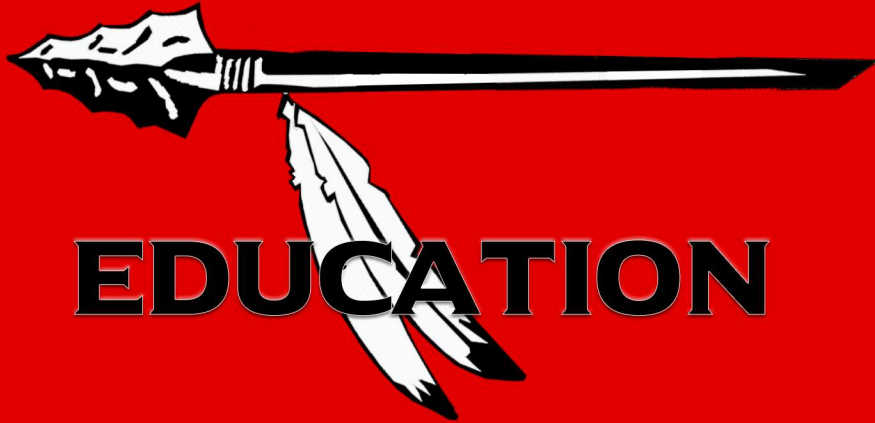


JACKSON HIGH SCHOOL



**EDUCATION
& CAREER**

PLANNING GUIDE

2023-2024

Jackson Senior High School

Principal's Office: 573-243-9513

315 S. Missouri Street

Counselor's Office: 573-243-9520

Jackson, MO 63755

www.jacksonr2schools.com

Created by Emily Burks

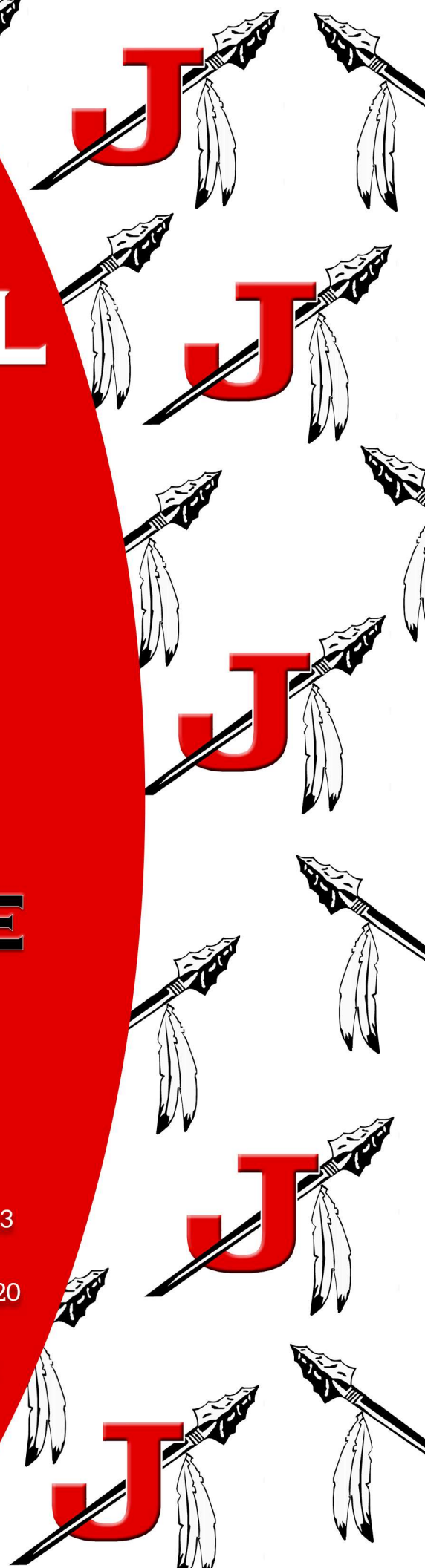


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PURPOSE OF THIS GUIDE

This Education and Career Planning Guide has been designed to provide assistance to **students, parents, advisory teachers and counselors** in developing a student's Individual Career and Academic Plan. The information provided in this guide, along with guidance activities and information gained in advisory, will help students consider their interests, abilities and skills in choosing one or two of the 16 Career Clusters. The expectation is not for students to select a specific occupation for the rest of their lives; rather, it is to focus on a career cluster to help them select appropriate school courses. Each cluster provides a suggested program of study for careers in that particular field. A change in cluster can occur any time during the student's high school career.

HELPFUL HINTS FOR USING THIS GUIDE:

- The 16 Career Clusters are sorted by the 6 Career Pathways and are color coded. Please refer to the Career Clusters diagram on page 2. This diagram is a visual map of the "Career Clusters" model.

Page 1

- A guide/template used to develop an individualized personal plan of study based on the career cluster. More information about student's occupational interests can be found at www.missouriconnections.org.
- All recommended courses within a particular cluster are listed the first year students are eligible to take them.
- If there are no Language Arts recommendations listed for a particular cluster, choose based on interest and ability level. It is suggested that all college bound students take College Writing and Advanced College Writing.
- 2 years of the same foreign language are highly recommended if you plan to go to college even though it is not listed in every cluster.

Page 2

- Arranged by Career Pathways and lists Sample Career Specialties/Occupations in that cluster.
- Knowledge and Skills required for success in this cluster are listed.

Page 3

- Arranged by Education Level with a partial list of technical schools/ training centers, community colleges and universities in which this particular type of training or education is offered. For a complete list go to missouriconnections.org.
- Educational levels:

On-The-Job Training or Less:

- **On-the-Job Training:** Some occupations do not require training before employment.
- **Apprenticeship:** Apprenticeship is a three- to four-year training program where you earn money while you learn; you are working on the job. You receive a license at the end of training. Examples of trades that use apprenticeship are bricklaying, jewelry making, electrical repair, etc.
- **Job Corps:** Vocational/skill training is provided at various locations throughout the nation. Training, room and board and sometimes childcare are provided free to economically disadvantaged youth, male and female, ages 17-20.
- **Military:** Training is available for many jobs while you are enlisted. You also receive financial assistance for college, pay, room and board and insurance benefits. High school graduation is required.

Technical Training or Associates Degree:

- **Technical School:** Programs at these schools are generally one month to two years in length. Examples of vocational technical/trade school programs include practical nursing, robotics and business.
- **Community College:** offer two-year "degree" vocational training, associate degrees or credit transfer to a college or university where you can pursue a bachelor's degree. Most community colleges have an open enrollment policy for high school graduates and individuals with GEDs.

Bachelors Degree, Masters Degree, or More:

- **College/University:** A bachelor's degree requires approximately four years of college. A master's degree usually requires one to two years of college beyond the bachelor's degree. Entrance requirements depend on the desired program/major.

FIND YOUR FUTURE IN Career Paths & Career Clusters

WWW.MISSOURICONNECTIONS.ORG

Science, Technology, Engineering and Mathematics

Engineering and Technology
Science and Math

Architecture and Construction

Design and Pre-Construction
Construction
Maintenance and Operations

Manufacturing

Production
Manufacturing Production Process Development
Maintenance, Installation and Repair
Quality Assurance
Logistics and Inventory Control
Health, Safety and Environmental Assurance

Transportation, Distribution and Logistics

Transportation Operations
Logistics, Planning and Management Services
Warehousing and Distribution Center Operations
Facility and Mobile Equipment Maintenance
Transportation Systems and Infrastructure
Planning, Management and Regulation
Health, Safety and Environmental Management
Sales and Services

Human Services

Early Childhood Development and Services
Counseling and Mental Health Services
Family and Community Services
Personal Care Services
Consumer Services

Hospitality and Tourism

Restaurants and Food and Beverage Services
Recreation, Amusement and Attractions
Travel and Tourism
Lodging

Government and Public Administration

Public Management and Administration
Governance
National Security
Foreign Service
Planning
Revenue and Taxation
Regulation

Law, Public Safety, Corrections and Security

Correction Services
Emergency and Fire Management Services
Security and Protective Services
Law Enforcement Services
Legal Services

Education and Training

Administration and Administrative Support
Professional Support Services
Teaching and Training

Health Science

Biotechnology Research and Development
Therapeutic Services
Diagnostics Services
Health Informatics
Support Services

Industrial & Engineering Technology

Building & Fixing Path

Human Services

Helping Path

Health Services

Health Path

Foundation Knowledge & Skills

Academic & Technical Skills
Teamwork Career Development
Information Technology Application
Problem Solving Critical Thinking
Employability Ethics Systems
Safety, Health & Environment
Legal Responsibilities
Communication

Natural Resources Agriculture

Nature Path

Agriculture, Food and Natural Resources

Food Products and Processing Systems
Plant Systems
Animal Systems
Power, Structural and Technical Systems
Natural Resources and Environmental Systems
Agribusiness Systems

Arts & Communication

Creative Path

Business, Management & Technology

Business Path

Arts, A/V Technology and Communications

Audio and Video Technology and Film
Printing Technology
Visual Arts
Performing Arts
Journalism and Broadcasting
Telecommunications

Information Technology

Network Systems
Information Support and Services
Interactive Media
Programming and Software Development

Finance

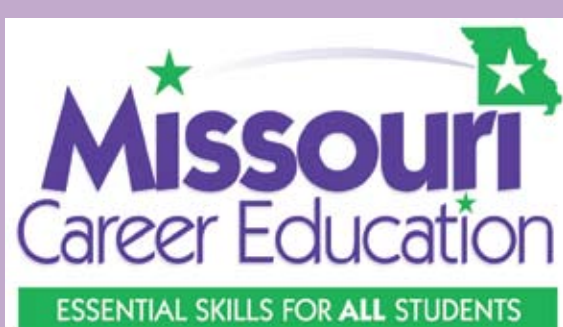
Financial and Investment Planning
Business Financial Management
Banking and Related Services
Insurance Services

Marketing, Sales and Service

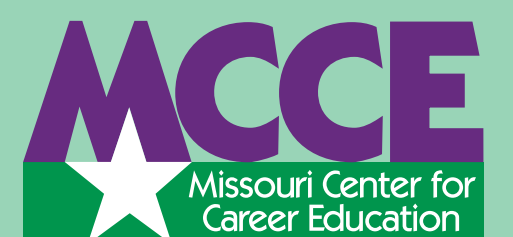
Management and Entrepreneurship
Professional Sales and Marketing
Buying and Merchandising
Marketing Communications and Promotion
Marketing Information Management and Research
Distribution and Logistics
E-Marketing

Business, Management and Administration

Management
Business Financial Management and Accounting
Human Resources
Business Analysis
Marketing and Communications
Administrative and Information Support



Department of Elementary and Secondary Education
Division of Career Education
P.O. Box 480
Jefferson City, MO 65102-0480
(573)751-2660





Career Cluster #3: Arts, A/V Technology and Communications (ICAP)
Jackson High School: www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|--|---|---|---|---|--|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | <p>Select a Career Pathway:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture <p>Career Cluster:</p> <hr/> <p>Post-Secondary Options:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training <p>Area of Interest/Major:</p> <hr/> <p>Post-Secondary Assessments:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) <p>Extracurricular Activities:</p> <hr/> <p>Work/Community Based:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit required | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Adobe Photoshop Adv. Theatre Art 1 Choir Computer Apps Comp Speech & Drama Desktop Publishing Drawing 1 French 1 Freshman Band Housing Interior Design Industrial Tech Intro to Coding Intro to Theatre Arts Jazz Ensemble Jazz Improvisation Journalism Multimedia Digital Music Appreciation Painting 1 Spanish 1 Speech | Adobe Photoshop Adv. Theatre Ceramics Competitive Speech & Drama Design Technology Desktop Publishing Drawing 2 Engineering Graphics High School Honors Band Housing Interior Design Introduction to Theatre Art Jazz Ensemble Jazz Improvisation Journalism/News Production Machine & Manufacturing 1 Multimedia/Digital Production Painting 2 Printmaking Residential Architectural Draft Sculpture Video/Film Production Web Page Design 1 & 2 Wood Technology | Adv. Comp. Apps Advanced Studio Adv. Theatre Advanced Woods AP Studio Art College Speech Contemporary Literature Current Events High School Honors Band Intro to Coding Jazz Ensemble Jazz Improvisation Journalism Machine & Manufacturing 2 Mythic Dimensions in Lit. News Production Psychology Psychology Dual Enrollment Short Story Sociology Sociology Dual Enrollment Yearbook Production Watercolor Painting | Adv. Theatre AP English AP Music Theory College Writing 1 College Writing 2 College Writing 3 Concert Choir High School Honors Band Intro to Coding Jazz Ensemble Jazz Improvisation Journalism News Production | |
| Cape Career and Technical Center | | | Digital Media Production Graphic Arts 1 | Adv. Digital Media Production Drone Technology Graphic Arts 2 | |



Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

| | | | | | | |
|--|--|--|---|--|--|---|
| <p align="center">Sample Career Specialties/Occupations</p> | <p>Video Systems Technicians Video Graphics, Special Effects, and Animation Audio-Video Designers and Engineers Technical Computer Support Technicians, State, Film, Video, and DVD Audio-Video System Service Technicians Audio Systems Technicians</p> | <p>Graphics and Printing Equipment Operators Lithographers and Plate makers Computer Typography and Composition Equipment Operators Desktop Publishing Specialists; Web Page Designers</p> | <p>Commercial Photographers, Digital, Still, Video, Film Interior Designers, Commercial/Residential and Home Furnishings coordinators Graphic Designers, CAD Technicians, and Fashion Illustrators Textile Designers Commercial Artists, Illustrators, and Artists, all Media Curators and Gallery Managers Fashion Designers</p> | <p>Production Managers, Digital, Video, Stage Cinematographers, Film/Video Editors Dancers Play Writers, Screen Writers, Screen Editors, Script Writers Directors and Coaches, Performers, actors, Musicians Make-Up Artists and Costume Designers Stagecraft Designers, Lighters, Sets, Sound Effects, Acoustics, Painters Composers, Conductors, and Music Instructors</p> | <p>Audio/Video Operations, Control Room Technician Station Mangers and Radio & TV Announcers Publishers, Editors, and Journalists and Reporters, Print, Broadcast, Other Broadcast Technicians</p> | <p>Telecommunication Technicians Telecommunication Equipment, Cable, Line Repairers/Installers Telecommunication Computer Programmers, and Systems Analysts</p> |
| <p align="center">Pathways</p> | <p align="center">Audio and Video Technology and Film</p> | <p align="center">Printing Technology</p> | <p align="center">Visual Arts</p> | <p align="center">Performing Arts</p> | <p align="center">Journalism and Broadcasting</p> | <p align="center">Telecommunications</p> |
| <p align="center">Cluster K&S</p> | <p align="center">Cluster Knowledge and Skills</p> <ul style="list-style-type: none"> ◆ Academic Foundations ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities ◆ Employability and Career Development ◆ Technical Skills | | | | | |

| Postsecondary Offerings - For A Complete Listing, go to www.missouriconnections.org | | | | | |
|---|--|--|---|--|---|
| Postsecondary | Community College | Technical School/Training Institution | In State | | Out of State/Other |
| | | <p>Crowder College www.crowder.edu</p> <p>East Central College www.eastcentral.edu</p> <p>Jefferson College www.jeffco.edu</p> <p>Metropolitan Comm College www.mcckc.edu</p> <p>Mineral Area College www.mineralarea.edu</p> <p>Moberly Area Comm College www.macc.edu</p> <p>Ozarks Tech Comm College www.otc.edu</p> <p>St. Charles Comm College www.stchas.edu</p> <p>St Louis Community College www.stlcc.edu</p> <p>State Fair Community College www.sfccmo.edu</p> <p>State Tech (Linn) https://www.statetechmo.edu</p> <p>Three Rivers Comm College www.trcc.edu</p> | <p>Cape Girardeau Career/Tech Center https://capectc.capeptigers.com/</p> <p>Clinton Technical School www.clinton.k12.mo.us/ts.php</p> <p>Davis Hart Mexico Technical School www.mexicoschools.org</p> <p>Eldon Career Center www.eldoncareercenter.org</p> <p>Four Rivers Technical Center www.washington.k12.mo.us</p> <p>Franklin Tech - MSSU www.ftcjoplin.com</p> <p>Gibson Tech Ctr - www.wolves.k12.mo.us/gtc</p> <p>Hannibal Career and Technical Center www.hannibal.tec.mo.us</p> <p>Herndon Career Center www.herndoncareercenter.com</p> <p>Jefferson College Area Technical School www.jeffco.edu</p> <p>Hillyard Tech Center - www.hillyardtech.com</p> <p>Kirksville Area Technical Center www.kirksville.k12.mo.us</p> <p>Lake Career and Technical Center www.camdentonschools.org</p> <p>Lex La-Ray Tech Ctr - www.lexington.k12.mo.us</p> <p>Moberly Area Tech Ctr - www.moberly.k12.mo.us</p> <p>Nichols Career Center - www.jcps.k12.mo.us</p> <p>Perryville Area Career/Technical Center www.mineralarea.edu</p> <p>Ranken Technical College - www.ranken.edu</p> <p>Rolla Technical Institute - www.rolla.k12.mo.us</p> <p>Waynesville Technical Academy www.waynesville.k12.mo.us</p> | <p>Avila University - www.avila.edu</p> <p>Bryan College - https://www.bryan.edu/</p> <p>Central Methodist University www.centralmethodist.edu</p> <p>College of the Ozarks - www.coto.edu</p> <p>Columbia College - www.ccis.edu</p> <p>Culver-Stockton College - www.culver.edu</p> <p>DeVry University - www.devry.edu</p> <p>Drury University - www.drury.edu</p> <p>Evangel University - www.evangel.edu</p> <p>Fontbonne Univ - www.fontbonne.edu</p> <p>Hannibal-Lagrange College - www.hlg.edu</p> <p>Harris-Stowe State Univ - www.hssu.edu</p> <p>Hickey College www.hickeycollege.edu</p> <p>Lincoln University - www.lincolnu.edu</p> <p>Lindenwood Univ - www.lindenwood.edu</p> <p>Maryville Univ of St. Louis www.maryville.edu</p> <p>Messenger College www.messengercollege.edu</p> <p>Missouri Baptist Univ - www.mobap.edu</p> <p>MO Southern State Univ - www.mssu.edu</p> <p>Missouri State University www.missouristate.edu</p> | <p>Missouri State University – West Plains www.wp.missouristate.edu</p> <p>Missouri Valley College – www.moval.edu</p> <p>Missouri Western State University www.missouriwestern.edu</p> <p>Northwest Missouri State University www.nwmissouri.edu</p> <p>Ozark Christian College – www.occ.edu</p> <p>Park University - www.park.edu</p> <p>Rockhurst University - www.rockhurst.edu</p> <p>Saint Louis Univ - www.imagine.stu.edu</p> <p>Sanford-Brown College www.sanford-browncollege.com</p> <p>Southeast MO State Univ - www.semo.edu</p> <p>Southwest Baptist Univ - www.sbuniv.edu</p> <p>Stephens College - www.stephens.edu</p> <p>Stevens-The Institute of Business and Arts https://www.siba.edu</p> <p>Truman State Univ - www.truman.edu</p> <p>Univ of Central MO - www.ucmo.edu</p> <p>Univ of MO – Columbia - www.missouri.edu</p> <p>Univ of MO – Kansas City - www.umkc.edu</p> <p>Univ of MO – Rolla – www.UMR.edu</p> <p>Univ of MO – St Louis - www.umsl.edu</p> <p>Vatterott Coll - www.vatterott-college.edu</p> <p>Washington University - www.wustl.edu</p> <p>Webster University - http://www.webster.edu/</p> <p>William Jewell College - www.jewell.edu</p> <p>William Woods University www.williamwoods.edu</p> |
| Sample Careers By Educational Level - For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org | | | | | |
| On-The-Job Training or Less | Technical Training or Associate Degree | Bachelors Degree | | Masters Degree or More | |
| <p>Actors</p> <p>Bookbinders and Bindery Workers</p> <p>Camera/Photographic Equipment Repairers</p> <p>Communications Equipment Mechanics</p> <p>Costume and Wardrobe Specialists</p> <p>Dancers</p> <p>Fine Artists</p> <p>Floral Designers</p> <p>Movie Projectionists</p> <p>Musical Instrument Repairers and Tuners</p> <p>Musicians and Singers</p> <p>Painting, Coating, and Decorating Workers</p> <p>Photographers</p> <p>Potters</p> <p>Printing Press Operators</p> <p>Proofreaders</p> <p>Ushers and Ticket Takers</p> | <p>Audio and Video Equipment Technicians</p> <p>Broadcast Technicians and Sound Engineering Techs</p> <p>Camera Operators, Film and Video Editors</p> <p>Choreographers</p> <p>Communications Equipment Mechanics</p> <p>Computer, Automated Teller, & Office Machine Repairers</p> <p>Desktop Publishers and Page Layout Workers</p> <p>Directors- Stage, Motion Pictures, Television, and Radio</p> <p>Electronic Home Entertainment Equipment Installers/Repairers</p> <p>Fashion Designers and Interior Designers</p> <p>Fine Artists, Including Painters, Sculptors, and Illustrators</p> <p>Multi-Media Artists and Animators</p> <p>Music Directors</p> <p>Poets, Lyricists and Creative Writers</p> <p>Producers</p> <p>Radio Mechanics and Operators</p> <p>Telecommunications Equipment Installers and Repairers</p> | <p>Agents and Business Managers</p> <p>Animators and Multi-media Artists</p> <p>Art Directors and Talent Directors</p> <p>Broadcast News Analysts and News Reporters</p> <p>Copy Writers, Technical Writers and Editors</p> <p>Directors- Stage, Motion Pictures, Television, and Radio</p> <p>Film and Video Editors</p> <p>Graphic Designers</p> <p>Industrial Designers</p> <p>Interpreters and Translators</p> <p>Multi-Media Artists and Animators</p> <p>Museum Technicians and Conservators</p> <p>Music Composers, Directors, and Arrangers</p> <p>Poets, Lyricists and Creative Writers</p> <p>Proofreaders and Copy Markers</p> <p>Reporters and Correspondents</p> <p>Set and Exhibit Designers</p> <p>Vocational Education Teachers, Postsecondary</p> | | <p>Art, Drama, and Music Teachers, Postsecondary</p> <p>Communications Teachers, Postsecondary</p> <p>English Language and Literature Teachers, Postsecondary</p> <p>Historians</p> <p>Librarians</p> | |



Career Cluster #4: Business Management & Administration (ICAP)
 Jackson High School www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|--|---|--|--|---|--|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | Select a Career Pathway: <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture Career Cluster: <hr/> Post-Secondary Options: <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training Area of Interest/Major: <hr/> Post-Secondary Assessments: <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) Extracurricular Activities: <hr/> Work/Community Based: <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit required | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Accounting 1 Applied Business Com Banking/Financial Serv Computer Apps Desktop Publishing French 1 Intro to Coding Spanish 1 Speech | Advanced Accounting Adv. Computer Apps App Bus Communication Banking & Financial Serv. Business Management Business & Personal Law Desktop Publishing Entrepreneurship French 2 Intro to Coding Spanish 2 Web Page Design 1 & 2 | Adv. Computer Apps Advanced Accounting Business Management Business Technology College Speech College Writing I Current Events Intro to Coding Pre-Calculus Psychology Psychology Dual Enrollment Sociology Sociology Dual Enrollment SBE | Adv. Business Technology AP Calculus AP Human Geography Psychology Dual Enrollment College writing 1 College writing 2 College writing 3 SBE Applied Marketing SME | |
| Cape Career and Technical Center | | | Computer Coding/Program 1 Computer Networking/Security1 Marketing 1 | Computer Coding/Program 1 Computer Coding/Program 2 Computer Networking/Security 1 Computer Networking/Security 2 Marketing 1 Marketing 2 | |



Business Management and Administration careers encompass planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Business Management and Administration career opportunities are available in every sector of the economy.

| | | | | | |
|--|---|---|--|---|--|
| Sample Career Specialties / Occupations | <p>Entrepreneur • Chief Executive Officer • General Manager • Accounting Manager • Accounts Payable Manager • Assistant Credit Manager • Billing Manager • Business & Development Manager • Compensation & Benefits Manager • Credit & Collections Manager • Payroll Manager • Risk Manager • Operations Manager • Public Relations Manager • Human Resource Manager • Management Analyst • Facilities Manager • Association Manager • Sports & Entertainment Manager • Hospital Manager • Government Manager • Public Organization Manager • Manufacturing Manager • Purchasing Manager • First Line Supervisor • Senior Manager • Management Trainee • Small Business Owner</p> | <p>• Information Systems Manager • Accounting Clerk • Accounting Supervisor • Adjuster • Chief Technology Officer • Auditor • Bookkeeper • Budget Analyst • Budget Manager • Billing Supervisor • Management Analyst • Controller • Merger & Acquisitions Manager • Price Analyst • Top Collections Executive • Information Technology Director • Chief Financial Officer • Finance Director • Certified Public Accountant • Project Manager • Cost Accountant • Librarian • Payroll Accounting Clerk</p> | <p>Human Resources Manager • International Human Resources Manager • Human Resources Coordinator • Industrial Relations Director • Compensation & Benefits Manager • Employment & Placement Manager • Employee Assistance Plan Manager • Training & Development Manager • Human Resources Consultant • Corporate Trainer • Training & Development Specialist • Conciliator/Mediator/Arbitrator • Employer Relations Representative • Labor & Personnel Relations Specialist • Affirmative Action Coordinator • Equal Employment Opportunity Specialist • OSHA/ADA Compliance Officer • Pay Equity Officer • Interpreter/Translator • Organizational Behaviorist • Occupational Analyst • Compensation, Benefits & Job Analyst Specialist • Human Resources Information Systems Specialist • Meeting & Convention Planner • Employment Interviewer, Private or Public Employment Service • Personnel Recruiter • Human Resources Assistant • Payroll Professional • Identification Clerk • Human Resources Generalist</p> | <p>• Training and Development Manager • Operations Analyst • Sales Manager • Sales Representative • Broker • Agent • Assistant Store Manager • Department Manager • Assistant Department Manager • Salesperson • Customer Service Supervisor • Product Manager • Project Manager • Research & Development Manager • Budget Analyst • International Merchandising Manager & Supervisor • Marketing Manager • E-commerce Manager & Entrepreneur • Wholesale & Retail buyer • International Distribution Manager • Warehouse Manager • Logistics Manager/Supervisor • Logistics Manager/Coordinator • Marketing Information Manager • Public Relations Specialist • Distribution Worker • Wholesale, Freight, Stocking, Handling, Material Moving and Packing Worker • Traffic, Shipping, & Receiving Clerk • Demonstrator and Product Promoter • Supply Chain Manager • Director of Non-Profit Agency/Organization • Operations Specialties Manager • Industrial Production Manager</p> | <p>Administrative Assistant • Executive Assistant • Office Manager • Administrative Support • Information Assistant • Desktop Publisher • Customer Service Assistant • Data Entry Specialist • Receptionist • Communications Equipment Operator • Computer Operator • Stenographer • Dispatcher • Shipping & Receiving Assistant • Word Processor • Medical Transcriptionist • Legal Secretary • Paralegal</p> |
| Pathways | General Management | Business Information Management | Human Resources Management | Operations Management | Administrative Support |
| <p>Cluster Knowledge and Skills</p> <p>◆ Academic Foundations ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities ◆ Employability and Career Development ◆ Technical Skills</p> | | | | | |

Postsecondary Offerings – For A Complete Listing, go to www.missouriconnections.org

| Postsecondary | Community College | Technical School/Training Institution | In State | | Out of State/Other |
|---------------|--|---|---|---|--|
| | Crowder College www.crowder.edu East Central College www.eastcentral.edu Jefferson College www.jeffco.edu Metropolitan Community College www.mcckc.edu Mineral Area College www.mineralarea.edu Moberly Area Community College www.macc.edu North Central Missouri College www.ncmissouri.edu Ozarks Technical Comm College www.otc.edu St. Charles Community College www.stchas.edu St Louis Community College www.stlcc.edu State Fair Community College www.sfccmo.edu Three Rivers Community College www.trcc.edu | Cape Girardeau Career/Tech Center https://capectc.capetigers.com/ Clinton Tech School www.clinton.k12.mo.us Eldon Career Center www.eldoncareercenter.org Franklin Technology- MSSU http://www.franklintechnologycenter.com/ Grand River Technical School www.grts.org Hillyard Technical Center www.hillyardtech.com Jefferson College Area Technical School www.jeffco.edu Kirksville Area Tech Center www.kirksville.k12.mo.us Lex La-Ray Tech Center www.lexington.k12.mo.us Moberly Area Tech Center www.moberly.k12.mo.us Northwest Tech School http://www.nts.maryville.k12.mo.us/ Pike-Lincoln Tech Center www.pltc.k12.mo.us Ranken Tech College - www.ranken.edu Saline County Career Center www.marshallschools.com/sccc Sikeston Career and Technology Center www.sikeston.k12.mo.us | Avila University - www.avila.edu Baptist Bible College - http://qobbc.edu/ Bryan College - https://www.bryan.edu/ Central Methodist University www.centralmethodist.edu College of the Ozarks - www.coto.edu Columbia College - www.ccis.edu Culver-Stockton College - www.culver.edu DeVry University - www.devry.edu Drury University - www.drury.edu Evangel University - www.evangel.edu Fontbonne Univ - www.fontbonne.edu Hannibal-Lagrange College - www.hlg.edu Harris-Stowe State Univ - www.hssu.edu Hickey College - www.hickeycollege.edu Lincoln University - www.lincolnu.edu Lindenwood Univ - www.lindenwood.edu Maryville Univ of St. Louis www.maryville.edu Messenger College www.messengercollege.edu Missouri Baptist Univ - www.mobap.edu MO Southern State Univ - www.mssu.edu Missouri State University www.missouristate.edu Missouri State University – West Plains www.wp.missouristate.edu | Missouri Western State University www.missouriwestern.edu Northwest Missouri State University www.nwmissouri.edu Park University - www.park.edu Rockhurst University - www.rockhurst.edu Saint Louis University- www.slu.edu Sanford-Brown College www.sanford-browncollege.com Southeast MO State Univ - www.semo.edu Southwest Baptist Univ - www.sbuniv.edu Stephens College - www.stephens.edu Stevens-The Institute of Business and Arts www.siba.edu Truman State Univ - www.truman.edu Univ of Central MO - www.ucmo.edu Univ of MO – Columbia - www.missouri.edu Univ of MO – Kansas City www.umkc.edu Missouri S&T – Rolla – www.mst.edu Univ of MO – St Louis - www.umsl.edu Univ of Phoenix – www.phoenix.edu Vatterott College www.vatterott-college.edu Washington University - www.wustl.edu Webster University - www.webster.edu Westminster College www.westminster-mo.edu William Jewell College - www.jewell.edu William Woods University www.williamwoods.edu | <ul style="list-style-type: none"> • Apprenticeship • Military • On-the-Job Training America Business College- www.americacollege.org Colorado Technical University www.coloradotech.com Daruby School www.darubyschool.com Grantham University www.grantham.edu ITT Technical Institute http://itt-tech.info/ Metro Business College www.metrobusinesscollege.edu MVC Computer & Business School www.mvcschool.com National American University www.national.edu TechSkills www.techskills.com Texas County Technical Institute www.texascountytech.edu |

Sample Careers By Educational Level – For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org

| On-the-Job Training | Technical Training or Associate Degree | Bachelors Degree | Masters Degree or More |
|---|---|---|--|
| Billing Clerks Bookkeeping and Accounting Clerks Computer Operators Copy Machine Operators Couriers and Messengers Data Entry File Clerks General Office Clerks Human Resources Assistants Interviewing Clerks Mail Clerks Order Clerks and Stock Clerks Payroll and Timekeeping clerks Receptionists Secretaries Shipping and Receiving Clerks Typists | Court Reporters First-Line Supervisors/Managers General and Operations Managers Production and Operating Workers | Administrative Services Managers Advertising Managers Business Executives Computer and Information Systems Managers Employee Training Specialists Employment Interviewers and Recruiters Human Resources Managers Job Benefits and Analysis Specialists Management Analysts Market Research Analysts Meeting and Convention Planners Property and Real Estate Managers Public Relations Managers, Specialists Purchasing Manager and Sales Managers Regulatory Affairs Specialists Social and Community Services Managers Storage and Distribution Managers | Business Teacher, Postsecondary Chief Executives Controller, Treasurers Economists Medical and Health Services Managers Operations Research Analysts Statisticians |



Career Cluster #6: Finance (ICAP)
Jackson High School www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|--|--|---|---|---|--|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | Select a Career Pathway: <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture Career Cluster: <hr/> Post-Secondary Options: <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training Area of Interest/Major: <hr/> Post-Secondary Assessments: <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) Extracurricular Activities: <hr/> Work/Community Based: <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit required | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Accounting 1 Banking/Financial Serv Computer App. French 1 Spanish 1 Speech | Accounting 1 Advanced Accounting Advanced Computer App Banking & Financial Services Business and Personal Law Business Management Marketing Webpage Design 1 & 2 | Advanced Accounting Business Management Business Technology College Writing 1 SBE | Adv. Business Tech. College Writing 1 College Writing 2 College Writing 3 College Speech SBE Applied Marketing SME | |
| Cape Career and Technical Center | | | Marketing 1 | Marketing 1 & 2 | |



Planning, services for financial and investment planning, banking, insurance, and business financial management.

| | | | | |
|--|--|---|---|--|
| Sample Career Specialties / Occupations | Personal Financial Advisors • Tax Preparation Specialists • Sales Agents- Securities, Commodities • Investment Advisors • Brokerage Representatives • Development Officers • Securities/Investments Analysts • Stock Brokers | Accountants • Financial Analysts • Treasurers, Controllers and Chief Revenue Agents • Auditors • Economists • Tax Auditors • Collectors • Revenue Agents • Benefits Specialists • Real Estate Analysts • Certified Purchasing Professionals • Client Managers | Credit Analysts • Loan Officers • Account Representatives • Tellers • Loan Processors • Customer Service Reps • Data Processors • Internal Auditors • Compliance Officers • Title Researchers & Examiners • Abstractors • Repossession Agents • Network Service Representatives • Operations Managers • Debt Counselors | Claims Representatives, Examiners, and Investigators • Insurance Appraisers • Underwriters • Actuaries • Sales Agents • Customer Service Agents • Processing Clerks • Direct Marketing Representatives • Insurance Brokers • Loss Prevention Specialists |
| Pathways | Securities & Investments | Business Finance | Banking Services | Insurance |
| Cluster K&S | <p>Cluster Knowledge and Skills</p> <p>◆ Academic Foundations ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities ◆ Employability and Career Development ◆ Technical Skills</p> | | | |

Postsecondary Offerings – For A Complete Listing, go to www.missouriconnections.org

| | | | | | |
|----------------------|--|-------------------------|--|--|---|
| Postsecondary | Community College | Technical School | In State | | Out of State/Other |
| | Crowder College www.crowder.edu East Central College www.eastcentral.edu Jefferson College www.jeffco.edu Metropolitan Community College www.mcckc.edu Moberly Area Community College www.macc.edu North Central Missouri College www.ncmissouri.edu Ozarks Technical Comm College www.otc.edu St Louis Community College www.stlcc.edu St. Charles Community College www.stchas.edu State Fair Community College www.sfccmo.edu Three Rivers Community College www.trcc.edu | | Avila University - www.avila.edu Central Methodist University www.centralmethodist.edu Columbia College - www.ccis.edu College of the Ozarks - www.coto.edu Culver-Stockton College www.culver.edu DeVry University – www.devry.edu Drury University - www.drury.edu Evangel University - www.evangel.edu Fontbonne Univ - www.fontbonne.edu Hannibal-Lagrange College www.hlg.edu Hickey College - www.hickeycollege.edu Lincoln University - www.lincolnu.edu Lindenwood Univ - www.lindenwood.edu Maryville University of St. Louis www.maryville.edu MO Southern State University www.mssu.edu Missouri State University www.missouristate.edu Missouri Valley College www.moval.edu Missouri Western State University www.missouriwestern.edu | Northwest Missouri State University www.nwmissouri.edu Park University - www.park.edu Rockhurst University www.rockhurst.edu Saint Louis University www.slu.edu Southeast MO State University www.semo.edu Stephens College - www.stephens.edu Truman State Univ - www.truman.edu Univ of Central MO - www.ucmo.edu Univ of MO – Columbia www.missouri.edu University of MO – Kansas City www.umkc.edu Univ of MO – Rolla – www.umar.edu Univ of MO – St Louis - www.umsl.edu Washington University - www.wustl.edu Webster University - www.webster.edu Westminster College www.westminster-mo.edu William Jewell College - www.jewell.edu William Woods University www.williamwoods.edu Vatterott College www.vatterott-college.edu | <ul style="list-style-type: none"> • Apprenticeship • Military • On-the-Job Training Colorado Technical University www.coloradotech.com National American University www.national.edu |

Sample Careers By Educational Level – For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org

| | | | |
|--|--|--|--|
| On-the-Job Training | Technical or Associate Degree | Bachelors Degree | Masters Degree or More |
| Bank Tellers Bill and Account Collectors Brokerage Clerks Credit Checkers and Authorizers Insurance Adjusters and Examiners Insurance Claims Clerk Insurance Policy and Claims Clerks Loan Clerks Tax Preparers Title Examiners and Searchers | Claims Examiners, Property and Casualty Insurance Insurance Appraisers, Auto Damage Insurance Sales Agents Insurance Underwriters | Accountants and Auditors Appraisers and Assessors Budget Analysts Credit Analysts Financial Analysts Financial Examiners Financial Managers Insurance Agents Insurance Underwriters Loan Officers Securities Salespeople | Actuaries Business Teacher, Postsecondary Economists Treasurers and Controllers |



Career Cluster #11: Information Technology (ICAP)
 Jackson High School www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|--|---|---|--|--|--|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | Select a Career Pathway: <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture Career Cluster: <hr/> Post-Secondary Options: <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training Area of Interest/Major: <hr/> Post-Secondary Assessments: <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) Extracurricular Activities: <hr/> Work/Community Based: <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit required | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Adobe Photoshop Art 1 Computer Apps Desktop Publishing Drawing 1 Intro to Coding Multimedia/Digital Video Drawing 1 | Adobe Photoshop Adv. Computer Apps Desktop Publishing Design Technology Intro to Coding Multimedia/Digital Video Video Productions Web Page Design 1 & 2 | Adv. Computer Apps Computer Hardware & IT Engineering Graphics Intro to Coding Intro Pre-calculus Algebra Pre-calculus Algebra Residential Arch Draft Statistical Reasoning | College Writing 1 College Writing 2 College Writing 3 Intro to Coding Engineering & Robotics Pre-Calculus | |
| Cape Career and Technical Center | | | Computer Coding/Program 1 Computer Network/Security 1 | Computer Coding/Program 1 Computer Coding/Program 2 Computer Network/Security 1 Computer Network/Security 2 | |



Building Linkages in IT Occupations Framework: For Entry Level, Technical, and Professional Careers Related to the Design, Development, Support and Management of Hardware, Software, Multimedia, and Systems Integration Services.

| | | | | |
|--|---|---|--|--|
| Sample of Career Specialties / Occupations | <p>Network Design and Administration: Communications Analyst * Data Communications Analyst * Information Systems Administrator * Information Systems Operator * Information Technology Engineer Network Consulting Engineer Network Pre-Sales Engineer Network: Administrator * Analyst * Architect * Engineer * Manager * Operations Analyst * Security Analyst * Specialist * Technician * Transport Administrator PC Support Specialist * Systems: Administrator * Engineer * Support Lead Technical Support Specialist * User Support Specialist Telecommunications Network Technician</p> | <p>Database Development and Administration: Data: Administrator * Analyst * Architect * Management Associate * Modeler * Modeling Specialist Database: Administration Associate * Administrator * Analyst * Developer * Manager * Modeler * Security Expert * DSS (Decision Support Services) * Knowledge Architect Senior: Database Administrator * Systems Analyst Systems: Administrator * Analyst Tester Technical Writer: Desktop Publisher * Document Specialist * Documentation Specialist * Editor Electronic Publications Specialist * Publisher Instructional Designer, Online Publisher Technical Communicator * Editor * Publications Manager * Writer Technical Support: Analyst * Call Center Support Representative * Content Manager Customer: Liaison * Service Representative * Service Professional Help Desk Specialist * Technician Maintenance Technician * PC Support Specialist * PC Systems Coordinator * Product Support Engineer * Sales Support Technician * Technical: Account Manager * Support Engineer * Support Representative Testing Engineer Enterprise Systems Analysis and Integration: Application Integrator * Business Continuity Analyst * Cross-Enterprise Integrator Data: Systems Designer * Systems Manager * Warehouse Designer E-Business Specialist * Electronic Transactions Implementer Information Systems: Architect * Planner Systems: Analyst * Architect * Integrator</p> | <p>Digital Media: 2D/3D Artist * Animator * Audio/Video Engineer * Designer * Media Specialist * Media/Instructional Designer Multimedia: Author * Authoring Specialist * Developer * Specialist Producer * Production Assistant * Programmer * Streaming Media Specialist * Virtual Reality Specialist Web: Designer * Producer * Specialist Web Development and Administration: Web: Administrator * Architect * Designer * Page Developer * Producer * Site Developer * Specialist Webmaster Web Developer Social Networking Specialist Blog Developer * Search Engine Marketing Specialist Search Engine Optimization Specialist</p> | <p>Programming / Software Engineering: Applications: Analyst * Engineer Business Analyst * Computer Engineer * Data Modeler Operating System: Designer/Engineer * Programmer Analyst Program Manager * Programmer * Programmer/Analyst * Project Lead Software Applications: Specialist * Architect * Design Engineer * Development Engineer * Engineer * QA Specialist * Tester Systems: Analyst * Administrator Test Engineer * Tester</p> |
| Pathways | Network Systems | Information Support and Services | Web and Digital Communications | Programming and Software Development |
| Cluster K&S | <p align="center">Cluster Knowledge and Skills</p> <p align="center">◆ Academic Foundations ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities ◆ Employability and Career Development ◆ Technical Skills</p> | | | |

