774-1051



Education that Works

# Course Descriptions

## CAREER-TECHNICAL PROGRAMS CONTINUED

### Project Lead the Way | Engineering

Project Lead The Way | Engineering is a high school college tech-prep program designed to help students succeed in engineering, science, and technology careers. The Project Lead The Way (PLTW) program offers a student the opportunity to survey the major fields of engineering and prepares them to choose their path to success in college engineering coursework. Students who choose to continue the PLTW program take their junior and senior courses at a satellite location on the campus of Lorain County Community College. Academic courses are usually taken at a student's home school or at Lorain County Community College.



### Precision Machine Technology

Students use lathes, drill presses, milling machines, and hand tools to make parts or one-of-a kind items for companies who produce everything from cars to computers. Math instruction is related to part dimensioning, tool geometry, speed and feed calculations, and quality control. An emphasis is placed on bench work and heat treatment of various metals. The use of computer numerical control (CNC) equipment is covered during the senior year.



### Public Safety

Learn first aid and CPR, patient care, ambulance transport, injury assessment, fire science and protection, pre-hospital care. Prepare to take the Ohio Firefighters II certification test and the National Registry Exam for EMT/B certification.



# Course Descriptions

## CAREER-TECHNICAL PROGRAMS CONTINUED

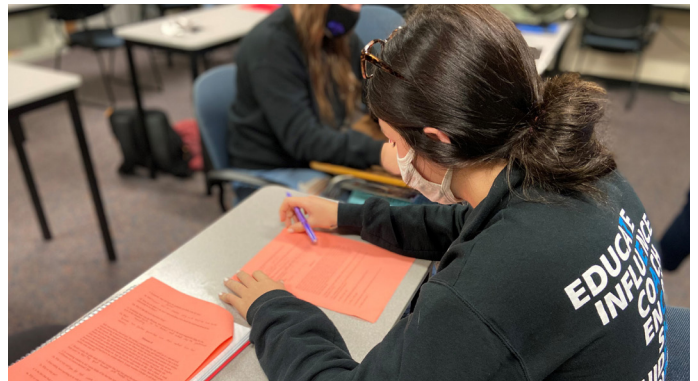
### Sports, Health and Fitness Technology

Sports, Health and Fitness Technology is a two-year program for students interested in pursuing careers in the Fitness, Sports Medicine, and Therapy industries. The technical focus of the program is on anatomy, exercise physiology, strength and conditioning, nutrition, medical terminology, sports medicine, and therapy techniques. In addition, a core body of knowledge (e.g., communication, group-collaboration, legal and ethical responsibility, health, and safety) is provided to prepare students for the 21st century. Students transitioning to post-secondary education will receive reinforcement and additional training in these areas. The curriculum is driven by industry standards that prepare students for a variety of certifications/licenses.



### Teacher Education Exploration— 12 Grade Program

Receive three credits for classroom work and internship experience in a local elementary, middle, or high school.



# Course Descriptions

## CAREER-TECHNICAL PROGRAMS CONTINUED

### Web and Graphic Design

Students will become skilled in transforming photographic images through the use of software photo editing techniques and digital cameras. Visual design principals and technical art skills come into play when learning to design, develop, and produce interactive media projects, websites, graphics, animation, game design, and social media contexts.



### Welding & Fabrication

Students are trained in all processes of welding including stick, Metal Inert Gas (MIG), Tungsten Inert Gas (TIG), and flux core. The goal of the program is to obtain as many American Welding Society (AWS) certifications as possible. Students will gain knowledge of oxyfuel and plasma arc cutting. Customer projects are an important part of the program; students learn to layout, fabricate and weld actual projects to industrial standards.



# Course Descriptions

## ENGLISH/LANGUAGE ARTS

All students must complete 4 credits of English Language Arts in order to earn a high school diploma. The suggested sequence of courses is as follows:

9	English 9
10	English 10
11	<b>Options:</b> English 11, CCP English 161, CCP English 162
12	<b>Options:</b> English 12, Technical Writing I and Technical Writing II, CCP English 161, CCP English 162

Students can choose to take .5 credit of English 12 paired with .5 credit of either Technical Writing I or II or CCP English 161. CCP English 161 is only offered 1st semester, CCP English 162 is only offered 2nd semester.

