

# **FOREST PARK HIGH SCHOOL**

## **CAREER CLUSTERS & CTE CONCENTRATORS**



**Class of 2025 & 2026**

**ADVANCED MANUFACTURING**  
**AGRICULTURE, FOOD, AND NATURAL RESOURCES**  
**ARCHITECTURE & CONSTRUCTION**  
**ARTS, AV TECHNOLOGY, & COMMUNICATION (FINE ARTS)**  
**BUSINESS MANAGEMENT & ADMINISTRATION, MARKETING, & FINANCE**  
**EDUCATION & TRAINING**  
**HEALTH SCIENCES**  
**HOSPITALITY AND TOURISM**  
**HUMAN SERVICES**  
**INFORMATION TECHNOLOGY**  
**LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY**  
**SCIENCE, TECHNOLOGY, ENGINEERING, & MATH (STEM)**  
**TRANSPORTATION, DISTRIBUTION, AND LOGISTICS**

This document serves three purposes:

(1) students interested in enrolling in **Work Based Learning, Capstone (i.e., internship)** are required to complete a Concentrator A or Concentrator B course in the pathway connected to their internship. Unfortunately, not all areas have internships at this time.

(2) students can fulfill the Postsecondary-Ready Competency for Graduation Pathways by becoming a CTE Concentrator. Students must earn a “C” average in **three specific courses (a Principles course, a Concentrator A course, and a Concentrator B course)** within a particular career pathway. These specific courses are indicated in this booklet.

– Students pursuing a CTE concentrator are recommended to take courses in this order: Principles, Concentrator A, and then Concentrator B. At times, students may be able to take these courses concurrently.

(3) This document provides a roadmap to help you choose classes based on your individual goals and career interests.



# ADVANCED MANUFACTURING

The advanced manufacturing career cluster contains jobs that involve turning raw materials into final products that are sold to buyers. Manufacturing work refers not only to the people who make the products, but the many people in management, engineering, design, and other areas. Manufacturing workers come up with product ideas, test products to make sure they are assembled properly, and manage the shipment and receipt of manufactured goods.

## CAREERS

Production Manager, Welders, Maintenance Technician, Engineering Technologists, Machine Technicians, Assemblers, Inspectors

### Advanced Manufacturing CTE Concentrators

| Career Pathway                | Principles Course                    | CTE Concentrator A                          | CTE Concentrator B                            |
|-------------------------------|--------------------------------------|---|---|
| Automation & Robotics         | Principles of Advanced Manufacturing | Industrial Power Fundamentals               | Mechatronics Systems                          |
| Precision Machining           | Principles of Precision Machining    | Machining Fundamentals                      | Precision Machining                           |
| Welding Technology            | Principles of Welding Technology     | Shielded Metal Arc Welding                  | Gas Welding Processes                         |
| Ag Mechanical and Engineering | Principles of Agriculture            | Agriculture Power, Structure and Technology | Agriculture Structures Fabrication and Design |

\*Automation & Robotics Program is held at VUJ.

\*Precision Machining Program is held at Pike Central.

\*Welding Technology Program is held at Pike Central.

\*Ag Mechanical and Engineering courses are held at Forest Park.

***\*Students who complete the three CTE courses (a Principles course, a Concentrator A course, and a Concentrator B course) with a C Average in a given career pathway will meet the Postsecondary-Ready Competencies requirement for Graduation Pathways.***

## **Recommended Courses for Manufacturing Field**

**Freshmen:** Principles of Agriculture, Agriculture Power, Structure & Technology, and/or Introduction to Engineering

**Sophomore:** Agriculture Structures Fabrication and Design, Introduction to Advanced Manufacturing & Logistics, Introduction to Construction, or other above mentioned courses

**Junior:** Welding Program at Pike Central, Precision Machining Program at Pike Central, or Automation & Robotics at VUJ

**Senior:** Welding Technology Capstone (Pike Central Program), Precision Machining Capstone (Pike Central Program), Automation & Robotics Capstone (VUJ)



# AGRICULTURE, FOOD, AND NATURAL RESOURCES

Agriculture, Food, and Natural Resources is a career cluster that includes the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products and resources.