Postsecondary Offerings – For A Complete Listing, go to www.missouriconnections.org

| Community College | Technical School/Training Institution | In State | | Out of State/Other |
|---|--|--|--|---|
| <p>Crowder College www.crowder.edu</p> <p>East Central College www.eastcentral.edu</p> <p>Jefferson College www.jeffco.edu</p> <p>Metropolitan Community College www.mcckc.edu</p> <p>Mineral Area College www.mineralarea.edu</p> <p>Moberly Area Community College www.macc.edu</p> <p>North Central Missouri College www.ncmissouri.edu</p> <p>Ozarks Technical Comm College www.otc.edu</p> <p>St. Charles Community College www.stchas.edu</p> <p>St Louis Community College www.stlcc.edu</p> <p>State Fair Community College www.sfccmo.edu</p> <p>State Tech https://www.statetechmo.edu</p> <p>Three Rivers Community College www.trcc.edu</p> | <p>Davis Hart Career Center www.mexicoschools.net</p> <p>Herndon Career Center www.herndoncareercenter.com</p> <p>Jefferson College Area Technical Center www.jeffco.edu</p> <p>Kirksville Area Tech Center www.kirksville.k12.mo.us</p> <p>Waynesville Technical Academy www.waynesville.k12.mo.us</p> | <p>A.T. Skill University of Health Sciences www.atsu.edu</p> <p>Avila University - www.avila.edu</p> <p>Bryan College - www.bryan.edu</p> <p>Central Methodist University www.centralmethodist.edu</p> <p>College of the Ozarks - www.coto.edu</p> <p>Columbia College - www.ccis.edu</p> <p>Culver-Stockton College - www.culver.edu</p> <p>DeVry University – www.devry.edu</p> <p>Drury University - www.drury.edu</p> <p>Evangel University - www.evangel.edu</p> <p>Fontbonne Univ - www.fontbonne.edu</p> <p>Hannibal-Lagrange College www.hlg.edu</p> <p>Harris-Stowe State Univ - www.hssu.edu</p> <p>Hickey College - www.hickeycollege.edu</p> <p>Lincoln University - www.lincolnu.edu</p> <p>Lindenwood Univ - www.lindenwood.edu</p> <p>Maryville Univ of St. Louis www.maryville.edu</p> <p>Missouri Baptist Univ - www.mobap.edu</p> <p>MO Southern State University www.mssu.edu</p> <p>Missouri State University www.missouristate.edu</p> <p>Missouri State University – West Plains www.wp.missouristate.edu</p> <p>Missouri Valley College www.moval.edu</p> | <p>Missouri Western State University www.missouriwestern.edu</p> <p>Northwest Missouri State University www.nwmissouri.edu</p> <p>Park University - www.park.edu</p> <p>Rockhurst University www.rockhurst.edu</p> <p>Saint Louis University www.slu.edu</p> <p>Sanford-Brown College www.sanford-browncollege.com</p> <p>Southeast MO State University www.semo.edu</p> <p>Southwest Baptist University www.sbuniv.edu</p> <p>Truman State Univ - www.truman.edu</p> <p>Univ of Central MO - www.ucmo.edu</p> <p>Univeristy of MO – Columbia www.missouri.edu</p> <p>University of MO – Kansas City www.umkc.edu</p> <p>MO S&T – Rolla – www.mst.edu</p> <p>Univ of MO – St Louis - www.umsl.edu</p> <p>Univ of Phoenix – www.phoenix.edu</p> <p>Vatterott College www.vatterott-college.edu</p> <p>Washington University - www.wustl.edu</p> <p>Webster University www.webster.edu</p> <p>Westminster College www.westminster-mo.edu</p> <p>William Jewell College - www.jewell.edu</p> <p>William Woods University www.williamwoods.edu</p> | <ul style="list-style-type: none"> • Apprenticeship • Military • On-the-Job Training <p>Colorado Technical University www.coloradotech.com</p> <p>Grantham University www.grantham.edu</p> <p>ITT Technical Institute http://itt-tech.info/</p> <p>Kansas City Art Institute www.kcai.edu</p> <p>Midwest Institute www.midwestinstitute.com</p> <p>Missouri S&T www.mst.edu</p> <p>National American University www.national.edu</p> <p>Pinnacle Career Institute www.pctraining.edu</p> <p>Texas County Technical Institute www.texascountytech.edu</p> |

Sample Careers By Educational Level – For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org

| On-the-Job Training or Less | Technical Training or Associate Degree | Bachelors Degree | Masters Degree or More |
|-----------------------------|---|--|--|
| | <p>Computer Operators</p> <p>Computer Support Specialists</p> <p>Network Systems and Data Communications Analysts</p> <p>Numerical Tool and Process Control Programmers</p> <p>Web Administrators</p> <p>Web Developers</p> | <p>Computer and Information Systems Managers</p> <p>Computer Engineers</p> <p>Computer Programmers</p> <p>Computer Security Specialists</p> <p>Computer Software Engineers</p> <p>Computer Systems Administrators</p> <p>Computer Systems Analysts</p> <p>Data Communications analysts</p> <p>Database Administrators</p> <p>Graphic Designers</p> <p>Multi-Media Artists and Animators</p> <p>Network and Computer Systems Administrators</p> <p>Software Quality Assurance Engineers and Testers</p> | <p>Computer and Information Scientists, Research</p> <p>Computer Science Teachers, Postsecondary</p> <p>Engineering Managers</p> |



Career Cluster #14: Marketing Sales & Service (ICAP)
 Jackson High School www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|--|--|--|---|---|--|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | Select a Career Pathway: <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture Career Cluster: <hr/> Post-Secondary Options: <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training Area of Interest/Major: <hr/> Post-Secondary Assessments: <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) Extracurricular Activities: <hr/> Work/Community Based: <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit required | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Accounting Adobe Photoshop Computer Apps Desktop Publishing French 1 Intro to Coding Multimedia Digital Spanish 1 Speech | Adobe Photo shop Advanced Accounting Business Personal Law Desktop Publishing French 2 Intro to Coding Marketing Multimedia Digital Spanish 2 Web Page Design 1 & 2 | Business Management Business Technology College Speech College Writing 1 Intro to Coding Psychology Psychology Dual Enrollment Sociology Sociology Dual Enrollment SBE | AP English AP Human Geography Psychology Dual Enrollment Adv. Business Technology College Writing 1 College Writing 2 College Writing 3 Intro to Coding SBE Applied Marketing SME | |
| Cape Career and Technical Center | | | Marketing 1 | Marketing 1 & 2 | |



Planning, managing, and performing marketing activities to reach organizational objectives.

| | | | | | |
|--|---|--|---|--|--|
| Sample Career Specialties / Occupations | <p>Entrepreneurs Owners Small Business Owners Presidents Chief Executive Officers Principals Partners Proprietors Franchisees Independent X's (e.g., distributor) Customer Service Representatives Administrative Support Representatives (e.g., human resources, clerical, finance, technical)</p> | <p>Inbound Call Managers Channel Sales Managers Regional Sales Managers Client Relationship Managers Business Development Managers Territory Representatives / Managers Key Account Managers National Account Managers Account Executives Sales Engineers Sales Executives Technical Sales Specialists Retail Sales Specialists (big ticket) Outside Sales Representatives Industrial Sales Representatives Manufacturer's Representatives Salespersons Field Marketing Representatives Brokers Agents Field Representatives Solutions Advisors Sales/Marketing Associates Telemarketers/Inside Sales Representatives Customer Service Representatives Administrative Support Representatives (e.g., human resources, clerical, finance, technical)</p> | <p>Store Managers Retail Marketing Coordinators Merchandising Managers Merchandise Buyers Operations Managers Visual Merchandise Managers Sales Managers Department Managers Sales Associates Customer Service Representatives Clerks (e.g., stock, receiving, etc.) Administrative Support Representatives (e.g., human resources, clerical, finance, technical)</p> | <p>Advertising Managers Public Relations Managers Public Information Directors Sales Promotion Managers Co-op Managers Trade Show Managers Circulation Managers Promotions Managers Art/Graphics Directors Creative Directors Account Executives Account Supervisors Sales Representatives Marketing Associates Media Buyers/Planners Interactive Media Specialists Analysts Contract Administrators Copywriters Research Specialists Research Assistants Customer Service Representatives Administrative Support Representatives (e.g., human resources, clerical, finance, technical)</p> | <p>Database Managers Research Specialists / Managers Brand Managers Marketing Services Managers Customer Satisfaction Managers (Research) Project Managers CRM Managers Forecasting Managers Strategic Planners, Marketing Product Planners Planning Analysts Directors of Market Development Database Analysts Analysts Research Associates Frequency Marketing Specialists Knowledge Management Specialists Interviewers Customer Service Representatives Administrative Support Representatives (e.g., human resources, clerical, finance, technical)</p> |
| Pathways | Marketing Management | Professional Sales | Merchandising | Marketing Communications | Marketing Research |

Cluster Knowledge and Skills

- ◆ Academic Foundations ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems
 ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities
 ◆ Employability and Career Development ◆ Technical Skills

Postsecondary Offerings – For A Complete Listing, go to www.missouriconnections.org

| Postsecondary | Community College | Technical School/Training Institution | In State | | Out of State/Other |
|--|--|--|---|--|--|
| | East Central College www.eastcentral.edu Crowder College www.crowder.edu Jefferson College www.jeffco.edu Metropolitan Community College www.mcckc.edu Mineral Area College www.mineralarea.edu Moberly Area Community College www.macc.edu North Central Missouri College www.ncmissouri.edu Ozarks Technical Comm College www.otc.edu St. Charles Community College www.stchas.edu St Louis Community College www.stlcc.edu State Fair Community College www.sfccmo.edu Three Rivers Community College www.trcc.edu | Eldon Career Center www.eldoncareercenter.org Hannibal Career and Technical Center www.hannibal.tec.mo.us Jefferson College Area Technical Center www.jeffco.edu Waynesville Technical Academy www.waynesville.k12.mo.us Northwest Tech School www.nts.maryville.k12.mo.us Ranken Tech College - www.ranken.edu | Avila University - www.avila.edu Baptist Bible College - www.baptist.edu Bryan College - https://www.bryan.edu/ Central Methodist University www.centralmethodist.edu College of the Ozarks - www.coto.edu Columbia College - www.ccis.edu Culver-Stockton College www.culver.edu DeVry University – www.devry.edu Drury University - www.drury.edu Evangel University - www.evangel.edu Fontbonne Univ - www.fontbonne.edu Hannibal-Lagrange College www.hlg.edu Harris-Stowe State Univ - www.hssu.edu Lincoln University - www.lincolnu.edu Lindenwood Univ - www.lindenwood.edu Maryville University of St. Louis www.maryville.edu Messenger College www.messengercollege.edu Missouri Baptist Univ - www.mobap.edu MO Southern State University www.mssu.edu Missouri State University www.missouristate.edu Missouri State University – West Plains www.wp.missouristate.edu Missouri Valley College www.moval.edu | Missouri Western State University www.missouriwestern.edu Northwest Missouri State University www.nwmissouri.edu Park University - www.park.edu Rockhurst University - www.rockhurst.edu Saint Louis University https://www.slu.edu/ Sanford-Brown College www.sanford-browncollege.com Southeast MO State Univ - www.semo.edu Southwest Baptist Univ - www.sbuniv.edu Stephens College - www.stephens.edu Stevens-The Institute of Business and Arts www.siba.edu Truman State Univ - www.truman.edu Univ of Central MO - www.ucmo.edu Univ of MO – Columbia - www.missouri.edu Univ of MO – Kansas City www.umkc.edu MO S&T – Rolla – www.mst.edu Univ of MO – St Louis - www.umsli.edu Univ of Phoenix – www.phoenix.edu Vatterott College www.vatterott-college.edu Washington University - www.wustl.edu Webster University - www.webster.edu Westminster College www.westminster-mo.edu William Jewell College - www.jewell.edu William Woods University www.williamwoods.edu | <ul style="list-style-type: none"> • Apprenticeship • Military • On-the-Job Training Colorado Technical University www.coloradotech.com Grantham University www.grantham.edu ITT Technical Institute http://itt-tech.info/ National American University www.national.edu |
| Sample Careers By Educational Level – For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org | | | | | |
| | On-the-Job Training or Less | Technical Training or Associate Degree | Bachelors Degree | | Masters Degree or More |

| | | | |
|---|---|--|---|
| Advertising Salespeople Buyers and Purchasing Agents Cashiers Counter and Rental Clerks Demonstrators and Promoters Floral Designers Merchandise Displayers Models Opticians Parts Salespeople Retail Salespeople Route Salespeople Telemarketers | Advertising Sales Agents Assessors Fashion Designers Interior Designers Lodging Managers Property, Real Estate, and Community Association Managers Real Estate Brokers Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products Travel Agents Travel Guides Wholesale and Retail Buyers, Except Farm Products | Art Directors Editors Market Research Analysts Public Relations Specialists Sales Managers Sales Representatives Survey Researchers Technical Writers | Business Teacher, Postsecondary Marketing Managers Public Relations Managers Purchasing Managers Sales Managers |
|---|---|--|---|



Career Cluster #8: Health Sciences (ICAP)
Jackson High School www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|---|---------------------|------------------------------------|-----------------------------------|---------------------------------------|---|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | Select a Career Pathway: <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture Career Cluster: <hr/> Post-Secondary Options: <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training Area of Interest/Major: <hr/> Post-Secondary Assessments: <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit | P.E. Health | | | | |

| | | | | | |
|--|---|---|--|---|---|
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) |
| Recommended Options for Specific Career Cluster | Accounting 1 Computer App. Food & Nutrition 1 French 1 Pers. Fit. & Well Spanish 1 Speech | Advanced Accounting Advanced Computer App Apparel, Textile, and Fashion 1 & 2 Business Management Child Development 1 Cross fit Family Living Food & Nutrition 1 & 2 Lifetime/Recreational Activities Marketing Officiating Team Sports Training for Sport | Adv. Child Development AP Chemistry Psychology Dual Enrollment AP Physics I Apparel, Textile, and Fashion 1 & 2 Applied Genetics Business Management Child Development 1 Food & Nutrition 1 & 2 Human Anatomy 1 & 2 Intro to Teaching Physics Psychology Sociology Vet Assistant | Adv. Child Development AP Biology AP English AP Physics 2 Apparel, Textile, and Fashion 1 & 2 College Speech College Writing 1 College Writing 2 College Writing 3 Child Development 1 Intro to Teaching Vet Assistant Applied Marketing SME | Extracurricular Activities: <hr/> Work/Community Based: <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
| Cape Career and Technical Center | | | | Emergency Medical Tech Health Occupations Practical Nursing | |



Planning, managing and providing therapeutic services, diagnostic services, health informatics, support services and biotechnology research and development.

| | | | | | |
|--|--|---|---|---|--|
| Sample Career Specialties / Occupations | <p>Acupuncturist Anesthesiologist/Assistant Art/Music/Dance Therapist Athletic Trainer Audiologist Certified Nursing Assistant Chiropractor/Assistant Dental Assistant/Hygienist Dental Lab Technician Dietitian/Nutritionist Dosimetrist EMT/Paramedic Endodontist Exercise Physiologist Home Health Aide Kinesiotherapist Licensed Practical/Registered Nurse Massage Therapist Medical Assistant Mental Health/Rehab Counselor Naturopathic Doctor Nurse Midwife Nurse Practitioner Occupational Therapist/Assistant Oral Surgeon Orientation/Mobility Specialist Orthodontist Orthoptist Pedorthist Perfusionist Pharmacist/Technician Physical Therapist/Assistant Physician (MD/OD)/Assistant Psychologist Psychiatrist Radiation Therapist Recreation Therapist/Wellness Coach Respiratory Therapist Speech-Language Therapist Surgical Technician Veterinarian/Assistant</p> | <p>Audiologist Blood Bank Technologist Cardiovascular Technologist Clinical Lab Technician Computer Tomography (CT) Tech Cytogenetic Technologist Cytotechnologist Dentist Diagnostic Medical Sonographer Electrocardiographic (ECG) Tech Electroneurodiagnostic Tech Electronic Diagnostic (EEG) Tech Exercise Physiologist Geneticist Geriatrician Histotechnician Histotechnologist Magnetic Resonance Tech Mammography Medical Technologist Clinical Laboratory Scientist Nuclear Medicine Technologist Optician Ophthalmologist/Assistant Optometrist Pathologist/Assistant Phlebotomist Polysomnographic Tech Positron Emission Tomography (PET) Technologist Radiologic Technologist Radiologist Speech-Language Pathologist</p> | <p>Admitting Clerk Applied Researcher Compliance Technician Clinical Account Manager Clinical Account Technician Clinical Data Specialist Community Services Specialists Data Quality Manager Epidemiologist Ethicist Health Educator Health Info. Mgmt. Administrator Health Info. Mgmt. Technician Healthcare Access Manager Healthcare Administrator Healthcare Finance Informatician Information Privacy Officer Managed Care Contract Analyst Medical Coder Medical Historian Medical Illustrator Medical Information Technologist Medical Librarian Medical Transcriptionist Optometrist Patient Account Technician Patient Advocate Patient Information Coordinator Project Manager Public Health Educator Quality Management Specialist Quality Data Analyst Research and Decision Support Specialist Reimbursement Specialist Risk Manager Unit Coordinator Utilization Manager Utilization Review Manager</p> | <p>Animal Behaviorist Biomedical/Clinical Engineer Biomedical/Clinical Tech Clinical Simulator Tech Central Service Manager Central Service Technician Community Health Worker Dietary Manager Dietetic Technician Environmental Health Advocate Environmental Health Practitioner Environmental Services Specialist Facilities Manager Food Safety Specialist Health Advocate Hospital Maintenance Engineer Industrial Hygienist Interpreter Marital, Couple, Family Counselor/Therapist Materials Manager Medical Health Counselor Mortician/Funeral Director Nurse Educator Occupational Health Nurse Occupational Health & Safety Expert Social Worker Transport Technician</p> | <p>Biochemist Bioinformatics Scientist Biomedical Chemist Biomedical Manufacturing Tech Biostatistician Cancer Registrar Cell Biologist Clinical Data Mgmt. Specialist Clinical Pharmacologist Clinical Trials Monitor Clinical Trials Research Coordinator Crime Scene Investigator Diagnostic Molecular Scientist Forensic Biologist Forensic Chemist Forensic Odonatologist Forensic Pathologist Genetic Counselor Geneticist Lab Assistant Lab Technician Medical Editor/Writer Microbiologist Molecular Biologist Nurse Researcher Packaging Technician Patent Lawyer Pharmaceutical/Clinical Project Manager Pharmaceutical Sales Rep. Pharmaceutical Scientist Pharmacokinetics Pharmacologist Product Safety Scientist Process Development Scientist Processing Technician Quality Assurance Technician Quality Control Technician Regulatory Affairs Specialist Research Scientist/Assistant Toxicologist</p> |
| Pathways | Therapeutic Services | Diagnostic Services | Health Informatics | Support Services | Biotechnology Research and Development |

| | | | | |
|---|--|---|---|--|
| <p>Crowder College www.crowder.edu East Central College www.eastcentral.edu Jefferson College www.jeffco.edu Metropolitan Comm College www.mcckc.edu Mineral Area College www.mineralarea.edu Moberly Area Comm College www.macc.edu North Central MO College www.ncmissouri.edu Ozarks Tech Comm College www.otc.edu St. Charles Comm College www.stchas.edu St Louis Community College www.stlcc.edu State Fair Community College www.sfccmo.edu Three Rivers Comm College www.trcc.edu</p> | <p>Cape Girardeau Career/Tech Center https://capectc.capetigers.com/ Cass Career Center www.harrisonville.k12.mo.us Columbia Career Center www.career-center.org Four Rivers Technical Center www.washington.k12.mo.us Franklin Tech - MSSU www.ftcjoplin.com Grand River Tech School - www.grts.org Herndon Career Center www.herndoncareercenter.com Hillyard Technical Center www.hillyardtech.com Jefferson College Area Technical School www.jeffco.edu Kennett Career and Technology Center www.kennett.k12.mo.us Lex La-Ray Tech Ctr www.lexington.k12.mo.us Moberly Area Tech Center www.moberly.k12.mo.us Northland Career Center www.northlandcareercenter.com Northwest Tech School www.maryville.k12.mo.us Poplar Bluff Schools - www.r1schools.org Sikeston Career and Technology Center www.sikeston.k12.mo.us South Central Career Center www.wphs.k12.mo.us Waynesville Technical Academy www.waynesville.k12.mo.us</p> | <p>AT Skill University of Health Sciences www.atsu.edu Avila University - www.avila.edu Bryan College - www.bryan.com Central Methodist University www.centralmethodist.edu College of the Ozarks - www.coto.edu Columbia College - www.ccis.edu Culver-Stockton College - www.culver.edu Drury University - www.drury.edu Evangel University - www.evangel.edu Fontbonne Univ - www.fontbonne.edu Hannibal-Lagrange College www.hlg.edu Harris-Stowe State Univ -www.hssu.edu Lincoln University - www.lincolnu.edu Lindenwood Univ - www.lindenwood.edu Maryville Univ of St. Louis www.maryville.edu Missouri Baptist Univ - www.mobap.edu MO Southern State Univ - www.mssu.edu Missouri State University www.missouristate.edu Missouri State University – West Plains www.wp.missouristate.edu</p> | <p>Missouri Valley College –www.moval.edu Missouri Western State University www.missouriwestern.edu Northwest Missouri State University www.nwmissouri.edu Park University - www.park.edu Rockhurst University -www.rockhurst.edu Saint Louis Univ - https://www.slu.edu/ Sanford-Brown College www.sanford-browncollege.com Southeast MO State Univ -www.semo.edu Southwest Baptist Univ -www.sbuniv.edu Stephens College - www.stephens.edu Stevens-The Institute of Business and Arts www.siba.edu Truman State Univ - www.truman.edu Univ of Central MO - www.ucmo.edu Univ of MO – Columbia - www.missouri.edu Univ of MO – Kansas City www.umkc.edu Univ of MO – St Louis - www.umsl.edu Univ of Phoenix – www.phoenix.edu Vatterott College www.vatterott-college.edu Washington University - www.wustl.edu Webster University - www.webster.edu William Jewell College - www.jewell.edu William Woods University www.williamwoods.edu</p> | <ul style="list-style-type: none"> • Apprenticeship • Military • On-the-Job Training <p>Allied College - www.hightechinstitute.edu Barnes-Jewish College of Nursing & Allied Health - www.barnesjewishcollege.edu Cleveland Chiropractic College www.cleveland.edu Colorado Tech Univ www.coloradotech.com Cox Health - www.coxhealth.com Chamberlain College of Nursing www.chamberlain.edu Heritage Coll - www.heritage-college.com Cox College of Nursing & Health Science www.coxcollege.edu Logan Coll of Chiropractic - www.logan.edu Lutheran School of Nursing www.nursingschooolmc.com Kansas City Univ of Med & Biosciences www.kcumb.edu Research Med Ctr School of Nuclear Med www.researchmedicalcenter.com St John's Reg Health Ctr -www.stjohns.com Saint Luke's College - www.saint-lukes.org St Louis College of Health Careers www.slchc.com St Louis Coll Pharmacy - www.stlcoop.edu Southeast MO Hospital College of Nursing www.souteastmissourihospital.com Truman Med Ctr School - Nurse Anesthesia www.trumed.org</p> |
|---|--|---|---|--|

Sample Careers By Educational Level - For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org

| On-The-Job Training or Less | Technical Training or Associate Degree | Bachelors Degree | Masters Degree or More |
|---|---|--|--|
| <p>Dental Assistants Dental Laboratory Technicians Home Health Aides Medical Appliance Technicians Medical Assistants Medical Equipment Preparers Medical Secretaries Personal and Home Care Aides Pharmacy Aides Pharmacy Technicians Physical Therapist Aides Psychiatric Aides</p> | <p>Cardiovascular Technologists Dental Hygienists Emergency Medical Technicians Health Information Technicians Licensed Practical Nurses Medical Laboratory Technicians Medical Sonographers Medical Transcriptionists Occupational Therapist Assistants Physical Therapist Assistants Radiation Therapists Radiologic Technologists Registered Nurses Respiratory Therapists Surgical Technologists Veterinary Technologists and Technicians</p> | <p>Administrative Services Managers Athletic Trainers Biomedical Engineers Computer Programmers Computer Software Engineers, Applications Dietitians Health Educators Medical and Clinical Laboratory Technologists Medical Laboratory Technologists Occupational Health and Safety Specialists Orthotic and Prosthetic Specialists Petroleum Engineers Public Relations Specialists Recreational Therapists Rehabilitation Counselors</p> | <p>Athletic Trainers, Physical and Occupational Therapists Biologists, Physicists, Hydrologists, Epidemiologists Clinical Psychologists and Mental Health Counselors Computer and Information Scientists, Research Dietitians and Nutritionists Farm and Home Management Advisors Health Specialties Teachers, Postsecondary Home Economics Teachers, Postsecondary Medical and Health Services Managers Natural Sciences Mgrs, Zoologists and Wildlife Biologists Nurse Anesthetists and Physician Assistants Orthotics and Prosthetics Pharmacists Speech-Language Pathologists Communications Teachers, Postsecondary Veterinarians</p> |



Career Cluster #5: Education and Training (ICAP)
 Jackson High School www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|---|--|---|---|--|---|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | <p>Select a Career Pathway:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture <p>Career Cluster:</p> <p>_____</p> <p>Post-Secondary Options:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training <p>Area of Interest/Major:</p> <p>_____</p> <p>Post-Secondary Assessments:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) <p>Extracurricular Activities:</p> <p>_____</p> <p>Work/Community Based:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government US Gov & Politics (D.C.) | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Art Choir Computer Applications Desktop Publishing French 1 Spanish 1 Speech | Apparel, Textile, and Fashion 1 & 2 Career & Life Management Child Development 1 Cross fit Desktop Publishing Family Living Officiating Team Sports | A+ Tutoring Adv. Child Development Apparel, Textile, and Fashion 1 & 2 Child Development 1 College Speech College Writing 1 Intro to Teaching Psychology Psychology Dual Enrollment Sociology Sociology Dual Enrollment | Adv. Child Development AP English AP Human Geography Psychology Dual Enrollment AP Spanish French 5 Apparel, Textile, and Fashion 1 & 2 College Writing I College Writing II College Writing III Child Development 1 Cross fit Intro to Teaching | |
| Cape Career and Technical Center | | | | Child Care Careers | |



Planning, managing and providing education and training services, and related learning support services.

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|---|--|--|---|
| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Sample Career Specialties / Occupations</p> | <p>Elementary and Secondary Superintendents, Principals, Administrators Supervisors and Instructional Coordinators Education Researchers, Test Measurement Specialists/ Assessment Specialists College Presidents, Deans, Department Chairs, Program Coordinators Post-Secondary Administrators Curriculum Developers Instructional Media Designers Education and Training Technician Labor Relations Managers/Specialists</p> | <p>Psychologists- Clinical, Developmental, Social Social Workers Parent Educators Counselors Program Advisors Financial Aid Advisors Career Counselors/ Advisors Career and Employment Placement Counselors Speech-Language Pathologists and Audiologists Instructional Resources Coordinator Technology Support Administrator Database Administrators/AV Specialists Distance Education Coordinator Human Resources Manager Organization Development Specialist Training Manager/Coordinator Instructional Coordinators Museum Coordinators/Technicians Media Coordinators/Specialists Instructional Media Designer</p> | <p>Preschool, Kindergarten Teachers, Aides Elementary Teachers, Aides Secondary/CTE Teachers, Aides Special Education Teachers, Aides College/University Lecturers, Professors Human Resource Trainers Physical Trainers Professional Coaches Preschool & Child Care Program Directors Child Care Assistants/Workers Child Life Specialist Nanny Early Childhood Teachers and Assistants Instructional Systems Specialist Corporate Trainers and Educators Adult Literacy Teachers Librarians/Assistants/ Technicians</p> |
| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Pathways</p> | <p style="text-align: center;">Administration and Administrative Support</p> | <p style="text-align: center;">Professional Support Services</p> | <p style="text-align: center;">Teaching/Training</p> |
| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Cluster K&S</p> | <p style="text-align: center;">Cluster Knowledge and Skills</p> <ul style="list-style-type: none"> ◆ Academic Foundations ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities ◆ Employability and Career Development ◆ Technical Skills | | |

Postsecondary Offerings - For A Complete Listing, go to www.missouriconnections.org.

| Community College | Technical School/Training Institution | In State | | Out of State/Other |
|--|---|---|---|--|
| Crowder College www.crowder.edu East Central College www.eastcentral.edu Jefferson College www.jeffco.edu Metropolitan Community College www.mcckc.edu Mineral Area College www.mineralarea.edu Moberly Area Community College www.macc.edu North Central Missouri College www.ncmissouri.edu Ozarks Tech Community College www.otc.edu St. Charles Community College www.stchas.edu St Louis Community College www.stlcc.edu State Fair Community College www.sfccmo.edu Three Rivers Community College www.trcc.edu | Jefferson College Area Technical School www.jeffco.edu | Avila University - www.avila.edu Central Methodist University www.centralmethodist.edu College of the Ozarks - www.coto.edu Columbia College - www.ccis.edu Cotter College - www.cotter.edu Culver-Stockton College www.culver.edu Drury University - www.drury.edu Evangel University - www.evangel.edu Fontbonne Univ - www.fontbonne.edu Hannibal-Lagrange College www.hlg.edu Harris-Stowe State Univ - www.hssu.edu Lincoln University - www.lincolnu.edu Lindenwood Univ - www.lindenwood.edu Missouri Baptist Univ - www.mobap.edu Maryville University of St. Louis www.maryville.edu Messenger College www.messengercollege.edu MO Southern State University www.mssu.edu Missouri State University www.missouristate.edu Missouri State University – West Plains www.wp.missouristate.edu Missouri Valley College – www.moval.edu Missouri Western State University www.missouriwestern.edu | Northwest Missouri State University www.nwmissouri.edu Park University - www.park.edu Rockhurst University www.rockhurst.edu Saint Louis Univ - www.slu.edu St Louis Christian College www.slconline.edu Southeast MO State University www.semo.edu Southwest Baptist University www.sbuniv.edu Stephens College - www.stephens.edu Truman State Univ - www.truman.edu Univ of Central MO - www.ucmo.edu University of MO – Columbia www.missouri.edu University of MO – Kansas City www.umkc.edu University of MO – St Louis www.umsl.edu Washington University - www.wustl.edu Westminster College www.westminster-mo.edu Webster University www.webster.edu William Jewell College - www.jewell.edu William Woods University www.williamwoods.edu | <ul style="list-style-type: none"> • Apprenticeship • Military • On-the-Job Training Baptist Bible College & Graduate School http://gobbc.edu/ Calvary Bible College and Theological Seminary - www.calvary.edu Colorado Technical University www.coloradotech.com Conception Seminary College www.conceptionabbey.org Grantham University www.grantham.edu National American University www.national.edu Paris II Educational Center www.parisii.net Wentworth Military Academy www.wma1880.org |

Sample Careers By Educational Level - For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org

| On-The-Job Training or Less | Technical Training or Associate Degree | Bachelors Degree | Masters Degree or More |
|---|---|--|---|
| Audi-Visual Specialists Coaches and Scouts Library Assistant Teacher Aides | Adult and Vocational Education Instructors Fitness Trainers and Aerobics Instructors Library Technical Assistants Preschool Teachers Teacher Assistants | Adult and Vocational Education Instructors Adult Literacy, Remedial Education, GED Teachers Audio-Visual Specialists Education Administrators Elementary School Teachers Employee Training Specialists High School Teachers Kindergarten Teachers Middle School Teachers Poets, Lyricists, and Creative Writer Public Health Educators Special Education Teachers | Adult and Vocational Education Instructors Audiologists Coaches and Scouts College and University Administrators Curriculum and Instruction Dieticians and Nutritionists Education Administrators Historians Instructional Coordinators Librarians School Psychologists Speech Pathologists Teacher |



Career Cluster #7 Government & Public (ICAP)
Jackson High School www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|--|--|---|---|---|--|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | Select a Career Pathway: <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture Career Cluster: <hr/> Post-Secondary Options: <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training Area of Interest/Major: <hr/> Post-Secondary Assessments: <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) Extracurricular Activities: <hr/> Work/Community Based: <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit required | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Accounting 1 Computer Applications Desktop Publishing French 1 Journalism Spanish 1 Speech | Adv. Accounting Adv. Computer Apps Banking & Financial Service Business & Personal Law Business Management Competitive Speech Desktop Publishing Drama Journalism/News Production Marketing Web Page Design 1 & 2 | Adv. Accounting Adv. Computer Apps Business Management College Speech College Writing 1 Current Events Journalism/News Production Psychology Psychology Dual Enrollment Sociology Sociology Dual Enrollment | AP English AP Human Geography Psychology Dual Enrollment AP Spanish French 5 College Writing 1 College Writing 2 College Writing 3 Applied Marketing SME | |
| Cape Career and Technical Center | | | | Drone Technology | |



Executing governmental functions to include Governance; National Security; Foreign Service; Planning; Revenue and Taxation; Regulation; and Management and Administration at the local, state, and federal levels.

| | | | | | | | |
|---|--|--|--|---|--|---|---|
| Sample Career Specialties / Occupations | President Vice President Governor Lieutenant Governor Mayor Cabinet Level Secretary (Fed./ State) Representative (Fed/State) Senator (Fed/State) Assistants, Deputies, and Chiefs of Staff Commissioner (County, Parish, City) Commissioner (State Agency) Congressional Aide Legislative Aide Legislative Assistant Specialist Lobbyist Policy Advisor | National Security Advisor Staff or Field Officer Officer/Specialist: Electronic Warfare Operations Combat Operations Infantry Field Artillery Air Defense Artillery Special Forces Armor Munitions Nuclear Weapons Missile and Space Systems Military Intelligence Signals Intelligence Surface Ship Warfare Officer Submarine Officer Combat Control Officer Combat Engineer Combat Aircraft Pilot/Crew Airborne Warning/Control Specialist Intelligence/Counterintelligence Agent/Specialist Intelligence Analyst Cryptographer | Ambassador Foreign Service Officer: Consular Officer Administrative Officer Political Officer Economic Officer Diplomatic Courier | Business/Enterprise Official Chief of Vital Statistics Commissioner Director (Various Agencies) Economic Development Coordinator Federal Aid Coordinator Census Clerk County Director Census Enumerator Planner Program Associate | Assessor Tax Auditor Internal Revenue Investigator Revenue Agent/Officer Tax Examiner/ Assistant/Clerk Inspector General Tax Attorney Tax Policy Analyst | Business Regulation Investigator Chief of Field Operations Code Inspector/Officer Director Equal-Opportunity Officer Inspector Investigator/Examiner Chief Bank Examiner Bank Examiner Aviation Safety Officer Border Inspector Cargo Inspector Election Supervisor Enforcement Specialist Immigration Officer | City Manager City Council City or County Clerk Court Administrator or Clerk Executive Director/ Officer/Associate: Foundation Association Charitable Organization Industrial Foundation Chamber of Commerce General Service Officer Management Analysis Officer Program Administration Officer |
| Pathways | Governance | National Security | Foreign Service | Planning | Revenue and Taxation | Regulation | Public Management and Administration |
| Cluster K&S | <p style="text-align: center;">Cluster Knowledge and Skills</p> <p style="text-align: center;"> ♦ Academic Foundations ♦ Communications ♦ Problem Solving and Critical Thinking ♦ Information Technology ♦ Systems ♦ Safety ♦ Health and Environment ♦ Leadership and Teamwork ♦ Ethics and Legal Responsibilities ♦ Employability and Career Development ♦ Technical Skills ♦ Fiscal Responsibilities </p> | | | | | | |

Postsecondary Offerings – For A Complete Listing, go to www.missouriconnections.org

| Postsecondary | Community College | Technical School/Training Institution | In State | | Out of State/Other |
|---------------|---|---|---|---|---|
| | <p>Crowder College www.crowder.edu East Central College www.eastcentral.edu Moberly Area Community College www.macc.edu</p> | <p>Cape Girardeau Career/Tech Center https://capectc.capetigers.com/ Clinton Technical School www.ed2go.com/cts Franklin Technology – MSSU www.ftcjoplin.com Grand River Technical School www.grts.org Hillyard Technical Center www.hillyardtech.com Lex La-Ray Technical Center www.lexington.k12.mo.us Moberly Area Technical Center www.moberly.k12.mo.us Pike-Lincoln Technical Center http://pltc.k12.mo.us Saline County Career Center www.marshallschools.com/sccc Sikeston Career & Technology Center www.sikestone.k12.mo.us</p> | <p>Avila University www.avila.edu Central Methodist University www.centralmethodist.edu College of the Ozarks www.cofo.edu Columbia College www.ccis.edu Culver-Stockton College www.culver.edu Drury University www.drury.edu Evangel University www.evangel.edu Fontbonne University www.fontbonne.edu Harris-Stowe State University www.hssu.edu Lincoln University www.lincolnu.edu Lindenwood University www.lindenwood.edu Maryville University of Saint Louis www.maryville.edu Missouri Baptist University www.mobap.edu Missouri Southern State University www.mssu.edu Missouri State University www.missouristate.edu</p> | <p>Missouri Valley College www.moval.edu Missouri Western State University www.missouriwestern.edu Northwest Missouri State University www.nwmissouri.edu Park University www.park.edu Rockhurst University www.rockhurst.edu Saint Louis University www.slu.edu Southeast MO State University www.semo.edu Southwest Baptist University www.sbuniv.edu Stephens College www.stephens.edu Truman State University www.truman.edu University of Central Missouri www.ucmo.edu University of MO – Columbia www.missouri.edu University of Missouri – Kansas City www.umkc.edu University of MO – St Louis www.umsl.edu Washington University www.wustl.edu Webster University www.webster.edu</p> | <ul style="list-style-type: none"> • Apprenticeship • Military • On-the-Job Training <p>ITT Technical Institute http://itt-tech.info/ Kansas City Art Institute www.kcai.edu National American University www.national.edu</p> |

Sample Careers By Educational Level – For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org

| On-The-Job Training or Less | Technical Training or Associate Degree | Bachelors Degree | Masters Degree or More |
|--|--|--|---|
| <p>Compliance Officers and Inspectors Government Benefits Interviewers Interpreters and Translators License Clerks Mail Carriers Meter Readers Postal Clerks</p> | <p>Assessors Eligibility Interviewers, Government Programs General, Operations and Transportation Managers Government Property Inspectors and Investigators Licensing Examiners and Inspectors Mapping Technicians Municipal and Court Clerks Postmasters and Mail Superintendents Surveying Technicians Tax Examiners, Collectors, and Revenue Agents Tax Preparers</p> | <p>Administrative Services Managers Broadcast News Analysts & Public Relations Specialists City and Regional Planning Aides Emergency Management Specialists Equal Opportunity Representatives and Officers Financial Examiners Legislators Reporters and Correspondents Social and Community Service Managers Storage and Distribution Managers Urban and Regional Planners</p> | <p>Architecture Teachers, Postsecondary Chief Executives Communications Teachers, Postsecondary Coroners Economists Engineering Managers Political Science Teachers, Postsecondary Political Scientists</p> |



Career Cluster #9: Hospitality and Tourism (ICAP)
Jackson High School www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|--|---|---|---|--|--|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | Select a Career Pathway: <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture Career Cluster: <hr/> Post-Secondary Options: <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training Area of Interest/Major: <hr/> Post-Secondary Assessments: <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) Extracurricular Activities: <hr/> Work/Community Based: <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit required | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Accounting 1 Computer Applications Food & Nutrition 1 French 1 Housing Interior Design Spanish 1 Speech | Advanced Accounting Apparel, Textile, and Fashion 1 & 2 Banking & Financial Serv Business & Personal Law Business Management Career & Life Management Foods & Nutrition 1 Foods & Nutrition 2 Housing Interior Design Marketing Multimedia/Digital Video Web Page Design 1 & 2 | Adv. Accounting Apparel, Textile, and Business Management Business Technology Fashion College Speech College Writing 1 Current Events Psychology Psychology Dual Enrollment Sociology Sociology Dual Enrollment | Adv. Business Tech. AP Human Geography Psychology Dual Enrollment AP Spanish French 5 Apparel, Textile, and Fashion 1 & 2 College Writing 1 College Writing 2 College Writing 3 SBE Applied Marketing SME | |
| Cape Career and Technical Center | | | Culinary Arts 1 | Culinary Arts 2 | |



Hospitality & Tourism encompasses the management, marketing and operations of restaurants and other foodservices, lodging, attractions, recreation events and travel related services.

| | | | | |
|---|---|--|---|--|
| Sample Career Specialties / Occupations | <p>General Manager • Food & Beverage Manager • Kitchen Manager • Catering & Banquets Manager • Service Manager • Dining Room Supervisor • Restaurant Owner • Baker • Brewer • Caterer • Dietician • Executive Chef • Cook • Pastry & Specialty Chef • Bartender • Restaurant Server • Banquet Server • Cocktail Server • Banquet Set-Up Employee • Bus Person • Room Service Attendant • Kitchen Steward • Counter Server • Wine Steward • Host • Research and Development Chef • Food/Beverage Wholesaler • Product Demonstrator • Personal Chef</p> | <p>Front Office Manager • Executive Housekeeper • Director of Sales & Marketing • Chief Engineer • Director of Human Resources • Rooms Division Manager • Director of Security • Controller • Food & Beverage Director • Resident Manager • Director of Operations • General Manager • Regional Manager • Quality Assurance Manager • Corporate Management • Lodging Management • Owner/Franchisee • Uniformed Services Support • Communications Supervisor • Front Desk Supervisor • Reservations Supervisor • Laundry Supervisor • Room Supervisor • Bell Captain • Shift Supervisor • Sales Professional • Night Auditor • Front Desk Employee • Valet Attendant • Bell Attendant • Door Attendant • Concierge • Reservationist • Guestroom Attendant • Public Space Cleaner • House Person • Maintenance Worker • Van Driver</p> | <p>Executive Director • Assistant Director • Director of Tourism Development • Director of Membership Development • Director of Communications • Director of Visitor Services • Director of Sales • Director of Marketing and Advertising • Director of Volunteer Services • Director of Convention and Visitors Bureau • Market Development Manager • Group Sales Manager • Events Manager • Sales Manager • Destination Manager • Convention Services Manager • Heritage Tourism Developer • Travel Agent (Commercial & Vacation) • Event Planner • Meeting Planner • Special Events Producer • Nature Tourism Coordinator • Tour and Travel Coordinator • Tourism Marketing Specialist • Transportation Specialist • Welcome Center Supervisor • Visitor Center Counselor • Tourism Assistant • Executive Assistant • Tour Guide • Tour Operator • Motor Coach Operator • Tour and Ticket Reservationist • Interpreter</p> | <p>Club Manager • Club Assistant Manager • Club Instructor • Club Equipment & Facility Maintenance • Club Scheduler • Club Event Planner • Club Membership Developer • Parks & Gardens Director • Parks & Gardens Activity Coordinator • Parks & Gardens Access Management • Parks & Gardens Safety & Security • Parks & Garden Ranger • Resort Trainer • Resort Instructor • Resort Equipment Maintenance • Resort Scheduler • Gaming & Casino Manager • Gaming & Casino Supervisor • Gaming & Casino Dealer • Gaming & Casino Slot Supervisor and Maintenance • Gaming & Casino Security & Safety • Fairs/Festival Event Planner • Fairs/Festival Set up Supervisor • Fairs/Festival Facility Manager • Fairs/Festival Promotional Developer • Theme Parks/Amusement Parks Resale Department Manager • Theme Parks/Amusement Parks Area Retail Manager • Theme Parks/Amusement Parks Area Ride Operations Manager • Theme Parks/Amusement Parks Group Events Manager • Family Centers Manager • Family Centers Equipment Operator/Maintenance • Historical /Cultural/Architectural Ecological Industrial Sites Guides/Ranger • Historical/Cultural/Architectural Ecological Industrial Sites Exhibit Developer • Museums/Zoos/Aquariums Docent • Museum/Zoos/Aquariums Animal Trainer and Handler • Museums/Zoos/Aquariums Exhibit Developer</p> |
| Pathways | <p>Restaurants and Food/Beverage Services</p> | <p>Lodging</p> | <p>Travel & Tourism</p> | <p>Recreation, Amusements & Attractions</p> |
| <p style="text-align: center;">Cluster Knowledge and Skills</p> <ul style="list-style-type: none"> ◆ Academic Foundations ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities ◆ Employability and Career Development ◆ Technical Skills | | | | |