### CCP English 161

An introduction to fundamental college-level skills in academic reading and writing. Summary, analysis, synthesis, and research documentation are emphasized, along with critical thinking and collaborative learning.

### CCP English 162

A writing course continuing the practice of skills introduced in ENGL 161, as well as strategies of argumentation and secondary research leading to a research paper.

### English 9

English 9 is a foundations course that follows academic content standards around reading, vocabulary development and comprehension, the writing process, and communication skills such as speaking and listening. Students will be exposed to various types of literature and will develop critical thinking skills. End of Course Test is required by the Ohio Department of Education in order to be eligible for graduation.

### English 10

English 10 continues to develop skills that follows academic content standards around reading, vocabulary development and comprehension, the writing process, and communication skills such as speaking and listening. Students will be exposed to various types of literature and will develop critical thinking skills. End of Course Test is required by the Ohio Department of Education in order to be eligible for graduation.

### English 11

English 11 follows academic content standards around reading, vocabulary development and comprehension, the writing process, and communication skills such as speaking and listening. Students will be exposed to a wide variety of American Literature. There is a research component to this class, as well as a career development unit.

### English 12

English 12 follows academic content standards around reading, vocabulary development and comprehension, the writing process, and communication skills such as speaking and listening. Students will be exposed to British and World Literature. There is a research component to this class.

## Technical Writing I and II

Technical Writing is a senior level course for students wishing to earn an English credit. Students develop writing skills by building a comprehensive Career Portfolio. They will create an updated resume, references and cover letter and will curate work samples from lab to highlight their experience from their time at JVS. Students will speak in small groups, present projects, participate in mock interviews, write research projects and analyze their future career. This course is a good choice for any student, whether they be heading to college or preparing to enter the job force.

## Health and Physical Education

All students are required to earn .5 credit of Health and .5 credit of Physical Education in order to earn a high school diploma. While we encourage JVS students to complete these credits prior to attending the JVS, we do have online options available. Students should see their counselor for more information.

## MATHEMATICS

All students must complete 4 credits of Mathematics in order to earn a high school diploma. One of these courses must be Algebra II. Suggested sequences of courses are listed below. Students should follow the sequence that is recommended by their math teacher.

9	Algebra I	Geometry	Algebra II
10	Geometry	Algebra II	Statistics
11	Algebra II Algebra II A	Statistics/Precalculus/ Tech Math 121/122	Precalculus
12	<b>Options</b> Algebra II B Math IV Tech Math 121/122 Statistics Precalculus LCCC College Algebra/Precalculus 171/172	<b>Options</b> Statistics Precalculus Tech Math 121/122 LCCC College Algebra/Precalculus 171/172	Math 121/122 LCCC College Algebra/Precalculus 171/172

### Algebra 1

The first course in a four-year sequence that addresses the high school portion of the New Learning Standards for Mathematics. Algebra is designed to enable the student to describe patterns, work with formulas, discuss unknowns in problems, and graph ideas. Geometric concepts will also be introduced and developed. It emphasizes student participation in discussions, reading, and problem-solving. End of Course Test is required by the Ohio Department of Education in order to be eligible for graduation.

### Geometry

The second course in a four-year sequence that addresses the high school portion of the New Learning Standards for Mathematics. Geometry is designed to enable the student to visualize patterns. It includes coordinates and transformations in both two and three dimensions, as well as measurement. It emphasizes student participation in discussions, reading, and problem-solving. End of Course Test is required by the Ohio Department of Education in order to be eligible for graduation.



## Algebra II A/B

This two-year course sequence is designed for the student who may benefit from moving through advanced mathematical concepts at a slower pace. Topics include but are not limited to: quadratic and polynomial functions, and exponential and logarithmic relations. Teacher recommendation is required to take this course.