## CAREERS

Agricultural Engineer, Agronomist, Manager, Teacher, Welding, Agricultural-Sales, Forester, Arborist, Wildlife Biologist, Plant Biologist, Conservation Officer, Landscaper, Food Scientist

### Agriculture CTE Concentrators

| Career Pathway                 | Principles Course         | CTE Concentrator A                           | CTE Concentrator B                            |
|--------------------------------|---------------------------|--|---|
| Ag Mechanical and Engineering  | Principles of Agriculture | Agriculture Power, Structure, and Technology | Agriculture Structures Fabrication and Design |
| Agriscience--Plants or Animals | Principles of Agriculture | Animal Science                               | Advanced Life Science, Animals                |
| Agriscience--Plants or Animals | Principles of Agriculture | Animal Science                               | Advanced Life Science, Plants & Soils         |

***\*Students who complete the three CTE courses (a Principles course, a Concentrator A course, and a Concentrator B course) with a C Average in a given career pathway will meet the Postsecondary-Ready Competencies requirement for Graduation Pathways.***

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## **Recommended Courses for Agricultural Field**

**Freshmen:** Principles of Agriculture

**Sophomore:** Animal Science, Natural Resources

**Junior:** Advanced Life Science, Animals; Advanced Life Science, Plants & Soils; Agribusiness Management, above mentioned courses

**Senior:** Cooperative Education or Work Based Learning Capstone, Agriculture Capstone, and other Agricultural classes

**Other classes:** Supervised Agriculture Experience & CTSO Leadership



# ARCHITECTURE & CONSTRUCTION

Architecture & Construction is a career cluster that includes all aspects of planning, building, and maintaining a structure whether it be a skyscraper or highway.

## CAREERS

Architect, Civil Engineer, Construction Worker, Electrician, HVAC technician

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### Architecture & Construction CTE Concentrators

| Career Pathway                 | Principles Course                 | CTE Concentrator A                      | CTE Concentrator B                         |
|--------------------------------|-----------------------------------|---|--|
| Construction Trades--Carpentry | Principles of Construction Trades | Construction Trades (General Carpentry) | Construction Trades: Framing and Finishing |

**\*The three courses listed above make up the VUJ Construction Trades program.**

***\*\*Students who complete the three CTE courses (a Principles course, a Concentrator A course, and a Concentrator B course) with a C Average in a given career pathway will meet the Postsecondary-Ready Competencies requirement for Graduation Pathways.***

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### Recommended Courses for Architecture Field

**Freshmen:** Introduction to Engineering Design, Introduction to 2D Art

**Sophomore:** Principles of Engineering, Drawing

**Junior:** Physics, Pre-Calculus/Trigonometry, Civil Engineering & Architecture

**Senior:** AP Calculus, Work Based Learning Capstone

**Other classes:** Introduction to Housing and Interior Design, Drawing, Advanced Drawing, or Advanced 2D Art

## **Recommended Courses for Construction Field**

**Freshmen:** Introduction to Construction, Introduction to Engineering, Agriculture Power, Structure & Technology

**Sophomore:** Intro to Advanced Manufacturing & Logistics, Agriculture Structures Fabrication & Design, and any of the recommended freshmen courses.

**Junior:** VUJ Construction Trades Program (see the three courses listed above)

**Senior:** Cooperative Education or Construction Trades Capstone (through VUJ)

**Other classes:** Introduction to Housing and Interior Design

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# ARTS, AV TECHNOLOGY, & COMMUNICATION (FINE ARTS)

The Arts, AV Technology, & Communication career cluster provides students with opportunities in designing, producing, exhibiting, performing, writing, or publishing multimedia content.

## CAREERS

Graphic Designer, Photographer, Journalist, Broadcaster, Interior Designer, Film and Video Editors

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### Recommended Courses for Arts & Graphic Design Field

**Freshmen:** Introduction to 2D Art, Introduction to 3D Art

**Sophomore:** Principles of Digital Design (Graphic Design I)

**Junior:** Graphic Design & Layout (Advanced)

**Senior:** Work Based Learning (internship), Cooperative Education

**Other Recommended Classes:** Any Advanced Art Class, Photography, Student Media (Yearbook)

### Recommended Courses for Music and/or Acting Field

Theatre Arts, Intermediate Concert Band and or/Chorus, Music Theory & Composition, Music History and Appreciation, Applied Music: Percussion or Guitar, Instrumental Ensemble

**\*\*Students interested in fields of music can pursue career clusters in their desired fields (e.g., music teacher= Education/Training, music therapist=Human Services)**



# BUSINESS MANAGEMENT & ADMINISTRATION, MARKETING & FINANCE

The Business Career cluster includes a wide variety of career opportunities in the business sector.