Postsecondary Offerings - For A Complete Listing, go to www.missouriconnections.org

| | | | | | |
|----------------------|--|---|---|---|--|
| Postsecondary | Community College | Technical School/Training Institution | In State | | Out of State/Other |
| | <p>Crowder College www.crowder.edu</p> <p>East Central College www.eastcentral.edu</p> <p>Jefferson College www.jeffco.edu</p> <p>Metropolitan Community College www.mcckc.edu</p> <p>Mineral Area College www.mineralarea.edu</p> <p>Ozarks Tech Community College www.otc.edu</p> <p>St Louis Community College www.stlcc.edu</p> <p>Three Rivers Community College www.trcc.edu</p> | <p>Cape Girardeau Career/Tech Center https://capectc.capetigers.com/</p> <p>Gibson Technical Center www.wolves.k12.mo.us/gtc</p> <p>Jefferson College Area Technical Center www.jeffco.edu</p> <p>Lake Career and Technical Center www.camdentonschools.org</p> <p>Lebanon Technology Career Center www.lebanon.k12.mo.us</p> <p>Macon Area Vocational Technical School www.macon.k12.mo.us/vocational</p> <p>Northland Career Center www.northlandcareercenter.com</p> <p>Northwest Tech School http://www.nts.maryville.k12.mo.us/</p> <p>Nevada Regional Technical Center www.nevada.k12.mo.us.us</p> <p>South Central Career Center www.wphs.k12.mo.us</p> <p>Waynesville Technical Academy www.waynesville.k12.mo.us</p> | <p>Avila University - www.avila.edu</p> <p>Central Methodist University www.centralmethodist.edu</p> <p>College of the Ozarks - www.coto.edu</p> <p>Columbia College - www.ccis.edu</p> <p>Culver-Stockton College www.culver.edu</p> <p>Drury University - www.drury.edu</p> <p>Evangel University - www.evangel.edu</p> <p>Fontbonne Univ - www.fontbonne.edu</p> <p>Lincoln University - www.lincolnu.edu</p> <p>Lindenwood Univ - www.lindenwood.edu</p> <p>Missouri Baptist Univ - www.mobap.edu</p> <p>MO Southern State University www.mssu.edu</p> <p>Missouri State University www.missouristate.edu</p> <p>Missouri Valley College www.moval.edu</p> <p>Missouri Western State University www.missouriwestern.edu</p> <p>Northwest Missouri State University www.nwmissouri.edu</p> | <p>Park University - www.park.edu</p> <p>Rockhurst University www.rockhurst.edu</p> <p>Saint Louis Univ - https://www.slu.edu/</p> <p>Southeast MO State Univ www.semo.edu</p> <p>Southwest Baptist Univ - www.sbuniv.edu</p> <p>Stephens College - www.stephens.edu</p> <p>Truman State Univ - www.truman.edu</p> <p>Univ of Central MO - www.ucmo.edu</p> <p>University of MO – Columbia www.missouri.edu</p> <p>Univ of MO – Kansas City www.umkc.edu</p> <p>Univ of MO – St Louis - www.umsl.edu</p> <p>Washington University - www.wustl.edu</p> <p>Webster University www.webster.edu</p> <p>Westminster College www.westminster-mo.edu</p> <p>William Jewell College - www.jewell.edu</p> <p>William Woods University www.williamwoods.edu</p> | <ul style="list-style-type: none"> • Apprenticeship • Military • On-the-Job Training <p>Kansas City Art Institute www.kcai.edu</p> <p>Lecole Culinaire www.lecoleculinarie.com</p> <p>Midwestern Baptist Theological Seminary – www.mbts.edu</p> |

Sample Careers By Educational Level - For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org

| On-The-Job Training or Less | Technical Training or Associate Degree | Bachelors Degree | Masters Degree or More |
|---|--|--|--|
| <p>Amusement and Recreation Workers</p> <p>Baggage Porters and Bellhops</p> <p>Bartenders</p> <p>Casino Gaming Workers</p> <p>Chefs and Dinner Cooks</p> <p>Concierges</p> <p>Counter Attendants</p> <p>Fast Food Cooks</p> <p>Food Preparation Workers</p> <p>Hotel Desk Clerks</p> <p>Janitors and Cleaners</p> <p>Kitchen Helpers</p> <p>Maids and Housekeepers</p> <p>Professional Athletes</p> <p>Recreation Attendants</p> <p>Recreation Guides</p> <p>Recreation Workers</p> <p>Reservation and Ticket Agents</p> <p>Restaurant Hosts</p> <p>Tour Guides</p> <p>Umpires and Referees</p> <p>Waiters and Waitresses</p> | <p>Animal Trainers</p> <p>Casino Gaming Workers</p> <p>First-Line Supervisors/Managers of Housekeeping and Janitorial Workers</p> <p>Flight Attendants</p> <p>Food Service Managers</p> <p>Lodging Managers</p> <p>Reservation and Transportation Ticket Agents and Travel Clerks</p> <p>Residential Advisors</p> <p>Self Enrichment Education Teachers</p> <p>Travel Agents</p> | <p>Interpreters and Translators</p> <p>Meeting and Convention Planners</p> <p>Recreation Workers</p> <p>Set and Exhibit Designers</p> <p>Social and Community Service Managers</p> | <p>Farm and Home Management Advisors</p> |



Career Cluster #10: Human Services (ICAP)
 Jackson High School www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|--|--|---|--|--|--|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | <p>Select a Career Pathway:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture <p>Career Cluster:</p> <hr/> <p>Post-Secondary Options:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training <p>Area of Interest/Major:</p> <hr/> <p>Post-Secondary Assessments:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) <p>Extracurricular Activities:</p> <hr/> <p>Work/Community Based:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit required | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Accounting 1 Art Choir Computer Applications Food & Nutrition 1 French 1 Spanish 2 Speech | Advanced Accounting Apparel, Textile, and Fashion 1 & 2 Banking & Financial Serv Business Management Business & Personal Law Child Development 1 Career & Life Management Desktop Publishing Family Living Foods & Nutrition 1 Foods & Nutrition 2 Marketing | A+ Tutoring Adv. Accounting Adv. Child Development Apparel, Textile, and Fashion 1 & 2 Business Management Child Development 1 College Speech College Writing 1 Intro to Teaching Psychology Psychology Dual Enrollment Sociology | Adv. Child Development AP English AP Human Geography Psychology Dual Enrollment Apparel, Textile, and Fashion 1 & 2 College Writing 1 College Writing 2 College Writing 3 Child Development Intro to Teaching Applied Marketing SME | |
| Cape Career and Technical Center | | | | Child Care Careers | |



Preparing individuals for employment in career pathways that relate to families and human needs.

| | | | | | |
|--|---|--|---|---|--|
| Sample Career Specialties / Occupations | <p>Directors, Childcare Facilities Assistant Directors, Childcare Facilities Elementary School Counselors Preschool Teachers Educators for Parents Nannies Teachers' Assistants Childcare Assistants/Workers</p> | <p>Clinical and Counseling Psychologists Industrial-Organizational Psychologists Sociologists Career Coaches School Counselors/Psychologists Substance Abuse and Behavioral Disorder Counselors Mental Health Counselors Vocational Rehabilitation Counselors Career Counselors Career Facilitators Employment Counselors Residential Advisors Marriage, Child and Family Counselors</p> | <p>Community Service Directors Adult Day Care Coordinators Coordinators of Volunteers Licensed Professional Counselors Religious Leaders Directors, Religious Activities/Education Programs Human Services Workers Social Services Workers Vocational Rehabilitation Counselors Employment Counselors Career Counselors Vocational Rehabilitation Service Workers Leisure Activities Coordinators Dieticians Geriatric Service Workers Adult Day Care Workers Residential Advisors Emergency and Relief Workers Community Food Service Workers Community Housing Service Workers Social and Human Services Assistants</p> | <p>Barbers Cosmetologists, Hairdressers, & Hairstylists Shampooers Nail Technicians, Manicurists & Pedicurists Skin Care Specialists/Estheticians Electrolysis Technicians Electrologists Funeral Directors/Morticians Embalmers Funeral Attendants Personal and Home Care Aides Companions Spa Attendants Personal Trainers Massage Therapists</p> | <p>Consumer Credit Counselors Consumer Affairs Officers Consumer Advocates Certified Financial Planners Insurance Representatives Bankers Real Estate Services Representatives Financial Advisors Investment Brokers Employee Benefits Representatives Hospital Patient Accounts Representatives Customer Service Representatives Consumer Research Department Representatives Consumer Goods or Services Retailing Representatives Market Researchers Account Executives Sales Consultants Event Specialists Inside Sales Representatives Field Merchandising Representatives Buyers Small Business Owners</p> |
| Pathways | <p><i>Early Childhood Development & Services</i></p> | <p>Counseling & Mental Health Services</p> | <p>Family & Community Services</p> | <p>Personal Care Services</p> | <p>Consumer Services</p> |
| <p>Cluster Knowledge and Skills</p> <p>◆ Academic Foundations ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities ◆ Employability and Career Development ◆ Technical Skills</p> | | | | | |

Postsecondary Offerings - For A Complete Listing, go to www.missouriconnections.org

| | | | | | |
|----------------------|---|--|--|--|---|
| Postsecondary | Community College | Technical School/Training Institution | In State | | Out of State/Other |
| | <p>Crowder College www.crowder.edu East Central College www.eastcentral.edu St Louis Community College www.stlcc.edu</p> | <p>Colorado Technical University www.coloradotech.com Davis Hart Career Center www.mexicoschools.net Herndon Career Center www.herndoncareercenter.com Heritage Tech Institute www.hightechinstitute.edu Jefferson College Area Technical Center www.jeffco.edu Massage Therapy Training Institute www.massagetherapytraininginstitute.com Midwest Institute www.midwestinstitute.com Neosho Beauty College www.neosho-beautycollege.com Paris II Educational Center - www.parisii.net Patsy & Robs Academy of Beauty www.praob.edu Pinnacle Career Institute www.pcittraining.edu Professional Massage Training Center www.pmtc.edu Regency Beauty Institute www.regencybeauty.com St Charles School of Massage Therapy www.dayspaacademy.net</p> | <p>Allied College - www.alliedcollege.edu Avila University - www.avila.edu Central Bible College – www.cbccag.edu Central Methodist University www.centralmethodist.edu College of the Ozarks - www.coto.edu Columbia College - www.ccis.edu Conception Seminary College www.conceptionabbey.org Culver-Stockton College www.culver.edu Drury University - www.drury.edu Evangel University - www.evangel.edu Fontbonne Univ - www.fontbonne.edu Hannibal-Lagrange College www.hlg.edu Lincoln University - www.lincolnu.edu Lindenwood Univ - www.lindenwood.edu Maryville University of St. Louis www.maryville.edu Messenger College www.messengercollege.edu Metro Business College www.metrobusinesscollege.edu Midwest University - www.midwest.edu Missouri Baptist Univ - www.mobap.edu Missouri College of Cosmetology www.missouricosmo.com MO Southern State University www.mssu.edu Missouri State University www.missouristate.edu Missouri Valley College www.moval.edu</p> | <p>Missouri Western State University www.missouriwestern.edu Northwest Missouri State University www.nwmissouri.edu Ozark Christian College - www.occ.edu Park University - www.park.edu Rockhurst University www.rockhurst.edu Saint Louis Christian College www.slcconline.edu St Louis College of Health Careers www.slchc.com Saint Louis Univ - https://www.slu.edu Sanford-Brown College www.sanford-browncollege.com Southeast MO State University www.semo.edu Southwest Baptist University www.sbu.edu Truman State Univ - www.truman.edu Univ of Central MO - www.ucmo.edu University of MO – Columbia www.missouri.edu University of MO – Kansas City www.umkc.edu Univ of MO – St Louis - www.umsl.edu Vatterott College www.vatterott-college.edu Washington University - www.wustl.edu Webster University - www.webster.edu Westminster College www.westminster-mo.edu William Woods University www.williamwoods.edu</p> | <ul style="list-style-type: none"> • Apprenticeship • Military • On-the-Job Training <p>Aquinas Institute of Theology www.ai.edu Assemblies of God Theological Seminary – www.agts.edu Calvary Bible College & Theological Seminary – www.calvary.edu Chillicothe Beauty Academy www.chillicothe-cosmetology.com Concordia Seminary - www.csl.edu Cosmetology Concepts Institute www.cosmetology-concepts.com Covenant Theological Seminary www.covenantseminary.edu Eden Theological Seminary www.eden.edu Elaine Steven Beauty College www.elainestevenbeautycollege.com Grabber School of Hair Design www.grabberschool.com House of Heavlin Beauty College www.kc-hair.com Independence College of Cosmetology www.hair-skin-nails.com Kenrick Glennon Seminary www.kenrick.edu Merrell University of Beauty Arts & Science - www.merrelluniversity.edu Midwestern Baptist Theological Seminary - www.mbts.edu Nazarene Theological Seminary www.nts.edu St Paul School of Theology www.spst.edu</p> |

Sample Careers By Educational Level – For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org

| On-The-Job Training or Less | Technical Training or Associate Degree | Bachelors Degree | Masters Degree or More |
|--|--|--|---|
| <p>Child Care Workers Customer Service Representatives Funeral Attendants Laundry and Dry Cleaning Workers Lifeguards and Other Recreational Protective Service Workers Residential Counselors Social and Human Service Assistants</p> | <p>Barbers Embalmers and Funeral Director Government Programs Hairstylists and Cosmetologists Manicurists Preschool Teacher Professional Makeup Artists Residential Advisors Skin Care Specialists Social and Human Service Assistants</p> | <p>Addiction Counselors Director, Religious Activities and Education Early Childhood Educator Financial Counselors Health Educators Recreation Workers Rehabilitation Counselors Social and Community Service Manager Social Workers</p> | <p>Clergy Industrial-Organizational Psychologists Marriage and Family therapists Mental Health Counselors Psychologists Rehabilitation Counselors School Counselors Social Workers Substance Abuse and Behavioral Disorder Counselors Teachers, Postsecondary</p> |



Career Cluster #12 Law, Public Safety, Corrections & Security (ICAP)
 Jackson High School www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|--|--|---|---|---|--|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | <p>Select a Career Pathway:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture <p>Career Cluster:</p> <hr/> <p>Post-Secondary Options:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training <p>Area of Interest/Major:</p> <hr/> <p>Post-Secondary Assessments:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) <p>Extracurricular Activities:</p> <hr/> <p>Work/Community Based:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit required | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Accounting Computer Applications French 1 Spanish 1 Speech | Adv. Accounting Banking & Financial Service Business Management Business & Personal Law Competitive Speech/ Drama Desktop Publishing Marketing Web Page Design 1 & 2 | Adv. Accounting Adv. Computer Apps Business Management College Speech College Writing 1 Current Events Psychology Psychology Dual Enrollment Sociology Sociology Dual Enrollment | AP English AP Human Geography Psychology Dual Enrollment College Writing 1 College Writing 2 College Writing 3 Applied Marketing SME | |
| Cape Career and Technical Center | | | | Drone Technology Emergency Medical Technician | |



Planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.

| | | | | | |
|---|--|--|--|---|---|
| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Sample Career Specialties / Occupations</p> | <p>Warden• Jail Administrator• Mid-level Manager• Program Coordinator and Counselor• Public Information Officer• Correctional Trainer• Case Manager • Attorney • Community Corrections Practitioner• Probation/ parole officer• Corrections Educator• Corrections Officer• Detention Deputy• Detention and Deportation Officer• Case Manager Youth Services Worker• Facility Maintenance Workers• Transport Officer• Food Service Staff• Medical Staff• Dietitian• Support Staff</p> | <p>Emergency Management and Response Coordinator •Emergency Planning Manager•EMT•Fire Fighter•Mgr. /Sup. Of Fire Fighters•Forest Fire Fighter• Mgr./Sup. of Forest Fire Fighters•Forest Fire Inspector & Investigator•Hazardous Materials Responder •Emergency Dispatchers for Police, Fire and Ambulance •Training Officer •Grant Writer and Coordinator •Rescue Workers • Consequence Management Specialist • Surety Officer • Fire Protection Inspector • Paramedic (Licensed) • Training and Exercises Program Analyst • Canine Enforcement Officer (Training) • Fire Protection Engineer • Infrastructure Analyst Specialist • Operations Analyst • Program Specialist (National Security) • Program Specialist (Response, Preparedness, Recovery/Mitigation)</p> | <p>Security Director•Corporate/Agency Security Director/VP•Corporate Director of Sales•Security Systems Designer/Consultant•Physical Security Specialist Consultant•Student Trainee – Investigations •Computer Forensics specialist•Private/Corporate Investigator•Loss Prevention/Security Manager (e.g. Store, hotel)•Security Trainer/Educator•Security Sales Representative/Manager• Loss Prevention Specialist•Physical Security Assistant•Security Systems Technician (Install/maintain)•Investigative Assistant (private sector) •Security Trainer (Basics)•Canine Enforcement Officer• Transportation Security Supervisor•Information Security Assistant (Document Control)•Personnel Security Assistant•Executive Protection Officer (Private)• Supervisory Security officer (armed, unarmed)•Certified Security Officer (SPO, POST, Arrest Authority)•Armored Car Guard•Control Center Operator (e.g. ADT) (Monitoring Center)• Uniformed Security Officer (Unarmed -- proprietary and contract)•Security Clerk• Transportation Security Technician•Loss Prevention Assistant•Uniformed Security officer (armed)•Computer Security Specialist•Computer Forensics Examiner•Executive Protection Specialist•Gaming Surveillance Specialist•Information Security specialist•Information Technology Security•Armored Car Guards•Industrial Espionage Security•Life Guard, Ski Patrol, •Physical Property Security•Private Security Specialist •Infrastructure Analyst – Specialist •IT Specialist (Information Security) • Intelligence Research-Operations Specialist •Operations Analyst •Port Security Specialist •Transportation Security Screener</p> | <p>•Animal Control Officer •Bailiffs •Child Support •Missing Persons •Unemployment Fraud Investigators •Aircraft Operations Officer •Criminal Investigators & Special Agents • Adjudicator •Air Enforcement Officer •Gaming Investigator •Bomb Technician •Game Enforcement Officer •Highway Patrol Pilots •Immigration & Customs Inspectors •Mgr./Sup. Police & Detectives •Police Detectives and Criminal Investigators •Air Marshall •Police, Fire & Ambulance Dispatchers •Police & Patrol Officers •Private Detectives & Investigators •Sheriffs & Deputy Sheriffs •Training Officer •Transit & Railroad Police •Park Ranger •Evidence Technician •Federal Marshall •Border Patrol Agent •Canine Enforcement Officer •Customs and Border Protection Officer • Deportation Officer •Document Analyst • Fingerprint Identification Technician •Forensic Science Technician •Import Specialist •IT Specialist (Information Security) •Intelligence Research - Operations Specialist •Port Security Specialist •Marine Enforcement Officer</p> | <p>•Administrative Law •Attorney •Case Management Specialist •Court Reporter •File and Document Manager •Adjudicator •Information Officer • Student Trainee - Legal •Investigator •Judge •Asylum Officer – Hearings and Appeals •Law Clerk •Legal Assistant •Legal Secretary •Magistrate •Mediator/Arbitrator •Negotiator •Para legal</p> |
| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Pathways</p> | <p style="text-align: center;">Correction Services</p> | <p style="text-align: center;">Emergency and Fire Management Services</p> | <p style="text-align: center;">Security & Protective Services</p> | <p style="text-align: center;">Law Enforcement Services</p> | <p style="text-align: center;">Legal Services</p> |
| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Cluster K&S</p> | <p style="text-align: center;">Cluster Knowledge and Skills</p> <p style="text-align: center;">◆ Academic Foundations ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities ◆ Employability and Career Development ◆ Technical Skills</p> | | | | |

Postsecondary Offerings - For A Complete Listing, go to www.missouriconnections.org

| Community College | Technical School/Training Institution | In State | | Out of State/Other |
|---|--|---|---|---|
| <p>Crowder College www.crowder.edu East Central College www.eastcentral.edu Jefferson College www.jeffco.edu Metropolitan Community College www.mcckc.edu Mineral Area College www.mineralarea.edu Moberly Area Community College www.macc.edu North Central MO College www.ncmissouri.edu Ozarks Tech Community College www.otc.edu St. Charles Community College www.stchas.edu St Louis Community College www.stlcc.edu State Fair Community College www.sfccmo.edu State Tech https://www.statetechmo.edu Three Rivers Community College www.trcc.edu</p> | <p>Cape Girardeau Career/Tech Center https://capectc.capetigers.com/ Columbia Career Center www.career-center.org Grand River Tech School - www.grts.org Hillyard Technical Center www.hillyardtech.com Jefferson College Area Technical Center www.jeffco.edu Rolla Technical Institute www.rolla.k12.mo.us Sikeston Career and Technology Center www.sikeston.k12.mo.us Waynesville Technical Academy www.waynesville.k12.mo.us</p> | <p>Avila University - www.avila.edu College of the Ozarks - www.coto.edu Columbia College - www.ccis.edu Drury University - www.drury.edu Evangel University - www.evangel.edu Hannibal-Lagrange College www.hlg.edu Hickey College www.hickeycollege.edu Lindenwood Univ - www.lindenwood.edu Maryville University of St. Louis www.maryville.edu MO Southern State University www.mssu.edu Missouri State University www.missouristate.edu Missouri State University – West Plains www.wp.missouristate.edu Missouri Western State University www.missouriwestern.edu</p> | <p>Park University - www.park.edu Rockhurst University www.rockhurst.edu Saint Louis Univ - https://www.slu.edu/ Sanford-Brown College www.sanford-browncollege.com Southeast MO State University www.semo.edu Southwest Baptist University www.sbuniv.edu Stevens-The Institute of Business and Arts www.siba.edu Univ of Central MO - www.ucmo.edu University of MO – Columbia www.missouri.edu University of MO – Kansas City www.umkc.edu Univ of MO – St Louis - www.umsl.edu Univ of Phoenix – www.phoenix.edu Vatterott College www.vatterott-college.edu Washington University - www.wustl.edu Webster University - www.webster.edu William Woods University www.williamwoods.edu</p> | <ul style="list-style-type: none"> • Apprenticeship • Military • On-the-Job Training <p>Allied College www.alliedcollege.edu High Tech Institute www.hightechinstitute.edu National American University www.national.edu Texas County Technical Institute www.texascountytech.edu</p> |

Sample Careers By Educational Level - For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org

| On-The-Job Training or Less | Technical Training or Associate Degree | Bachelors Degree | Masters Degree or More |
|---|--|---|--|
| <p>Ambulance Drivers Animal Control Workers Bailiffs Corrections Officers Court Clerks Crossing Guards Fire Fighters Forest Fire Fighters Gaming Surveillance Officers and Gaming Investigators Life Guards and Ski Patrollers Parking Enforcement Officers Parking Enforcement Workers Police, Fire, and Ambulance Dispatchers Security Guards Sheriffs Transportation Security Agents</p> | <p>Correctional Officers and Jailers Court Reporters Emergency Medical Technicians and Paramedics Fire Inspectors Fire Investigators First-Line Supervisors/Managers of Police and Detectives Forest Fire Fighting and Prevention Supervisors Forest Fire Inspectors and Prevention Specialists Legal Secretaries Municipal Fire Fighting and Prevention Supervisors Paralegals and Legal Assistants Police Detectives Police Identification and Records Officers Police Patrol Officers Private Detectives and Investigators Sheriffs and Deputy Sheriffs Title Examiners, Abstractors, and Searchers Transit and Railroad Police</p> | <p>Arbitrators and Mediators Coroners Correctional Treatment Specialists Criminal Investigators and Special Agents Emergency Management Specialists Forensic Science Technicians Immigration and Customs Inspectors Judges and Hearing Officers Law Clerks Probation Officers</p> | <p>Anthropology and Archeology Teachers, Postsecondary Child, Family, and School Social Workers Criminal Justice and Law Enforcement Teachers, Postsecondary Lawyer Psychology Teachers, Postsecondary</p> |






Career Cluster #2: Architecture and Construction (ICAP)
 Jackson High School: www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|--|--|---|--|--|--|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | <p>Select a Career Pathway:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture <p>Career Cluster:</p> <hr/> <p>Post-Secondary Options:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training <p>Area of Interest/Major:</p> <hr/> <p>Post-Secondary Assessments:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) <p>Extracurricular Activities:</p> <hr/> <p>Work/Community Based:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit required | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Art 1 Computer Apps Drawing 1/ Industrial Tech Intro to Coding Painting 1 | Adv. Comp. Apps Drawing 2 Engineering Graphics (CAD) Energy and Power Technology Housing Interior Design Machine & Manufacturing 1 Painting 2 Residential Architectural Draft Wood Technology | Adv. Woods Adv. Studio AP Studio Art College Writing 1 Engineering & Robotics Intro to Coding Machine & Manufacturing 2 Machine & Manufacturing 3 | College Writing 1 College Writing 2 College Writing 3 Engineering & Robotics Intro to Coding Machine & Manufacturing 3 | |
| Cape Career and Technical Center | | | Cabinet Making 1 Construction Technology 1 Electrical Trades 1 HVAC/R 1 Precision Machining I Project Lead The Way Block 1 Welding 1 | Cabinet Making 2 Construction Technology 2 Drone Technology Electrical Trades 2 Adv. HVAC/R 2 Precision Machining II Project Lead The Way Block 2 Welding 2 | |



Careers in designing, planning, managing, building and maintaining the built environment.

| | | | | | |
|--|--|--|--|--|---|
| Sample Career Specialties / Occupations | Architect • Architectural and Civil Drafter • Civil Engineer Civil Engineering Technician • Code Official • Computer Aided Drafter (CAD) • Cost Estimator • Drafter • Electrical and Electronic Engineering Technician • Electrical Engineer (electronics, security, telecommunications) • Environmental Designer • Environmental Engineer (hydro engineering, Acoustical, etc.) • Environmental Engineering Technician • Fire Prevention and Industrial Engineer • Interior Designer • Landscape Designer • Landscape Architect • Materials Engineer • Mechanical Drafter • Mechanical Engineer (HVAC, plumbing, fire protection, etc.) • Modeler (traditional and computer) Planner/Designer • Preservationist • Programmer • Protection Engineer • Regional and Urban Renderer (traditional and computer) • Specifications Writer • Building Surveying and Mapping Technician • Surveyor • | Boilermaker • Carpenter • Carpet Installer • Concrete Finisher • Construction Craft Laborer • Construction Engineer • Construction Foreman • Construction Inspector • Construction Manager • Drywall Installer • Education and Training Director/Coordinator • Electrical & Power Transmission Installer • Electrician • Electronic Systems Technician • Elevator Installer • Equipment and Material Manager • Estimator • Explosives Worker • Field Supervisor • Floor Layer • General Contractor/Builder • Glazier • Heating, Ventilation, Air Conditioning and Refrigeration Mechanic • Insulation Worker • Iron/Metalworker (structural and reinforcing) • Landscaper/Groundskeeper • Line worker • Manufacturer's Representative • NOTE: General contractors/Builders and Specialty contractors typically own the contracting company. | Mason • Millwright • Painter • Paperhanger • Pipe Fitter • Pipe layer • Pipeline Installer Plasterer/Drywall • Plumber • Preservationist • Project Inspector • Project Manager • Roofer • Safety Director • Sales and Marketing Manager • Scheduler • Security and Fire Alarm Systems Installer • Service Contractor • Sheet metal Worker • Specialty Contractor • Specialty Trades Subcontractor • Steamfitter • Subcontractor • Superintendent • System Installer • Terrazzo Worker and Finisher • Tile and Marble Setter • | Boilermaker • Carpenter • Carpet Installer • Concrete Finisher • Construction Manager • Construction Engineer • Construction Foreman • Construction Inspector • Cost Estimator • Demolition Engineer • Drywall Installer • Electrician • Electrician • Elevator Installer • Environmental Engineer • Equipment and Material Manager • Estimator • Facilities Engineer • Field Supervisor • General Maintenance Contractor • Glazier • Hazardous Materials Remover • HVAC • Heavy Equipment Operator • Highway Maintenance Worker • Insulation Worker • Insulation Worker • Iron/Metalworker (structural and reinforcing) • Landscaper/Groundskeeper • Maintenance Estimator • Maintenance Planner/Scheduler • Manufacturer's Representative • | Operating Engineer • Paperhanger • Pipe Fitter • Pipe layer • Plumber • Preservationist • Project Inspector • Project Manager • Refractory Technician • Relay Technician Reliability Engineer • Remodeler • Restoration Technician • Safety Director • Sales and Marketing Manager • Scheduler • Security and Fire Alarm System Installer • Security Controls Manager • Service Contractor • Sheet metal Worker • Specialty Trades Contractor • Steamfitter • Subcontractor • Substation Mechanic Superintendent • System Installer • Terrazzo Worker and Finisher • Thermal Control Technician • Tile and Marble Setter • Utility Metering & Reg. Technician Wastewater Maintenance • |
| | Pathways | Design/Pre-Construction  | Construction  | Maintenance/Operations  | |
| Cluster K&S | Cluster Knowledge and Skills ♦ Academics ♦ Communications ♦ Problem Solving and Critical Thinking ♦ Information Technology Applications ♦ Systems ♦ Safety, Health and Environmental ♦ Leadership and Teamwork ♦ Ethics and Legal Responsibilities ♦ Employability and Career Development ♦ Technical Skills | | | | |

Postsecondary Offerings – For A Complete Listing, go to www.missouriconnections.org

| Postsecondary | Community College | Technical School/Training Institution | In State | | Out of State/Other |
|---------------|--|---|--|---|---|
| | <p>Crowder College www.crowder.edu</p> <p>East Central College www.eastcentral.edu</p> <p>Jefferson College www.jeffco.edu</p> <p>Metropolitan Community College www.mcckc.edu</p> <p>Mineral Area College www.mineralarea.edu</p> <p>Moberly Area Comm College www.macc.edu</p> <p>North Central Missouri College www.ncmissouri.edu</p> <p>Ozarks Technical Comm College www.otc.edu</p> <p>St Louis Community College www.stlcc.edu</p> <p>St. Charles Community College www.stchas.edu</p> <p>State Fair Community College www.sfccmo.edu</p> <p>State Tech https://www.statetechmo.edu</p> <p>Three Rivers Community College www.trcc.edu</p> | <p>Arcadia Valley Tech Center - www.mineralarea.edu</p> <p>Cape Girardeau Career/Tech Center https://capectc.capetigers.com/</p> <p>Clinton Tech School www.clinton.k12.mo.us</p> <p>Columbia Area Career Ctr - www.career-center.org</p> <p>Davis Hart Career Ctr- www.mexicoschools.net</p> <p>Eldon Career Ctr - www.eldoncareercenter.org</p> <p>Franklin Technology- MSSU www.ftcjoplin.com</p> <p>Gibson Tech Ctr - www.wolves.k12.mo.us/gtc</p> <p>Grand River Technical School - www.grts.org</p> <p>Hannibal Career and Technical Center www.hannibal.tec.mo.us</p> <p>Herndon Career Center www.herndoncareercenter.com</p> <p>Hillyard Technical Ctr - www.hillyardtech.com</p> <p>Jefferson College Area Technical School www.jeffco.edu</p> <p>Lake Career & Technical Center www.camdentonschools.org</p> <p>Lebanon Technology and Career Ctr www.lebanon.k12.mo.us</p> <p>Lex La-Ray Tech Ctr www.lexington.k12.mo.us</p> <p>Kirksville Area Tech Ctr www.kirksville.k12.mo.us</p> <p>Moberly Area Tech Ctr - www.moberly.k12.mo.us</p> <p>Northland Career Ctr www.northlandcareercenter.com</p> <p>Northwest Tech School - www.maryville.k12.mo.us</p> <p>Perryville Area Career/Tech Center www.perryville.k12.mo.us</p> <p>Pike-Lincoln Tech Ctr - www.pltc.k12.mo.us</p> <p>Ranken Tech College - www.ranken.edu</p> <p>Rolla Tech Institute - www.rolla.k12.mo.us</p> <p>Unitec Career Center - www.mineralarea.edu</p> <p>Waynesville Technical Academy www.waynesville.k12.mo.us</p> | <p>Avila University - www.avila.edu</p> <p>Baptist Bible College - www.gobbc.edu</p> <p>Bryan College - www.bryan.ecom</p> <p>Central Methodist University www.centralmethodist.edu</p> <p>College of the Ozarks - www.coto.edu</p> <p>Columbia College - www.ccis.edu</p> <p>Culver-Stockton College - www.culver.edu</p> <p>Drury University - www.drury.edu</p> <p>Evangel University - www.evangel.edu</p> <p>Fontbonne Univ - www.fontbonne.edu</p> <p>Hannibal-Lagrange College -www.hlg.edu</p> <p>Harris-Stowe State Univ - www.hssu.edu</p> <p>Lincoln University - www.lincolnu.edu</p> <p>Lindenwood Univ - www.lindenwood.edu</p> <p>Maryville Univ of St. Louis www.maryville.edu</p> <p>Messenger College www.messengercollege.edu</p> <p>Missouri Baptist Univ - www.mobap.edu</p> <p>Missouri Southern State University www.mssu.edu</p> <p>Missouri State University www.missouristate.edu</p> <p>Missouri State University – West Plains www.wp.missouristate.edu</p> | <p>MO University of Science & Technology www.mst.edu</p> <p>Missouri Western State University www.missouriwestern.edu</p> <p>Park University - www.park.edu</p> <p>Rockhurst University www.rockhurst.edu</p> <p>Saint Louis University www.slu.edu</p> <p>Sanford-Brown College www.sanford-browncollege.com</p> <p>Southeast MO State University www.semo.edu</p> <p>Southwest Baptist Univ -www.sbuniv.edu</p> <p>Stephens College - www.stephens.edu</p> <p>Truman State Univ - www.truman.edu</p> <p>Univ of Central MO - www.ucmo.edu</p> <p>Univ of MO – Columbia - www.missouri.edu</p> <p>Univ of MO – Kansas City www.umkc.edu</p> <p>Univ of MO – St Louis - www.umsl.edu</p> <p>University of Phoenix - www.phoenix.edu</p> <p>Vatterott College www.vatterott-college.edu</p> <p>Washington University - www.wustl.edu</p> <p>Webster University - www.websteruniv.edu</p> <p>Westminster College www.westminster-mo.edu</p> <p>William Jewell College - www.jewell.edu</p> <p>William Woods University www.williamwoods.edu</p> | <ul style="list-style-type: none"> • Apprenticeship • Military • On-the-Job Training <p>Foley-Belsaw Institute www.foley-belsaw.com</p> <p>Colorado Technical University www.coloradotech.com</p> <p>DeVry University www.drury.edu</p> <p>Grantham University www.grantham.edu</p> <p>ITT Technical Institute www.itt-tech.info</p> <p>MERS/Missouri Goodwill Industries www.mersgoodwill.org</p> <p>Missouri Welding Institute www.nwi.ws</p> <p>National American University www.national.edu</p> |

Sample Careers By Educational Level – For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org

| On-The-Job Training or Less | Technical Training or Associate Degree | Bachelors Degree | Masters Degree or More |
|--|--|---|--|
| Bricklayers, Stonemasons and Cement Masons Cabinetmakers and Carpenters Drywall Finishers & installers and Plasterers Electricians Fence Builders Heating and Cooling System Mechanics Highway Maintenance Workers & Paving Equip Operators Line Installers and Repairers Plumbers and Pipefitters Roofers Sheet Metal Workers and Structural Metal Workers Surveying and Mapping Technicians Tile Setters | Commercial Divers Drafters Energy Auditors Interior Designers | Architects Construction Managers Cost Estimators Landscape Architects Surveyors | Architects, Except Landscape and Naval Architecture Teachers, Postsecondary Engineering Managers Engineering Teachers, Postsecondary Historians Operations Research Analysts Political Scientists Sociologists Sociology Teachers, Postsecondary |



Career Cluster #13: Manufacturing (ICAP)
Jackson High School www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|---|--|--|---|--|--|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | Select a Career Pathway: <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture Career Cluster: <hr/> Post-Secondary Options: <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training Area of Interest/Major: <hr/> Post-Secondary Assessments: <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) Extracurricular Activities: <hr/> Work/Community Based: <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Ag Science 1 Ag Science 1 Mechanics Op Art I Band Choir Computer Apps Drawing 1 French 1 Housing Interior Design Industrial Tech Spanish 1 Speech | Adv. Comp. Apps Ag Science 2 Ag Science 1&2 Mechanics Op Drawing 2 Energy and Power Technology Engineering Graphics (CAD) Engineering & Robotics Housing Interior Design Machine & Manufacturing 1 Residential Architectural Draft Wood Technology | Adv. Studio Adv. Woods AP Studio Art Ag Construction 1 & 2 Ag Machinery 1 College Speech College Writing 1 AG Power 1 & 2 Engineering & Robotics Machine & Manufacturing 2 Machine & Manufacturing 3 SOE | AG Power 1 & 2 Ag Machinery 2 AP Studio Art College Writing 1 College Writing 2 College Writing 3 Engineering & Robotics SOE Machine & Manufacturing 3 | |
| Cape Career and Technical Center | | | Electrical Trades 1 Precision Machining I Welding 1 | Electrical Trades 2 Precision Machining II Welding 2 | |



Planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

| | | | | | | |
|--|---|--|---|--|--|--|
| Sample Career Specialties/Occupations | Assembler Automated Manufacturing Technician Bookbinder Calibration Technician Electrical Installer and Repairer Electromechanical Equipment Assembler Extruding and Drawing Machine Setter/Set-Up Operator Extrusion Machine Operator Foundry Worker Grinding, Lapping, and Buffing Machine Operator Hand Packers and Packager Hoist and Winch Operator Instrument Maker Large Printing Press Machine Setter and Set-Up Operator Machine Operator Manager, Supervisor Medical Appliance Maker Milling Machine Setter, Set-Up Operator Millwright Operator, Tender, Cutter/Brazier, Machine Operator Painter Pattern & Model Maker Precision Layout Worker Precision Optical Goods Worker Production Associate Sheet Metal Worker Soldier and Brazier Tool and Die Maker Welder | Design Engineer Electrical and Electronics Technician and Technologist Electronics Engineer Engineering and Related Technician and Technologist Engineering Technician Industrial Engineer Labor Relations Manager Manufacturing Engineer Manufacturing Technician Power Generating and Reactor Plant Operator Precision Inspector, Tester, and Grader Process Improvement Technician Production Manager Purchasing Agent Supervisor | Biomedical Equipment Technician Boilermaker Communication System Installer/Repairer Computer Installer/Repairer Computer Maintenance Technician Electrical Equipment Installer/Repairer Facility Electrician Industrial Electronic Installer/Repairer Industrial Facilities Manager Industrial Machinery Mechanic Industrial Maintenance Electrician Industrial Maintenance Mechanic Industrial Maintenance Technician Instrument Calibration and Repairer Instrument Control Technician Job/Fixture Designer Laser Systems Technician Maintenance Repairer Major Appliance Repairer Meter Installer/Repairer Millwright Plumber, Pipefitter and Steamfitter Security System Installer/Repairer | Calibration Technician Inspector Lab Technician Process Control Technician Quality Control Technician Quality Engineer SPC Coordinator | Communications, Transportation and Utilities Manager Dispatcher Freight, Stock, and Material Mover Industrial Truck and Tractor Operator Logistical Engineer Logistician Material Associate Material Handler Material Mover Process Improvement Technician Quality Control Technician Traffic Manager Traffic, Shipping, and Receiving Clerk | Environmental Engineer Environmental Specialist Health and Safety Representative Safety Coordinator Safety Engineer Safety Team Leader Safety Technician |
| Pathways | Production | Manufacturing Production Process Development | | Quality Assurance | Logistics & Inventory Control | Health, Safety and Environmental Assurance |
| Cluster K & S | Cluster Knowledge and Skills ♦ Academic Foundations ♦ Communications ♦ Problem Solving and Critical Thinking ♦ Information Technology Applications ♦ Systems ♦ Safety, Health and Environment ♦ Leadership and Teamwork ♦ Ethics and Legal Responsibilities ♦ Employability and Career Development ♦ Technical Skills | | | | | |

Postsecondary Offerings-For a Complete Listing, go to www.missouriconnections.org

| Community College | Technical School/Training Institution | In State | | Out of State/Other |
|--|--|---|---|--|
| <p>Crowder College www.crowder.edu</p> <p>Jefferson College www.jeffco.edu</p> <p>Metropolitan Community College www.mcckc.edu</p> <p>Mineral Area College www.mineralarea.edu</p> <p>North Central Missouri College www.ncmissouri.edu</p> <p>Ozarks Technical Comm College www.otc.edu</p> <p>St Louis Community College www.stlcc.edu</p> <p>State Fair Community College www.sfccmo.edu</p> <p>State Tech www.statetechmo.edu</p> <p>Three Rivers Community College www.trcc.edu</p> | <p>Carrollton Area Career Center www.trojans.k12.mo.us</p> <p>Eldon Career Center www.eldoncareercenter.org</p> <p>Grand River Technical School www.grts.org</p> <p>Herndon Career Center https://www.raytownschools.org</p> <p>Hillyard Technical Center www.hillyardtech.com</p> <p>Jefferson College Area Technical Center www.jeffco.edu</p> <p>Lamar Area VoTech www.lamar.k12.mo.us</p> <p>Lex La-Ray Tech Center www.lexington.k12.mo.us</p> <p>Kirksville Area Tech Center www.kirksville.k12.mo.us</p> <p>North Central Career Center www.shr2.k12.mo.us</p> <p>Northland Career Center www.northlandcareercenter.com</p> <p>Northwest Tech School www.nts.maryville.k12.mo.us</p> <p>Perryville Area Career/Tech Center www.perryville.k12.mo.us</p> <p>Ranken Tech College - www.ranken.edu</p> <p>South Central Career Center www.wphs.k12.mo.us</p> <p>Southwest Area Career Center www.swacc.k12.mo.us</p> | <p>Avila University - www.avila.edu</p> <p>Baptist Bible College - www.gobbc.edu</p> <p>Bryan College - https://www.bryan.edu/</p> <p>Central Methodist University www.centralmethodist.edu</p> <p>College of the Ozarks - www.coto.edu</p> <p>Columbia College - www.ccis.edu</p> <p>Culver-Stockton College - www.culver.edu</p> <p>Drury University - www.drury.edu</p> <p>Evangel University - www.evangel.edu</p> <p>Fontbonne Univ - www.fontbonne.edu</p> <p>Hannibal-Lagrange College - www.hlg.edu</p> <p>Harris-Stowe State Univ - www.hssu.edu</p> <p>Hickey College www.hickeycollege.edu</p> <p>Lincoln University - www.lincolnu.edu</p> <p>Lindenwood Univ - www.lindenwood.edu</p> <p>Maryville Univ of St. Louis www.maryville.edu</p> <p>Messenger College www.messengercollege.edu</p> <p>Missouri Baptist Univ - www.mobap.edu</p> <p>MO Southern State Univ - www.mssu.edu</p> <p>Missouri State University www.missouristate.edu</p> <p>Missouri State University – West Plains www.wp.missouristate.edu</p> | <p>MO University of Science & Technology www.mst.edu</p> <p>Missouri Western State University www.missouriwestern.edu</p> <p>Northwest Missouri State University www.nwmissouri.edu</p> <p>Park University - www.park.edu</p> <p>Rockhurst University - www.rockhurst.edu</p> <p>Saint Louis University https://www.slu.edu/</p> <p>Sanford-Brown College www.sanford-browncollege.com</p> <p>Southeast MO State Univ - www.semo.edu</p> <p>Southwest Baptist Univ - www.sbniv.edu</p> <p>Stephens College - www.stephens.edu</p> <p>Truman State Univ - www.truman.edu</p> <p>Univ of Central MO - www.ucmo.edu</p> <p>Univ of MO – Columbia - www.missouri.edu</p> <p>Univ of MO – Kansas City www.umkc.edu</p> <p>Univ of MO – St Louis - www.umsi.edu</p> <p>University of Phoenix - www.phoenix.edu</p> <p>Vatterott College - www.vatterott-college.edu</p> <p>Washington University - www.wustl.edu</p> <p>Webster University - www.webster.edu</p> <p>Westminster College www.westminster-mo.edu</p> <p>William Jewell College - www.jewell.edu</p> <p>William Woods University www.williamwoods.edu</p> | <ul style="list-style-type: none"> • Apprenticeship • Military • On-the-Job Training <p>Colorado Technical University www.coloradotech.com</p> <p>DeVry University www.drury.edu</p> <p>Foley-Belsaw Institute www.foley-belsaw.com</p> <p>Grantham University www.grantham.edu</p> <p>ITT Technical Institute http://itt-tech.info/</p> <p>National American University www.national.edu</p> <p>Texas County Technical Institute www.texascountytech.edu</p> |