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## Math IV

This course is intended for the student needing an introduction to technical mathematics in preparation for college-level technical mathematics. The topics studied include units of measure, approximate numbers, equations, inequalities, functions, factoring, rational expressions, exponents, radicals, complex numbers, and trigonometry. Special emphasis will be given to the practical application of topics from elementary algebra and elementary geometry.

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## Statistics

Statistics is a course for the college-bound student. It introduces the student to the areas of probability theory and statistical inferences. Emphasis will be placed on measures of central tendency, data representation, probability distributions, and topics of random variables.

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## Technical Math 122

A continuation of Technical Mathematics 121 which includes Algebra (systems of non-linear equations, non-linear inequalities, roots of polynomials, geometric series and the Binomial Theorem), basic statistics, empirical curve-fitting, analytic trigonometry (identities, equations and graphs) and analytic geometry (conic sections, parametric equations and polar coordinates). Emphasis is on technical applications and problem-solving skills including the appropriate use of technology. Graphing calculator required. *Prerequisite Course: Technical Math 121.*

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## Algebra II

This is the third course in a four-year sequence that addresses the high school portion of the New Learning Standards for Mathematics. Algebra II is designed to enable the student to extend the study of Algebra. It includes topics covered in Algebra, as well as functions (exponential, logarithmic, polynomial, etc.). It emphasizes student participation in discussions, reading and problem-solving.

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## Pre-Calculus

This is the fourth course in a four-year sequence which addresses advanced content in Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability, and/or the conceptual underpinnings of calculus. Pre-calculus is designed to enable the student to extend ideas about functions and early calculus concepts. There is a heavy emphasis on trigonometry. Other topics include conics, polar coordinates, exponential and logarithmic functions, probability, and limits. It emphasizes student participation in discussions, reading, and problem-solving.

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## Technical Math 121

This technical mathematics course includes intermediate algebra (simplifying algebraic expressions, functions, basic graphing, systems of linear equations, matrices, linear and quadratic equations, logarithmic and exponential functions and equations, radicals, and complex numbers) and basic trigonometry (right-angle trigonometry, radian measure, Law of Sines, Law of Cosines, sine and cosine graphs and vectors). Emphasis is on technical applications and problem-solving skills including the appropriate use of technology. Graphing calculator required.

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## College Algebra and Pre-calculus/LCCC MTHM 171, 172

171: Study of algebraic functions, equations, systems of equations, inequalities, matrices, partial fractions, exponential and logarithmic functions. Designed primarily for the calculus-bound student.

172: For the calculus-bound student. A study of trigonometric functions and their graphs; trigonometric identities and equations; conic sections; polar and parametric equations; mathematical induction; and the Binomial Theorem.

*Prerequisite: Acceptance into the LCCC CCP Program.*

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## SCIENCE

All students must complete at least 3 credits of Science in order to earn a high school diploma. This must include 1 credit in physical sciences, 1 credit in life science and 1 credit of advanced study in one of the following sciences: chemistry, physics or other physical science, advanced biology or other life science, astronomy, physical geology or other earth or space science.

Students can choose 1 credit (full year) courses or combine .5 credit (semester) courses, so long as the requirements above are met.

The suggested sequence of courses is listed below:

<b>9</b>	Physical Science	Biology
<b>10</b>	Biology	Chemistry
<b>11</b>	Option	Option
<b>12</b>	<p><b>Option</b></p> Anatomy/Physiology Chemistry Human Body Systems Forensic Science Marine Biology Material Science Physics Principles of Biomedical Science Microbiology and Trichology Vertebrate Zoology	<p><b>Option</b></p> Anatomy/Physiology Human Body Systems Forensic Science Marine Biology Material Science Physics Principles of Biomedical Science Microbiology and Trichology Vertebrate Zoology

### **Anatomy/Physiology (.5 Advanced Life Science)**

Anatomy is the study of the structures of the human body. Physiology is the study of the functions of the human body. There are 10 organ systems. Systems studied will be decided by student interest.