## CAREERS

Accountant, Account Collector, Marketing/Advertising, Auditor, Banking, Budget Analyst, Business Owner/Entrepreneur, Financial Manager, Human Resource Manager, Insurance Agent, Insurance Underwriter, Loan Officer, Purchasing Agent, Marketing, Sales

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## Business Management and Administration, Marketing, and Finance

| Career Pathway      | Principles Course      | CTE Concentrator A     | CTE Concentrator B  |
|---------------------|------------------------|------------------------|---------------------|
| Marketing and Sales | Principles of Business | Marketing Fundamentals | Strategic Marketing |

***\*\*Students who complete the three CTE courses (a Principles course, a Concentrator A course, and a Concentrator B course) with a C Average in a given career pathway will meet the Postsecondary-Ready Competencies requirement for Graduation Pathways.***

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## Recommended Courses for Business

**Freshmen:** Principles of Business

**Sophomore:** Marketing Fundamentals, Accounting Fundamentals, Digital Applications & Responsibility,

**Junior:** Strategic Marketing, and above mentioned courses

**Senior:** Any Business class, Cooperative Education, Work Based Learning Capstone

**Other classes:** Personal Financial Responsibility, Advanced Speech



## EDUCATION & TRAINING

The Education and Training career cluster includes the planning, managing and providing education and training services, and related learning support services.

### CAREERS

Principal/Administrator, Teacher, Early Childhood Teacher, School Counselor, School Librarian

### Education & Training CTE Concentrators

| Career Pathway    | Principles Course      | CTE Concentrator A               | CTE Concentrator B    |
|-------------------|------------------------|----------------------------------|-----------------------|
| Education Careers | Principles of Teaching | Child and Adolescent Development | Teaching and Learning |

\*The three above courses make up the Education Careers program at VUJ.

***\*\*Students who complete the three CTE courses (a Principles course, a Concentrator A course, and a Concentrator B course) with a C Average in a given career pathway will meet the Postsecondary-Ready Competencies requirement for Graduation Pathways.***

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### Recommended Courses for Education & Training Careers

**Freshmen:** Principles of Early Childhood Education, Ethnic Studies

**Sophomore and Junior:** Principles of Human Services, Psychology, Peer Tutoring, Advanced Speech, or above mentioned courses

**Senior:** Education Careers Program (3 courses taken at VUJ)

**\*\*Students should also take courses in the subject matter that they wish to teach (e.g., music teacher=music classes)**



# HEALTH SCIENCE

Health science career cluster focuses on planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development for all living beings.

## CAREERS

Athletic trainer, audiologist, chiropractor, dental hygienist or assistant, dentist, dietician, medical doctor, medical technician, nurse, nurse practitioner, nurse's aide, ultrasound technician, phlebotomist, physician's assistant, pharmacist, physical therapist, occupational therapist, radiologist, nuclear medicine technician, respiratory therapist, veterinarian, and veterinarian assistant

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### Health Care Specialties Recommended Classes:

**Freshmen:** Biology, Principles of Biomedical Science (offered 2022-23 & 24-25)

**Sophomore:** Chemistry, Anatomy & Physiology, Principles of Biomedical Sciences (offered 2022-23 & 24-25)

**Junior:** Anatomy & Physiology and/or additional Core 40 Science course (e.g., Physics, AP Chemistry, and/or AP Biology (offered 2023-24 & 25-26) (Core 40 courses chosen depend on area of study)

**Senior:** HOSA, CNA, or EMS Programs; Medical Terminology (Only HOSA and CNA students), additional Core 40 Science (depending on area of study)

**Other classes:** Principles of Early Childhood Education, Advanced Nutrition and Wellness, Psychology, Ethnic Studies, Principles of Human Services