Sample Careers By Educational Level – For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org

| | Technical Training or Associate Degree | Bachelors Degree | Masters Degree or More |
|---|---|---|------------------------|
| <p>Crane and Tower Operators</p> <p>Hoist and Winch Operators</p> <p>Locksmiths</p> <p>Machinists</p> <p>Metal and Plastic Processing Workers</p> <p>Operating Engineers and Construction Equipment Operators</p> <p>Painting and Coating Machine Operators</p> <p>Power Plant Operators</p> <p>Quality Control Inspectors</p> <p>Small Engine Mechanics</p> <p>Tailors</p> <p>Tire Building Machine Operators</p> <p>Tool and Die Makers</p> <p>Tool Grinders</p> <p>Upholsterers</p> <p>Vehicle Painters</p> <p>Woodworking Machine Operators</p> | <p>Automotive Electronics Installers</p> <p>Computer, ATM, and Office Machine Repairers</p> <p>Electric Motor Repairers</p> <p>Home Electronics Repairers</p> <p>Industrial Electronics Repairers</p> <p>Jewelers</p> <p>Manufacturing Production Technicians</p> <p>Security and Fire Alarm Systems Installers</p> <p>Semiconductor Processing Operators</p> <p>Welders and Solders</p> <p>Welding and Soldering Machine Operators</p> | <p>Chemical Engineers</p> <p>Occupational Health and Safety Specialists</p> <p>Safety Engineers</p> | |



Career Cluster #15: Science Technology, Engineering, and Mathematics (ICAP)
 Jackson High School www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|--|---|---|---|--|--|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | Select a Career Pathway: <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture Career Cluster: <hr/> Post-Secondary Options: <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training Area of Interest/Major: <hr/> Post-Secondary Assessments: <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) Extracurricular Activities: <hr/> Work/Community Based: <input type="checkbox"/> Part-time Employment |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit required | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Ag Science 1 Ag Science 1 Mechanics Op Art I Band Choir Computer Apps Drawing 1 French 1 Housing Interior Design Intro to Coding Industrial Tech Spanish 1 Speech | Adv. Comp. Apps Ag Science 2 Ag Science 1&2 Mechanics Op Drawing 2 Energy and Power Technology Engineering Graphics (CAD) Engineering & Robotics Housing Interior Design Intro to Coding Machine & Manufacturing 1 Residential Architectural Draft Wood Technology | Adv. Studio Adv. Woods Ag Construction 1 & 2 AG Power 1 & 2 Ag Science 2 Mechanics Op Ag Machinery 1 AP Chemistry AP Studio Art College Speech College Writing 1 Computer Hardware & IT Engineering & Robotics Machining Human Anatomy & Phys 1&2 Intro to Coding Machine & Manufacturing 2 Physics SOE Machine & Manufacturing 3 | AP Physics 1 AP Physics 2 Ag Construction 1 & 2 AG Power 1 & 2 Ag Machinery 2 Ag Science 2 Mechanics Op College Writing 1 College Writing 2 College Writing 3 Engineering & Robotics Machining Intro to Coding Short Story SOE Machine & Manufacturing 3 | |

| | | | | | |
|---|--|--|---|--|--|
| Cape Career and Technical Center | | | Construction Technology 1 Electrical Trades 1 Precision Machining I Project Lead the Way Block 1 | Construction Technology 2 Drone Technology Electrical Trades 2 Precision Machining II Project Lead the Way Block 2 | <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
|---|--|--|---|--|--|



Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.

| | | |
|--|--|--|
| Sample Career Specialties / Occupations | <p> Aerospace Engineer* Aeronautical Engineer* Agricultural Engineer* Agricultural Technician* Application Engineer* Architectural Engineer* Automotive Engineer* Biomedical Engineer* Biotechnology Engineer* Chemical Engineer* Civil Engineer* Communications Engineer* Computer Engineer* Computer Hardware Engineer* Computer Programmer* Computer Science Technician* Computer Software Engineer* Construction Engineer* Consultant* Development Engineer* Drafter* Electrical Engineer* Electrician* Electronics Technician* Energy Transmission Engineer* Environmental Engineer* Facilities Technician* Fire Protection Engineer* Geothermal Engineer* Hazardous Waste Engineer* Hazardous Waste Technician* Human Factors Engineer * Industrial Engineer* Industrial Engineering Technician* Licensing Engineer* Manufacturing Engineer* Manufacturing Technician* Manufacturing Processes Engineer* Marine Engineer* Materials Engineer* Materials Lab & Supply Technician* Mechanical Engineer* Metallurgic Engineer* Mining Engineer* Naval Engineer* Network Technician* Nuclear Engineer* Ocean Engineer* Operations Research Engineer* Packaging Engineer* Packaging Technician* Petroleum Engineer* Pharmaceutical Engineer* Plastics Engineer* Power Systems Engineer* Product Design Engineer* Project Engineer* Project manager* Prototype Engineer* Quality Engineer* Quality Technician* Radio/TV Broadcast Technician* Radiology Engineer* Researcher* Safety Engineer* Software Engineer* Sound Technician* Structural Engineer* Survey Technician* Systems Design Engineer* Technical Sales Manager* Technical Writer* Telecommunications Engineer* Textile Engineer* Transportation Engineer* Nuclear Engineer and Procurement Engineer </p> | <p> Analytical Chemist* Anthropologist* Applied mathematician* Archeologist* Astronomer* Astrophysicist* Atmospheric scientist* Biologist* Botanist* CAD operator* Cartographer* Chemist* Communications technologist* Conservation scientist* Cosmologist* Cryptographer* Crystallographer* Demographer* Dye chemist* Ecologist* Economist* Electronmicroscopist * Environmental scientist* Expert systems scientist* Geneticist* Geologist* Geophysicist* Geoscientist* Herpetologist* Hydrologist* Ichthyologist* Inorganic chemist* Laboratory Technician * Mammologist* Marine scientist* Materials analyst* Materials scientist* Mathematician * Mathematics* Metallurgist* Meteorologist* Microbial Physiologist* Mycologist* Nano biologist* Nuclear chemists* Nuclear technician* Numerical analyst* Nutritionist* Oceanographer* Organic chemist* Ornithologist* Paleontologist* Physicist* Polymer scientist* Programmer* Protein scientist* Protozoology* Quality-control scientist* Radio chemist* Research chemist* Research Technician* Science Teacher * Lab Technician* Scientific visualization / graphics expert* Spectroscopic* Statistician* Technical writer* Technologist* Toxicologist* Zoologist* </p> |
| Pathways | Engineering and Technology | Science and Math |

Postsecondary Offerings – For A Complete Listing, go to www.missouriconnections.org

| Community College | Technical School/Training Institution | In State | | Out of State/Other |
|--|--|--|--|---|
| <p>Crowder College www.crowder.edu</p> <p>East Central College www.eastcentral.edu</p> <p>Jefferson College www.jeffco.edu</p> <p>Metropolitan Community College www.mcckc.edu</p> <p>St. Charles Community College www.stchas.edu</p> <p>St Louis Community College www.stlcc.edu</p> | <p>Missouri Tech http://www.mst.edu/</p> | <p>Avila University - www.avila.edu</p> <p>Central Methodist University www.centralmethodist.edu</p> <p>College of the Ozarks - www.coto.edu</p> <p>Columbia College - www.ccis.edu</p> <p>Culver-Stockton College www.culver.edu</p> <p>Drury University - www.drury.edu</p> <p>Evangel University - www.evangel.edu</p> <p>Lincoln University - www.lincolnu.edu</p> <p>Lindenwood Univ - www.lindenwood.edu</p> <p>Maryville University of St. Louis www.maryville.edu</p> <p>Missouri Baptist Univ - www.mobap.edu</p> <p>MO Southern State University www.mssu.edu</p> <p>Missouri State University www.missouristate.edu</p> <p>MO University of Science & Technology www.mst.edu</p> <p>Missouri Western State University www.missouriwestern.edu</p> | <p>Northwest Missouri State University www.nwmissouri.edu</p> <p>Park University - www.park.edu</p> <p>Rockhurst University www.rockhurst.edu</p> <p>Saint Louis University https://www.slu.edu/</p> <p>Southeast MO State University www.semo.edu</p> <p>Southwest Baptist University www.sbuniv.edu</p> <p>Truman State Univ - www.truman.edu</p> <p>Univ of Central MO - www.ucmo.edu</p> <p>University of MO – Columbia www.missouri.edu</p> <p>University of MO – Kansas City www.umkc.edu</p> <p>MO S&T- www.mst.edu</p> <p>Univ of MO – St Louis - www.umsl.edu</p> <p>Washington University - www.wustl.edu</p> <p>Westminster College www.westminster-mo.edu</p> <p>William Jewell College - www.jewell.edu</p> | <ul style="list-style-type: none"> • Apprenticeship • Military • On-the-Job Training <p>Grantham University www.grantham.edu</p> |

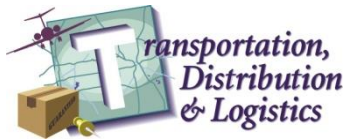
Sample Careers By Educational Level – For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org

| On-the-Job Training or Less | Technical Training or Associate Degree | Bachelors Degree | Masters Degree or More |
|-----------------------------|---|--|---|
| | <p>Electronics Engineering Technologists</p> <p>Engineering Technicians</p> <p>Manufacturing Engineering Technologists</p> <p>Science Technicians</p> | <p>Aerospace Engineers</p> <p>Biomedical Engineers</p> <p>Cartographers</p> <p>Chemists</p> <p>Civil Engineers</p> <p>Electrical and Electronics Engineers</p> <p>Energy Engineers</p> <p>Environmental Engineers</p> <p>Geospatial Information Scientists and Technologists</p> <p>Industrial Engineers</p> <p>Manufacturing Engineers</p> <p>Materials Engineers</p> <p>Mechanical Engineers</p> <p>Meteorologists</p> <p>Mining Engineers</p> <p>Nuclear Engineers</p> <p>Petroleum Engineers</p> <p>Photonics Engineers</p> <p>Remote Sensing Scientists and Technologists</p> | <p>Anthropologists</p> <p>Archeologists</p> <p>Astronomers</p> <p>Biologists</p> <p>Environmental Scientists</p> <p>Geographers</p> <p>Geologists and Geophysicists</p> <p>Historians</p> <p>Mathematicians</p> <p>Physicists</p> <p>Political Scientists</p> <p>Robotics Engineers</p> <p>Sociologists</p> |



Career Cluster #16: Transportation, Distribution and Logistics (ICAP)
 Jackson High School: www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|---|--|---|---|--|--|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | Select a Career Pathway: <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture Career Cluster: <hr/> Post-Secondary Options: <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training Area of Interest/Major: <hr/> Post-Secondary Assessments: <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) Extracurricular Activities: <hr/> Work/Community Based: <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Art 1 Ag Science 1 Ag Science 1 Mechanics Op Band Choir Computer Apps Drawing 1 French 1 Housing Interior Design Industrial Tech Spanish 1 Speech | Adv. Comp. Apps Agricultural Communications Ag Science 2 Ag Science 1&2 Mechanics Op Drawing 2 Engineering Graphics (CAD) Engineering & Robotics Energy and Power Technology Housing Interior Design Machine & Manufacturing 1 Residential Architectural Draft Wood Technology | Advanced Studio Advanced Woods Ag Construction 1 & 2 AG Power 1 & 2 Ag Science 2 Mechanics Op Ag Machinery 1 AP Studio Art College Writing 1 Computer Hardware & IT Engineering & Robotics Machine & Manufacturing 2 Machine & Manufacturing 3 | Ag Construction 1 & 2 AG Power 1 & 2 Ag Science Mechanics Op Ag Machinery 2 College Writing 1 College Writing 2 College Writing 3 Engineering & Robotics Ag Construction 1 & 2 Machine & Manufacturing 2 Machine & Manufacturing 3 | |
| Cape Career and Technical Center | | | Auto Collision Technology 1 Auto Technology 1 | Auto Collision Technology 2 Auto Technology 2 Basic Flight Drone Technology | |



Planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

| | | | | | | | |
|--|---|--|---|---|---|---|--|
| Sample of Career Specialties / Occupations | <p>Air/Space Transportation: Transportation Managers (Air) * Commercial Pilots * Flight Engineers * Flight Attendants * Dispatchers (Air) * Traffic Managers * Air Traffic Controllers * Aircraft Cargo Handling Supervisors *</p> <p>Rail Transportation: Transportation Managers (Rail) * Dispatchers (Rail) * Traffic Managers * Locomotive Engineers * Locomotive Firers * Railyard Conductors and Yardmasters * Railroad Brake, Signal and Switch Operators * Railyard Engineers, Dinky Operators, and Hostlers</p> <p>Water Transportation: Transportation Managers (Water) * Dispatchers (Water) * Traffic Managers * Captains * Mates * Pilots of Water Vessels * Sailors and Marine Oilers * Able Seamen</p> <p>Transportation Transportation managers (Road) * Dispatchers (Truck/Bus/Taxi) * Traffic Managers * Truck Drivers (Tractor-Trailer) * Truck Drivers (Light or Delivery Services) * Bus Drivers (Transit and Intercity) * School Bus Drivers * Taxi Drivers and Chauffeurs</p> <p>Transit Systems: Transportation Managers (Mass Transit) * Dispatchers (Bus) * Traffic Managers * Dispatchers (Rail) * Traffic Managers * Bus Drivers (Transit and Intercity) * Subway and Streetcar Operators</p> | <p>Logisticians * Logistics Managers * Logistics Engineers * Logistics Analysts * Logistics Consultants * International Logistics Specialists</p> | <p>Warehouse Managers * Storage and Distribution Managers * Industrial and Packaging Engineers * Traffic, Shipping and Receiving Clerks * Production, Planning, Expediting Clerks * First-line Supervisors/ Managers of Helpers * Laborers, and Material Movers (Hand) * First-line Supervisors /Managers of Transportation and Material (Moving Machine and Vehicle Operators) * Laborers and Freight, Stock and Material Movers (Hand) * Car, Truck and Ship Loaders * Packers and Packagers-hand</p> | <p>Facility: Facility Maintenance Managers and Engineers * Industrial Equipment Mechanics * Industrial Electricians, * Electrical/Electronic Technicians Mobile Equipment: General—Mobile Equipment Maintenance Managers * Electrical and Electronic Installers and Repairers (Transportation Equipment) * Mobile Heavy Equipment Mechanics <u>Air/Space</u>—Aerospace Engineering and Operations Technicians * Aircraft Mechanics and Service Technicians * Airframe Mechanics * Power plant Mechanics * Aircraft Engine Specialists * Avionics Technicians <u>Water</u>—Ship Mechanics and Repairers * Automotive/Truck Mechanics and Body Repairers <u>Rail</u>—Rail Car Repairers * Signal and Track Switch Repairers * Rail Locomotive Mechanics and Repairers <u>Road</u>—Electronic Equipment Installers and Repairers (Motor Vehicle) * Automotive Body and Related Repairers * Automotive Service Technicians and Mechanics * Automotive Master Mechanics * Bus and Truck Mechanics and Diesel Engine Specialists * Motorcycle Mechanics * Bicycle Repairers</p> | <p><u>General—Intermodal</u>-- Urban and Regional Planners * Civil Engineers * Engineering Technicians * Surveying and Mapping Technicians * Government Service Executives * Environmental Compliance Inspectors <u>Air/Space</u>—Air Traffic Controllers * Aviation Inspectors <u>Road</u>— Traffic Engineers * Traffic Technicians * Motor Vehicle Inspectors * Freight Inspectors <u>Rail</u>—Railroad Inspectors <u>Water</u>—Marine Cargo Inspectors * Vessel Traffic Control Specialists <u>Transit</u>— Public Transportation Inspectors <u>Other</u>--- Regulators * Inspectors and other federal/state/local transportation agency jobs</p> | <p>Health and Safety Managers * Industrial Health and Safety Engineers * Environmental Scientists and Specialists * Environmental Science and Protection Technicians * Environmental Managers and Engineers * Environmental Compliance Inspectors * Safety Analysts</p> | <p>Marketing Managers, * Sales Managers * Sales Representatives of Transportation /Logistics Services * Reservation, Travel and Transportation Agents * Cargo and Freight Agents * Customer Service Managers * Cashiers, Counter and Rental clerks</p> |
| | Pathways | Transportation Operations | Logistics Planning and Management Services | Warehousing and Distribution Center Operations | Facility and Mobile Equipment Maintenance | Transportation Systems/ Infrastructure Planning, Management, and Regulation | Health, Safety and Environmental Management |
| Cluster K&S | <p align="center">Cluster Knowledge and Skills</p> <p align="center">◆ Academic Foundations ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities ◆ Employability and Career Development ◆ Technical Skills</p> | | | | | | |

Postsecondary Offerings – For A Complete List of Colleges, go to www.missouriconnections.org

| Postsecondary | Community College | Technical School/Training Institutions | In State | | Out of State/Other |
|---------------|---|--|--|--|---|
| | <p>Crowder College www.crowder.edu</p> <p>East Central College www.eastcentral.edu</p> <p>Hannibal-Lagrange College www.hlg.edu</p> <p>Jefferson College www.jeffco.edu</p> <p>Metropolitan Community College www.mcckc.edu</p> <p>Mineral Area College www.mineralarea.edu</p> <p>Moberly Area Community College www.macc.edu</p> <p>North Central Missouri College www.ncmissouri.edu</p> <p>Ozarks Technical Comm College www.otc.edu</p> <p>Ranken Technical College www.ranken.edu</p> <p>Sanford-Brown College www.sanford-browncollege.com</p> <p>St Louis Community College www.stlcc.edu</p> <p>State Fair Community College www.sfccmo.edu</p> <p>State Tech https://www.statetechmo.edu</p> | <p>Cape Girardeau Career/Tech Center https://capectc.capetigers.com/</p> <p>Clinton Tech School - www.clinton.k12.mo.us</p> <p>Davis Hart Career Ctr - www.mexicoschools.net</p> <p>Eldon Career Ctr - www.eldoncareercenter.org</p> <p>Four Rivers Career Center www.washington.k12.mo.us</p> <p>Franklin Technology- MSSU www.ftcjoplin.com</p> <p>Gibson Tech Ctr - www.wolves.k12.mo.us/gtc</p> <p>Grand River Technical School - www.grts.org</p> <p>Hannibal Career and Technical Center www.hannibal.tec.mo.us</p> <p>Herndon Career Center www.herndoncareercenter.com</p> <p>Hillyard Technical Ctr - www.hillyardtech.com</p> <p>Kirksville Area Tech Ctr - www.kirksville.k12.mo.us</p> <p>Lake Career and Technical Center www.camdentonschools.org</p> <p>Lebanon Technology and Career Ctr www.lebanon.k12.mo.us/lctc</p> <p>Lex La-Ray Tech Ctr www.lexington.k12.mo.us</p> <p>Nichols Career Center - www.jcps.k12.mo.us</p> <p>Northland Career Center www.northlandcareercenter.com</p> <p>Northwest Tech School www.nts.maryville.k12.mo.us</p> <p>Pike-Lincoln Tech Ctr - www.pltc.k12.mo.us</p> <p>Rolla Tech Institute - www.rolla.k12.mo.us</p> <p>Saline County Career Center www.marshallschools.com/sccc</p> <p>Sikeston Career & Technology Center www.sikeston.k12.mo.us</p> <p>South Central Career Ctr - www.wphs.k12.mo.us</p> <p>Waynesville Technical Academy www.waynesville.k12.mo.us</p> | <p>Avila University - www.avila.edu</p> <p>Baptist Bible College - http://gobbc.edu/</p> <p>Bryan College - https://www.bryan.edu/</p> <p>Central Methodist University www.centralmethodist.edu</p> <p>College of the Ozarks - www.cofo.edu</p> <p>Columbia College - www.ccis.edu</p> <p>Culver-Stockton College - www.culver.edu</p> <p>DeVry University - www.devry.edu</p> <p>Drury University - www.drury.edu</p> <p>Evangel University - www.evangel.edu</p> <p>Fontbonne Univ - www.fontbonne.edu</p> <p>Grantham Univ - www.grantham.edu</p> <p>Harris-Stowe State Univ - www.hssu.edu</p> <p>Lincoln University - www.lincolnu.edu</p> <p>Lindenwood Univ - www.lindenwood.edu</p> <p>Maryville University of Saint Louis www.maryville.edu</p> <p>Messenger College www.messengercollege.edu</p> <p>Missouri Baptist Univ - www.mobap.edu</p> <p>Missouri Southern State University www.mssu.edu</p> <p>Missouri State University www.missouristate.edu</p> <p>Missouri State Univ – West Plains www.wp.missouristate.edu</p> <p>Missouri University of Science & Tech www.mst.edu</p> | <p>Missouri Western State University www.missouriwestern.edu</p> <p>Northwest Missouri State University www.nwmissouri.edu</p> <p>Park University - www.park.edu</p> <p>Rockhurst Univ - www.rockhurst.edu</p> <p>St. Louis Univ - https://www.slu.edu/</p> <p>Southeast Missouri State University www.semo.edu</p> <p>Southwest Baptist University www.sbuniv.edu</p> <p>Stephens College - www.stephens.edu</p> <p>Stevens-The Institute of Business and Arts www.siba.edu</p> <p>Truman State Univ - www.truman.edu</p> <p>University of Central MO - www.ucmo.edu</p> <p>University of Missouri – Columbia www.missouri.edu</p> <p>University of Missouri – Kansas City www.umkc.edu</p> <p>University of Missouri – St Louis www.umsl.edu</p> <p>Univ of Phoenix - www.phoenix.edu</p> <p>Vatterott College www.vatterott-college.edu</p> <p>Washington University - www.wustl.edu</p> <p>Webster Univ - www.webster.edu</p> <p>Westminster College www.westminster-mo.edu</p> <p>William Jewell College - www.jewell.edu</p> <p>William Woods University www.williamwoods.edu</p> | <ul style="list-style-type: none"> • Apprenticeship • Military • On-the-Job Training <p>Aviation Institute of Maintenance www.aviationmaintenance.edu</p> <p>Colorado Technical University www.coloradotech.com</p> <p>American Truck Training www.americantrucktraining.com</p> <p>C-1 Truck Driver Training www.c1training.com</p> <p>ITT Technical Institute http://itt-tech.info/</p> <p>Midwestern Training Center http://www.truckdrivertraining.com/</p> <p>National American University www.national.edu</p> <p>Nuway Truck Driver Training www.nuwaytruckschools.com</p> <p>Southern MO Truck Driving School www.smtds.com</p> <p>Westwind CDL Training Center www.westwinddcl.com</p> <p>Witte Truck Driving School https://www.wittebros.com</p> |

Sample Careers By Educational Level – For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org

| On-the-Job Training or Less | Technical Training or Associate Degree | Bachelors Degree | Masters Degree or More |
|--|---|---|------------------------|
| <p>Air Traffic Controllers and Flight Attendants</p> <p>Auto Body Repairers</p> <p>Bicycle Repairers</p> <p>Bus Drivers and School Bus Drivers</p> <p>Dispatchers and Traffic Technicians</p> <p>Freight Handlers</p> <p>Heavy Equipment Mechanics</p> <p>Heavy Truck Drivers</p> <p>Motorboat & Motorcycle Mechanics</p> <p>Parking Lot Attendants</p> <p>Riggers</p> <p>Service Station Attendants, Tire Repairers and Changers</p> <p>Transportation Agents</p> | <p>Aircraft Mechanic</p> <p>Automobile Mechanics</p> <p>Bus and Truck Mechanics and Diesel Engine Specialists</p> <p>Electrical/Electronic Installers/Repairers, Transportation Equipment</p> <p>Electronic Equipment Installers/Repairers, Motor Vehicles</p> <p>First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand</p> <p>First-Line Supervisors/Managers of Transportation</p> <p>Material-Moving Machine and Vehicle Operators</p> <p>Motorboat Mechanics and Motorcycle Mechanics</p> <p>Signal and Track Switch Repairers</p> <p>Traffic Technicians</p> <p>Transportation Vehicle, Equipment/Systems Inspectors</p> | <p>Airline Pilot</p> <p>Logisticians</p> <p>Storage and Distribution Managers</p> | <p>Chief Executive</p> |



Career Cluster #1 Agriculture, Food & Natural Resources (ICAP)
 Jackson High School: www.jacksonr2schools.com

| Subject | Freshman | Sophomore | Junior | Senior | Additional Learning Opportunities |
|--|---|--|--|--|--|
| Communication Arts 4 credits required | LA 1 Adv. LA 1 | LA 2 Adv. LA 2 | LA 3 Adv. LA 3 | 1.0 additional credit | Select a Career Pathway: <input type="checkbox"/> Arts & Communication <input type="checkbox"/> Business, Management & Technology <input type="checkbox"/> Health Services <input type="checkbox"/> Human Services <input type="checkbox"/> Industrial & Engineering Technology <input type="checkbox"/> Natural Resources & Agriculture Career Cluster: <hr/> Post-Secondary Options: <input type="checkbox"/> 4-year University <input type="checkbox"/> 2-year Community College <input type="checkbox"/> Technical School <input type="checkbox"/> Military <input type="checkbox"/> Work Force/On the Job Training Area of Interest/Major: <hr/> Post-Secondary Assessments: <input type="checkbox"/> Missouri Connections <input type="checkbox"/> PSAT (NMSQT) <input type="checkbox"/> Pre ACT <input type="checkbox"/> ASVAB (Military) <input type="checkbox"/> ACT (4 year University) <input type="checkbox"/> SAT (4 year University) <input type="checkbox"/> Accuplacer (2 year Community College) <input type="checkbox"/> WorkKeys (Employment) Extracurricular Activities: <hr/> Work/Community Based: <input type="checkbox"/> Part-time Employment <input type="checkbox"/> Volunteer <input type="checkbox"/> Other |
| Mathematics 3 credits required | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | Refer to Math Chart | |
| Social Studies 3 credits required | American History | Recent US History AP US History | World History AP World History | US Government DE US Gov & Politics | |
| Science 3 credits required | Physical Science | Biology | 1.0 additional credit | | |
| PE 1 credit required Health 0.5 credit required | P.E. Health | | | | |
| Fine Art 1 credit required | | | | | |
| Practical Art 1 credit required | | | Personal Finance Ag Management Econ (1 of these is required) | | |
| Recommended Options for Specific Career Cluster | Accounting Ag Science 1 Ag Science 1 Mechanics Op Computer Applications Food & Nutrition 1 Industrial Tech | Advanced Accounting Ag. Communications Ag Livestock/Crop Science Ag Science 1 & 2 Ag Science 1&2 Mechanics Op Business Management Conservation-Natural Res. Engineering Graphics Energy & Power Tech Equine Science Food & Nutrition 1 & 2 Greenhouse Op/Man 1 & 2 Machine & Manufacturing 1 Residential Arch Drafting Wood Tech | Ag Construction I & 2 Ag SOE Adv. Accounting Ag Science 2 Mechanics Op Adv. Woods AP Bio AP Chemistry AG Power 1&2 Applied Genetics Business Management Engineering & Robotics Greenhouse Op/Man 1 & 2 Human Anatomy/Phys 1&2 Machine & Manufacturing 2 Machine & Manufacturing 3 Vet Assistant | Ag Construction I & 2 Ag Science 2 Mechanics Op AG Power 1 & 2 Engineering & Robotics Vet Assistant Machine & Manufacturing 3 Applied Marketing SME | |
| Cape Career and Technical Center | | | Construction Tech 1 Landscape & Horticulture 1 Precision Machining 1 Welding 1 | Basic Flight Construction Technology 2 Drone Technology Landscape & Horticulture 2 Precision Machining 2 Welding 2 | |



The production, processing, marketing, distribution, financing, and development of agricultural commodities, and resources including food, fuel, fiber, wood products, natural resources, horticulture, and other plant and animal Products/Resources

| | | | | | | | |
|--|--|---|---|---|---|--|--|
| Sample Career Specialties / Occupations | <p>Agricultural Sales Agricultural Communications Specialists Agricultural Educators Food Scientists Meat Processors Toxicologists Biochemists-Nutritionists-Dieticians Food Brokers-Food Inspectors Meat Cutters-Meat Graders Meat Science Researchers Food Meal Supervisors Cheese Makers Microbiologists Produce Buyers Bacteriologists Food & Drug Inspectors Bioengineers Food & Fiber Engineers Food Processors Storage Supervisors Fieldman Quality Control Specialists</p> | <p>Bioinformatics Specialists Plant Breeders and Geneticists Biotechnology Lab Technician Soil & Water Specialists Crop Farm Managers Agricultural Educators Plant Pathologists Aqua culturalists Sales Representatives Botanists Tree Surgeons Education & Extension Specialists Agricultural Journalists Commodity Marketing Specialists Grain Operations Superintendents Custom Hay/Silage Operators Forest Geneticists Golf Course Superintendents Greenhouse Managers Farmers/Ranchers</p> | <p>Ag. Educators Livestock producers AI Technicians Animal Caretakers-Poultry Managers Equine Managers Veterinarians Veterinary Assistants Feedlot Specialists Animal Scientists Embryo Tech. Livestock Buyers Feed Sales Rep.or Specialist Vivarium Tech. Wildlife Biologists Livestock Geneticists Animal Nutritionists Dairy Producers Livestock Inspectors Animal Health Salespersons Meat Science Researcher Reproductive Physiologists Embryo Transfer Tech. Pet Shop Operators USDA Inspectors</p> | <p>Machine Operators Electronics Systems Tech. Agricultural Engineers Agricultural Extension Engineering Specialists Heavy Equipment Maintenance Tech Recycling Tech. Waste Water Treatment Plant Operators Equipment/Parts Managers Welders Machinists Communication Tech. Agricultural Applications Software Developers/Programmers Database Administrators Computer Service Tech. Support Information Lab Specialists GPS Tech. Remote Sensing Specialists Agricultural Educator</p> | <p>Cartographers Wildlife Managers Range Tech. Ecologists Park Managers Environmental Interpreters Fish and Game Officers Loggers Forest Technicians Log Graders Pulp and Paper Manger Soil Geology Technician Geologist Mining Engineers Fisheries Tech. Water Monitoring Tech. Hydrologists Fish Hatchery Manager Commercial Fishermen Fishing Vessel Operators Vessel Crew Agricultural Educator</p> | <p>Pollution Prevention & Control Managers/Tech. Environmental Sampling and Analysis Scientists/Tech. Health & Safety Sanitarians Environmental Compliance Assurance Managers Hazardous Materials Handlers Hazardous Materials Tech./Managers Water Environment Managers Water Quality Managers Waste Water Managers Toxicologists Solid Waster Disposers/Recyclers Solid Waste Tech. Solid Waste Managers Solid Waste Specialists Agricultural Educator</p> | <p>Salesperson Sales Manger Banker/Loan Officer Field Rep. for Bank, Insurance, or Government Program Farm Investment Manager Agricultural Commodity Broker Agricultural Economist Farmer/Rancher/Feedlot Operator Farm Manager Livestock Rancher/Breeder Dairy Herd Supervisor (DHIA) Ag. Products Buyer Animal Health Products Distributor Livestock Seller Feed and Supply Store Manager Produce Commission Agent Ag Lenders Ag. Chemical Dealer Field Service Rep. Chemical Sales Rep. Agricultural Educator</p> |
| Pathways | <p>Food Products & Processing Systems (Food Processing & Preserving, Packaging, Distribution, Government monitoring & regulation)</p> | <p>Plant Systems (Agronomic, Horticulture, Forestry, Turf, Viticulture, Soils, etc.)</p> | <p>Animal Systems (Large animals, small animals, wildlife animals, and research animals)</p> | <p>Power, Structural & Technical Systems (Power, Structures, Controls, Geospatial Technology, Computer Systems, Electronics, Hydraulics, Pneumatics, etc.)</p> | <p>Natural Resources Systems (Habitat Conservation, Forest Products, Parks and RE creation, Mining, Environmental Services, Fisheries, Soil Conservation, etc.)</p> | <p>Environmental Service Systems (Pollution Prevention, Water & Air Quality, Hazardous Materials, Solid Waste Management, Health & Safety Sanitation, etc.)</p> | <p>Agribusiness Systems (Sales, Service, Farm and Ranch Management, Entrepreneurship, Economics, etc.)</p> |
| Cluster K & S | <p align="center">Cluster Knowledge and Skills</p> <p align="center">Premier Leadership – Personal Growth – Career Success – Organizations and Associations – Organizational structures and processes – Safety, Healthy, and Environmental Management – Health and safety procedures – Tools, equipment, machinery and technology – Issues – Technology and globalization – Scientific Inquiry</p> | | | | | | |

Postsecondary Offerings – For A Complete Listing, go to www.missouriconnections.org

| | | | | |
|----------------------|---|--|---|---|
| Postsecondary | Community College | Technical School/Training Institution | In State | Out of State/Other |
| | <p>Crowder College www.crowder.edu</p> <p>East Central College www.eastcentral.edu</p> <p>Jefferson College www.jeffco.edu</p> <p>Metropolitan Community College www.mcckc.edu</p> <p>Mineral Area College www.mineralarea.edu</p> <p>North Central Missouri College www.ncmissouri.edu</p> <p>Ozarks Technical Community College www.otc.edu</p> <p>St Louis Community College www.stlcc.edu</p> <p>State Fair Community College www.sfccmo.edu</p> <p>State Tech https://www.statetechmo.edu</p> <p>Three Rivers Community College www.trcc.edu</p> | <p>Columbia Area Career Center www.career-center.org</p> <p>Davis Hart Career Center www.mexicoschools.net</p> <p>Eldon Career Center www.eldoncareercenter.org</p> <p>Hannibal Career and Technical Center www.hannibal.tec.mo.us</p> <p>Kirksville Area Tech Center www.kirksville.k12.mo.us</p> <p>Moberly Area Tech Center www.moberly.k12.mo.us</p> <p>Ranken Tech College www.ranken.edu</p> <p>Waynesville Technical Academy www.waynesville.k12.mo.us</p> | <p>A.T. Skill University of Health Sciences www.atsu.edu</p> <p>Avila University - www.avila.edu</p> <p>Central Methodist University www.centralmethodist.edu</p> <p>College of the Ozarks - www.coto.edu</p> <p>Columbia College - www.ccis.edu</p> <p>Culver-Stockton College www.culver.edu</p> <p>Drury University - www.drury.edu</p> <p>Evangel University - www.evangel.edu</p> <p>Fontbonne Univ - www.fontbonne.edu</p> <p>Hannibal-Lagrange College -www.hlg.edu</p> <p>Lincoln University - www.lincolnu.edu</p> <p>Lindenwood University www.lindenwood.edu</p> <p>Maryville University of St. Louis www.maryville.edu</p> <p>Missouri Baptist Univ - www.mobap.edu</p> <p>MO Southern State University www.mssu.edu</p> <p>Missouri State University www.missouristate.edu</p> <p>Missouri State University – West Plains www.wp.missouristate.edu</p> <p>MO Univ of Science & Technology www.mst.edu</p> <p>Missouri Valley College www.moval.edu</p> | <p>Missouri Western State University www.missouriwestern.edu</p> <p>Northwest Missouri State University www.nwmissouri.edu</p> <p>Park University - www.park.edu</p> <p>Rockhurst University - www.rockhurst.edu</p> <p>Saint Louis University https://www.slu.edu/</p> <p>Southeast MO State University www.semo.edu</p> <p>Southwest Baptist University www.sbuniv.edu</p> <p>Stephens College - www.stephens.edu</p> <p>Truman State Univ - www.truman.edu</p> <p>Univ of Central MO - www.ucmo.edu</p> <p>University of MO – Columbia www.missouri.edu</p> <p>University of MO – Kansas City www.umkc.edu</p> <p>Univ of MO – St Louis - www.umsli.edu</p> <p>Washington University - www.wustl.edu</p> <p>Webster University www.webster.edu</p> <p>Westminster College www.westminster-mo.edu</p> <p>William Jewell College - www.jewell.edu</p> <p>William Woods University www.williamwoods.edu</p> |

Sample Careers By Educational Level – For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org

| On-The-Job Training or Less | Technical Training or Associate Degree | Bachelors Degree | Masters Degree or More |
|---|--|--|--|
| Animal Caretakers Animal Trainers Bakers Commercial Fishers Farm and Ranch Workers Farm Equipment Mechanics Farmers Food Processing Workers Log Graders and Scalers Loggers Meat Cutters Mining Machine Operators Nursery Workers Rock Splitters Trash Collectors Veterinary Assistants Water Treatment Plant Operators | Fish and Game Wardens Forestry Technicians Precision Agriculture Technicians | Agricultural Engineers Agricultural Scientists Animal Scientists Conservation Scientists Farm and Home Management Advisors Food Scientists Foresters Park Naturalists Zoologists | Agricultural Sciences Teachers, Postsecondary Animal Scientists Farm and Home Management Advisors Veterinarians Zoologists and Wildlife Biologists |

GENERAL ENROLLMENT INFORMATION

PROCEDURES FOR ENROLLMENT

Students will meet with the advisory teacher to begin the process of selecting courses and building their ICAP. The advisor will discuss the course selections with both the student and parents before the card is signed by the parents. It is important that all directions listed on the card are followed, as well as the instructions given by the counselor at the enrollment meeting. It is also important to complete all the information on the enrollment card and return it to the advisory teacher on time so that individual advising by your counselor may occur. With all the extra steps involved in making sure that the student's schedule is aligned with their career cluster and future plans, schedule changes at the beginning of each semester should be at a minimum.

Students who are late, do not attend spring conferences with their parent/guardian, fail to get appropriate signatures or those who are negligent in enrolling will not receive a schedule until the appropriate actions have been completed. All students who do not enroll properly or fail to turn enrollment information in by the due dates will be enrolled in their needed core course and have electives selected by their counselor. Enrollment will be on a first come, first serve basis by class level. Next year's seniors will be enrolled first, juniors second, then sophomores, and so forth.

COURSE OFFERINGS AND AVAILABILITY

When selecting courses from the curriculum offerings, it is important to understand that a minimum number of students are required (demand) to offer the course during the school year. It is also important to understand that a qualified teacher (one who is certified by the State of Missouri to teach a specific course) must be available to offer the class during the school year. Because some curriculum offerings will not be taught during the school year, students and parents must select alternative courses that may be needed to make a complete student schedule.

The entire master schedule is developed from the number of students who have requested specific courses. Enrollment cards should be filled out with a purpose; select the classes you need and want.

STUDENT CLASSIFICATION:

Third year JHS students must have at least 17 units of credit in order to be considered a Senior and participate in Senior class activities. Third year students who do not meet this requirement will have to meet with a counselor to create a plan to regain credits so they can hopefully graduate with their class. In order to be considered a Junior, a student must have completed and passed at least 11 units of credit by the end of their Sophomore year. To be considered a Sophomore, a student must have 4 units of credit.

GENERAL RULES

All students must carry a minimum of three units of credit each semester. Special consideration will be given to those students enrolled in the school related work programs such as SBE, SOE, BEST, SWEP and SEMO Early College Credit Program.

HIGH SCHOOL OFFICE ASSISTANTS

Office assistants will receive credit but will not receive grades. Office assistants are needed in the Principal's Office, Counselor's Office, the library, and various other departments who gain Principal approval. Students must have the signature of the individuals in charge of these offices before they may sign up for this course. They may not have a study hall and also be working in any office. Office assistants must be either a junior or senior. No student can serve more than two semesters as an office assistant.

DROPPING CLASSES AND SCHEDULE CHANGES

With the counselors, advisory teachers and parents all working together with the student to assure that the student's schedule is aligned with the student's career cluster and future plans, schedule changes should not be necessary. If students should be placed incorrectly in a class, have major career objective changes, do not have the ability to be successful or their ability is too high for the course content, schedule changes will be permitted through the recommendations of the instructors, administration, parents and counselors. Students requesting a schedule change must submit a schedule change form signed by a parent during the first 5 days of classes each semester.

Yearlong classes are not to be dropped at the end of the first semester unless grade problems exist or teacher and parents recommend the change. Students will not be allowed to change instructors within the same teaching area unless they have failed the course before with the assigned instructor.

RETAKE CLASSES

Students may retake a course in which they have previously received credit in an attempt to gain a stronger foundation before advancing to the next course in a sequence. However, they will not gain additional credits; only the grades received on the second attempt will be averaged into the student's cumulative GPA even if the grades received are lower.

STUDY HALL

Study halls are selected in the same manner as any other class. Only those students with a need for a study period during the school day should sign up for a study hall. Graduation requirements should be monitored closely. Study hall is the only time during the day when students do not receive any credit toward graduation. A student cannot have office assistant, SBE, SOE and study hall the same semester. Freshmen cannot take a study hall.

TRANSFER STUDENTS

Students who transfer to Jackson High School are given weighted course credit as equitably as possible. Grade point averages (GPA) are calculated, and new students are entered in class rank from this calculation.

HIGH SCHOOL CLUBS AND ORGANIZATIONS

The school administration and staff feels that it is important for all students to join and be active in clubs or organizations during their school years. Student opportunities for acceptance to military academies, honor society and scholarships are enhanced by participation in school and community clubs and organizations.

Organizations can offer to students unique aspects that are difficult to find in other areas of high school. Students may gain skills in leadership, responsibility, committee work, group involvement, working relationships with others as well as time management. Organizations can also help promote career interests beyond what a student might gain from regular classroom work. A list of most of the clubs and organizations that includes an explanation of the goals and activities of each organization is available in the Office.