### **Biology (1 credit Life Science)**

This course is designed to introduce students to the science processes, basic skills, and concepts related to a wide range of biological topics. Students will develop the ability to combine concepts and principles. This course includes both demonstrations and lab experiences. Topics covered will include the nature of scientific inquiry, biochemistry, cell biology, genetics, ecology, evolution, and classification of life. End of Course Test is required by the Ohio Department of Education in order to be eligible for graduation.

## **Chemistry (1 credit Advanced Science)**

This introductory course examines the structure of matter, its properties, and the changes it undergoes. Major topics include atomic theory, chemical formulas and equations, the periodic table, stoichiometry, solution chemistry, behavior of gases, thermochemistry and acids and bases. Includes practical applications of Chemistry to various industries (e.g. construction, metals, food, plastics, ecology, the home).

## **Human Body Systems (1 credit Advanced Life Science)**

Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis in the body. Exploring science in action, students build organs and tissues on a skeletal Maniken®; use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases. (Students must be concurrently enrolled in either the Allied Health Sciences, Public Safety or Sports Health and Technology program. *Prerequisite Course: Principles of Biomedical Science.*)

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## **Forensic Science (.5 Advanced Science)**

Forensic Science is the application of science (chemistry, physics, and biology) to the criminal and civil laws that are enforced by police agencies in a criminal justice system. This class will take a closer look at today's forensic science techniques and give students hands-on experience working with modern day biotechnology.

## **Marine Biology (.5 Advanced Life Science)**

Marine Biology will look at the relationships among the species that occupy marine habitats, organism identification and food and nutrient cycles. Students will explore the ecosystems of coral reefs, open oceans, and marine estuaries, as well as the Great Lakes. This course will involve dissections, laboratories and project-based learning.

## **Material Science (1 Credit Advanced Earth Science)**

This course will include study of the composition, structure, and properties of various materials. Topics will include safe laboratory practices, matter and properties, crystal structure, metals, ceramics, polymers, and composites. Scientific methods will be used to gather, analyze, and represent data in a variety of ways including topics from life and physical science and current events/phenomena. The principle means of learning will be laboratory investigations through creative and sometimes artistic hands-on-activities. Guest speakers and field trips may be included, as time permits, to gain an appreciation for the use of materials in manufacturing and technology.

## **Physical Science (1 credit Physical Science)**

Physical Science is the study of the structure and states of matter, motion, forces, work, energy, heat and temperature, sound, light, electricity, and magnetism. Additional topics include the solar system, the atmosphere and the use of natural resources.

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## **Physics (1 credit Advanced Physical Science)**

Physics is the study of the behavior of matter and energy. The major topics include motion, forces, energy, momentum, heat, sound, light, electricity, magnetism, and atomic structure. The physics program is "hands-on" with the laboratory experience introducing and supporting the physical laws of nature.

## **Principles of Biomedical Science (1 credit Advanced Life Science)**

In this course, students explore concepts of biology and medicine as they take on roles of different medical professionals to solve real-world problems. Over the course of the year, students are challenged in various scenarios including investigating a crime scene to solve a mystery, diagnosing and proposing treatment to patients in a family medical practice, to tracking down and containing a medical outbreak at a local hospital, stabilizing a patient during an emergency, and collaborating with others to design solutions to local and global medical problems. (Students must be concurrently enrolled in either the Allied Health Sciences, Public Safety or Sports Health and Technology program.)

## Microbiology and Trichology (1 credit Life Science)

In this fast-paced, demanding, upper-level course, Cosmetology students will study infection control; bacteriology; properties of the hair and scalp (including diseases and disorders); basics of chemistry; the anatomy, diseases and disorders of the nails; and anatomy and physiology of selected body systems. Students must be concurrently enrolled in the Cosmetology program.