### Veterinary Recommended Classes:

**Freshmen:** Biology, Principles of Agriculture, Animal Science, and/or Principles of Biomedical Sciences (offered 2022-23 & 24-25)

**Sophomore:** Chemistry, Anatomy & Physiology, or above mentioned courses

**Junior:** AP Biology (offered 2023-24 & 25-26), AP Chemistry, Anatomy & Physiology, and/or Advanced Life Science Animals

**Senior:** AP Calculus, AP Biology (offered 2023-24 & 25-26), Cooperative Education, or above mentioned courses



# HOSPITALITY AND TOURISM

The Hospitality and Tourism career cluster is a broad field within the service industry that includes lodging, food and drink service, event planning, theme parks, travel and tourism..

## CAREERS

Social Worker, Mental Health Counselor, Substance Abuse Counselor, Psychologist, Chef

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### Recommended Courses for Culinary Arts

**Freshmen and Sophomore:** Advanced Nutrition and Wellness, Introduction to Culinary Arts and Hospitality

**Junior:** Culinary Arts Program at NED

**Senior:** Culinary Arts Program at NED, Work Based Learning, Cooperative Education

### Recommended Courses for Hospitality Management:

Principles of Business, Marketing Fundamentals, Accounting Fundamentals, Speech, Advanced Nutrition and Wellness, Introduction to Culinary Arts and Hospitality, Work Based Learning Capstone, or Cooperative Education



# HUMAN SERVICES

The Human Services career cluster prepares you for jobs that relate to families and human needs such as counseling and mental health services, family and community services, personal care and consumer services.

## CAREERS

Social Worker, Mental Health Counselor, Substance Abuse Counselor, Psychologist, Case Worker

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### Human Services CTE Concentrators

| Career Pathway          | Principles Course            | CTE Concentrator A      | CTE Concentrator B       |
|-------------------------|------------------------------|-------------------------|--------------------------|
| Human & Social Services | Principles of Human Services | Understanding Diversity | Relationships & Emotions |

**\*The three courses in Human Services make up the Human & Social Services program at VUJ.**

***\*\*Students who complete the three CTE courses (a Principles course, a Concentrator A course, and a Concentrator B course) with a C Average in a given career pathway will meet the Postsecondary-Ready Competencies requirement for Graduation Pathways.***

### **Recommended Courses for Human and Social Services:**

**Freshmen and Sophomore:** Principles of Human Services, Principles of Early Childhood Education, Ethnic Studies, Principles of Criminal Justice

**Junior:** Psychology, Advanced Speech, Human and Social Service Program (held at VUJ), or above mentioned courses

**Senior:** Cooperative Education, Work Based Learning Capstone



# INFORMATION TECHNOLOGY

The Information Technology career cluster provides opportunities in the areas of information technology, network systems, information support and services, and programming and software development.

## CAREERS

Web Designer, Information Technology Worker, Computer Programmer, Software or Hardware Engineer, Application Designer, Security/Cybersecurity Analyst, Network Administrator

### Information Technology CTE Concentrators

| Career Pathway                    | Principles Course       | CTE Concentrator A                  | CTE Concentrator B                        |
|-----------------------------------|-------------------------|-------------------------------------|---|
| Information Technology Operations | Principles of Computing | Information Technology Fundamentals | Networking<br>Cybersecurity<br>Operations |

**\*The three courses listed above make up the Information Technology Program at VUJ.**

***\*Students who complete the three CTE courses (a Principles course, a Concentrator A course, and a Concentrator B course) with a C Average in a given career pathway will meet the Postsecondary-Ready Competencies requirement for Graduation Pathways.***

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## Recommended Courses for Information Technology:

**Freshmen:** Computer Science

**Sophomore:** Computer Science, Information Technology Support: Special Topics

**Junior:** Information Technology Program at VUJ (see courses listed above) or above mentioned courses

**Senior:** Work Based Learning, Cooperative Education, IT Support Capstone, AP Calculus (recommended for Computer Science majors)



# LAW, PUBLIC SAFETY, CORRECTIONS, & SECURITY

The public safety career cluster helps students in planning, managing, and providing legal, public safety, protective services, and homeland security, including professional and technical services.