A+ SCHOOLS PROGRAM

In the 2009-2010 school year, Jackson was designated as an A+ School. The primary goal of the A+ Schools Program is to ensure that all students who graduate from Missouri high schools are well prepared to pursue advanced education and employment. Students who graduate from a designated A+ school may qualify for state-paid financial incentive to attend any public community college or career/technical school in Missouri if the students successfully meet the following requirements:

- ✓ Enter into a written agreement with the high school prior to graduation
- ✓ Attend a designated high school for any two years prior to graduation
- ✓ Graduate with an overall unweighted GPA of 2.5 points or higher on a 4-point scale
- ✓ Have an overall attendance rate of at least 95 percent or above for grades 9-12
- ✓ Graduate with 50 documented hours of unpaid tutoring, in an approved setting, in the Jackson School District of which up to 25% may include job shadowing. These must be set up with the A+ coordinator in advance.
- ✓ Have achieved a score of proficient or advanced on the Algebra I end of course exam or a higher level DESE approved end of course exam in the math field
- ✓ Maintain a record of good citizenship and avoid the use of drugs and alcohol
- ✓ Apply for Selective Service if applicable
- ✓ Make a documented good faith effort to secure federal post-secondary student financial assistance funds during the last semester of their senior year so as to obtain the A+ financial incentive
- ✓ Be a U.S. Citizen, or permanent resident

Some 4-year colleges and universities offer scholarships to students who complete the A+ Program. Anyone interested in taking part in the A+ program may pick up an application outside room J-130 or by contacting the A+ Coordinator.

NCAA and NAIA Academic Eligibility Requirements

It is critical that students and their parents check the websites below for specific information pertaining to eligibility requirements. This process needs to begin Sophomore year. Many times there are specific classes that must be taken. Speak to your Coach and School Counselor if you have further questions.

NCAA website: www.ncaaclearinghouse.net

NAIA website: www.playnaia.org

JACKSON HIGH SCHOOL GRADUATION REQUIREMENTS

A minimum of 24 units of credit is required of all Jackson High School students. Students must be in attendance for eight semesters during their four years of high school. Early graduation can only take place after the completion of the seventh semester with all graduation requirements being fulfilled.

GRADUATION REQUIREMENTS IN COMMUNICATION ARTS:

- 1 unit of LA 1 or Advanced LA 1
- 1 unit of LA 2 or Advanced LA 2
- 1 unit of LA 3 or Advanced LA 3
- 1 additional unit of communication arts

GRADUATION REQUIREMENTS IN SOCIAL STUDIES:

- 1 unit of American History (Freshman course)
- ½ unit in Recent US History (Sophomore course) or AP US History
- 1 unit of World History (Junior course) or AP World: Modern History or DE European History
- ½ unit in Government (Senior course) or AP US Government and Politics

GRADUATION REQUIREMENTS IN MATHEMATICS:

3 units required

Math units should be taken according to the math progression chart shown on **page 93**. It is required that all students take 1 unit of math during their freshman, sophomore and junior years. It is strongly recommended that students take a math class all four years.

GRADUATION REQUIREMENTS FOR SCIENCE:

- 1 unit of Physical Science (Freshman year)
- 1 unit of Biology (Sophomore year)
- 1 additional unit of Science required

GRADUATION REQUIREMENTS FOR PERSONAL FINANCE:

½ unit is required in Personal Finance, Ag. Management/Econ or Business Economics.

GRADUATION REQUIREMENTS FOR PRACTICAL ARTS:

½ unit may be taken in the areas of Industrial Tech., Business, Agriculture, Family and Consumer Science, or Computers.

GRADUATION REQUIREMENTS FOR FINE ARTS:

1 unit is required in the areas of Art, Vocal Music, Instrumental Music or Theater.

GRADUATION REQUIREMENTS FOR HEALTH:

½ units (1 semester) required during 9th through 12th grades.

GRADUATION REQUIREMENTS FOR PHYSICAL EDUCATION:

1 unit must be taken in Physical Education or Personal Fitness & Wellness classes during any of the four years of high school.

| MINIMUM GRADUATION REQUIREMENTS: | |
|---|-------------------|
| Communication Arts (English) | 4.0 units |
| Social Studies | 3.0 units |
| Mathematics | 3.0 units |
| Science | 3.0 units |
| Personal Finance | .5 units |
| Practical Arts | .5 units |
| Fine Arts | 1.0 units |
| Physical Education | 1.0 units |
| Health | .5 units |
| Electives | <u>7.5 units</u> |
| TOTAL | 24.0 UNITS |

POST SECONDARY ADMISSION STANDARDS

Postsecondary admission standards need to be reviewed early during your high school career. If you are interested in postsecondary education, it is very important that you keep abreast of the general requirements needed for admissions. Your counselor can be a good resource to help you get started with this process. If you need documents or recommendation letters completed by your counselor, please allow 2 weeks turnaround time. **Always verify college admission requirements with each specific institution that you may be interested in attending.**

Latin Honors System

Starting in the 2021-2022 school year, Jackson High School students will be recognized for their academic achievements using the Latin Honors system, which consists of three levels of academic distinction: Cum Laude - “with honor”, Magna Cum Laude - “with great honor”, and Summa Cum Laude - “with highest honor.”

Summa Cum Laude: 4.200+

Magna Cum Laude: 4.000 – 4.199

Cum Laude: 3.800 – 3.999

In order to be recognized with honors, a student must have a cumulative grade point average that falls within one of the following levels of distinction along with having an overall attendance rate of at least 90 percent or above* for grades 9-12.

All three tiers of honor recipients will be acknowledged in the graduation program, and students receiving the distinction of ‘summa cum laude’ will be named during the ceremony. JHS will still recognize a Valedictorian and Salutatorian. Class rankings will still be made available to colleges and scholarship organizations when requested.

* Attendance can be appealed in the event a student falls below 90% and some of the absences are due to unusual circumstances.

WEIGHTED COURSES AND GPA

| <u>GRADE</u> | <u>NON-WEIGHTED</u> | <u>WEIGHTED +.333</u> | <u>WEIGHTED +.667</u> |
|--------------|---------------------|-----------------------|-----------------------|
| A | 4.000 | 4.333 | 4.667 |
| A- | 3.667 | 4.000 | 4.333 |
| B+ | 3.333 | 3.667 | 4.000 |
| B | 3.000 | 3.333 | 3.667 |
| B- | 2.667 | 3.000 | 3.333 |
| C+ | 2.333 | 2.667 | 3.000 |
| C | 2.000 | 2.333 | 2.667 |
| C- | 1.667 | 2.000 | 2.333 |
| D+ | 1.333 | 1.667 | 2.000 |
| D | 1.000 | 1.333 | 1.667 |
| D- | 0.667 | 1.000 | 1.333 |
| F | 0.000 | 0.000 | 0.000 |

Weight of +0.333

Accelerated Algebra 1
 Accelerated Algebra 2
 Accelerated Geometry
 Adv. Accounting
 Adv. Child Development
 Adv. Computer Applications
 Adv. LA 1
 Adv. LA 2
 Adv. LA 3
 Adv. Studio
 Applied Genetics
 Chemistry

Weight of +0.333 (cont)

College Speech
 Concert Choir
 French 5
 High School Honors Band
 Human Anatomy/Physiology 1&2
 Mathematical Reasoning & Mod
 Psychology
 Spanish 4
 Statistical Reasoning
 Web Page Design 2
 Women’s Choir
 Veterinary Assistant

Weight of +0.667

AP Biology
 AP Calculus
 AP Chemistry
 AP English Language
 AP English Literature
 AP Human Geography
 AP Music Theory
 AP Physics 1
 AP Physics 2
 AP Spanish
 AP Studio Art
 AP US History
 AP World: Modern History

Weight of +0.667 (cont)

Child Care Careers (CTC)
 College Writing 2
 College Writing 3
 Comp Net & Sec 1&2 (CTC)
 Dual Credit European History
 Dual Enrollment Government
 Dual Enrollment Psychology
 Dual Enrollment Sociology
 EMT-B (CTC)
 Practical Nursing (CTC)
 Precalculus Algebra
 Precalculus Trigonometry
 Proj. Lead the Way 1&2 (CTC)

EARLY COLLEGE CREDIT AT SOUTHEAST MISSOURI STATE UNIV.

Seniors will be allowed to enroll in courses at Southeast Missouri State University during their senior year **if** they meet admission requirements. Enrollment at the university will be with the approval of the counselor, parent and the administration. Students who get approval will be dismissed from no more than 3 classes at Jackson High School to enroll in 3 to 6 semester hours at SEMO (1 or 2 classes). They will be dismissed for 2 hours from high school if they enroll in 1 college course (3 units of college credit) or 3 hours if they wish to take 2 college courses (6 hours of college credit). Students will be required to file a copy of their SEMO class schedule in the Counselor's Office. Students will be required to complete the full semester of college classes once enrolled. Only seniors who have the maturity and the ability and who have outlined their graduation requirements with their counselors will be allowed to participate in the Early College Credit Program.

During the semester of college enrollment, students must be enrolled in a minimum of 2.0 units of credit at Jackson High School. Students will be responsible for providing their own transportation to and from SEMO.

DUAL ENROLLMENT THROUGH SOUTHEAST MISSOURI STATE UNIV.

Dual enrollment will allow some students the opportunity to earn college credit from Southeast Missouri State University while attending Jackson High School and earning high school credit. Each dual credit class offering will have specific requirements established by the State of Missouri's Board of Higher Education and by SEMO. Any student wishing to enroll in a dual credit class must have a minimum GPA of a B (8.0 on an 11 point scale), meet all requirements of Southeast Missouri State University and have permission from the principal. It is the responsibility of the student to complete all forms, meet all requirements and pay all fees for dual credit enrollment. Southeast Missouri State University will determine all refund policies.

The following classes may have a dual credit option.

| High School Course(s) | SEMO Univ. Course(s) and Credit Hours |
|-----------------------------------|--|
| Advanced Child Development | CF-120 or PY-120 (3 hrs) |
| Advanced Computer Applications | MI-101 Computers (3 hrs) |
| AP Biology | BS-108 MOTR (3 hrs) |
| AP Calculus | MA-140 (5 hrs) |
| AP Chemistry | CH-185 MOTR / CH-085 (5 hrs) |
| AP Music Theory | MM-101 MOTR (3 hrs) |
| AP US History | US-105 MOTR (3 hrs) (early) and US-107 MOTR (3 hrs) (recent) |
| College Speech | SC-105 MOTR (3 hrs) |
| College Writing 2 | EN-100 MOTR (3 hrs) |
| College Writing 3 | EN-140 MOTR (3 hrs) |
| Dual Credit European History | EH-101 MOTR (3 hrs), EH-103 MOTR (3 hrs) |
| Dual Enrollment Government | PS-103 MOTR (3 hrs) |
| Dual Enrollment Psychology | PY-101 MOTR (3 hrs) |
| Dual Enrollment Sociology | SO-101 (3 hrs) |
| Intro to Teaching | ED-280 (3 hrs) |
| Mathematical Reasoning & Modeling | MA-123 MOTR (3 hrs) |
| Precalculus Algebra | MA-116 MOTR (3 hrs) |
| Precalculus Trigonometry | MA-117 (3 hrs) |
| Statistical Reasoning | MA-155 MOTR (3 hrs) |

*SEMO courses marked MOTR are guaranteed to transfer one-to-one among all public (and participating independent) colleges and universities in Missouri. See the CORE 42 section on the following page.

ADVANCED PLACEMENT COURSES

Advanced placement courses follow a specific college level curriculum. It is recommended that these classes only be taken if excellent grades have been received in the prerequisite courses. Along with academic ability these courses require a great deal of commitment and outside school work by the student. A teacher's signature is required on the enrollment card for each AP class.

All students electing to take a subject AP test will take the same exam on the nationally assigned test date and time at the high school. The exam will be at the expense of the student. Based upon the score received the student will have the opportunity to earn college credits. It is the families' responsibility to follow up with the selected university to secure the earned credits. Visit Collegeboard.com for further details.

CORE 42

The State of Missouri established CORE 42, a framework for general education that all public institutions of higher education have adopted. The purpose of CORE 42 is to make general education within state public universities seamlessly transferrable and more unified. As part of CORE 42, students completing a bachelor's degree are required to complete 42 hours of specific general education courses, within a set of 6 knowledge areas. Jackson offers coursework through dual credit and dual enrollment that is sufficient to allow our students to complete the CORE 42 curriculum. For more information about CORE 42, college preparation, or dual enrollment, please work with your counselor.

Social and Behavioral Sciences: Choose 6 Hours

CF120: The Child: Development Conception to Adolescence (3 credit hours)

S0101 Introduction to Sociology (3 credit hours)

PY101 Introduction to Psychology (MOTR) (3 credit hours)

Mathematics: Choose a minimum of 3 Credit Hours

MA155 Precalculus A, Integrated Review (MOTR) (5 credit hours)

MA116 Precalculus A (MOTR) (3 credit hours)

MA123 Mathematical Reasoning (MOTR) (3 credit hours)

MA155 Statistical Reasoning (MOTR) (3 credit hours)

Civics Requirement: Choose 3 Credit Hours

PS103 US Political Systems (MOTR) (3 credit hours)

US105 American History I (MOTR) (3 credit hours)

US107 American History II (MOTR) (3 credit hours)

Natural and Mathematical Sciences: Choose a minimum of 7 Credit Hours from 2 Disciplines, including one course with a lab

Chemistry Discipline

CH185 General Chemistry (MOTR) (3 Credit hour)

CH184 General Chemistry Lab (MOTR) (1 credit hour)

Biology Discipline

BS108 Biology for Living (MOTR) (3 credit hours)

Humanities and Fine Arts: Choose 9 Credit Hours from at least 2 disciplines

History Discipline

EH101 Early European Civilization (MOTR) (3 credit hours)

EH103 Modern European Civilization (MOTR) (3 credit hours)

Music Discipline

MM101 Theories of Music in Culture (3 credit hours)

Foreign Languages Discipline

Students who complete the Seal of Bilingualism can earn hours toward this requirement.

Oral Communication: Choose 3 Credit Hours

SC105 Fundamentals of Oral Communication (MOTR) (3 credit hours)

Written Communication: Choose 6 Credit Hours

EN100 English Composition (MOTR) (3 credit hours)

EN140 Rhetoric & Critical Thinking (MOTR) (3 credit hours)

Notes:

***MOTR**- Individual courses that comprise the CORE 42 are guaranteed to transfer one-to-one among all public (and participating independent) colleges and universities in Missouri.

42 hours is the minimum required to meet core 42 requirements, so additional coursework may be needed to achieve that total
UI100 Freshman Seminar is a 1 hour course required of all entering Southeast students and is not included as part of this flyer.

For further clarification regarding CORE 42, please contact the SEMO Early College Program Office at 573-986-6179 or email earlycollegeprograms@semo.edu

AP Courses vs Dual Credit / Enrollment Courses

The chart below was created by our Curriculum Leaders to help students and families make decisions about taking AP Courses vs Dual Credit / Enrollment Courses.

| | <u>Advanced Placement (AP)</u> | <u>Dual Credit / Enrollment</u> |
|--------------------------------------|---|---|
| Description | The AP Program allows students to take college-level courses and exams, and potentially earn college credit or placement while still earning high school credits. | Dual Credit / Enrollment allows high school students to earn both high school and college credit by completing college courses at their high school. |
| Credit | College credit is earned when students pass the AP examination administered globally by College Board. Individual colleges and universities grant the credit based on their own minimum scores. | Credit is awarded by the partner university (Southeast Missouri State University) when the student passes the course in a traditional way, based on the student letter grade earned throughout the course. The credit is included on the college transcript when complete. |
| Teachers/ Curriculum | The course is taught by high school faculty using the rigorous curriculum provided by AP. | Dual credit courses are taught by high school teachers who also serve as adjunct college instructors using the curriculum provided by the university. |
| College/University Acceptance | Credit is accepted by many colleges and universities. Credit typically requires a score of 3 or higher out of a total of 5 on the exam. Verify with specific schools to be certain. | Dual enrollment courses are taught by a SEMO professor. Credit transfers to most public colleges and universities in MO. Verify with specific schools to be certain. Courses marked MOTR are guaranteed to transfer to all public (and participating independent colleges) in Missouri. |
| Eligibility | Open to any students who meet the prerequisites listed in the course catalog, including minimum GPA and high school approval. | Open to any students who meet the prerequisites set by the partner university, including minimum GPA, recommended ACT scores, and transcript review. |
| Cost | The costs of AP exams are incurred by the students. Subsidies may be available for students demonstrating financial need. The 2021 exam rate is approximately \$96. | Students are responsible for tuition at the rate set by the partner university. The rate is typically much less than the on-campus rate per credit hour. |

SPECIAL EDUCATION SERVICES

Jackson High School provides special education services to students who qualify with a disability under IDEA (The Individuals with Disabilities Education Act) as outlined in the Missouri State Plan for Special Education. Placement and services are based on the educational needs of each student as identified in their IEP (Individualized Education Program) and agreed upon by the IEP team.

STUDENT IEPs

It is a priority of the Special Education staff to address the goals listed in each student's IEP. IEP meetings are held annually with parents, counselors or administrators, general education teachers, and special education teachers to consider each student's educational needs and progress, and to revise the IEP as necessary. IEP meetings may also involve representatives of other agencies which may be able to offer assistance to students with disabilities.

SPECIAL SERVICES GOAL

It is the goal of the Jackson High School Special Education staff to provide instruction to students which will assist them in compensating for their disabilities to the maximum extent possible, so students can experience success while functioning as independently as possible in the general education curriculum and in the community. Special Education Services are offered through a variety of formats including Learning Center Class (Resource), Co-Taught Classes, Self-Contained Classes, Adapted Classes, and Transition-to-Work Programs. Placement in one of these classes is determined through the student's IEP.

LEARNING CENTER CLASS

Learning Center Class is designed to help students develop the skills they need to achieve progress on their IEP goals. Curriculum consists of activities used to instruct students in the areas of academics, study skills, and transition to post-secondary education/training, work, and independent living. Although there is time allotted for students to receive assistance and work on assignments for their general education classes, Learning Center Class is not a study hall. Students are expected to do their homework at home, and then bring questions or problems to the Learning Center to get the help they need. Students receive a credit and a pass/fail grade for Learning Center Class.

CO-TAUGHT CLASSES

The Special Education Department at JHS offers CT (Co-Taught) courses within the general education curriculum. Special education staff works with general education staff to instruct students in the regular classroom while ensuring that special education students receive the modifications/accommodations listed on each student's IEP.

SELF-CONTAINED AND ADAPTED CLASSES

Special education instructors at JHS also teach self-contained classes with adapted materials for students who are unable to complete course work in the general education curriculum. These classes include required coursework in the core areas (Communication Arts, Mathematics, Science and Social Studies) as well as elective classes in areas such as Independent Living, Life Skills, Personal Development, and Vocational Readiness. In addition, Adapted PE, Adaptive Music, and Adapted Art classes are taught by general education teachers with support through the special services department for students with disabilities which prevent them from participating in the general education curriculum for these courses.

FUNCTIONAL CLASS

The Functional Curriculum classes will ensure students learn real-world skills in a safe environment to be productive and integrated into their home, community, leisure and work. Students will participate in school based enterprises on campus. Many students will receive the opportunity to go off campus and gain job skills and explore their community to prepare them for integrated employment, volunteer work, or to be active members of their community or adult day facility.

To the highest level of their ability, students will read, write, use technology, communicate, make choices, express personal feelings, and self-advocate for needs. Students will solve problems or complete tasks and follow routines. Graduates will participate in cause and effects activities and have a sensory stimulating environment with many different pathways for learning.

TRANSITION-TO-WORK

Transition-to-Work program options are also offered through the JHS Special Education Department. Various work placements for juniors and seniors, providing structure and supervision depending on student needs, are arranged through the S.W.E.P. Program. More information on Transition-to-Work coursework and job placements is available through the JHS Special Education Department.

NEW COURSE OFFERINGS FOR 2023 - 2024

(Refer to course description for further details)

AGRICULTURAL SCIENCES

| | |
|----------------------|---------|
| Ag Machinery 1 | Page 70 |
| Ag Machinery 2 | Page 70 |

BUSINESS

| | |
|--|---------|
| Applied Marketing | Page 74 |
| Supervised Marketing Experience (SME-Work) | Page 76 |

COMMUNICATION SKILLS

| | |
|---------------------------|---------|
| Film and Literature | Page 81 |
|---------------------------|---------|

FINE ARTS - ART

| | |
|------------------|---------|
| 2-D Design | Page 84 |
|------------------|---------|

SOCIAL STUDIES

| | |
|----------------------------------|----------|
| Dual Enrollment Government | Page 101 |
| Dual Enrollment Psychology | Page 101 |

Course Offerings

| | |
|---|--------------------|
| AGRICULTURE (Practical Art) | Page 69 |
| AG Construction 1 | Credit: .5 |
| AG Construction 2 | Credit: .5 |
| AG Machinery 1 | Credit: .5 |
| AG Machinery 2 | Credit: .5 |
| AG Power 1 | Credit: .5 |
| AG Power 2 | Credit: .5 |
| AG Supervised Occupational Experience (S.O.E.) | Credit: 1.0 |
| Agricultural Communications | Credit: .5 |
| Agricultural Management and Economics | Credit: .5 |
| Agricultural Science 1 | Credit: 1.0 |
| Agricultural Science 1 Mechanics Option | Credit: 1.0 |
| Agricultural Science 2 | Credit: 1.0 |
| Agricultural Science 2 Mechanics Option | Credit: 1.0 |
| Agriculture Livestock and Crop Science | Credit: .5 |
| Conservation-Natural Resources | Credit: .5 |
| Equine Science | Credit: .5 |
| Greenhouse Operations and Management 1 (Horticulture) | Credit: .5 |
| Greenhouse Operations and Management 2 (Horticulture) | Credit: .5 |
| Vet Assistant | Credit: 1.0 |
| BUSINESS (Practical Art) | Page 73 |
| Accounting 1 | Credit: 1.0 |
| Advanced Accounting | Credit: 1.0 |
| Advanced Business Technology | Credit: 1.0 |
| Applied Business Communications | Credit: .5 |
| Applied Marketing | Credit: 1.0 |
| Banking and Financial Services | Credit: .5 |
| Business and Personal Law | Credit: .5 |
| Business Management | Credit: .5 |
| Business Technology | Credit: 1.0 |
| Entrepreneurship | Credit: .5 |
| Foundations of Business | Credit: .5 |
| Marketing | Credit: .5 |
| Personal Finance | Credit: .5 |
| Supervised Business Experience (SBE-Work) | Credit: 1.0 |
| Supervised Marketing Experience (SME-Work) | Credit: 1.0 |
| COMPUTERS (Practical Art) | Page 76 |
| Adobe/Photoshop | Credit: .5 |
| Advanced Computer Applications | Credit: .5 |
| Computer Applications | Credit: .5 |
| Desktop Publishing | Credit: .5 |
| Intro to Coding | Credit: .5 |
| Multimedia / Digital Video Production | Credit: .5 |
| Web Page Design 1 | Credit: .5 |
| Web Page Design 2 | Credit: .5 |
| COMMUNICATION SKILLS | Page 78 |
| Advanced Language Arts 1 | Credit: 1.0 |
| Advanced Language Arts 2 | Credit: 1.0 |
| Advanced Language Arts 3 | Credit: 1.0 |
| AP English Literature | Credit: .5 |
| AP English Language | Credit: .5 |
| College Speech | Credit: .5 |
| College Writing 1 | Credit: .5 |

| | |
|---|----------------|
| College Writing 2 | Credit: .5 |
| College Writing 3 | Credit: .5 |
| Contemporary Literature | Credit: .5 |
| Creative Writing | Credit: .5 |
| Crime and Mystery in Literature | Credit: .5 |
| Film and Literature | Credit: .5 |
| Language Arts 1 | Credit: 1.0 |
| Language Arts 2 | Credit: 1.0 |
| Language Arts 3 | Credit: 1.0 |
| Language Arts 4 | Credit: 1.0 |
| Language Arts 4 (embedded credit at Career and Technology Center) | Credit: .5-1.0 |
| Mythic Dimensions in Literature | Credit: .5 |
| Short Story | Credit: .5 |
| Speech | Credit: .5 |

ELECTIVES **Page 82**

| | |
|-----------------------------|------------|
| A+ Tutoring | Credit: .5 |
| Preparing for College | Credit: .5 |

FAMILY AND CONSUMER SCIENCES (Practical Art) **Page 82**

| | |
|---------------------------------------|------------|
| Advanced Child Development | Credit: .5 |
| Apparel, Textile, and Fashion | Credit: .5 |
| Apparel, Textile, and Fashion 2 | Credit: .5 |
| Career and Life Management | Credit: .5 |
| Child Development 1 | Credit: .5 |
| Family Living | Credit: .5 |
| Food and Nutrition 1 | Credit: .5 |
| Food and Nutrition 2 | Credit: .5 |
| Housing and Interior Design | Credit: .5 |
| Intro to Teaching | Credit: .5 |

FINE ARTS **Page 84**

ART

| | |
|---------------------------|-------------|
| 2-D Design | Credit: .5 |
| Advanced Studio | Credit: .5 |
| Art 1 | Credit: 1.0 |
| AP Studio Art | Credit: 1.0 |
| Design Technology | Credit: .5 |
| Drawing 1 | Credit: .5 |
| Drawing 2 | Credit: .5 |
| Fiber Arts | Credit: .5 |
| Painting 1 | Credit: .5 |
| Painting 2 | Credit: .5 |
| Printmaking | Credit: .5 |
| Sculpture | Credit: .5 |
| Watercolor Painting | Credit: .5 |

MUSIC

| | |
|--------------------------------|-------------|
| AP Music Theory | Credit: 1.0 |
| Concert Choir | Credit: 1.0 |
| Freshman Band | Credit: 1.0 |
| High School Band | Credit: 1.0 |
| High School Boys' Choir | Credit: .5 |
| High School Honors Band | Credit: 1.0 |
| High School Treble Choir | Credit: .5 |
| Jazz Ensemble | Credit: .5 |
| Jazz Improvisation | Credit: .5 |
| Mixed Chorus | Credit: .5 |
| Music Appreciation | Credit: .5 |
| Women's Choir | Credit: 1.0 |

| | |
|--|----------------|
| <i>THEATRE</i> | |
| Advanced Theatre: Acting and Directing | Credit: .5 |
| Competitive Speech and Drama | Credit: .5 |
| Introduction to Theatre Arts | Credit: .5 |
| FOREIGN LANGUAGE (Elective)..... | Page 88 |
| AP Spanish | Credit: 1.0 |
| French 1 | Credit: 1.0 |
| French 2 | Credit: 1.0 |
| French 3 | Credit: 1.0 |
| French 4 | Credit: 1.0 |
| French 5 | Credit: 1.0 |
| Spanish 1 | Credit: 1.0 |
| Spanish 2 | Credit: 1.0 |
| Spanish 3 | Credit: 1.0 |
| Spanish 4 | Credit: 1.0 |
| HEALTH..... | Page 90 |
| Health | Credit: .5 |
| INDUSTRIAL TECHNOLOGY (Practical Art) | Page 90 |
| Advanced Woods | Credit: 1.0 |
| Engineering Graphics (CAD) | Credit: .5 |
| Engineering and Robotics..... | Credit: 1.0 |
| Energy and Power Technology..... | Credit: .5 |
| Industrial Arts..... | Credit: 1.0 |
| Intro to STEM (Science Technology Engineering & Mathematics) (Elective Credit) | Credit: .5 |
| Machine and Manufacturing 1 | Credit: 1.0 |
| Machine and Manufacturing 2..... | Credit: 1.0 |
| Machine and Manufacturing 3..... | Credit: 1.0 |
| Residential Architectural Drafting..... | Credit: .5 |
| Wood Technology | Credit: 1.0 |
| MASS MEDIA (Practical Art) | Page 92 |
| Film Production | Credit: .5 |
| Journalism | Credit: .5 |
| News Production | Credit: 1.0 |
| Video Production..... | Credit: .5 |
| Yearbook Production..... | Credit: 1.0 |
| MATHEMATICS | Page 93 |
| Accelerated Algebra 2 | Credit: 1.0 |
| Accelerated Geometry | Credit: 1.0 |
| Algebra 1 | Credit: 1.0 |
| Algebra 2 | Credit: 1.0 |
| Analytical Math (dual enrollment credit at Career and Technology Center)..... | Credit: 1.0 |
| AP Calculus..... | Credit: 1.0 |
| Foundations of Algebra | Credit: 1.0 |
| Foundations of Geometry | Credit: 1.0 |
| Geometry | Credit: 1.0 |
| Mathematical Reasoning and Modeling | Credit: .5 |
| Precalculus Algebra..... | Credit: .5 |
| Precalculus Trigonometry | Credit: .5 |
| Statistical Reasoning | Credit: .5 |
| Technical Math (embedded credit at Career and Technology Center) | Credit: 1.0 |

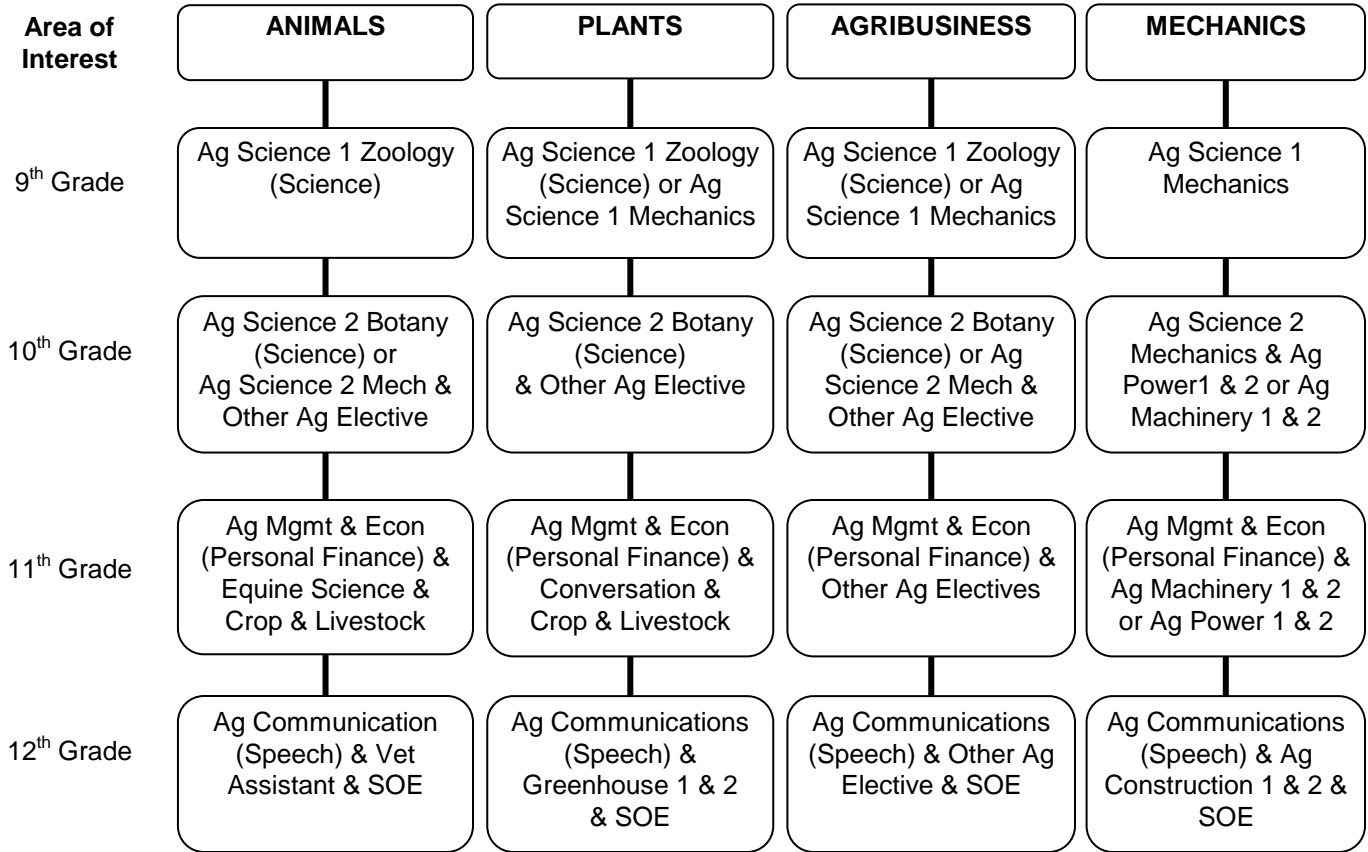
| | |
|--|---------------------|
| PHYSICAL EDUCATION | Page 96 |
| Cardio Conditioning and Cross-Fit (CO-ED)..... | Credit: .5 |
| Fitness for Life (For Females)..... | Credit: .5 |
| Lifetime / Recreational Activities (For Females) | Credit: .5 |
| Lifetime / Recreational Activities (For Males)..... | Credit: .5 |
| Officiating Team Sports | Credit: .5 |
| Personal Fitness and Wellness (For Females) | Credit: .5 |
| Personal Fitness and Wellness (For Males)..... | Credit: .5 |
| Physical Education (For Females)..... | Credit: .5 |
| Physical Education (For Males) | Credit: .5 |
| Training for Sport (Co-Ed) ZeroHour | Credit: .5 |
| Training for Sport (For Females)..... | Credit: .5 |
| Training for Sport (For Males)..... | Credit: .5 |
| SCIENCE | Page 98 |
| AP Biology..... | Credit: 1.0 |
| AP Chemistry | Credit: 1.0 |
| AP Physics 1..... | Credit: 1.0 |
| AP Physics 2..... | Credit: 1.0 |
| Applied Genetics | Credit: .5 |
| Biology | Credit: 1.0 |
| Botany (Ag Science 2 embedded credit) | Credit: .5 |
| Chemistry | Credit: 1.0 |
| Earth Science | Credit: 1.0 |
| Human Anatomy and Physiology 1 | Credit: .5 |
| Human Anatomy and Physiology 2..... | Credit: .5 |
| Physical Science | Credit: 1.0 |
| Solar System Astronomy..... | Credit: .5 |
| Stellar Astronomy..... | Credit: .5 |
| Zoology (Ag Science 1 embedded credit) | Credit: .5 |
| SOCIAL STUDIES | Page 100 |
| American History | Credit: 1.0 |
| AP Human Geography | Credit: 1.0 |
| AP US History..... | Credit: 1.0 |
| AP World: Modern History | Credit: 1.0 |
| Current Events..... | Credit: .5 |
| Dual Credit European History | Credit: 1.0 |
| Dual Enrollment Government | Credit: .5 |
| Dual Enrollment Psychology..... | Credit: .5 |
| Dual Enrollment Sociology | Credit: .5 |
| Government..... | Credit: .5 |
| Psychology | Credit: .5 |
| Recent U.S. History..... | Credit: .5 |
| Recent U.S. History Online | Credit: .5 |
| Sociology | Credit: .5 |
| World History..... | Credit: 1.0 |

| | |
|--|-----------------|
| CAPE GIRARDEAU CAREER AND TECHNOLOGY CENTER (Elective Credit) | Page 103 |
| Auto Collision Technology 1 | Credit: 3.0 |
| Auto Collision Technology 2 | Credit: 3.0 |
| Automotive Technology 1 | Credit: 3.0 |
| Automotive Technology 2 | Credit: 3.0 |
| Basic Flight..... | Credit: 3.0 |
| Early Childhood Education | Credit: 3.0 |
| Computer Coding and Programming 1..... | Credit: 3.0 |
| Computer Coding and Programming 2..... | Credit: 3.0 |
| Computer Networking and Security 1 | Credit: 3.0 |
| Computer Networking and Security 2 | Credit: 3.0 |
| Construction Technology 1 | Credit: 3.0 |
| Construction Technology 2 | Credit: 3.0 |
| Criminal Justice | Credit: 3.0 |
| Culinary Arts 1 | Credit: 3.0 |
| Culinary Arts 2 | Credit: 3.0 |
| Digital Media Production | Credit: 3.0 |
| Advanced Digital Media Production | Credit: 3.0 |
| Electrical Trades 1 | Credit: 3.0 |
| Electrical Trades 2..... | Credit: 3.0 |
| Emergency Medical Technician-Basic (EMT-B)..... | Credit: 3.0 |
| Fire Science | Credit: 3.0 |
| Graphic Arts 1 | Credit: 3.0 |
| Graphic Arts 2 | Credit: 3.0 |
| Health Occupations | Credit: 3.0 |
| HVAC-R 1 Heating, Air Conditioning, and Refrigeration | Credit: 3.0 |
| HVAC-R 2 Heating, Air Conditioning, and Refrigeration 2 | Credit: 3.0 |
| Landscape Horticulture 1 | Credit: 3.0 |
| Landscape Horticulture 2 | Credit: 3.0 |
| Marketing 1 | Credit: 3.0 |
| Marketing 2 | Credit: 3.0 |
| Practical Nursing | Credit: 3.0 |
| Pre-Engineering Block 1 by Project Lead the Way..... | Credit: 3.0 |
| Pre-Engineering Block 2 by Project Lead the Way..... | Credit: 3.0 |
| Precision Machining 1 | Credit: 3.0 |
| Precision Machining 2..... | Credit: 3.0 |
| Welding 1 | Credit: 3.0 |
| Welding 2 | Credit: 3.0 |

AGRICULTURAL SCIENCES

Credit: Practical Art

Below are example programs of study for a student based on their interests. Students are encouraged to take a variety of elective Ag courses in addition to what is suggested and are not limited to what is provided below.



Course Title: AG Construction 1..... CREDIT: .5

Grades Eligible: 11, 12

Prerequisites: 2 years of AG program, signature required, and a member of FFA

Description: Each student is required to draw plans, estimate cost, plan work procedure and build one large agricultural-related metal project from farm mechanic skills learned in AG Science 1 and AG Science 2. Examples are: wagon chassis, wagon bed, carryall, loading chute, bale mover, oxyacetylene welding table, scraper blade, trailers, feed bunks, etc. Also included are record books and FFA activities and three weeks of classroom work. Students are required to pay for materials used for project construction. Class size may be limited. Student enrollment is to be determined by competencies met and demonstrated in AG Science 2. **A class fee of \$25 for FFA dues* to be collected at Orientation.**

Course Title: AG Construction 2..... CREDIT: .5

Grades Eligible: 11, 12

Prerequisites: AG Construction 1, signature required and a member of FFA

Description: Each student is required to build an outstanding and more complicated project than was built in AG Construction 1 (confer with the instructor before enrollment to verify outstanding project). This includes three weeks of classroom work. Students are required to pay for materials used for project construction. Class size may be limited. Student enrollment is to be determined by competencies met and demonstrated in AG Construction 1. **There is a class fee of \$25 for FFA dues* to be collected at Orientation.**

Course Title: Ag Machinery 1 **CREDIT: .5**
Grades Eligible: 11, 12 (*offered in 23-24 school year only*)
Prerequisites: Completion of Ag Science 2, or currently enrolled, and instructor approval
Description: This course includes selection, operation, adjustment, maintenance and repair of machinery commonly used on the farm. Units will cover tractor power and tillage equipment.

Course Title: Ag Machinery 2 **CREDIT: .5**
Grades Eligible: 11, 12 (*offered in 23-24 school year only*)
Prerequisites: Successful completion of Ag Machinery 1
Description: A continuation of Ag Machinery 1, this course includes selection, operation, adjustment, maintenance and repair of machinery commonly used on the farm. Units will cover harvesting and forage equipment as well as the use of drones for agriculture.

Course Title: AG Power 1 **CREDIT: .5**
Grades Eligible: 10, 11, 12 (*offered in 24-25 school year only*)
Prerequisites: Ag Science 1 or currently enrolled and a member of FFA
Description: This course will focus on operating principles and troubleshooting of two and four stroke small engines. Students will use shop tools to tear down and reassemble engines. The students will also analyze ignition, fuel, and electrical systems. Farm safety as well as repair and maintenance of equipment will be covered. **A class fee of \$25 for FFA dues* to be collected at Orientation.**

Course Title: AG Power 2 **CREDIT: .5**
Grades Eligible: 10, 11, 12 (*offered in 24-25 school year only*)
Prerequisites: Ag Power 1 and signature required, and a member of FFA
Description: This course will focus on operating principles and troubleshooting of multi-cylinder gasoline and diesel engines. Students will focus on tractor power as well as repair and maintenance. The students will also analyze fuel, cooling, electrical and hydraulic systems. Tractor restoration techniques and safety procedures will be incorporated in the course. **There is a class fee of \$25 for FFA dues* to be collected at Orientation**

Course Title: AG Supervised Occupational Experience (S.O.E.) **CREDIT: 1.0**
Grades Eligible: 12
Prerequisites: 2 years of AG and currently enrolled in vocational AG class, and a member of FFA
Description: S.O.E. is a program where the student works on a production farm or agriculture related business for experience for two hours of released time from school. The farm situation must include a sufficient number of hours for the student worker. The work cannot be seasonal. Other guidelines must be met after conferring with the instructor and before enrolling. The student is responsible for locating a training station. The deadline for enrolling August 1 so a training station can be established and the student can confer with the instructor before the school year begins. **A class fee of \$25 for FFA dues* to be collected at Orientation.**

Course Title: Agricultural Communications **CREDIT: .5**
Possible Embedded Credit: Speech **CREDIT: .5**
Grades Eligible: 10, 11, 12
Prerequisites: Completed or currently enrolled in Agricultural Science 1, Member of FFA
Description: Prepare yourself to be a leader, learn to communicate, and express your agricultural knowledge in this course. Students will create a variety of presentations ranging from agricultural issues forums to educate the community to job interviews and sales presentations. In addition to the practical art credit, students in Agricultural Communications **may earn an additional half-unit of English credit** by successfully completing 9 speech-based competencies embedded into the Agricultural Communications curriculum. Students will maintain an embedded credit portfolio of course material and activities to provide evidence of competency attainment. **A class fee of \$25 for FFA dues* to be collected at Orientation.**

Course Title: Agriculture Management and Economics **CREDIT: .5**
Grades Eligible: 11, 12
Prerequisites: "B" in Algebra 1 and taken or currently enrolled in Ag Science 2, Member of FFA
Description: Course combines farm management, agribusiness management and content based on agricultural economic principles. Computer applications are included to enhance understanding and utilization of current technology. Units include human relations, verbal and written communication, microcomputers in agriculture, economic principles, farm planning, agribusiness functions and business management. Upon completion of Ag Science 1 and 2 and earning a passing grade in the Personal Finance EOC, students will meet the competency requirements for Personal Finance. **Class fee of \$25 for FFA dues* to be collected at Orientation.**

Course Title: Agriculture Science 1 Zoology Option CREDIT: 1.0
Possible Embedded Credit: Science - Zoology (Not NCAA Approved)..... CREDIT: .5
Grades Eligible: 9, 10

Prerequisites: Member of FFA

Description: This course will teach you to apply what you learn through units in animal science, leadership, financial record keeping, career development and Ag mechanics skills (welding). In addition to the practical art credit, students in Ag Science 1 **may earn an additional half-unit of science credit** by successfully completing 10 science-based zoology competencies embedded into the animal science portion of the curriculum. **A class fee of \$25 for FFA dues* to be collected at Orientation.**

Course Title: Agriculture Science 1 Mechanics Option..... CREDIT: 1.0
Grades Eligible: 9, 10

Prerequisites: Member of FFA

Description: This course teaches you to apply what you learn through units in leadership, financial record keeping, career development and Ag mechanics skills (safety, reading and drawing plans, construction, and arc welding). This is a course designed to introduce basic agricultural mechanics skills and concepts students will need to be successful in the Ag Construction and Ag Machinery and Power courses. **A class fee of \$25 for FFA dues* and \$50 for project materials to be collected at Orientation.**

Course Title: Agriculture Science 2 Botany Option CREDIT: 1.0
Possible Embedded Credit: Science – Botany (Not NCAA Approved)..... CREDIT: .5
Grades Eligible: 10, 11, 12

Prerequisites: Agriculture Science 1 and member of FFA

Description: Includes units in entomology, parliamentary procedure, public speaking, agricultural careers, plant parts/functions, soils, recordkeeping, agricultural business and computers. Skills in MIG welding will be obtained. In addition to the practical art credit, students may earn an additional half-credit of science by successfully completing 10 science-based competencies embedded into the Botany science portion of the curriculum. **Class fee of \$25 for FFA dues* to be collected at Orientation.**

Course Title: Agriculture Science 2 Mechanics Option..... CREDIT: 1.0
Grades: 10, 11, 12

Prerequisites: Agriculture Science 1 and member of FFA

Description: Includes units in parliamentary procedure, public speaking, agricultural careers, record keeping, and computers. Beginning skills in electricity, concrete, MIG welding, plasma cutting, plumbing, and farm planning. This is a course designed to introduce basic agricultural mechanics skills and concepts students will need to be successful in the Ag Construction and Ag Power courses. **A class fee of \$25 for FFA dues* and \$60 for project materials to be collected at Orientation.**

Course Title: Agriculture Livestock and Crop Science CREDIT: .5
Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: Course includes the study of animal production, management, marketing, nutrition, breeding selection, biotechnology, plant selection, plant production practices, harvesting, storing crops, water quality, use of chemicals and pest management. Students will also gain experience in drone operation.