## Vertebrate Zoology (.5 credit Advanced Life Science)

Vertebrate = a backbone. Zoology = the study of animals. Vertebrate zoology is the study of animals with a backbone (excludes humans). Animals chosen will be based on student interest. There WILL BE dissections.

## SOCIAL STUDIES

All students must complete at least 3 credits of Social Studies in order to earn a high school diploma. These credits must include at least .5 credit in American History, .5 credit in American Government and .5 credit in World History. Suggested sequences of courses is listed below. Students should follow the sequence that is recommended by their school counselor.

9	World History
10	US History
11	Civics/Government
12	<b>Options:</b> Early Military History, Modern Military History, Modern Social Issues, Psychology, Sociology, CCP Sociology 151

### US History (1 credit)

American History 1877-Present. Topics covered include: Industrialization, Imperialism, 20th Century Conflict, the US in the 20th Century, Cultures, Interaction, Diffusion, Geography, Human Environmental Interaction, Movement, Economics, Markets, Government and the economy, Government Rules and laws, Citizenship rights and responsibilities, participation, Social Studies skills and methods, Communicating information. End of Course Test is required by the Ohio Department of Education in order to be eligible for graduation.

### CCP History 161 (.5 credit)

A study of the origin and growth of American civilization from the discovery of the Western Hemisphere to the end of the Reconstruction.

## CCP History 162 (.5 credit)

A political, economic, diplomatic, social, cultural, and intellectual survey of the United States from the end of Reconstruction to the present. Social Science Core Course.

## Civics/Government (1 credit)

Students will gain a comprehensive understanding of how our government formed and how it evolved into the institutions we rely on today. Civics includes lessons on history, American documents and financial literacy (economics). Students will learn about opportunities for civic engagement within the structures of government. All students learn about the process to register to vote, to request absentee ballots, and to participate in the election process. They explore the rights and responsibilities that come with citizenship. End of Course Test is required by the Ohio Department of Education in order to be eligible for graduation.

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## Early Military History (.5 credit)

Early Military History is an historical survey class reviewing past wars that the United States has been involved. The course will include US History and World History issues. The course allows students to study American military history from the French and Indian War to Spanish/American War. Topics covered follow a wide range of areas such as food, equipment, clothing, weaponry, tactics and overall strategy. The sacrifices of those who protect us and our country's ideals are explored and appreciated.

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## Modern Military History (.5 credit)

This course is the study of American military history from the Revolutionary War to modern times. Through the looking glass of such things as food, equipment, clothing, students will experience the historical transitions. The sacrifices of those who protect us and our country's ideals are explored and appreciated. The students will interact with veterans who have been in combat.

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## Modern Social Issues (1 credit)

Modern Social Issues explores contemporary problems facing people in our modern world and seeks to understand the history and evolution of these issues over time. Both foreign and domestic issues are studied, and students are encouraged to take positions of support or opposition and then synthesize potential solutions and finally, defend their ideas after gathering adequate background information on the many areas we explore. In the end, the goal is a better personal understanding of today's complex world and the individual student's place in these situations.

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## Psychology (.5 credit)

This elective will introduce students to the field of psychology. Topics may include body and mind, learning and cognition, development, personality, health and adjustment, disorders, etc. Case studies may be explored.

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## Sociology (.5 credit)

This elective will introduce students to the field of sociology. The focus is more on society than the individual. Topics may include religion, education deviance, mass media, etc. Case studies may be explored.

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## CCP Sociology 151 (1 credit)

This introductory course is the study of human behavior in society. Its primary focus is on the influence of social relationships on people's attitudes and behavior, and on how societies are established and changed. Some of the topics covered are cultural, deviance, the family, globalization, social inequality, the mass media, ethnic and race relations, socialization, religion, research methods, and organizations.

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## World History (1 credit)

World History covers the Enlightenment to Present Age, addressing: Enlightenment ideas: 1690-1776, Industrialization: 1700-1900, Imperialism: 1850-1914, 20th Century Conflict:1900-1999, People in Societies, Geography, Economics, Government, Citizenship rights and responsibilities, Social Studies skills and methods.