## CAREERS

Police Officer, Correctional Officer, Security Officer, Probation/Parole Officer, Lawyer, Judge, Paralegal, Court Reporter, EMT/Paramedic, Emergency Dispatcher

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### Law, Public Safety, Corrections, and Security CTE Concentrators

| Career Pathway   | Principles Course              | CTE Concentrator A           | CTE Concentrator B                 |
|------------------|--------------------------------|------------------------------|------------------------------------|
| Criminal Justice | Principles of Criminal Justice | Law Enforcement Fundamentals | Corrections and Cultural Awareness |
| Fire and Rescue  | Principles of Fire Fighting    | Fire Fighting Fundamentals   | Advanced Fire Fighting             |

\*The three above courses make up the Criminal Justice program at VUJ.

\*The Fire and Rescue program is held at Pike Central.

***\*\*Students who complete the three CTE courses (a Principles course, a Concentrator A course, and a Concentrator B course) with a C Average in a given career pathway will meet the Postsecondary-Ready Competencies requirement for Graduation Pathways.***

### Recommended Courses for Criminal Justice Field

**Freshmen:** Principles of Criminal Justice

**Sophomores:** Law Enforcement & Cultural Awareness

**Junior:** see other recommended courses below

**Senior:** Work Based Learning Capstone (internship)

Other recommended courses: Principles of Human Services, Advanced Speech, Psychology, Ethnic Studies





# SCIENCE, TECHNOLOGY, ENGINEERING, & MATH (STEM)

The STEM field includes careers in mathematics, natural sciences, engineering, computer, and information sciences.

## CAREERS

Engineer (Aerospace, biomedical, chemical, electrical, marine, mechanical, civil, petroleum),  
Biologists, Chemists, Mathematician, Statistician, Physicist

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## STEM CTE Concentrators

| Career Pathway | Principles Course                  | CTE Concentrator A        | CTE Concentrator B               |
|----------------|------------------------------------|---------------------------|----------------------------------|
| Engineering    | Introduction to Engineering Design | Principles of Engineering | Civil Engineering & Architecture |

*Students who complete the three CTE courses (a Principles course, a Concentrator A course, and a Concentrator B course) **with a C Average** in a given career pathway will meet the Postsecondary-Ready Competencies requirement for Graduation Pathways.*

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## Recommended Courses for Engineering Field

**Freshmen:** Introduction to Engineering

**Sophomore:** Principles of Engineering

**Junior:** Civil Engineering & Architecture, Physics

**Senior:** AP Calculus, Physics II or other Core 40 Science, Work Based Learning Capstone,

**Other classes:** Computer Science



# TRANSPORTATION, DISTRIBUTION, & LOGISTICS

The Transportation career cluster can help prepare students for careers such as automotive and aviation technology and technician.

## CAREERS

Diesel Mechanic, Automotive Technician/Mechanic, Aviation Technician/Mechanic, Car Salesman, Pilot

### Transportation CTE Concentrators

| Career Pathway      | Principles Course                 | CTE Concentrator A             | CTE Concentrator B           |
|---------------------|-----------------------------------|--------------------------------|------------------------------|
| Automotive Services | Principles of Automotive Services | Automotive Brakes & Electrical | Engine Performance           |
| Aviation Management | Principle of Aviation Management  | Private Pilot Theory           | Aviation Safety & Operations |

***Students who complete the three CTE courses (a Principles course, a Concentrator A course, and a Concentrator B course) with a C Average in a given career pathway will meet the Postsecondary-Ready Competencies requirement for Graduation Pathways.***

**\*The Automotive Services Program is held at Southridge High School.**

**\*The Aviation Management Program is held at Huntingburg Airport.**

## Automotive Service Recommended Courses

**Freshmen or Sophomore:** Introduction to Transportation

**Junior:** Automotive Services Program at Southridge (see three courses listed above)

**Senior:** Automotive Service Capstone at Southridge

## **Aviation Management Recommended Courses**

**Freshmen:** Introduction to Engineering

**Sophomore:** Principles of Engineering

**Junior:** Physics, Aviation Management Program at Huntingburg Airport (see three courses listed above)

**Senior:** Aviation Management Capstone at Huntingburg Airport, Physics II if available

**Other Classes:** Introduction to Transportation