Course Title: Conservation-Natural Resources CREDIT: .5
Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: This course includes units in Hunters Education with Certification option, archery, History of Conservation in the U.S., current U.S. conservation issues, wildlife management, forest management, and land surveying.

Course Title: Equine Science CREDIT: .5
Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: This course provides a foundation for students who need an understanding of both the horse and business-related activities. The course will include units on breeding, types and classes of horses, selection, judging, determination of age and health of a horse, genetics and the general care of horses.

Course Title: Greenhouse Operations and Management 1 CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: This course includes units in plant ID, propagation, greenhouse structures, and the greenhouse business. Students will grow a crop of Poinsettias for Christmas!

Course Title: Greenhouse Operations and Management 2 CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Successful completion of Greenhouse Operations and Management 1

Description: This course includes units in greenhouse maintenance, tool ID, bedding and vegetable plant production, and landscape design and drawings with computers. Students enrolled in this course will be responsible for growing a crop of bedding plants and hanging baskets for the spring plant sale.

Course Title: Vet Assistant CREDIT: 1.0

Possible Embedded Credit: Science – Animal Science (Not NCAA Approved)..... CREDIT: 1.0

Grades Eligible: 11, 12

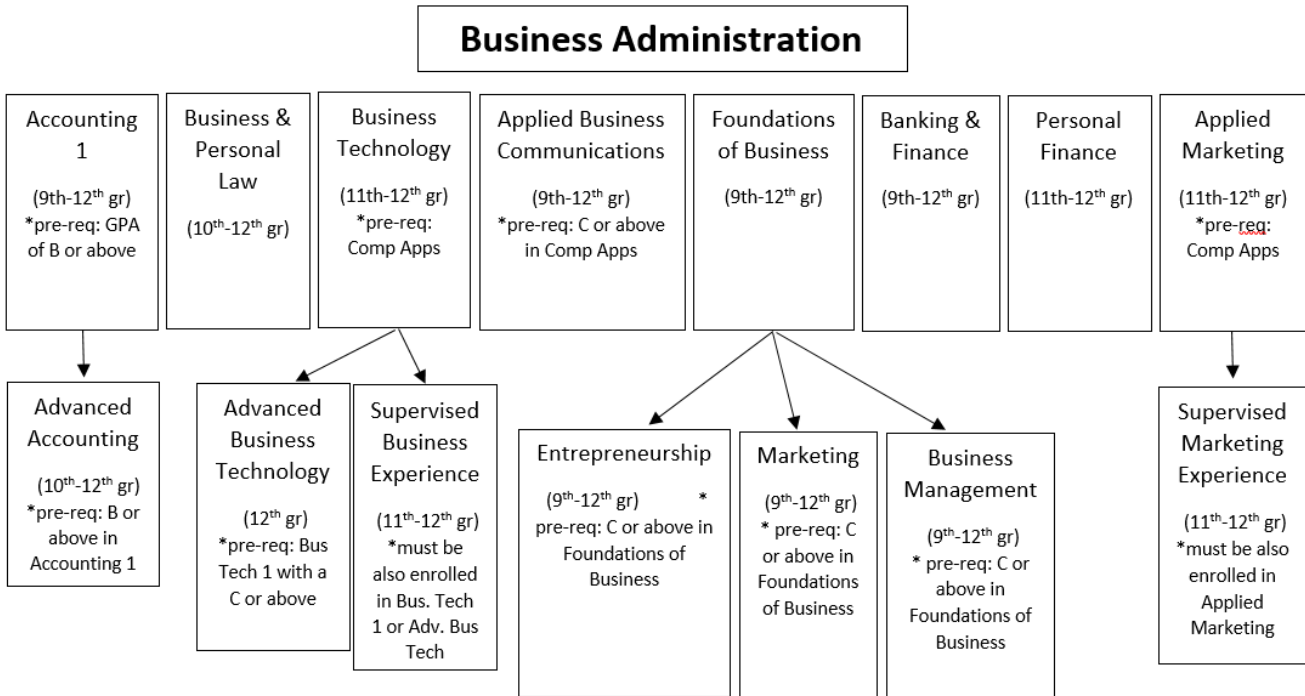
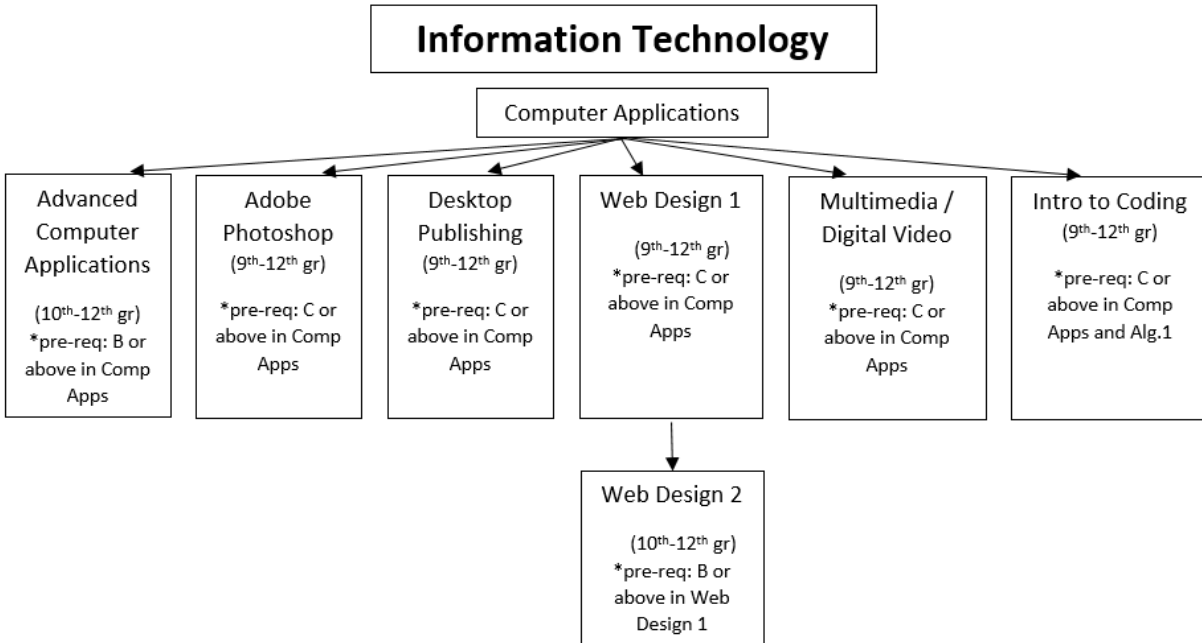
Prerequisites: Agriculture Science 2, or currently enrolled, or “B” or higher in Biology, member of FFA

Description: This yearlong course is designed to prepare students for a career within the Veterinary field. Topics include cell and tissue biology, anatomy, physiology, nutrition, disease prevention and diagnosis, and hospital procedures. In addition to the practical art credit, students in Vet Assistant may earn an additional full credit of science by successfully completing science-based competencies embedded into the curriculum. **For Optional Certification by Missouri Veterinary Medical Association:** The student will be required to obtain 500 hours of hands on experience with 300 being from a licensed veterinarian. Upon completion of this course the student will take a post-test with a \$125.00 fee to obtain a certificate recognizing them as a Certified Veterinary Assistant. **There is a class fee of \$25 for FFA dues* to be collected at Orientation.**

***Students enrolled in multiple Ag courses with a \$25 fee for FFA dues will only have to pay one fee of \$25 for the school year.**

BUSINESS

Credit: Practical Art



Course Title: Accounting 1..... CREDIT: 1.0

Grades Eligible: 9, 10, 11, 12

Prerequisites: Overall grade average-“B” or above

Description: Accounting is required for all business degrees and many professional degrees in post-secondary education; it is considered a high demand career field. In this course, students will gain a basic understanding of manual and automated accounting principles, concepts, and procedures. Accounting principles covered will include the accounting equation, the accounting cycle, entering transactions, posting to ledgers, preparing end-of-period statement and reports, and payroll systems. Automated accounting activities provide an opportunity for hands-on computer instruction; students will learn to utilize applications, such as Microsoft Excel, and Automated Accounting software to perform accounting procedures. Internet activities will provide an opportunity for students to develop connections between accounting principles and the real world, as well as research many career opportunities in Accounting.

Course Title: Advanced Accounting..... CREDIT: 1.0

Grade Eligible: 10, 11, 12

Prerequisites: “B” or above in Accounting 1

Description: This is the second Accounting course offered at JHS. Students will build on their knowledge and skill base acquired in Accounting 1, gaining an in-depth knowledge of accounting procedures and techniques utilized in solving business problems and making financial decisions. Students will develop skills in analyzing, problem-solving and interpreting information common to partnerships and corporate forms of organization. Automated accounting applications, including Microsoft Excel, QuickBooks, and Automated Accounting software will be integrated in each appropriate topic. All students, regardless of the profession they choose, can benefit from accounting instruction.

Course Title: Advanced Business Technology CREDIT: 1.0

Grades Eligible: 12

Prerequisites: Business Tech 1 with a grade of “C” or above

Description: This course is designed to further develop and refine student qualities, knowledge and skills for working in a business. Areas of study include advanced computer applications through word processing, database, spreadsheet, presentation software, transcribing of advanced business correspondence, solving of advanced mathematical problems using the calculator, and completion of real-world assignments. Students enrolled in this class are usually employed in the SBE work program.

Course Title: Applied Business Communications CREDIT: .5

Possible Embedded Credit: LA 4..... CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Completed Computer Applications with a “C” or higher, or signature required

Description: Students will explore the ways people communicate in today's business environment. They will examine technological advances of the contemporary workplace and focus on career development and job interview skills. This class is designed to strengthen students' skills in organization, basic oral and written communication, language usage, knowledge of current events in business and technology, social media communication and problem solving. In addition to a half-unit of practical art credit, students may earn an additional half-unit of English credit. This half-unit can be earned by successfully completing the Applied Communications competencies embedded into the curriculum. Students will maintain an embedded credit portfolio of course material and activities to provide evidence of competency attainment.

Course Title: Applied Marketing CREDIT: 1.0

Grades Eligible: 12

Prerequisite: Computer Applications is suggested

Description: This course is designed to help students develop the qualities, knowledge and skills necessary for working in the marketing field. Areas of study for this course may include interpersonal skills, professionalism, initiative, reliability, flexibility, critical thinking, basic computer skills, teamwork, customer service, and problem solving. Additional marketing knowledge will be studied including: marketing basics, promotion, competition, social media, distribution, advertising, price, and managing risk. Students enrolled in this class may apply for the Supervised Marketing Experience (SME) work program.

Course Title: Banking and Financial Services..... CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: This is a course designed to help prepare students for careers in which they plan, manage, and analyze the financial and monetary aspects and success of business enterprises. Skills in money management are enhanced through study of basic concepts of economics, insurance, credit, savings, investments, and budgeting. The course will also investigate business cycles, opportunity cost, cost-benefit analysis, methods of financing business, stocks and bonds, profit and loss and other important economic concepts.

Course Title: Business and Personal Law CREDIT: .5

Grades Eligible: 10, 11, 12

Prerequisites: None

Description: This one-semester course emphasizes practical knowledge and application of law in our daily lives. Topics include court procedures, crimes and torts, contracts, family law, consumer law and wills.

Course Title: Business Management CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Foundations of Business with a grade of “C” or above.

Description: This one semester course is designed for students interested in pursuing a career in business. This course includes study of business environment, types of business ownership, human resources management and management functions.

Course Title: Business Technology CREDIT: 1.0

Grades Eligible: 11, 12

Prerequisites: Computer Applications with a grade of “C” or above.

Description: This course is designed to help students develop the qualities, knowledge and skills necessary for working in a business. Areas of study include exploring career opportunities, processing information through the use of word processing, database, spreadsheet and presentation software, using office procedures and organizational skills, transcribing business correspondence, using a calculator to solve mathematical problems, simulating proper records management procedures and preparing employment documents. Personal development skills are integrated throughout the course. Students enrolled in this class may apply for the SBE work program.

Course Title: Entrepreneurship CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Foundations of Business with a grade of “C” or above.

Description: Designed to provide students with an overview of activities associated with starting, owning, and running a business. Students learn about cost and profit, customer service, order and check inventory, importance of advertising, etc. Students may work closely with the school store and its operations.

Course Title: Foundations of Business CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: None (This class is a prerequisite for Business Management, Entrepreneurship, and Marketing)

Description: Foundations of Business introduces students to the world of business, including the concepts, functions, and skills required for meeting the challenges of operating a business. The course covers business management, entrepreneurship, marketing fundamentals, finance / accounting, and human resources. The course develops vocabulary and provides an overview of business and the role that business plays in economic, social, and political environments. This course provides a tremendous foundation if you want to run your own business someday, or simply want to learn more about the world of business.

Course Title: Marketing..... CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Foundations of Business with a grade of “C” or above.

Description: Marketing explores the principles and practices at the retail and industrial levels and its importance within the business world. Marketing includes a broad range of activities to create satisfying exchange relationships in a dynamic environment through creation, distribution, promotion, pricing of goods, product/service planning and financing.

Course Title: Personal Finance..... CREDIT: .5

Grades Eligible: 11, 12

Prerequisites: None

Description: Personal Finance explores the opportunities and possibilities as well as barriers and roadblocks that students will encounter when planning personal and financial decisions for the future. Personal Finance is an examination of budgeting, insurance, banking, savings, investing, careers and credit. Individual accounting needs, taxes, interest rates, etc. are taught as well as job awareness. Personal Finance, or AG Management and Economics are required for students to graduate.

Course Title: Supervised Business Experience (SBE Work)..... CREDIT: 1.0

Grades Eligible: 11, 12

Prerequisites: Current enrollment in Business Tech or Advanced Business Tech

Description: A method of preparing students for a career in a business occupation, which combines in-school instruction with employment in area business consistent with the student's career objective. This year long instructional program is planned and supervised by both the teacher coordinator and employer. SBE applications should be picked up at time of enrollment.

Course Title: Supervised Marketing Experience (SME Work) CREDIT: 1.0

Grades Eligible: 12

Prerequisite: Computer Applications is suggested

Description: The SME program provides on-the-job work experience that gives students the opportunity to master academic and workplace skills. Students can make connections with real world expectations in terms of accuracy of work, production, staying on task, responsibility for work—all components which are emphasized in the marketing classroom setting. The work experience reinforces the importance of interpersonal skills, decision making, problem solving, critical thinking, and teamwork skills, which give students a forum to develop positive workplace experiences as they enter the workforce or prepare for continued education.

An application is required for SME acceptance, students MUST be enrolled in the Applied Marketing full year class, and hold a marketing related job for the school year.

COMPUTERS

Credit: Practical Art

A student may fulfill any district-required mathematics, science or practical arts unit with a district-approved computer science course as long as the student has taken or is on track to take all courses that require end-of-course examinations for math and science. The district will notify all students relying on this provision that some institutions of higher education may require four units of academic credit in mathematics for college admission. The district will require the parent, guardian or legal custodian of each student to acknowledge in writing that taking a computer science course to fulfill a unit of academic credit in mathematics may have an adverse effect on college admission decisions.

Course Title: Adobe Photoshop CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Computer Applications with a grade of “C” or above

Description: Adobe Photoshop is a one-semester course designed to teach skills and concepts needed to design and edit computer graphics and images. Students will concentrate on graphic manipulation and photo editing. Students will also utilize digital cameras and incorporate digital images and photographs into a portfolio.

Course Title: Advanced Computer Applications CREDIT: .5

Grades Eligible: 10, 11, 12

Dual Enrollment Option: MI-101 (3hrs)

Prerequisites: Computer Applications with a grade of “B” or above

“B” Average or 8.0 Cumulative GPA required for Dual Enrollment at Southeast Missouri State University

Description: In this course students will receive advanced instruction in word processing, database, electronic presentations, spreadsheet and charting applications using Microsoft Office. Students may enroll in Advanced Computer Applications and also dual enroll with Southeast Missouri State University for credit in MI101, Introduction to Computer Applications. Students must complete both Computer Applications and Advanced Computer Applications at Jackson R2 School District to dual enroll in MI101 at SEMO, and the grade reported to Southeast comes from this course alone.

Course Title: Computer Applications CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: None (This is a prerequisite for all computer classes)

Description: In this course, students will use Microsoft Office to gain an understanding of Windows, file management, word processing, spreadsheet, and presentation applications.

Course Title: Desktop Publishing CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Computer Applications with a grade of “C” or above

Description: Desktop Publishing is the process of combining text and graphics using a computer to create attractive documents and publications. This class is designed to provide the skills and knowledge necessary for students to use page layout software (Adobe InDesign), techniques and procedures to produce professional looking publications. Experience with Adobe Photoshop is helpful, but not required for this course.

Course Title: Intro to Coding CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Grade of “C” or above in both Computer Applications and Algebra

Description: This course emphasizes programming methodology with a concentration on problem-solving and algorithm development. The student will learn to develop programs in the scripting language Python. Topics covered include: variable types, input/output, branching, recursion, lists and dictionaries, functions, files and exceptions. By the end of the course, the goal is for the student to understand the primary skills of developing an algorithm and program design. No previous programming knowledge is required.

Course Title: Multimedia/Digital Video Production CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Computer Applications with a grade of “C” or above. Adobe Photoshop recommended

Description: This one semester course will enable students to create vector images and logos using Adobe Illustrator, perform audio editing, apply basic non-linear video editing techniques using Adobe Premiere, create animation with Adobe Character Animator, do screencasting, and prepare video for online distribution.

Course Title: Web Page Design 1 CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Computer Applications with a grade of “C” or above

Description: This course covers the most fundamental aspects of web site design including basic page construction using code, file formats (image, audio, and general multimedia), basic graphic and animation creation, and HTML/CSS. Upon completion of this course, a student will have experience coding and authoring a website.

Course Title: Web Page Design 2 CREDIT: .5

Grades Eligible: 10, 11, 12

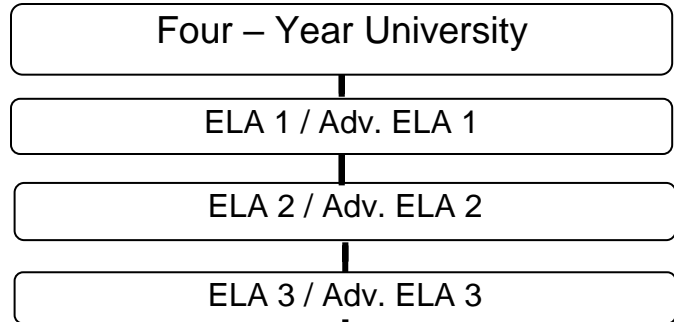
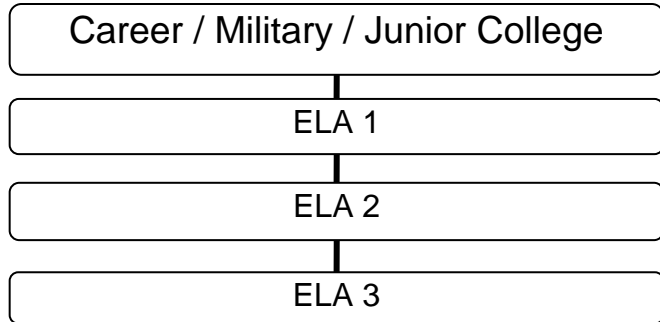
Prerequisites: Web Page Design 1 with a grade of “B” or above

Description: Students will continue to learn advanced features of web design including creating and modifying templates, animation, CSS3, and embedding video. Upon completion of this course a student will be able to build interactive web sites using HTML5 and Bootstrap and will know how to upload them to the Internet.

COMMUNICATION SKILLS

Credit: English

A total of 4 ELA credits are required to graduate. ELA 1, ELA2, and ELA 3 are yearlong classes. All electives are semester classes.



Electives:
All Electives are for 11th or 12th grade with the exception of Speech, which is 9th-12th.

- College Writing 1 *
- Contemporary Literature
- Creative Writing
- Crime & Mystery in Literature
- CTC Embedded LA
- Film & Literature
- LA 4 (1 semester or 2)
- Mythic Dimensions in Literature
- Short Story
- Speech (or College Speech not both)

* These classes require a prerequisite

Electives:
All Electives are for 11th or 12th grade with the exception of Speech, which is 9th-12th.

- AP English (AP Lit fall / AP Lang spring) *
- College Speech (or Speech not both)
- College Writing 1 *
- College Writing 2 *
- College Writing 3 *
- Contemporary Literature
- Creative Writing
- Crime & Mystery in Lit
- Mythic Dimensions in Lit
- Short Story
- College Speech

* These classes require a prerequisite

- * AP English (AP Lit and/or Lang): 12th grade and LA3 or Adv LA3 with teacher’s signature
- * College Writing 1: 12th grade or 2nd semester juniors (does not have to be taken to be in CW2 or CW3)
- * College Writing 2: 12th grade and a B avg in LA 3, Adv LA3, or CW1, dual credit option
- * College Writing 3: 12th grade and B avg in CW2, dual credit option

Possible embedded credit can be earned in Speech, see course description for Agricultural Communications. Possible embedded credit can be earned in LA 4, see course description for Applied Business Communications, and Embedded English at the Cape Girardeau Career and Technology Center.

Course Title: Advanced LA 1 CREDIT: 1.0

Grade Eligible: 9

Prerequisites: Recommended grade of “A-” or above in both semesters of 8th grade LA and signature required

Description: Advanced LA 1 involves the study of literature, including short stories, novels, drama, poetry, and nonfiction; analysis is emphasized, as this course is for students who seek a scholastic challenge in language arts. Writing skills will be developed, focusing on narrative, expository, argumentative, and blended writing. Speaking and listening skills are also practiced through various techniques. As compared to LA 1, this course covers the same content (standards), but at an accelerated pace that explores texts more deeply. Students will complete more reading, including independent reading, more writing, and more speaking/listening.

Course Title: Advanced LA 2 CREDIT: 1.0

Grades Eligible: 10

Prerequisites: Advanced LA 1 or LA 1 with signature required, must score Proficient or Advanced on EOC

Description: Advanced LA2 involves the study of literature in its various forms: novels, drama, short stories, poetry, and nonfiction. As with Advanced ELA1 and 3, this course emphasizes deep analysis of literature for students seeking a scholastic challenge in language arts. Students will continue to advance as writers in various writing forms (expository, argumentative, narrative, literary analysis, and blended), and as speakers and listeners. Covering the same content (standards) as ELA2, Advanced ELA2 moves at an accelerated pace and expects more independent reading and writing.

Course Title: Advanced LA 3 CREDIT: 1.0

Grades Eligible: 11

Prerequisites: Advanced LA 2 or Advanced LA 1 signature required

Description: Advanced ELA 3 encompasses the study of a variety of literary genres: novels, short stories, drama, poetry, and nonfiction. Designed for students seeking a scholastic challenge in language arts, this course follows the tradition of Advanced ELA 1 and 2 in stressing deep analysis of literature. Students will also develop their writing styles in the course, writing expository, argumentative, narrative, literary analysis, and blended essays. Students will further develop their speaking and listening skills as well. Although the course covers the same content (standards) as ELA 3, it differs in its accelerated pace, reading assignments, and expectation for independent work.

Course Title: AP English Literature CREDIT: .5

Grades Eligible: 12

Prerequisites: LA 3 or Advanced LA 3 and signature required

Description: For up to six hours of college credit (college writing and literature), students can take the AP English Literature (AP Lit) and/or AP English Language (AP Lang) classes. AP Lit is designed to enable students seeking a rigorous academic challenge to read and write for college courses. In a media-enriched class, students will analyze poetry, fiction, drama, novels, and nonfiction from primarily the English Renaissance through modern times to determine the literary and rhetorical devices writers employ to convey meaning. Students will write extensively—developing their vocabulary and grammatical skills—to demonstrate their comprehension of literature’s purpose and the strategies used by writers to achieve that purpose. Students are encouraged to take the AP English Literature and/or AP English Language examinations in the spring for college credit.

Course Title: AP English Language CREDIT: .5

Grades Eligible: 12

Prerequisites: LA 3 or Advanced LA 3 and signature required

Description: For up to six hours of college credit (college writing and literature), students can take the AP English Literature (AP Lit) and/or AP English Language (AP Lang) classes. AP Lang is designed to enable students seeking a rigorous academic challenge to read and write for college courses. In a media-enriched class, they will analyze texts and speeches from primarily the twentieth and twenty-first centuries to determine the literary and rhetorical devices writers employ to convey meaning. Students will write extensively—developing their vocabulary and grammatical skills—to demonstrate their comprehension of nonfiction texts’ purpose and the strategies used by writers to achieve that purpose. Students are encouraged to take the AP English Literature and/or AP English Language examinations in the spring for college credit.

Course Title: College Speech CREDIT: .5
Grades Eligible: 11, 12 **Dual Enrollment Option: SC-105 (3hrs) MOTR**
Prerequisites: 8.0 GPA or a “B” Average
“B” Average or 8.0 Cumulative GPA required for Dual Enrollment at Southeast Missouri State University
Description: This course is intended for the college-bound student who wishes to master more advanced public speaking skills. Emphasis is placed on incorporating outside research and information into speeches. Students will also study persuasive speaking, debate, and incorporating media into public speaking. **Students may take either Speech or College Speech. They may not take both over the course of their high school career.** Dual Credit is available through SEMO for three credit hours (SC-105, Fundamentals of Oral Communication). See the “Dual Enrollment” section of this booklet for complete information.

Course Title: College Writing 1 CREDIT: .5
Grades Eligible: 12 and 2nd Semester Juniors who passed 1st Semester LA 3 with at least a “C”
Prerequisites: LA 3 with at least a “C”
Description: This class is an elective for a required fourth year of Communication Arts and focuses on improvement of student writing skills. The course is based on the writing process and will advance students’ skills in the areas of focus, organization, development, style, and correctness. In a semester, students will further develop their sentence, paragraph, and essay writing skills with individualized teacher instruction.

Course Title: College Writing 2 CREDIT: .5
Grades Eligible: 12 **Dual Enrollment Option: EN-100 (3hrs) MOTR**
Prerequisites: “B” average in LA 3 or Advanced LA 3 or a “B” in College Writing 1
“B” Average or 8.0 Cumulative GPA and an English ACT subscore of 18 OR passing score on the SEMO entrance exam required for Dual Enrollment at Southeast Missouri State University
Description: This course focuses on techniques of effective written expression. A writing intensive course, College Writing will stress vocabulary, advanced grammar skills, and personal and research writing encountered in college and not perfected in LA 3. Several major essays are assigned, much independent work and self-discipline are required and revision skills are stressed. This class offers the option of dual-enrollment in SEMO’s EN-100 class for a reduced fee. Dual Enrollment Requirements: SEMO awards three hours of EN-100 (Freshman Composition) credit to eligible students who are enrolled in College Writing 2. Check with your intended university to determine whether this course is awarded three hours of composition or elective credit.

Course Title: College Writing 3 CREDIT: .5
Grade Eligible: 12 **Dual Enrollment Option: EN-140 (3hrs) MOTR**
Prerequisites: College Writing 2 and EN-100 college credit
“B” Average or 8.0 Cumulative GPA required for Dual Enrollment at Southeast Missouri State University
Description: This writing intensive course builds on writing experiences gained in College Writing. Objectives of the course include locating and gathering information, critical thinking, reasoning, and analyzing, summarizing, and synthesizing information. Major persuasive/argumentative/evaluative essays are assigned. Advanced grammar and vocabulary skills are developed. SEMO awards 3 hours of EN-140 (Rhetoric and Critical Thinking) credit for dual enrollment students. This is SEMO’s required second writing course. Other universities may accept this as three hours of writing credit.

Course Title: Contemporary Literature CREDIT: .5
Grades Eligible: 10, 11, 12
Prerequisites: None
Description: This course will look at new, current, and innovative literature while diving into challenging topics. From recently published novels to digital media and music lyrics, we will dive deep studying how the chaos of the world is presented and determining contemporary literature’s value in the modern literary world. This project-based course will rekindle your passion for reading.

Course Title: Creative Writing CREDIT: .5
Grades Eligible: 11, 12
Prerequisites: None
Description: This course will provide an opportunity for students to create original writings and further develop writing and reading skills. The main focus of Creative Writing will be to create and present a portfolio of original writing. In a semester, students will also read and evaluate published writings as examples for study.

Course Title: Crime and Mystery in Literature..... CREDIT: .5

Grades Eligible: 11, 12

Prerequisites: None

Description: This course will explore the criminal mind through a variety of texts, media, podcasts, etc. Throughout the semester, students will read texts from the true crime and detective fiction genres, enhance their reading and critical thinking skills, expand their knowledge in research and technology, and build on speaking/listening skills through discussion.

Course Title: Film and Literature (Not NCAA Approved) CREDIT: .5

Grades Eligible: 10, 11, 12

Prerequisites: None

Description: This course explores how literary elements and techniques, such as character development, plot, and figurative language, are translated from literary texts to film. This project-based course further examines the benefits, and limitations, of both literature and film as storytelling media.

Course Title: Language Arts 1..... CREDIT: 1.0

Grade Eligible: 9

Prerequisites: None

Description: This course involves the study of literature, including short stories, novels, drama, poetry, and nonfiction. Writing skills will also be developed through narrative, expository, argumentative, and blended writing. Students will practice speaking and listening through various techniques.

Course Title: Language Arts 2..... CREDIT: 1.0

Grades Eligible: 10

Prerequisites: LA 1 or Advanced LA 1

Description: This course involves the study of literature, including short stories, novels, drama, poetry, and nonfiction. Writing skills will also be developed through narrative, expository, argumentative, and blended writing. Students will practice speaking and listening through various techniques. End of course examination preparation will be included second semester.

Course Title: Language Arts 3..... CREDIT: 1.0

Grades Eligible: 11

Prerequisites: LA 2 or Advanced LA 2

Description: This course involves the study of literature, including short stories, novels, drama, poetry, and nonfiction. Writing skills will also be developed through narrative, expository, argumentative, and blended writing. Students will practice speaking and listening through various techniques. ACT preparation will be included second semester.

Course Title: Language Arts 4.....CREDIT: .5 or 1.0

Grades Eligible: 12

Prerequisites: LA 3 or Advanced LA 3

Description: This course involves the study of literature, including short stories, novels, drama, poetry, and nonfiction. Writing skills will also be developed through narrative, expository, argumentative, and blended writing. Students will practice speaking and listening through various techniques. Seniors can take this class for one semester or two.

Course Title: Mythic Dimensions in Literature..... CREDIT: .5

Grades Eligible: 10, 11, 12

Prerequisites: Completion of LA 1

Description: This class is an elective for a required fourth year of Communication Arts. The class explores mythology, fantasy, and science fiction and focuses on the common elements of the genres. Students will have the choice regarding most reading selections and some projects. The high-interest course will include a mix of core texts as well as more modern novels.

Course Title: Short Story CREDIT: .5

Grades Eligible: 11, 12

Prerequisites: None

Description: A study of short stories, short story authors, and the elements of short fiction are presented. Stories are analyzed, vocabulary skills are strengthened and written assignments are required. This course is a literary option for college-bound students and students who enjoy reading.

Course Title: Speech CREDIT: .5
Grades Eligible: 9, 10, 11, 12
Prerequisites: None
Description: This course is intended for students who wish to learn basic public speaking skills. Emphasis is placed on organization of information, speech composition, and delivery. Students will apply these skills to a variety of speaking purposes, such as informative, instructional, and special occasions. **Students may take either Speech or College Speech. They may not take both over the course of their high school career.**

ELECTIVES

Course Title: A+ Tutoring..... CREDIT: .5
Grades Eligible: 11, 12
Prerequisites: Students must provide transportation to and from their assigned tutor location.
Description: The A+ Tutoring course is designed as a career exploration class in the human service career pathway. This class will allow students to experience what it is like to work with children in a classroom setting while accumulating tutoring hours for the A+ Scholarship Program. Students are not guaranteed to get their 50 total hours needed for A+ eligibility. See the A+ Coordinator for additional tutoring opportunities. Students will be placed with an elementary teacher in one of the Jackson R-2 Elementary schools. While in the classroom students could be helping in ELA, Math, Science, Social Studies, or traveling with students to their elective courses. This type of hands-on experience would be valuable for students who plan to work with children in any aspect in their future. **Students who already have their 50 tutoring hours and / or have taken the class will not be allowed to take the class again due to limited availability.**

Course Title: Preparing for College CREDIT: .5
Grades Eligible: 12-Fall semester
Prerequisites: None
Description: This course is designed to get college-bound seniors prepared to go to college. Students will learn terminology and research careers, majors, and colleges. They will plan for a major and all of its requirements and complete their admission applications during class. Students will also search and apply for scholarships and learn about financial aid. Other topics covered include time/money management, scheduling/studying for college classes, and residential life.

FAMILY & CONSUMER SCIENCES

Credit: Practical Arts

Course Title: Advanced Child Development CREDIT: .5
Grades: 11, 12 **Dual Credit Option: CF 120 or PY 120 (3hrs)**
Prerequisite: 8.0 Cumulative GPA required for Dual Credit at SEMO State University, requires instructor signature
Description: This course provides an overview of the social, cognitive, physical and emotional changes that occur from birth to adolescence. Students will apply principles of development to the understanding of child development. Theoretical, empirical, and practical perspectives on child development will be presented and integrated. Evidence of critical thinking and effective communication will be emphasized. Cultural and historical variations in the concepts of children and of development will be discussed as they relate to differences in the treatment of children. This course offers **NO LAB EXPERIENCE**. It fulfills a University Studies requirement at SEMO University, and also fulfills the CF/PY 120 requirement for students entering Childhood, Elementary Education, those with an emphasis in Special Education, Child Development majors and Family and Consumer Sciences Education.

Course Title: Apparel, Textiles, and Fashion CREDIT: .5
Grades Eligible: 9, 10, 11, 12
Prerequisites: None
Description: Designed to introduce students to the social, psychological, and physiological aspects of clothing and textiles; the nature, acquisition, and use of clothing and textile products; the selection, construction, maintenance, and alteration of clothing and textile products; and the effect of consumer choices on the individual and family as well as the clothing and textile industry.

Apparel, Textiles & Fashion 2..... CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisite: Apparel, Textiles & Fashion

Description: This course is offered for students who have a strong interest in fashion, textiles and/or clothing construction, and will extend knowledge gained in Apparel, Textiles & Fashion. Students will explore fashion related careers and more advanced techniques of clothing construction, including tailoring. Students will continue the study of fashion history, properties of textiles, and recycling/upcycling of clothing and textile items.

Course Title: Career and Life Management CREDIT: .5

Grades Eligible: 11, 12

Prerequisites: None

Description: This course provides instruction in Career Development and Exploration. Emphasis is placed on Personal Plans of Study, Career Pathways and Career Clusters. Students are introduced to Missouri Connections as they take assessments, build a portfolio, create a personal plan of study and investigate careers. Job shadowing, internships, career/technical center attendance, apprenticeship programs and post-secondary education are investigated as seamless transitions throughout the career exploration process.

Course Title: Child Development 1 CREDIT: .5

Grades Eligible: 10, 11, 12

Prerequisites: None

Description: Focuses on the intellectual, social, emotional, and biological development of children. Actual experience in supervising children provides the opportunity to improve parenting and child care skills, explore careers related to child development, and identify general employment skills. Students have the opportunity to wear the Empathy Belly and take home a Real Care Baby. Classroom instruction followed by eight weeks of lab experience in the JHS Child Development Lab allows application in a childcare setting.

Course Title: Family Living CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: This semester course prepares individuals to understand the nature, function, and significance of human relationships within the family/individual unit. It includes instruction in the concepts and principles related to various family living conditions; establishment and maintenance of relationships; and preparation for marriage, parenthood, and family life. Instruction emphasizes the uniqueness of families and individuals, the development and socialization of the individual, and meeting the needs and interests of individuals and family members.

Course Title: Food and Nutrition 1 CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: This course introduces students to the principles of nutrition and controlling food costs. Includes instruction and practice in food preparation – cooking techniques, equipment operation and maintenance – and application of related math and science skills. Sanitation and safety is emphasized. Labs include preparing dishes with eggs, dairy, fruits, and vegetables, as well as quick breads and yeast breads.

Course Title: Food & Nutrition 2 CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Food & Nutrition 1

Description: This course introduces students to international and ethnic specific cuisines, while focusing on proper food preparation and procedures. It includes instruction on psychological, cultural, and social influences on food choices in world cuisine. Availability of foods due to food production, food supply, legislation and regulations are discussed. Students prepare a variety of ethnic dishes.

Course Title: Housing & Interior Design..... CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: This semester course introduces students to the behavioral, social, economic, functional, and aesthetic aspects of housing, interiors, and other built environments. The course includes instruction in analyzing, planning, designing, furnishing, and equipping residential, work, and leisure spaces to meet user needs, and the study of related public policies.

Course Title: Intro to Teaching CREDIT: .5
Grades Eligible: 11, 12 **Dual Enrollment Option: ED280 (3 hrs)**
Prerequisite: 8.0 Cumulative GPA required for Dual Enrollment at Southeast Missouri State University
Description: For the student interested in a career in education, this course focuses on the general theory and practice of learning and teaching; the basic principles of educational psychology; the art of teaching; the planning and administration of educational activities; school safety and health issues; and the social foundations of education. Introduces the education profession, including diversity, standards-based curriculum, learning theories, and industrial technology.

FINE ARTS ART

Students in Art classes may be required to bring in found materials or purchase some items necessary for projects.

Course Title: 2-D Design CREDIT: .5
Grades Eligible: 9, 10, 11, 12
Prerequisites: None
Description: This is a semester-long course that covers the basics of Drawing, Shading, Grid Drawing, Ink, and Drawing from observation, as well as the basics of Painting and Color Theory. Students that take this will learn how to mix colors, tones, and shades out of the primary colors along with black and white. This is a great step for students that want a semester-long course to move into Drawing 1 and Painting 1.

Course Title: Advanced Studio CREDIT: .5
Grades Eligible: 11, 12
Prerequisites: Art 1, Drawing 1, Drawing 2, Painting 1, Painting 2 and additional advanced course preferred, with student and parent signature required and studio contract.
Description: Students are given advanced instruction in techniques pertinent to drawing, painting and printmaking media. Students may also branch out to other disciplines (in 2-D and 3-D) depending on the Sustained Investigation they are proposing or which portfolio test they plan to complete the following year (AP). This course is referred to as “Pre-AP” or “Portfolio Prep” in most school districts. Students seeking a college art major may be required to prepare an entry or performance portfolio for scholarship competitions. This course may be taken for 2 or more semesters. This course may be repeated second semester or for a full junior or senior year. Supply list given.

Course Title: Art 1 CREDIT: 1.0
Grades Eligible: 9, 10, 11, 12
Prerequisites: None
Description: Art 1 satisfies the fine art credit and is a foundation art course that covers a broad spectrum of media, techniques, design principles and art criticism. This course teaches basic fundamentals in drawing, shading, perspective, portraits, painting, watercolor, ceramics, sculpture, fibers, and printmaking. Art 1 is a pre-requisite for Drawing 1 and Painting 1. Supply list given.

Course Title: AP Studio Art CREDIT: 1.0
Grades Eligible: 11, 12
Prerequisites: Advanced Studio with signature required and studio contract.
Description: This is a rigorous college level art course. University credit is awarded for scores of 3, 4, and 5 on the Advanced Placement Portfolio. The AP Studio Art portfolios are submitted for evaluation at the end of the school year and will include a variety of media, techniques and projects representing the student’s individual interpretation and style. A studio contract outlining course requirements must be signed by parent and student prior to enrollment process. Sustained Investigation section determines supply list. There are three portfolio classes to choose from in AP Art: Drawing and Painting, 2-D Design, and 3-D Design, but only one may be taken per year.

Course Title: Design Technology CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: This course focuses on the development of design concepts through two-dimensional and three-dimensional art. Specific assignments and practice are given in a wide range of practical arts, including the following: mosaics, stained glass, etching, stenciling, finishing techniques and current crafts. Realistic and abstract styles will be used in the development of the projects. Supply list given.

Course Title: Drawing 1 CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Art 1 and teacher signature

Description: This course is a more advanced drawing course than Art 1 and focuses on a wide range of drawing techniques and subject matter with an emphasis on observational drawing. Subject matter will include architectural drawing, portraits, and still life as students build upon strong drawing skills demonstrated in Art 1. Students will increase their visual awareness through the study of line, proportions, value, and working with light and dark. Media will include pencil, ink, colored pencils, charcoal, scratchboard and pastel. Supply list given.

Course Title: Drawing 2 CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Drawing 1

Description: This course builds on the techniques and media presented in Drawing 1, but new techniques and media are presented. Advanced concepts of portraits, figure drawing (realistic and game design stylized figures), and observational subject matter of student choice will be emphasized through specific techniques. Commercial art, graphic art, art careers and illustration will be implemented throughout the course. Media will include pencil, ink, colored pencils, charcoal, marker, and pastel. This course is a lead in to the Advanced Art and AP Art Curriculums. Supply list given.

Course Title: Fiber Arts CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: Using fiber and textile media and techniques, students will create works that focus on the transition between two and three-dimensional artworks. Fiber and textile processes may include: bookmaking, basketry, felting, weaving, fabric painting, and mixed media. Supply list will be given.

Course Title: Painting 1 CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Drawing 1

Description: This course teaches a variety of painting techniques using acrylic, oils and oil pastel, and watercolor media. Color and design theory are strongly emphasized as students explore subject matter including still life, landscape, portraits, animals and abstract. This course is taken at the same time as Drawing 1 or is the course following Drawing 1, as this painting course builds upon the Drawing 1 skills and understanding. Signature from Art 1 or Drawing 1 teacher required. Supply list given.

Course Title: Painting 2 CREDIT: .5

Grades Eligible: 10, 11, 12

Prerequisites: Painting 1, and Drawing 1 but usually taken alongside Drawing 2

Description: This course builds on the techniques and media presented in Painting 1, but adding in art movements and artist technique. Advanced painting techniques with acrylic, oil, watercolor and mixed media will represent color theory and design theory. This course is a lead in to the Advanced Art and AP Art Curriculums. Supply list given.

Course Title: Printmaking CREDIT: .5

Grades Eligible: 10, 11, 12

Prerequisites: Painting 1, and Drawing 1; Painting 2 and Drawing 2 preferred.

Description: Knowledge of color theory and color mixing is expected along with the abilities in drawing and following step by step instructions. Editions of linoleum relief, safety-cut, Lithograph, collagraph, Monoprint and fine art silk screen and silk screened t-shirts will be designed and completed. Supply list given.

Course Title: Sculpture CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: Specific assignments and practice are given in a wide range of sculpture techniques and media. Clay, plaster, cardboard, foam, metal, wood and plastic are some of the materials that will be used in abstract and realistic sculptures.

Course Title: Watercolor Painting CREDIT: .5

Grades Eligible: 10, 11, 12

Prerequisites: Painting 1 and Drawing 1, and usually falls after Painting 2 coursework.

Description: This course builds on the techniques and media presented in Drawing 1, Painting 1 and Art 1. Watercolor media will include watercolors, acrylic Inks, blending mediums, fluid mediums, Copic markers, Prismacolor markers, watercolor pens and mixed media. Advanced techniques will be represented on various watercolor papers including illustration board, Yupo paper, Aqua board, Ampersand, and canvas. The subject matter of projects will include realistic, florals, landscapes and abstract, as well as Calligraphy and word design with watercolor. Supply list will be given.

THEATRE

Course Title: Advanced Theatre: Acting and Directing CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Introduction to Theatre Arts

Description: This course is for students who have already taken a semester of Introduction to Theatre Arts and are interested in a deeper look at performance theatre. Emphasis will be placed on acting and directing, with students required to memorize and perform, block and direct scenes and monologues.

Course Title: Competitive Speech and Drama CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Signature required

Description: Students will rehearse and perform competitive speaking events based on MSHSAA Speech, Debate, and Drama regulations. Events include interpretation of literature, acting, public speaking, and debate. Participation in interscholastic speech competitions, which will require after-school travel, is a requirement of this course. Students will be responsible for attending at least two competitions per semester. AUDITION / INTERVIEW REQUIRED FOR ADMISSION. See Mr. Clubbs for an appointment. This course may be repeated.

Course Title: Introduction to Theatre Arts CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: Students study and appreciate theatre as a performing art. Students will develop a basic knowledge of theatrical history, terminology and literature. Emphasis will be placed on the art of acting, with students required to memorize and perform scenes and monologues.

MUSIC

Course Title: AP Music Theory CREDIT: 1.0

Grades Eligible: 11, 12

Dual Enrollment Option: MM-101 (3hrs) MOTR

Prerequisites: Experience in Band, Vocal Music, Guitar or Piano, and signature required

“B” Average or 8.0 Cumulative GPA required for Dual Enrollment at Southeast Missouri State University

Description: AP Music Theory is designed for the musically advanced band, choral, piano or guitar student who desires additional knowledge of the academic structure of music. Emphasis will be placed on theory and harmonies of music, as well as on music history and appreciation. This course will help prepare those musically gifted students who plan to continue to study music on a college level. A student can take the AP Exam for college credit or dual enroll at Southeast Missouri State University upon successful completion of all of the requirements set by the University.

Course Title: Concert Choir CREDIT: 1.0

Grades Eligible: 10, 11, 12

Prerequisites: Must audition

Description: Concert Choir is a yearlong course open to any vocally talented, musically advanced student (grades 10-12) with previous choral music experience and by audition and consent of the director. The class offers the opportunity for students to further develop his/her talent in vocal music with an emphasis placed on vocal technique, sight-reading skills and musicianship. Students will participate in festivals, concerts, district events, and state choir contest as well as Madrigal Feaste and Pop Concert performances. A wide variety of choral music will be studied and performed throughout the year. Attending all performances is a course requirement.

Course Title: Freshman Band..... CREDIT: 1.0

Grades Eligible: 9

Prerequisites: Must audition

Description: Freshman Band is a yearlong course open to all 9th grade students with previous instrumental music experience. Students will participate in marching band and concert band performances. A wide variety of music for winds and percussion will be studied and performed throughout the year. Attending all full band performances is a course requirement. **There is a class fee of \$25 to be collected at Orientation.**

Course Title: High School Band CREDIT: 1.0

Grades Eligible: 10, 11, 12

Prerequisites: Must Audition

Description: High School Band is a yearlong course open to any student (grades 10-12) with previous instrumental music experience. Students will participate in marching band and concert band performances. A wide variety of music for winds and percussion will be studied and performed throughout the year. Attending all full band performances is a course requirement. **There is a class fee of \$50 to be collected at Orientation.**

Course Title: High School Boys' Choir CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: Must audition

Description: Designed for the male student who wishes to further develop his vocal talent. Students must audition and have consent of the director. Emphasis will be placed on vocal techniques, sight reading skills, and musicianship. A wide variety of choral music will be studied and performed throughout the year. Students in this class will participate in several concerts, performances, and activities throughout the year. Attending all performances is a class requirement. It is recommended to be taken both semesters.

Course Title: High School Honors Band..... CREDIT: 1.0

Grades Eligible: 10, 11, 12

Prerequisites: Must Audition

Description: High School Honors Band is open to woodwind, brass, and percussion in grades 10-12. The Honors Band course provides the students with a challenging and innovative curriculum. The requirements for these courses provide a template for being a successful musician and allow the students to experience performing at a higher level. High School Honors Band is a weighted course. Students must audition and be recommended by a high school band director.

Course Title: High School Treble Choir CREDIT: .5

Grades Eligible: 9

Prerequisites: Must audition

Description: This course is designed for the female student who wishes to further develop her vocal talent. Students must audition and have consent of the director. Emphasis will be placed on vocal techniques, sight reading skills, and musicianship. A wide variety of music will be studied and performed throughout the year. Students in this class will participate in several concerts, performances, and activities throughout the year. Attending all performances is a class requirement. This is a semester course, but it is recommended to be taken both semesters.

Course Title: Jazz Ensemble CREDIT: .5

Grades Eligible: 9, 10, 11, 12 (Spring Semester Only)

Prerequisites: Must audition

Description: Jazz Ensemble is a small ensemble formed to study the concepts of jazz and the development of improvisation. It is a performing group and its members are selected by audition. Students will be required to participate in evening concerts and festivals.

Course Title: Jazz Improvisation CREDIT: .5

Grades Eligible: 9, 10, 11, 12 (Fall Semester Only)

Prerequisites: Student must also be enrolled in Jazz Ensemble (Spring Semester) and be approved by the Director of Bands

Description: This class is devoted to developing a better understanding of jazz, elements of jazz theory and history, and improvisation techniques. The history of jazz as an art form, study of major artists, and listening to and performing solos constitute the topics discussed. Jazz Improvisation is offered only to the following instruments: saxophone, trumpet, trombone, guitar, marimba, and piano.

Course Title: Mixed Chorus..... CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: Mixed Chorus is designed for the beginning high school vocal student fulfilling a fine arts requirement. Emphasis is placed on beginning vocal technique, basic musicianship, and appreciation. Because this class is performance-based, students will be singing for the majority of the semester and will be required to perform with their class in one concert during the semester. Students are also required to complete written work, projects, quizzes and tests over the material covered throughout the semester. May be taken both 1st and 2nd semester, however, this class may not be taken again after having completed 2 semesters of mixed chorus.

Course Title: Music Appreciation CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: This course will help students understand the structure of music and recognize the importance music has in the lives of people throughout the world. Students will study various styles and diversity of the world's music. This class may only be taken one semester.

Course Title: Women's Choir CREDIT: 1.0

Grades Eligible: 10, 11, 12

Prerequisites: Must audition

Description: Women's Choir is a yearlong course open to any vocally talented, musically advanced student (grades 10-12) with previous choral music experience and by audition and consent of the director. The class offers an opportunity for the student to further develop her talent in vocal music with an emphasis on vocal technique, sight reading skills and musicianship. Students will participate in festivals, concerts, district events, and state choir contest as well as Madrigal Feaste and Pop Concert performances. A wide variety of choral music will be studied and performed throughout the year. Attending all performances is a course requirement.

FOREIGN LANGUAGE

Credit: Elective

FOREIGN LANGUAGE

Students currently enrolled in a foreign language class and wishing to take a second year of the same language are strongly recommended to enroll in the same foreign language during consecutive school years. Some colleges recommend and some require, two years of the same foreign language for admission purposes. To enroll in intro level foreign language it is recommended students have a "C" or better average in language arts. To continue to the second level, it is recommended students have a "C" or better average for both semesters of level 1.

Course Title: AP Spanish CREDIT: 1.0

Grade Eligible: 12

Prerequisites: Recommended grade of "B" or above in both semesters of Spanish 4 and signature required.

Description: AP Spanish Language and Culture is intended for students who wish to develop proficiency and integrate their language skills, using authentic materials and sources. Students who enroll should already have a basic knowledge of the language and cultures of Spanish-speaking peoples and should have attained a reasonable proficiency in using the language. The course focuses on the use of Spanish for active communication; it encompasses listening/oral skills, reading comprehension, grammar, and composition. The AP Program offers an exam for Spanish Language (optional). Students may qualify for college credits according to the grade they receive on the AP test and the University of their choice.

Course Title: French 1..... CREDIT: 1.0
Grade Eligible: 9, 10, 11, 12
Prerequisites: Recommended grade of “C” or above both semesters in LA
Description: This course is an introduction to French and to the cultures of the people who speak the language. Oral communication, grammar comprehension and cultural appreciation are achieved through a variety of oral and written activities.

Course Title: French 2..... CREDIT: 1.0
Grades Eligible: 9, 10, 11, 12
Prerequisites: Recommended “C” average in French 1 for both semesters
Description: This course is a continuation of French 1 with an increased emphasis on reading, speaking and grammar skills through a variety of oral and written activities. Further study of the cultures of the people who speak the language is included. French 2 must be taken the year immediately following French 1 or instructor approval must be given.

Course Title: French 3..... CREDIT: 1.0
Grades Eligible: 10, 11, 12
Prerequisites: “B” average in French 2 and signature required
Description: A continuation of French 2 with an increased emphasis on reading, speaking and grammar skills through a variety of oral and written activities and individual and group performance based on activities. Oral proficiency is a major goal of this course.

Course Title: French 4..... CREDIT: 1.0
Grades Eligible: 11, 12
Prerequisites: B average both semesters of French 3 and signature required
Description: A continuation of French 3 with an emphasis on advanced grammar, reading and translation, writing, listening and speaking. Knowledge is acquired through the use of individual and group performance based activities. Oral proficiency is a major goal of this course.

Course Title: French 5..... CREDIT: 1.0
Grades Eligible: 12
Prerequisites: Recommended grade of “B” or above in both semesters of French 4 and signature required.
Description: An advanced study of the French language, francophone cultures, and application of prior knowledge of vocabulary and grammar. It is intended for students who wish to develop proficiency and integrate their language skills, using authentic materials and sources. Students will communicate primarily in the target language. This communication is evidenced in all four language skills - listening, speaking, reading and writing. The goal of the course is 90% French usage in class.

Course Title: Spanish 1..... CREDIT: 1.0
Grade Eligible: 9, 10, 11, 12
Prerequisites: Recommended grade of “C” or above both semesters in LA
Description: Introduces students to the Spanish language and to the cultures of those who speak it. Students learn vocabulary, verb forms and language patterns through a variety of oral, written and mass media activities. Oral communication, grammar comprehension and cultural appreciation are the emphasis of this beginning level through a wide spectrum of learning modalities.

Course Title: Spanish 2..... CREDIT: 1.0
Grades Eligible: 9, 10, 11, 12
Prerequisites: Recommended “C” average both semesters of Spanish 1
Description: Since basic concepts are essential to the comprehension of a language, vocabulary and grammatical structures from Spanish 1 will be reviewed and recycled on a regular basis. Spanish 2 expands vocabulary, grammar and verb use with emphasis on reading, translation and conversation. Spanish 2 must be taken the year immediately following Spanish 1 or instructor approval.

Course Title: Spanish 3..... CREDIT: 1.0
Grades Eligible: 10, 11, 12
Prerequisites: “B” average both semesters of Spanish 2 and signature required
Description: This course reviews concepts of levels one and two with increased emphasis on vocabulary, reading, translation, speaking, utilizing mass media and a variety of performance based activities demonstrating their Spanish communicative skills. The cultural emphasis focuses on U.S.A., Central America, México and the Caribbean: their geography, history, educational and political system, famous people, cultural practices, literature and career opportunities. Verbal proficiency is a main goal of this course.

Course Title: Spanish 4..... CREDIT: 1.0

Grades Eligible: 11, 12

Prerequisites: "B" average both semesters of Spanish 3 and signature required

Description: Spanish 4 is designed to offer the maximum proficiency level possible for the high school Spanish program. This class focuses on reading, translation, speaking, listening utilizing mass media and a variety of performance based activities demonstrating their proficiency in Spanish communicative skills. The cultural emphasis focuses on South America and Spain: its geography, history, cultural practices and art. The use of the target language and literature are a major goal of this course.

HEALTH

Credit: Health

Course Title: Health CREDIT: .5

Grades Eligible: 9, 10, 11, 12

Required for Graduation

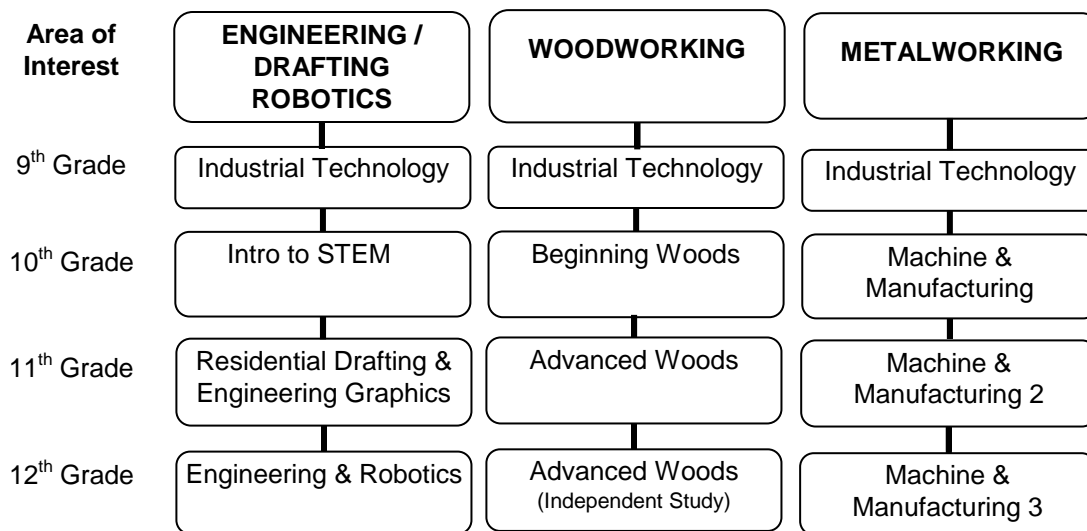
Prerequisites: None

Description: This course is designed to instill in students the knowledge and skills needed to examine alternatives and make responsible health-related decisions, and help students learn to use available resources to prevent and manage health problems. It is a semester-long class utilizing lecture, discussion, reading, video, guest speakers, computer/internet, cooperative learning, and hands-on activities to help the student understand the many aspects of health and wellness. This course includes the CPR education that is required for high school graduation.

INDUSTRIAL TECHNOLOGY

Credit: Practical Arts

Upper level courses require instructor approval (Advanced Woods, Robotics, and MM2). Read the following class descriptions for any necessary prerequisites



Course Title: Advanced Woods CREDIT: 1.0

Grades Eligible: 11, 12

Prerequisites: "C" or better in Woods 1 required and, signature required – Drafting recommended

Description: This advanced course is designed for students who have above average ability and interest in woodworking. Major projects will be built that will utilize the entire year. All project materials will be paid for by the student. **Initial project cost of \$60 to be collected at Orientation.** Added costs apply with additional projects. **See instructor for pricing.**

Course Title: Engineering and Robotics CREDIT: 1.0

Grades Eligible: 10, 11, 12

Prerequisites: Physical Science and Algebra 1 with a “B” or better in both classes and signature required

Description: Students will develop skills in mechanical design (CAD), and construction as they work in teams to build simple and complex robotic devices. We will explore usage of robotics in modern business and industry and examine how robotic devices are affecting our lives and shaping our culture. Students will apply concepts learned in physical science and mathematics to mechanical devices. Students are required to attend competitions outside of the school day. Students admitted with instructor approval.

Course Title: Engineering Graphics (CAD) CREDIT: .5

Grades Eligible: 10, 11, 12

Prerequisites: None

Description: This course includes mechanical drawing practices through computer media. Software in use is state-of-the-art AutoCAD and Solidworks, current standard of advanced education and industry.

Course Title: Energy & Power Technology CREDIT: .5

Grades Eligible: 10, 11, 12

Prerequisites: Good math skills

Description: This course is a study of energy and power and the conversion of energy to power. Activities include energy and power control, mechanical transmission, electricity/electronics, hydraulics and pneumatics, transportation conservation and bio-related energy. Emphasis is placed on developing an understanding of their scientific principles.

Course Title: Industrial Technology CREDIT: 1.0

Grade Eligible: 9

Prerequisites: None

Description: This course develops an insight and understanding of tools, machines, materials and processes as they relate to production and servicing industry, explore career opportunities and develop problem-solving skills. Students will experience working in drafting, wood, metal, and architecture. **Initial project cost of \$40 to be collected at Orientation.** Added costs apply with additional projects.

Course Title: Intro to STEM (Science Technology Engineering and Mathematics) (Elective Credit)..... CREDIT: .5

Grades Eligible: 9, 10

Prerequisites: Grade of A or A- in 8th grade Earth Science and 8th grade Math course

Description: This course will provide students with highly interactive, hands-on, group activities built around science, technology, engineering and math (STEM) concepts. Each activity is designed to emphasize collaborative learning, critical and analytical thinking, problem solving, creativity, effective experimental design, and engineering. Through these activities students grow in confidence and curiosity while gaining critical 21st century skills. Students will have computer programming experiences through the practice of coding and through our LEGO Robotics and application development units.

Course Title: Machine and Manufacturing CREDIT: 1.0

Grades Eligible: 10, 11, 12

Prerequisites: None

Description: This course is a study of the operations involved in the transformation of metal into usable products with special emphasis placed on technical information, qualities, specifications and standards. Activities include experimenting, creating, designing, constructing and evaluating metal products in forging, sheet metal, foundry, heat treating, and machining. Cost of materials for student projects is required. **Initial project cost of \$60 to be collected at Orientation.** Added costs will apply with additional projects.

Course Title: Machine and Manufacturing 2 CREDIT: 1.0

Grades Eligible: 11, 12

Prerequisites: “C” or better in Machine and Manufacturing and signature required

Description: This course is being offered to students who have successfully completed the Machine and Manufacturing course. Students in this course must have the strong desire to develop their skills in Machine and the Foundry processes. Weekly online course work is required on behalf of the student. Daily lab activities include Lathe and Milling Machine Competencies, foundry pattern making and casting. **Initial project cost of \$60 to be collected at Orientation.** Added costs will apply with additional projects.

Course Title: Machine and Manufacturing 3 CREDIT: 1.0
Grades Eligible: 11, 12
Prerequisites: "C" of Better in Engineering and Graphics, or Machine & Manufacturing 1 or 2, and signature required
Description: Explore the world of manufacturing by learning the fundamentals of CNC machining. Objectives will be learning new software associated with the CNC machine, Fusion and Inventor. Learning the Tormach platform of CNC machining. Lost PLA 3d Printing and casting, and exploring other options for CNC machining in today's market. **\$45 fee for materials to be collected at Orientation.**

Course Title: Residential Architectural Drafting..... CREDIT: .5
Grades Eligible: 10, 11, 12
Prerequisites: None
Description: This course is a study and drawing documentation of current residential construction practices. Drafting/Mechanical drawing skills will be utilized to complete architectural "blue prints."

Course Title: Wood Technology CREDIT: 1.0
Grades Eligible: 10, 11, 12
Prerequisites: Industrial Technology recommended
Description: This course is a study of the wood industry, starting with logging and saw milling, through the manufacturing of plywood with an emphasis on basic machine wood shop skills. Mastery of the operation of over twenty different power tools is accomplished during the construction of projects. All project materials are to be paid for by the students. **Initial project cost of \$60 to be collected at Orientation.** Added costs will apply with additional projects.

MASS MEDIA

Credit: Practical Arts

Course Title: Film Production CREDIT: .5
Grades Eligible: 10, 11, 12
Prerequisites: Video Production
Description: An introduction to the process of making a motion picture. This class will focus on the fundamentals of film directing and visual storytelling. Students will learn film-style production techniques and apply those techniques to creating a narrative short video. Topics may include screenwriting, directing, acting, producing, production design, cinematography, lighting, sound and editing. Live streaming participation is required. Video production is a pre-requisite for this class.

Course Title: Journalism..... CREDIT: .5
Grade Eligible: Grades Eligible: 9, 10, 11, 12
Prerequisites: Recommended grade of "B" or above in ELA
Description: Fundamentals of journalism including, but not limited to, reporting, writing, photography, and designing for publications. Students will study the history and foundations of journalism; learn interviewing, reporting, news writing, feature writing, sports writing and opinion writing; understand the fundamentals of photojournalism; and begin basic page design. Some assignments will come from newspaper and yearbook editors, possibly enabling journalism students' work to possibly appear in either publication or on the web. Many interviewing and photography assignments have to be completed outside of class time. This class is a prerequisite for Yearbook Production or News Production classes.

Course Title: News Production..... CREDIT: 1.0
Grade Eligible: 10, 11, 12
Prerequisites: Successful completion of Journalism or signature required
Description: The primary responsibility of the class is to produce and oversee the JHS newspaper, web and social media news. Students serve as editors, business managers, equipment managers and designers to organize and produce the print and online news publications. Students must work together as a staff to make vital decisions concerning the publications. Most layout, interviewing, ad sales, and photography assignments must be completed outside of class time.

Course Title: Video Production CREDIT: .5

Grade Eligible: 10, 11, 12

Prerequisites: None

Description: Video Production is an introduction to the fundamentals and aesthetics of single-camera digital video production. This course provides students with hands-on instruction in camera operation, shooting techniques, audio, lighting and non-linear editing. Students will work in production teams and create various projects. Projects may include news reports, short narrative films, commercials, documentaries, music videos and public service announcements. Students will also be introduced to the basics of broadcast journalism and filmmaking. Participation in live streaming of sports events is required. This course is a prerequisite for the Film Production class.

Course Title: Yearbook Production CREDIT: 1.0

Grades Eligible: 10, 11, 12

Prerequisites: Successful Completion of Journalism or signature required

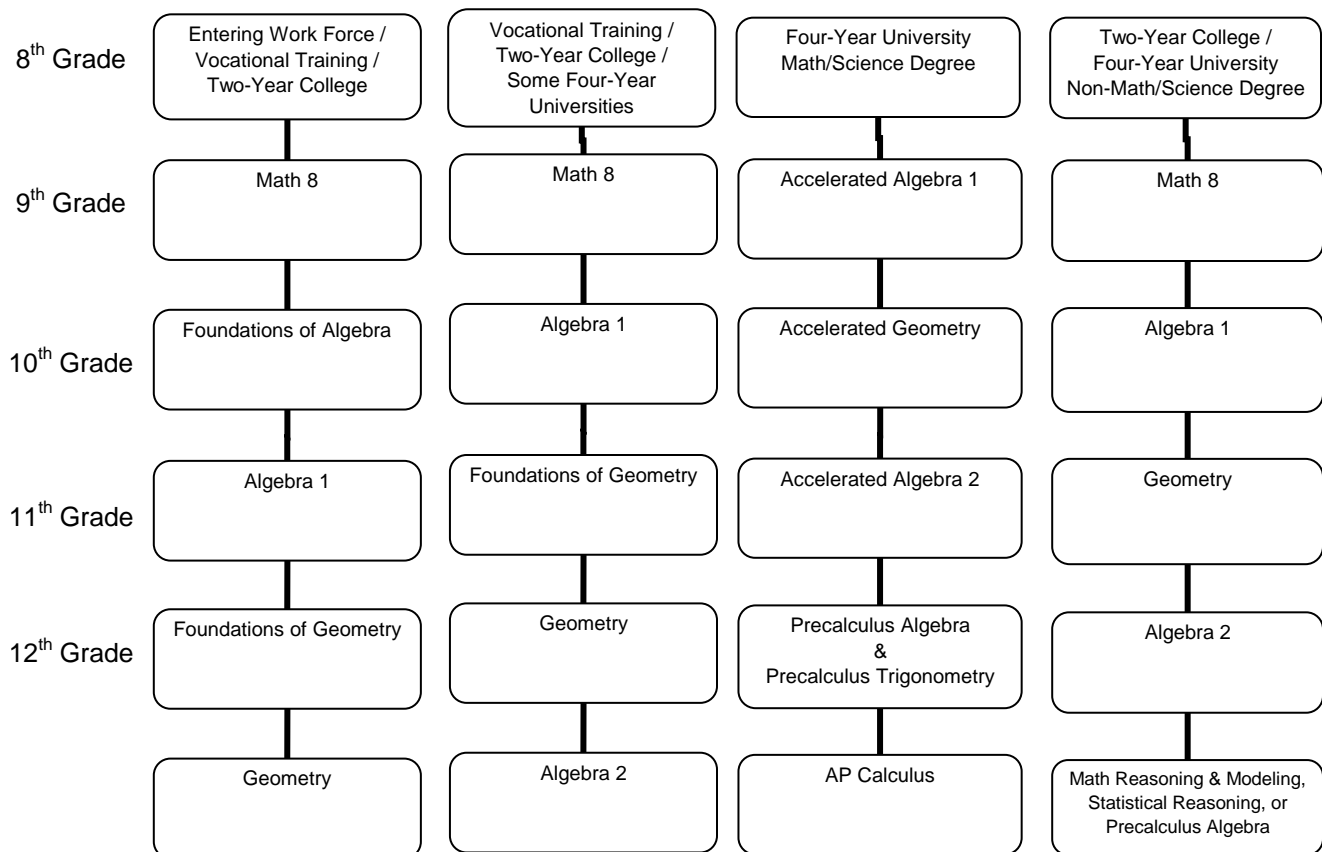
Description: The primary responsibility of the class is to produce the annual yearbook. This class emphasizes computer applications, reporting, writing, and photography. It provides a learning experience for the staff, as well as an opportunity to produce a lasting memory. The staff will make various decisions, which will reflect the personality of JHS. Students are expected to complete most layout, interviewing, ad sales, and photography opportunities outside of class time. Adobe Indesign / Desktop Publishing is recommended but not required.

MATHEMATICS

Credit: Math

Students wishing to reach the top of the math progression scale should acquaint themselves with the math progression chart. Technical Math embedded credit at the Cape Career and Technology Center will count as a third credit of math for graduation requirements, but will not count as a math unit for post-secondary 4 year institutions.

Possible embedded Math credit opportunities - see Embedded Math at the Cape Girardeau Career & Technology Center.



Course Title: Accelerated Algebra 2 CREDIT: 1.0

Grades Eligible: 10, 11, 12

Prerequisites for 10th grade: Recommended “B” or above both semesters in Accelerated Algebra 1 and Accelerated Geometry

Prerequisites for 11th, 12th: Recommended “A” both semesters in Algebra 1 and Geometry with signature required and recommended score of Advanced on Algebra 1 EOC

Description: Accelerated Algebra 2 is a yearlong course designed for college bound students interested in pursuing a mathematics related career. This course will provide a more rigorous study of functions and conic sections, including higher level algebra skills within challenging applications. Functions to be studied include quadratic, polynomial, rational, radical, exponential, logarithmic, and trigonometric. These functions and equations will be studied algebraically, numerically, and graphically. Algebra concepts and problem solving techniques will be explored through the use of a graphing calculator. (TI-83, TI-83+, or TI-84)

Course Title: Accelerated Geometry CREDIT: 1.0

Grades Eligible: 9, 10, 11, 12

Prerequisites for 9th grade: Recommended “B” or above both semesters in Accelerated Algebra 1

Prerequisites for 10th, 11th, 12th: Recommended “A” both semesters in Algebra 1 with signature required and recommended score of Advanced on Algebra 1 EOC

Description: Accelerated Geometry is a yearlong course designed for college bound students interested in pursuing a mathematics related career. This course provides a more rigorous study of geometry and incorporate higher level algebra skills within challenging geometry applications. This class moves at an accelerated pace in order to incorporate standards from Foundations of Algebra, in addition to the Geometry standards. Concepts to be studied include logic statements and proofs (both algebraic and of geometric theorems), parallel lines, similarity, congruence, points of concurrency, volume, right triangle trigonometry, applications of trigonometry to general triangles, transformations, conic sections (circles, ellipses, and parabolas), and probability.

Course Title: Algebra 1 CREDIT: 1.0

Grades Eligible: 9, 10, 11, 12

Prerequisites for 9th grade: Required “C” or above both semesters in Mathematics 8

Prerequisites for 10th, 11th, 12th: Completion of Foundations of Algebra

Description: Students will study one and two variable equations, inequalities, and systems of equations and inequalities, use operations to evaluate rational exponents, evaluate and analyze linear, exponential, and quadratic functions, factor and solve polynomials and quadratic equations.

Course Title: Algebra 2 CREDIT: 1.0

Grades Eligible: 10, 11, 12

Prerequisites: Recommended “B-” or above in both semesters of Algebra 1 and “C” or above in both semesters of Geometry

Description: This yearlong course builds on the understanding of the general topics of Algebra 1 and develops the skills that are necessary to complete college level mathematics courses. Concepts to be studied include, function analysis, quadratic functions, polynomial functions, rational functions, radical functions, exponential functions, and logarithm functions. Algebra concepts and problem solving techniques will be explored through the use of a graphing calculator (TI-83, TI-83+, or TI-84).

Course Title: AP Calculus CREDIT: 1.0

Grades Eligible: 12

Dual Enrollment Option: MA-140 (5hrs)

Prerequisites: Recommended “B” or above both semesters in Precalculus; “B” Average and a recommended score of 26 or Higher on the ACT Math Sub Score for Dual Enrollment at Southeast Missouri State University

Description: This course prepares students to take the Advanced Placement Calculus AB Exam. This course is recommended only for those students seriously considering a mathematics related career who want a rigorous academic challenge. Topics to be studied include limits, continuity, derivatives and integrals of algebraic, trigonometric, exponential and logarithmic functions, and applications of each. Concepts will be studied algebraically, numerically and graphically through the use of the TI-83 or TI-84 graphing calculator. **This course requires signature approval of Precalculus teacher.**

Course Title: Foundations of Algebra (Not NCAA Approved) CREDIT: 1.0

Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: Students will study order of operations, one and two variable equations and inequalities with graphing, systems of equations, using proportions and probability, Pythagorean Theorem and exponents. Students will receive one general math credit. This does not result in an Algebra Credit needed for university requirements.

Course Title: Foundations of Geometry (Not NCAA Approved)..... CREDIT: 1.0

Grades Eligible: 10, 11, 12

Prerequisites: Completion of Algebra 1

Description: This class is an introduction to geometry concepts with an emphasis on application. Topics included are measurement, angle application, and working with 2D and 3D figures. Concepts taught will reinforce and enhance technical geometric math skills preparing them for Geometry. Students will receive one general math credit. This does NOT result in a Geometry credit needed for university requirements. **This course does not fulfill prerequisite for Algebra 2.**

Course Title: Geometry CREDIT: 1.0

Grades Eligible: 9, 10, 11, 12

Prerequisites for 9th grade: "C" or above both semesters in Accelerated Algebra 1

Prerequisites for 10th grade: Required "B-" or above both semesters in Algebra 1

Prerequisites for 11th, 12th grade: Recommended "B-" or above both semesters in Algebra 1

Description: This is a yearlong course that incorporates basic algebra skills into the study of geometry. Concepts to be studied include proofs, parallel lines, congruence, points of concurrency, volume, right triangle trigonometry, transformations, similarity, circles, and probability. May be taken concurrently with Accelerated Algebra 2 only after careful consideration and **signature approval of Algebra 1 teacher.** Recommended grade for concurrent enrollment is "A" both semesters in Algebra 1.

Course Title: Mathematical Reasoning and Modeling CREDIT: .5

Grades Eligible: 11, 12

Dual Enrollment Option: MA123 (3 hrs) MOTR

Prerequisites: Completion of Algebra 2; "B" Average and a recommended score of 22 or Higher on the ACT Math Sub Score for Dual Enrollment at Southeast Missouri State University

Description: Promotes mathematical literacy among students and provides an overview of the skills required to navigate the mathematical demands of modern life. Emphasis placed on improving ability to draw conclusions, make decisions, and communicate effectively in mathematical situations. Topics include proportional reasoning, logic and critical thinking, problem solving, units of measure, linear and quadratic modeling, beginning statistics and probability, and exponential growth and decay. This course is aligned to the Missouri Department of Higher Education's Math Pathways Initiative.

Course Title: Precalculus Algebra..... CREDIT: .5

Grades Eligible: 11, 12

Dual Enrollment Option: MA116 (3 hrs) MOTR

Prerequisites: Recommended "B" or higher both semesters in Accelerated Algebra 2 and signature required or recommended "A-" or higher both semesters in Algebra 2 and signature required ; "B" Average and a recommended score of 22 or Higher on the ACT Math Sub Score for Dual Enrollment at Southeast Missouri State University

Description: This first semester course is intended to prepare students for fields of study that would require a high level of algebraic reasoning and is the first of two courses intended to prepare students for Calculus. Topics include the foundational principles of functions, the analysis of functions and algebraic reasoning. This fast-paced course provides an in-depth study of polynomial, rational, exponential, logarithmic functions, and matrices. These functions, equations, and applications will be studied algebraically, numerically and graphically through the use of a TI-84 graphing calculator. **Requires signature approval of Algebra 2 teacher.**

Course Title: Precalculus Trigonometry..... CREDIT: .5

Grades Eligible: 11, 12

Dual Enrollment Option: MA117 (3 hrs)

Prerequisites: Recommended "B" or higher both semesters in Accelerated Algebra 2 and signature required or recommended "A" both semesters in Algebra 2 and signature required; "B" Average and a recommended score of 22 or Higher on the ACT Math Sub Score for Dual Enrollment at Southeast Missouri State University

Description: This second semester course is the second of two courses intended to prepare students for the study of Calculus. The focus of this course is on geometric and trigonometric reasoning necessary for Calculus. This fast-paced and challenging course provides an in-depth study of trigonometric functions, identities, graphs, equations, vectors, polar coordinates, and conic sections. These functions, equations, and applications will be studied algebraically, numerically and graphically through the use of a TI-84 graphing calculator. **Requires signature approval of Algebra 2 teacher.**

Course Title: Statistical Reasoning..... CREDIT: .5
Grades Eligible: 11, 12 **Dual Enrollment Option: MA-155 (3hrs) MOTR**
Prerequisites: Recommended “C-“ or higher both semesters in Algebra 2 and signature required; “B” Average or and a recommended score of 22 or Higher on ACT Math Sub Score for Dual Enrollment at Southeast Missouri State University
Description: This semester course will introduce statistical ideas to students. The student will reach an understanding of these statistical ideas, be able to deal critically with statistical arguments, and gain an understanding of the impact of statistical ideas on public policy and in other areas of academic study. **This course requires signature approval of Algebra 2 teacher.**

PHYSICAL EDUCATION

Credit: PE

The following courses meet the PE graduation requirements. You must complete 1 credit of PE before taking any PE Elective courses.

Course Title: Physical Education (For Females)..... CREDIT: .5
Course Title: Physical Education (For Males) CREDIT: .5
Grades 9, 10, 11, 12
Prerequisite: NONE **This course meets PE graduation requirements**

Description: The major objectives of physical education are to promote and develop physical fitness and to teach the fundamental skills in team and individual/dual sports and activities. This course offers students a selection of activities which will aid in acceptable social skills, as well as physical skills and knowledge of rules of the various activities. Activities will be selected but not limited from the following: Fitnessgram testing, badminton, basketball, cardiovascular activities, flag/fleet football, ultimate Frisbee, Frisbee golf, pickleball, softball, dance, and soccer. This course emphasizes student’s participation in a variety of enjoyable physical activities that promote lifelong healthy active living. Students will be assessed on participation as well as written and skills tests.

Course Title: Personal Fitness and Wellness (For Females) CREDIT: .5
Course Title: Personal Fitness and Wellness (For Males) CREDIT: .5
Grades: 9, 10, 11, 12
Prerequisite: NONE **This course meets PE graduation requirements**

Description: This course provides students with the opportunity to learn about the physical, mental and social aspects of Physical Education and athletics. It is designed to teach students a fitness program which is essential in having a well-rounded fitness level and healthy lifestyle. Students will explore the health-related and skill-related components of fitness. Students will wear the Polar Heart Rate monitors during exercise. They will learn why maintaining an elevated heart rate, during all types of exercises, will benefit them cardiovascularly, as well as increase strength and power. Focus is on wellness skills; physical fitness assessment; physical fitness activities; cardio-respiratory activities that promote good health, and learning the proper techniques and safe weight room activities. The objectives are to assure that a given amount of emphasis is placed on personal fitness and to provide a method through which controlling that fitness can be maintained. Students will be assessed on participation as well as written and skills tests. **This course is intended for the highly motivated Physical Education student.**

Credit: Elective

The following PE courses are an Elective credit and **DO NOT** fulfill the PE graduation requirement. You must fulfill PE requirements **BEFORE** you take any of these Elective courses. Students are allowed to take 1 PE course per semester.

Course Title: Cardio Conditioning and Cross-Fit (CO-ED) CREDIT: .5
Grades: 10, 11, 12 This is an **Elective Credit**, does not fulfill PE graduation requirements

Prerequisite: 1 credit in PE and signature required

Description: This course will focus on the benefits for Cardiovascular conditioning, as well as muscular strength and endurance. The students will learn training principles, training routines, while enhancing core strength, flexibility and cardio-respiratory endurance. We will use different tactics (such as a WOD – workout of the day) to build functional fitness for anyone. The class will be designed to provide students the knowledge to define and apply: F.I.T.T. principle, heart rate zone, class design (warm-up, workout session, cool down, stretch). Students will also learn about the proper use of cardio room equipment (Treadmill, spinning bike, elliptical and rowing machines) and weight room equipment. The training will consist of aerobic and anaerobic conditioning, plyometric and strength training. Students will be assessed on participation as well as written and skills tests.

Course Title: Fitness for Life (For Females)..... CREDIT: .5
Grades: 10, 11, 12 This is an **Elective Credit**, does not fulfill PE graduation requirements

Prerequisite: 1 credit in PE and C or better in previously taken PE class.

Description: This course is a total body fitness class. Students will participate in multi-exercise programs that are offered in the fitness industry. The class is designed to give students the knowledge and skills necessary to self-assess, create, evaluate, and design a personal fitness program. The class emphasizes cardiovascular work in the forms of step aerobics, kickboxing, floor aerobics, circuit training, interval training, running/walking. Strength and core work is also incorporated through Pilates/yoga, body bars, exercise-tubes, hand weights, medicine balls, bosu balls, stability balls, and the weight room. Fitness for Life is intended to guide students in making independent decisions about personal fitness. Students will be assessed on participation as well as written and skills test.

Course Title: Lifetime/Recreational Activities (For Females)..... CREDIT: .5
Course Title: Lifetime/Recreational Activities (For Males) CREDIT: .5
Grades: 10, 11, 12 This is an **Elective Credit**, does not fulfill PE graduation requirements

Prerequisite: 1 credit in PE and signature required

Description: This course will help increase your energy level, reduce fatigue and improve fitness level while having fun. The curriculum in this course allows the students opportunities to participate in a variety of activities but not limited to: badminton, basketball bowling, ultimate Frisbee, Frisbee golf, handball, pickleball, soccer, softball, tennis, volleyball, outdoor recreational activities, and at least one cardiovascular conditioning day a week. Daily stress can have a negative impact on your emotional and physical health. Reduce stress by joining us for team games and tournaments, both competitive and recreational. Students will be assessed on participation as well as written and skills tests.

Course Title: Officiating Team Sports (Not NCAA Approved) CREDIT: .5
Grades: 10, 11, 12 This is an **Elective Credit**, does not fulfill PE graduation requirements

Prerequisite: 1 credit in PE and signature required; Students must purchase their own whistle and bring it to class.

Description: JHS PE Department, Missouri State High School Athletic Association (MSHSAA) and Community Parks and Recreational departments have partnered to offer this course to students who have completed their PE credit and are interested in gaining an officiating certification (MSHSAA and Recreational) in various sports. This focuses on the professional philosophy, and professional requirements for officiating for MSHSAA and Community athletic contests. The course covers officiating football, basketball, volleyball, soccer, baseball, track and field, and softball. Other sports may be added. Additional practical experience will be mandatory outside of the school day for students and some of these requirements will/could be PAID positions. Students have the option to take certification exams for any of the sport components and become a restricted certified official with MSHSAA at the middle/junior high school level. MSHSAA testing fees may apply, but will not exceed \$30.00 for MSHSAA registration per sport.

Course Title: Training for Sport (For Females)..... CREDIT: .5
Course Title: Training for Sport (For Males) CREDIT: .5
Grades: 10, 11, 12 **This is an Elective Credit, does not fulfill PE graduation requirements**
Prerequisite: 1 credit in PE and signature required

(a minimum of .5 credit must be taken in Personal Fitness and Wellness Class)
Description: This course is designed to give athletes a competitive edge. Students will wear the Polar Heart Rate monitors during exercise. They will learn why maintaining an elevated heart rate during exercise will benefit them cardiovascularly, as well as increasing strength and power. Physical training in speed, power, agility, plyometric, muscular strength and cardiovascular endurance in individualized sport areas will also be included. This course will be a very **intense** program with **in-depth** training on skill performance and knowledge training in order that students may develop to the maximum of their capability. Students will be assessed on participation as well as written and skills tests.

Course Title: Training for Sport (CO-ED) ZERO HOUR..... CREDIT: .5
Grades: 9, 10, 11, 12 **This is an Elective Credit, does not fulfill PE graduation requirements**
Prerequisite: 9th grade signature required

Description: This course meets three days a week, M, TH, F, from **5:40am to 7:30am** at JHS. This course is designed to give athletes a competitive edge. Physical training in speed, power, agility, plyometric, muscular strength and cardiovascular endurance in individualized sport areas will also be included. This course is a very **intense** program with **in-depth** training on skill performance and knowledge training in order that students may develop to the maximum of their capability. It provides students with the opportunity to learn about the physical, mental and social aspects of physical education and athletics. It is designed to teach students a fitness program which is essential in having a well-rounded fitness level and healthy lifestyle. Students will be assessed on participation and attendance. **This course is intended for the highly motivated Physical Education student and daily attendance is required.**

SCIENCE

Credit: Science

Course Title: AP BiologyCREDIT: 1.0
Grades Eligible: 11, 12 **Dual Credit Option: BS-108 (3 hrs) MOTR**
Prerequisites: Grade of “B” or above in Biology and Chemistry and signature required

“B” Average or 8.0 Cumulative GPA required for Dual Enrollment at Southeast Missouri State University
Description: AP Biology is the equivalent of the second course taken by biology majors at Southeast. Focusing on cellular and molecular concepts, this is a rigorous course that requires extensive reading of both textbook and primary research articles. Students may earn college credit by taking the advanced placement test during the second semester.

Course Title: AP ChemistryCREDIT: 1.0
Grades Eligible: 11, 12 **Dual Credit Option: CH-185 MOTR / CH-085 (5 hrs)**
Prerequisites: “B” or above in Chemistry, taken or concurrently enrolled in Trigonometry or College Algebra, signature required

Description: This is an intensive study of many basic chemical concepts involving periodic law, bonding, kinetic theory, solutions, oxidation-reduction, equilibrium, entropy and free energy, electrochemistry and organic chemistry. Students who complete this course have the option of taking the advanced placement test in May. Only students seriously considering college chemistry should enroll in this course.

Course Title: AP Physics 1CREDIT: 1.0
Grades Eligible: 11, 12
Prerequisites: Algebra 2 – “C” or above

Description: AP Physics 1 is equivalent to a first semester college course in algebra-based physics. The course covers Newtonian mechanics; work, energy, and power; mechanical waves and sound. It will also introduce electrical circuits. Lab investigations will be a central part of this course. The AP test is an option for college credit. Recommended for students considering a career in engineering.

Course Title: AP Physics 2CREDIT: 1.0
Grades Eligible: 12
Prerequisites: AP Physics 1

Description: AP Physics 2 is equivalent to second semester college course in algebra-based physics. The course covers fluid mechanics, thermodynamics, electricity and magnetism; optics; atomic and nuclear physics. Lab investigations will be a central part of this course. The AP test is an option for college credit. Recommended for students considering a career in engineering.

Course Title: Applied Genetics.....CREDIT: .5

Grades Eligible: 10, 11, 12

Prerequisites: "A" or "B" in Biology with signature of Biology teacher

Description: Challenging college-preparatory course for highly motivated biology students. The topics include: microbiology with lab, study of disease (causes, effects, historical significance, treatments), DNA structure and replication, protein synthesis, gene expression.

Course Title: Biology CREDIT: 1.0

Grades Eligible: 9, 10, 11, 12

Prerequisites for 9th graders: Recommended grade of "A-" or above both semesters in 8th grade Science or signature required

Prerequisites for 10, 11, 12: None

Description: Biology is a course designed to help students develop their understanding of living things by exploring processes and interactions shared by all organisms. Students will use their science reasoning skills to explore practical applications of fundamental biological concepts such as cell structure and function, reproduction, genetics, ecology.

Course Title: Chemistry CREDIT: 1.0

Grades Eligible: 10, 11, 12

Prerequisites: Algebra 1 Grade of "C" or above recommended. Completion or concurrent enrollment in Biology is required.

Description: Chemistry includes a specialized study of the properties and uses of matter and the changes which different kinds of matter may undergo. Key topics require an understanding of algebraic relationships. Chemistry is a "must" for any student considering a science-oriented 4-year college degree.

Course Title: Earth Science CREDIT: 1.0

Grades Eligible: 10, 11, 12

Prerequisites: Physical Science and Biology

Description: This course will introduce students to the study of Earth Science. The topics studied include rocks and minerals, geologic time, erosion and mountain building processes, weather and oceanography.

Course Title: Human Anatomy and Physiology 1..... CREDIT: .5

Grades Eligible: 10, 11, 12

Prerequisites: Biology – "B" or above or signature of Biology teacher

Description: This is a rigorous course concerning the structure and function of the human body. The course is designed to assist the serious student with an interest in pursuing a health-related career or a career having an emphasis in Biology.

Course Title: Human Anatomy and Physiology 2 CREDIT: .5

Grades Eligible: 10, 11, 12

Prerequisites: Human Anatomy and Physiology "B" or above

Description: This class is designed as a supplement to Human Anatomy and Physiology 1. Human Anatomy and Physiology 2 covers in depth, the remaining systems not discussed in Human Anatomy 1.

Course Title: Physical Science CREDIT: 1.0

Grades Eligible: 9, 10, 11, 12

Prerequisites: None

Description: The Physical Science program offers a basic introduction to the physical sciences. The topic areas covered are properties of matter, classification of elements, nuclear energy, chemical reactions, motion and forces, heat and temperatures, and renewable energy resources.

Course Title: Solar System Astronomy CREDIT: .5

Grades Eligible: 10, 11, 12

Prerequisites: Physical Science

Description: This class will introduce students to the history and study of astronomy. Topics will include light, radiation, our own solar system, how each planet is unique, and how they interact.

Course Title: Stellar Astronomy **CREDIT: .5**

Grades Eligible: 10, 11, 12

Prerequisites: Physical Science

Description: This class will introduce students to large scale astronomy. Topics will include stars and their life cycles and examining how individual stars fit into the large scale structure of the universe.

Possible embedded credit can be earned in science, see course description for Agricultural Science 1 and 2.

SOCIAL STUDIES

Credit: Social Studies

Course Title: American History **CREDIT: 1.0**

Grades Eligible: 9

Prerequisites: None

Description: This required course covers American History from the Civil War Era to World War II. The first semester includes topics from the Civil War through the Industrial Revolution. The second semester covers American Imperialism through the conclusion of World War II. Concepts and historical events will be discussed in a way that ensures students are applying their knowledge of America's past in the present.

Course Title: AP Human Geography **CREDIT: 1.0**

Grades Eligible: 11, 12

Prerequisites: "B" or higher in previous social studies courses.

Description: This year long course is designed to expand a student's understanding of geography beyond location to include a connection with sociology, political science, economics, demographics, and history. Students will learn how to use, interpret, and evaluate a variety of geographic and thematic maps along with numerous other sources of statistical data. The course will also delve deeply into the study of population, culture, political organization, land development and use (both urban and rural), industrialization, economic development, and globalization. Overall, the course will give students a sophisticated view of the local, regional, national, and global world in which they live. This course is offered as an introductory level college course. Consequently, it will carry a weight of 3 as it factors in to grade point average. Furthermore, upon completion students will have the opportunity to earn college credit through the Advanced Placement Exam.

Course Title: AP US History **CREDIT: 1.0**

Grades Eligible: 10, 11, 12

Dual Enrollment Option: US-105 (early) US-107 (recent) MOTR

Prerequisites: "B" average in American History

"B" Average or 8.0 Cumulative GPA required for Dual Enrollment at Southeast Missouri State University

Description: AP US History is a year-long survey of US history from 1491-present day. This will be a rigorous, college-level course where students will study the social, political, and economic development of the United States. This course will focus on building college level content knowledge, argumentative historical writing, and historical analysis skills. This course will be weighted and college credit can be earned through taking the AP exam or through SEMOs dual credit program where students can earn 6 college credits (3 credits for semester 1 US105 and 3 credits for semester 2 US107). SEMO's dual credit enrollment costs +/- \$285 per semester. If a student chooses to take the AP exam, it will cost \$95. This course will meet the Recent US History requirement for Jackson High School plus 0.5 elective credit.

Course Title: AP World: Modern History **CREDIT: 1.0**

Grades Eligible: 11, 12

Prerequisites: B+ average in Recent US History

Description: The purpose of the AP World: Modern course is to give students the opportunity to connect the processes that over time have resulted in our modern world. The course focuses on historical periods from 1250C.E. to today. Students will acquire foundational content knowledge, historical analytical skills, and proficiency in argumentative historical writing. This year long course will be offered primarily to students in the 11th grade and will meet the World History requirement for graduation. AP World: Modern is weighted and students will have the option to take the Advanced Placement test for college credit at the end of the year.

Course Title: Current Events..... CREDIT: .5
Grades Eligible: 10, 11, 12
Prerequisites: None
Description: This semester course deals with local, state, national and international problems and issues, as well as regular review of the top news stories of the day. Students will examine the social, political and economic implications of issues studied and the historic and geographic causes of them. Class participation is required.

Course Title: Dual Credit European History CREDIT: 1.0
Grades Eligible: 11, 12 **Dual Enrollment Expectation: EH-101, EH-103 (6 hours total) MOTR**
Prerequisites: 3.0 cumulative GPA (B average) is required
Description: Dual Enrollment European History is a yearlong survey of European civilization from its inception to the contemporary period. Throughout the course, students explore the political, economic, social, cultural, and intellectual development of Europe. This course approaches history using a chronological as well as thematic approach looking at threads of humanity over time. College credit is earned through SEMO: Early European History (EH101) and Modern European History (EH103). Students enrolling in this course would fulfill the World History graduation requirement and are expected to enroll in and pay for any fees for college credit through SEMO. Cost each semester is typically +/- \$285.

Course Title: Dual Enrollment Government CREDIT: .5
Grades Eligible: 12 (Spring Semester Only) **Dual Enrollment Required: PS103 (3hrs) MOTR**
Prerequisites: 3.0 Cumulative GPA required for Dual Enrollment at Southeast Missouri State University
Description: Institutions and processes of national and state government including an analysis of the Missouri Constitution. This course fulfills the government graduation requirement. The course is taught online by a SEMO instructor with a cooperative high school teacher in the classrooms. Students are required to additionally pass both the US and Missouri Constitution Tests as well as take the End-of-Course exam (EOC). Students are expected to enroll in and pay for any fees for college credit through SEMO. Cost each semester is typically +/- \$285.

Course Title: Dual Enrollment Psychology CREDIT: .5
Grades Eligible: 10, 11, 12 (Fall Semester Only) **Dual Enrollment Required: PY101 (3hrs) MOTR**
Prerequisites: 3.0 Cumulative GPA required for Dual Enrollment at Southeast Missouri State University
Description: Introduction to the field of psychology. Includes perception, learning, memory, motivation, emotion, intelligence, personality, human development, psychopathology, and social behavior. The course is taught online by a SEMO instructor with a cooperative high school teacher in the classrooms. Students are expected to enroll in and pay for any fees for college credit through SEMO. Cost each semester is typically +/- \$285.

Course Title: Dual Enrollment Sociology CREDIT: .5
Grades Eligible: 10, 11, 12 (Spring Semester Only) **Dual Enrollment Required: SO-101(3 hrs) MOTR**
Prerequisites: 3.0 Cumulative GPA required for Dual Enrollment at Southeast Missouri State University
Description: Introduction to the field of Sociology. Discusses socialization, social organizations, social institutions, inequality, group dynamics, social class, culture, power, and social structure. The course is taught online by a SEMO instructor with a cooperative high school teacher in the classrooms. Students are expected to enroll in and pay for any fees for college credit through SEMO. Cost each semester is typically +/- \$285.

Course Title: Government..... CREDIT: .5
Grades Eligible: 12
Prerequisites: None
Description: This required course covers civic responsibility and outlines the Legislative, Executive, and Judicial Branches, as well as the history of where our government comes from. This course will fulfill state requirements for the End of Course Exam, US Constitution, Civics, and Missouri Constitution. When complete, students should be well rounded, and prepared for civic participation.

Course Title: Psychology CREDIT: .5
Grades Eligible: 10, 11, 12
Prerequisites: None
Description: Psychology is defined as the scientific study of the behavior of organisms. This course is designed to introduce students to the vast and varied topics that comprise a study of human behavior. Further, it is intended to develop in the student an appreciation and understanding of human behavior that will enable them to apply what they learn to their daily lives.

Course Title: Recent U.S. History CREDIT: .5

Grades Eligible: 10

Prerequisites: None

Description: This is a required semester course for sophomores. Students will analyze American History from post World War II to the present. Units will focus on domestic and foreign affairs for each presidential administration from Truman to Obama.

Course Title: Recent U.S. History Online CREDIT: .5

Grades Eligible: 9, 10

Prerequisites: Must have reliable Internet access outside of the classroom.

Description: The online option of Recent US History will follow the same curriculum as in person Recent US History. Each unit will be self-paced with checkpoints throughout the course (i.e. testing dates). Daily instruction will be supplied through the use of the Canvas Calendar. Canvas will be utilized to supply all course materials. This course will be scheduled as an additional "0" hour in the day. Internet access outside of school will be essential for this course.

Course Title: Sociology CREDIT: .5

Grades Eligible: 10, 11, 12

Prerequisites: None

Description: This course is used to assimilate students to different aspects of society that they may encounter during their lifetime. Sociology is designed to help students develop a sociological imagination by consistently applying concepts and methods to real world situations. By relating concepts to current and historical events, students come to appreciate the relevancy of sociology to their daily lives and social situations. This class uses discussion and the viewing of other cultures through a variety of activities including lecture, reading and research projects, in addition to internet related activities.

Course Title: World History CREDIT: 1.0

Grades Eligible: 11

Prerequisites: None

Description: This required course traces the history of man from the prehistoric period to the modern era. The first semester covers the period prior to the Industrial Revolution. The second semester covers the Industrial Revolution and progresses to the 21st century.

CAPE GIRARDEAU CAREER & TECHNOLOGY CENTER

All Courses are Elective Credit

Career Path: Arts and Communications; Business, Management and Technology; Health Services; Human Services; Industrial and Engineering Technology; Natural Resources

In order to be eligible to enroll in a three hour course at the CTC, students must complete an application process, including signatures from their parent/guardian and school counselor. To be considered for acceptance to the CTC, students must have both a good attendance and discipline history with Jackson High School. Due to the number of students who request enrollment at CTC, students with more than ten absences/tardies or two discipline referrals may be unable to attend. Students must also provide proof of insurance or purchase it for a small fee. All seniors that attend a three hour block at the CTC are automatically enrolled in Embedded Language Arts; upon completion of a career portfolio, passing their career program, and maintaining a 70% or higher in ELA, students will earn one full Language Arts credit which will be transcribed at their home school.

Mineral Area College (MAC) – Articulated Credit

Students who enter articulated career and technical programs will have the opportunity to earn from 3 to 36 semester hours of college credit through Mineral Area College of Park Hills, MO, while earning high school graduation credits. College hours may apply toward an Associate of Applied Science degree (AAS). This is an articulated collaborative program through Mineral Area College (MAC) that allows qualifying juniors and seniors a great opportunity to get a head start on their college education while still in high school.

Students enrolled in an articulation program at CTC will earn the technical portion of the degree while in high school and may complete the general education portion of the degree upon graduation. The general education courses may be completed at MAC's campus in Park Hills, or students may choose to take the courses online with MAC. The credit will be issued to any student who chooses to pursue an Associate of Applied Science degree either on the MAC campus or via online coursework. Once students have completed 15 hours of non-developmental classes, the credit earned at CTC will be issued to them.

Programs with articulation agreements include: Automotive Collision, Automotive Technology, Childcare, Computer Networking and Security, Construction Technology, Digital Media Production, Electrical Trades, Graphic Design, HVAC/R, Precision Machining, and Pre-Engineering - Project Lead the Way.

The following high school programs are offered at the Cape Girardeau Career and Technology Center:

Course Title: Auto Collision Technology 1..... CREDIT: 3.0

2 semesters – 3 periods

Mineral Area College (MAC) – Articulated Credit

Grades Eligible: 11, 12

Prerequisites: None

Description: This course provides training in auto collision repair; straightening sheet metal with hand and power tools, dent filling with plastics, sanding and masking techniques, and windshield repair/replacement. Basic instruction in mig welding is given for panel repair. Spray painting is primarily with base coat/clear coat paint system. Students complete projects on late model vehicles. Written competencies will require 3 days in classroom per week for the first semester.

Course Title: Auto Collision Technology 2 CREDIT: 3.0

2 semesters – 3 periods

Mineral Area College (MAC) – Articulated Credit

Grades Eligible: 12

Prerequisites: Auto Collision Tech 1 and instructor approval

Description: This course reinforces competencies learned in Auto Collision Technology 1. In addition to the technology previously acquired, this course provides advanced training in all phases of the occupation including air conditioning, estimation, spraying urethane finishes of all types, color blending, and paint matching. Students will complete projects on a variety of vehicles.

Course Title: Automotive Technology 1 CREDIT: 3.0
2 semesters – 3 periods **Mineral Area College (MAC) – Articulated Credit**
Grades Eligible: 11, 12
Prerequisites: Valid driver’s license and a good driving record
Description: This is an introduction to shop safety, automotive maintenance, power plants, electrical, braking, steering, suspension system, maintenance and light repair, and SkillsUSA. Theory, diagnosis and computerized systems will be emphasized in all levels of training. In-depth book work along with theory and shop work is expected. Students must have good communication skills and math skills. Much emphasis will be placed on **Automotive Service Excellence (ASE)** guidelines. Students must have a valid driver’s license and a good driving record.

Course Title: Automotive Technology 2 CREDIT: 3.0
2 semesters – 3 periods **Mineral Area College (MAC) – Articulated Credit**
Grades Eligible: 12
Prerequisites: Automotive Technology 1 and instructor approval
Description: This class is an introduction to brakes, advanced electrical, emission and fuel control, heating and air conditioning, auto tire and wheel alignment, electrical test equipment, maintenance and light repair, and prep for employment. In-depth theory and shop work is expected. Much emphasis will be placed on **Automotive Service Excellence (ASE)** guidelines. Students must have good communication and math skills, a valid driver’s license, and a good driving record.

Course Title: Basic Flight..... CREDIT: 3.0
2 Semesters- 3 periods (AM only)
Grades Eligible: 11, 12 (one year only- seniors will be given preference)
Prerequisites: Algebra 1
Description: This course is designed to provide the initial phases of ground and flight training prescribed by Federal Aviation Regulations (FARs) part 61 for the private pilot certification level. Along with classroom training students may log a possible 5 hours of aircraft practical flight instruction and a possible 10 hours of flight observation. Upon successful completion of the course, students are eligible to take the FAA Private Pilot written exam and pursue student pilot certification status.

Course Title: Early Childhood Education CREDIT: 3.0
2 Semesters – 3 periods **Mineral Area College (MAC) – Articulated Credit; SEMO dual credit available**
Grade Eligible: 12
Prerequisites: Child Development or instructor approval
Description: This is a three hour block in which students begin to learn how to become an Early Childhood Teacher. Students learn about child development theories and health and safety techniques as well as to develop age-appropriate learning activities for children ages 3-5. Students learn positive discipline techniques needed to successfully manage a classroom. Students receive experience writing lesson plans, implementing those plans, conducting circle time, and managing the classroom. Students learn how to observe and record student behavior, build a positive and productive relationship with families and maintain a commitment to professionalism. Students will begin a professional portfolio necessary for national certification. Students earn 120 clock hours of classroom training, including 10 hours in each of the 8 CDS subcategories, and 480 clock hours of interaction with children required for the Child Development Associate (CDA) examination. This national certification is recognized in 48 states and opens employment doors in State-licensed daycares and preschools as well as Head Start programs. Dual credit is available through SEMO. Those credits would go toward an Early Childhood Degree or could be used as elective credits.

Course Title: Computer Coding and Programming 1 CREDIT: 3.0
2 semesters – 3 periods – (AM Only)
Grades Eligible: 11, 12
Prerequisites: Computer Basics (Computer Apps or Keyboarding) and Algebra 1 or equivalent
Description: This course introduces students to coding fundamentals through an approachable, block-based programming language where they will have early success in creating usable apps. As students sharpen their computational thinking skills, they transition to programming environments that reinforce coding fundamentals by displaying block programming and text based programming style side-by-side. Finally, students will learn the text-based languages HTML, CSS and JavaScript to create and build various websites.

Course Title: Computer Coding and Programming 2..... **CREDIT: 3.0**
2 semesters – 3 periods – (PM Only)
Grades Eligible: 12
Prerequisites: Computer Coding and Programming 1 with a minimum of a C- and instructor approval
Description: This course is a continuation of Computer Coding and Programming 1. Students will specialize in languages, such as HTML, CSS, and JavaScript. Students will also be exposed to languages, such as PHP. Year two focuses on text-based languages, as well as career readiness in the Computer Science curriculum. Students are responsible for transportation to internship locations.

Course Title: Computer Networking and Security 1..... **CREDIT: 3.0**
2 semesters – 3 periods – (AM Only) **Mineral Area College (MAC) – Articulated Credit**
Grades Eligible: 11, 12
Prerequisites: Keyboarding, Computer Applications, Algebra 1 and English with a grade of C and above are required. Strong reading skills and good attendance will be necessary.
Description: Year 1 Computer Networking and Security students will learn the fundamentals of computer hardware, software, and networking. Students will learn how to install, configure, upgrade, repair and build a computer. Students also develop the technical skills needed to securely establish, maintain, and troubleshoot the essential networks that businesses rely on. By the end of the year, students have the opportunity to obtain 3 different CompTIA certifications: IT Fundamentals, CompTIA A+, and Network+. Students will gain the fundamental skills needed to obtain entry level IT jobs.

Course Title: Computer Networking and Security 2..... **CREDIT: 3.0**
2 semesters – 3 periods – (PM Only) **Mineral Area College (MAC) – Articulated Credit**
Grades Eligible: 12
Prerequisites: Computer Networking and Security 1 with a minimum of C- and instructor approval
Description: Year 2 Computer Networking and Security emphasizes computer security essentials. Students will learn the practical and hands-on abilities to both identify and address security threats, attacks, and vulnerabilities. Students will learn how to effectively respond to and recover from threat incidents. Over the course of the year, students will take the courses Security Pro, CyberDefense Pro, and Ethical Hacker Pro. By the end of the year, students have the opportunity to obtain 3 different security certifications to begin their journey towards an entry level security IT job. With both Computer Networking and Security courses combined, students will have the foundation knowledge and experience they need to enter into the IT field with success.

Course Title: Construction Technology 1 **CREDIT: 3.0**
2 semesters – 3 periods **Mineral Area College (MAC) – Articulated Credit**
Grades Eligible: 11, 12
Prerequisites: None
Description: Students will receive instruction and hands-on experience in hand and power tool safety, site prep and layout, footing and foundation forming, floor and wall framing, sheathing, window and exterior door installation and exterior wall finishes. The students will participate in various projects around the school district. Besides the hands on training, there will be extensive classroom work including math and communication arts. The students will also spend time being tested for basic job skills.

Course Title: Construction Technology 2 **CREDIT: 3.0**
2 semesters – 3 periods **Mineral Area College (MAC) – Articulated Credit**
Grades Eligible: 12
Prerequisites: Construction Technology 1 and instructor approval
Description: Students will cover areas of residential interior finish carpentry. This will include energy conservation, insulation, drywall, interior wall and ceiling finishes, interior doors and trim, flooring, cabinet installation, fixture installation, residential wiring and plumbing. The students will participate in various projects around the school district. Besides the hands on training, there will be extensive classroom work including math and communication arts. Students will also spend time being tested for basic job skills. Students will have the opportunity to earn the OSHA 10 card.

Course Title: Criminal Justice..... **CREDIT: 3.0**
2 semesters – 3 periods –
Grades Eligible: 11, 12 (one year only- seniors will be given preference)
Prerequisites: None
Description: Students must be in good standing in regards to their school discipline; in other words, a student must be someone who has demonstrated exemplary character and conduct throughout their high school career. Moreover, a student must not have any discipline situations involving physical altercations, any illegal substances or any incidents that have resulted in criminal charges. All students will be interviewed by the instructor before class begins. All applicants will be required to submit a letter of recommendation

(teacher/employer). This course is a one-year class and will provide students with knowledge in the field of criminal justice/forensics and prepare them for continuing education, and ultimately, employment in a related field. This course is designed to acquaint the students with historical perspectives of criminal justice and a variety of criminal justice career fields, including but not limited to Crime Scene Investigation, Law Enforcement, Police Science, Patrol Theories, Report Writing, Legal Studies, and Leadership Competencies. Course content may include the discussion and viewing some of man's worst and gruesome crime scenes. Students will be exposed to real-world scenarios, which include language and actions consistent with law enforcement encounters.

*Students must maintain exceptional attendance during enrollment in the program. Any student who has poor attendance may be removed from the course.

**Students will be required to purchase a class uniform, including pants, polo shirt, belt, and boots within the first few weeks of class. The cost of the uniform is approximately \$140.

Course Title: Culinary Arts 1 CREDIT: 3.0

2 semesters – 3 periods

Grades Eligible: 11, 12

Prerequisites: Basic Food Class

Description: This program of study is the basic principles of the foodservice industry. Food safety, sanitation, personal safety, food handling skills, knife skills, nutrition, customer service and cooking techniques highlight this program. Students will learn what the nation's largest employer expects them to know and the wide range of opportunities available in the foodservice industry. Hands-on experience is an integral part of the program featuring lab sessions on a large variety of kitchen equipment. Students will learn tasks involved in front of house operations, back of house operations and receive their food handler's card from the local regulatory agency.

Course Title: Culinary Arts 2 CREDIT: 3.0

2 semesters – 3 periods

Grades Eligible: 12

Prerequisites: Culinary Arts 1 and instructor approval

Description: The second year program provides students with additional training in specific roles of the food service industry. The course is designed for students to develop additional knowledge to prepare for careers in the food service industry. History and depth of knowledge of the industry allows students to understand the concepts of proven and varied cooking techniques used worldwide. Students learn about food costing, menu planning and profitability. Students meeting the qualifications and with recommendation of the instructor will have the opportunity to compete in culinary competitions at the state and national level. Students will take lead roles in the operation of our campus restaurant and further their experience in real world foodservice operations. Second year students will have the opportunity to become ServSafe Certified and earn certification from the National Restaurant Association ProStart Program.

Course Title: Digital Media Production CREDIT: 3.0

2 semesters – 3 periods

Mineral Area College (MAC) – Articulated Credit

Grades Eligible: 11, 12

Prerequisites: Computer Applications 1 with a grade of “C+” or above

Description: This exciting program will introduce and prepare students for the field of broadcasting, digital video, and digital film production. Emphasis will be placed on hands-on access to the high-tech gear and state-of-the-art software, digital video cameras, professional lighting, audio equipment, and more. Students will also learn computer-based editing with Adobe Premiere Adobe Photoshop, and Adobe Audition along with Adobe After Effects while working on projects such as: TV commercials, PSAs, news, music videos, sports, and even short films. This class gives students the skills, tools and techniques to prepare for an exciting future in media, movies, and communications.

Course Title: Advanced Digital Media Production CREDIT: 3.0

2 semesters – 3 periods

Mineral Area College (MAC) – Articulated Credit

Grades Eligible: 12

Prerequisites: Digital Media Production 1 and instructor approval

Description: This challenging program will build upon the basics of Digital Media, moving into specialized software cutting edge techniques and advanced gear. New genres of production will be explored including news production, film shorts, and industrial video production. Successful completion of this program could qualify students for entry-level employment at television stations, video production companies, advertising agencies, and even film production.

Course Title: Electrical Trades 1 CREDIT: 3.0
2 semesters – 3 periods **Mineral Area College (MAC) – Articulated Credit**
Grades Eligible: 11, 12
Prerequisites: Algebra A

Description: This course provides training in electrical trades. Students learn how to interpret and apply designs and drawings to the electrical field. Instruction includes constructing, calculating, and installing residential circuits and applicable codes. This course prepares students for entry level employment as an electrician and other related areas. In the first year, residential and commercial wiring are taught, including house wiring, NEC code calculations and blueprint reading, conduit bending, and transformers.

Course Title: Electrical Trades 2..... CREDIT: 3.0
2 semesters – 3 periods **Mineral Area College (MAC) – Articulated Credit**
Grades Eligible: 12

Prerequisites: Electrical Trades 1 and instructor approval

Description: Students will focus on industrial motor controls and PLC (Programmable Logic Controller). Students learn to install, troubleshoot, and maintain motor controls and variable frequency drives. Upon completion of the second year, students will be able to read and write Programmable Logix. The type of PLC the students will learn is Compact Logix Studio 5000.

Course Title: Emergency Medical Technician-Basic (EMT-B) CREDIT: 3.0
2 semesters – 3 periods –

Grades Eligible: 12 (one year only)

Prerequisites: Exceptional Attendance (including tardies) no more than 5 – pending review; No more than 2 discipline referrals – pending review; Cumulative GPA Minimum 2.5/4.0 scale; Complete Health course with a C or better. If criteria is met, there will be a follow-up interview.

Description: EMT-B is a study of basic emergency care. Students learn the history of Emergency Medical Service (EMS), as well as proper care of the sick and injured patient. The program follows the Department of Transportation’s National Standard Curriculum for EMT-B. Upon completion students will be eligible to take the National Registry Certification Exam. Curriculum includes how to properly assess and treat patients, how to perform CPR, management of medical conditions and traumatic injuries, obstetrical emergencies, infant and pediatric emergencies and ambulance operations. Also included are specialized areas of training, including: Emergency Vehicle Operation driving course, hazardous material training, Pediatric Advanced Life Support (PALS), and landing zone training by AirEvac. The program includes classroom and lab studies as well as clinical rotations completed out of class (weekends, holiday break, etc.) at Hospital Emergency Room departments (ER), area ambulance services and local fire departments. Rigorous standards will be maintained in the EMT program. A flipped classroom method is used and anything below 75% is considered failing. The EMT attendance policy states that no more than 3 days a semester may be missed, 6 days total year (exception is home school activities). Tardies are considered absences. This class is beneficial for anyone wanting to pursue the medical field. *Students will be required to purchase throughout the school year: uniform pants, uniform boots, uniform belt, stethoscope, flu shot, TB test, watch with second hand, and certification exam fees. Optional: uniform hat, and pullover. This course will cost the student approximately \$300.*

Course Title: Fire Science Credit: 3.0
2 semesters - 3 class periods

Grades Eligible: 11, 12

Prerequisite: Minimum 2.5 GPA, exceptional attendance, minimum discipline referrals, & an interview with the instructor prior to enrollment.

Description: This course will prepare students to begin a career as a firefighter. Topics covered will include fire protection characteristics, fire behavior, chemistry of fire, extinguishing agents, water supply, in-depth fire streams, auto extrication, and fire theory. Upon successful completion of this course, the student will have received training for certification as a Firefighter I & II, Hazardous Materials Awareness & Operations, and National Incident Management System (NIMS 100, 200, & 700). This course is both physically and mentally demanding. Students will participate in active physical training. Successful completion of all required courses allows the student to test as a firefighter through the Missouri Division of Fire Safety. A class uniform will be required. **Fire Science is a two year program with the second year being the EMT-B course.**

Course Title: Graphic Arts 1 **CREDIT: 3.0**
2 semesters – 3 periods **Mineral Area College (MAC) – Articulated Credit**
Grades Eligible: 11, 12
Prerequisites: Keyboarding

Description: Graphic Arts 1 is designed to give students the opportunity to experience the many facets of the Graphic Design/Offset Printing industry through classroom and hands-on techniques. Students will utilize Adobe Photoshop CC, Adobe Illustrator CC, Adobe InDesign CC and will be given the opportunity to design and print products used by local school districts, including programs, fliers, brochures, stationery, envelopes, and much more. In addition to paper products, students will be given the opportunity to learn the basics of screen printing including but not limited to creating the image, setting up the equipment, and printing the product.

Course Title: Graphic Arts 2 **CREDIT: 3.0**
2 semesters – 3 periods **Mineral Area College (MAC) – Articulated Credit**
Grades Eligible: 12
Prerequisites: Graphic Arts 1 and instructor approval

Description: Students will have the opportunity to experience many facets of the Graphic Design/Offset Printing industry through classroom and hands-on techniques. Students will continue to expand their knowledge of Adobe Photoshop CC, Adobe Illustrator CC, and Adobe InDesign CC to design and print products used by local school districts, including programs, fliers, brochures, stationery, envelopes, and more. In addition, students will be challenged to expand their knowledge of screen printing to create more intricate images, and to master the process for setting up equipment for multi-color printing jobs. Students will be given experience in some managerial aspects of the printing process while working with first year students on printing and screen printing projects.

Course Title: Health Occupations **CREDIT: 3.0**
2 semesters – 3 periods
Grades Eligible: 12
Prerequisites: None

Description: Students will learn medical terminology, anatomy and physiology, and basic bedside care skills. You will learn to give daily care to a resident (bathe, dress, feed, bathroom/toileting and assist with activities of daily living). The first semester all students learn the basic skills that all health care workers need to know. The second semester students will travel to nursing facilities for hands on training and will continue training to become a Certified Nurse Assistant (CNA). Upon successful completion of all class and state requirements, eligible students may take the Missouri Nurse Assistant Certification Test. In order for students to be eligible to sit for the exam, the State of Missouri mandates that students must complete 75 hours of classroom instruction, complete 100 hours of on-the-job training in a long term care facility, and make at least 80% or better on three unit exams. *For a reduced fee, Health Occupations students may also receive three hours of dual enrollment credit in Medical Terminology through Mineral Area College. *Students will be required to purchase the following throughout the school year: watch with second hand, scrub uniform set, leather type tennis shoes, TB test, flu shot, Family Care Safety Registration, CPR/First Aid cards, **This course will cost the student approximately \$115.***

Course Title: HVAC-R 1 **CREDIT: 3.0**
2 semesters – 3 periods **Mineral Area College (MAC) – Articulated Credit**
Grades Eligible: 11, 12
Prerequisites: None

Description: Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC-R) field is part of a growing technical-trades industry. This course is designed to provide a fundamental understanding and working knowledge in the fields of heating, ventilation, air conditioning, and refrigeration. Students will study all phases of HVAC-R applications, fundamental circuitry/schematics reading, and troubleshooting electrical, mechanical, and refrigeration systems. Students will have the opportunity to take the EPA certification testing on site (at an additional fee) as well as testing for field certification in residential, light commercial, and heat pump application.

Course Title: Advanced HVAC-R 2 **CREDIT: 3.0**
2 semesters – 3 periods **Mineral Area College (MAC) – Articulated Credit**
Grades Eligible: 12
Prerequisites: HVAC-R 1 and instructor approval

Description: The second year student will train on light commercial systems applications, in-depth trouble shooting of circuitry, mechanical, and refrigeration systems. Students will have the opportunity to learn the practical application of recovery equipment and other service tools specific to the trade. Students will be allowed to choose specific areas of training, such as building energy management, sheet-metal design and fabrications, estimating and layout. Time will be spent preparing for industry certification.

Course Title: Landscape/Horticulture 1 **CREDIT: 3.0**
2 semesters – 3 periods (AM Only)
Grades Eligible: 11, 12
Prerequisites: None

Description: This program is designed to provide knowledge and practical experience in the care, cultivation, and identification of ornamental and landscape plants; flowers, trees, shrubs, ground-covers, vines, and perennials/annuals/biennials. The work will be balanced between the classroom and outdoor activities and laboratories, with emphasis not only on applying and highlighting skills learned in classroom, but also on solution-based problem-solving and innovation/creation. Students will be exposed to and gain ability in plant propagation from seed and numerous methods of cloning, greenhouse operations, various elements of landscape and floral design, pruning practices, turfgrass management, and various other aspects of Sustainable Horticulture and food-production.

Course Title: Landscape/Horticulture 2 **CREDIT: 3.0**
2 semesters – 3 periods (AM Only)
Grades Eligible: 12

Prerequisites: Landscape Horticulture 1 and instructor approval

Description: Second-year students can focus for specialization in areas of interest, such as greenhouse management, hydro/aero/aquaponics, nursery management, landscape installation/maintenance, hardscaping, or others. Students who maintain a “C” or better average coupled with proper attendance may qualify for a work/study program in the fourth quarter of their second year. Upon completion of this course, students may choose to be tested for certification as an Advanced Level Missouri Certified Nursery and Landscape Professional (testing fee applies).

Course Title: Marketing 1.....**CREDIT: 3.0**
2 semesters – 3 periods – (AM Only)

Grades Eligible: 11, 12

Prerequisites: None

Description: This course is designed to help students learn the basic concepts and practices of retailing within our society. Students will gain an in-depth understanding of the many elements of marketing, business management, and selling as it relates to retailing and retail businesses. This course will explore topics ranging from selling, cashiering, customer relations, pricing and promotion. The student store will be used as a learning lab, and students will rotate through various positions for experiential learning before testing on course standards. This course is ideal for students who have a career interest in marketing, management, or retailing.

Course Title: Marketing 2..... **CREDIT: 3.0**
2 semesters – 3 periods – (PM Only)

Grades Eligible: 12

Prerequisites: Marketing 1 or instructor approval

Description: This course is designed to help students learn the basic concepts and practices of marketing within our society. Students will gain an in-depth understanding of the many elements of marketing, business management, and selling. This is an ideal course for those students who have a career interest in marketing or management. Students enrolled in this course may participate in the Marketing Internship program for paid, on-the-job training in a marketing occupation. Students may be released up to two periods from the regular school day to complete the on-the-job portion of this class. Those students working a minimum of 180 hours per semester (10 hours a week) will be released one period, and those working 360 hours per semester (20 hours a week) will be released two periods. Participation in the Internship is not automatic. Instructor must approve the training site during the first week of class.

Course Title: Practical Nursing **CREDIT: 3.0**
2 semesters – 3 periods (AM Only)

Grades Eligible – 12

Prerequisites: cumulative overall GPA of B or better; English I, II, III; Algebra I; Biology; successful completion of the ATI-TEAS test; successful completion of extensive application and interview process; remarkable attendance and discipline history

Description: Only a few nursing schools across the nation offer an educational opportunity to enter the field of nursing as high school seniors. The practical nursing program at the CTC provides a secondary/post-secondary track where students complete the first session of classes during a 3-hour block at the CTC during their senior year. They return in July/August after graduating high school and complete the nursing courses along with the remainder of the clinical experiences in the second year. Students will graduate from the practical nursing program the following May. Admission into nursing programs is competitive. Many require completion of pre-

requisite college courses with a certain GPA. Some have 2-3 year wait lists to get admitted. Practical nursing education has both classroom and hands-on clinical experience in a student-friendly, small-group environment. Tuition for the senior year is paid by the sending school. Financial aid, including the A+ scholarship, is available for the post-secondary year. Many of our graduates work as LPN's while they further their education to reach their career goals. *Students will need to purchase the following throughout the school year: flu shot, CPR card, liability insurance, MOSALPN student membership, watch with second hand, stethoscope, bandage scissors, pen light, white lab coat, uniforms, and all white nurses shoes. This course will cost the student approximately \$250.*

Course Title: Precision Machining 1 CREDIT: 3.0
2 semesters – 3 periods – (AM Only) Mineral Area College (MAC) – Articulated Credit
Grades Eligible: 11, 12

Prerequisites: Algebra 1 or equivalent

Description: This course is designed to prepare students for entry-level manufacturing jobs as a machinist. Students will learn to operate a power saw, drill press, lathe, mill, and grinder. Fabrication and resurfacing of cutting tools will be taught. In addition, students will interpret designs, drawings, and specifications and analyze quality control data.

Course Title: Precision Machining 2 CREDIT: 3.0
2 semesters – 3 periods – (AM Only) Mineral Area College (MAC) – Articulated Credit
Grades Eligible: 12

Prerequisites: Precision Machining 1 and instructor approval

Description: This course is a continuation of Precision Machining 1. Students will also work with computerized numerical control (CNC) machine tools and Electric Discharge Machine operation. Students in the second semester of this course may have the opportunity to complete an approved internship.

Course Title: Pre-Engineering Block 1 by Project Lead the Way CREDIT: 3.0
2 semesters – 3 periods – (AM Only) Mineral Area College (MAC) – Articulated Credit
Grades Eligible – 11, 12

Prerequisites- students must be enrolled in or have completed a college preparatory sequence of math courses (at least Algebra 1 or Algebra B in Grade 9, Geometry in Grade 10, and Algebra 2 in Grade 11) and be interested in the field of engineering

Description: This block will include two PLTW courses: Intro to Engineering Design and Principles of Engineering, and Civil Engineering and Architecture. PLTW is a sequence of courses which, when combined with traditional mathematics and science courses in high school, introduces students to the scope, rigor, discipline and fun of engineering prior to entering college. This block will include:

Intro to Engineering Design – In this course students use a problem-solving model to improve existing products and invent new ones. They learn how to apply this model to solve problems in and out of the classroom. Using sophisticated three-dimensional modeling software, students communicate the details of the products. Emphasis is placed on analyzing potential solutions and communicating ideas to others.

Principles of Engineering - This introductory course explores the wide variety of careers in engineering and technology and covers various technology systems and manufacturing processes. Using activities, projects, and problems, students learn firsthand how engineers and technicians use math, science, and technology in an engineering problem-solving process to benefit people. The course also addresses concerns about social and political consequences and technological change.

Course Title: Pre-Engineering Block 2 by Project Lead the Way CREDIT: 3.0
2 semesters – 3 periods (PM Only) Mineral Area College (MAC) – Articulated Credit
Grades Eligible – 12

Prerequisites – completion of Pre-Engineering Block 1 and instructor approval

Pre-Engineering Block 2 is offered during the afternoon CTC block. This course will continue to offer students project-based, hands-on experience to teach students the key elements and skills of engineering and technology-based careers by immersing them in rigorous engineering problems. This block will include:

Computer Integrated Manufacturing - Students learn concepts of robotics and automated manufacturing by creating three-dimensional designs using computer modeling software. After designs are electronically created, students actually produce models of their designs through the use of CNC equipment and robotics.

Civil Engineering and Architecture - Students study the design and construction of residential and commercial building projects. It is an introduction to the varied factors involved in building and site design and construction, including building components and systems, structural design, storm water management, site design, utilities and services, cost estimation, energy efficiency, and careers in the design and construction industry. Students are exposed to the design and construction practices of residential and commercial building projects, design teams and teamwork, communication methods, building codes and ordinances, engineering design calculations, and technical documentation. Students use industry standard 3D architectural modeling software to facilitate site and

building design and technical documentation. As the course progresses and the complexity of the design problems increase, students learn more advanced computer modeling skills as they become more independent in their learning, more professional in their collaboration and communication, and more experienced in problem solving and design.

Engineering Design and Development – Teams of students, guided by community mentors, work together to research, design, and construct solutions to engineering problems. **Students enrolled in any of the Pre-Engineering courses may be eligible to receive dual college credit at numerous universities across the nation, including Missouri S & T.**

Course Title: Welding 1..... CREDIT: 3.0

2 semesters – 3 periods

Grades Eligible: 11, 12

Prerequisites: None

Description: Students enrolling in Welding 1 receive approximately 450 hours of intense welding instruction by a certified welding instructor in Oxyacetylene Welding and Cutting, Shielded Metal Arc Welding, Gas Metal Arc Welding and Gas Tungsten Arc Welding based on guidelines set forth by the American Welding Society. This instruction will start students on the path for a successful future in the field of welding.

Course Title: Welding 2..... CREDIT: 3.0

2 semesters – 3 periods

Grades Eligible: 12

Prerequisites: Welding 1 and instructor approval

Description: Welding 2 solidifies everything learned in Welding 1, provides students with additional welding practice, and allows time for more in-depth training. By demonstrating advanced levels of skill performance, the student can complete Welding 2 and take multiple welder qualification tests for future employment experience.

EMBEDDED/DUAL CREDIT

Course Title: Embedded Math (Embedded Credit) CREDIT: 1.0

Grades Eligible: 11, 12

Prerequisites: Enrollment in a CTC career education program

Description: Students enrolled in a career education program may earn one credit of math in one academic year or a combination of two academic years. Embedded math requires students to use practical mathematics to solve technical, real-life problems. Students must complete an enrollment form with their counselor in order to be enrolled in the course. This is a competency based course so students must pass their CTC course and embedded math exam to receive credit.

Course Title: Embedded English/Language Arts (Embedded Credit) CREDIT: 1.0

Grades Eligible: 11, 12

Prerequisites: Enrollment in a CTC career education

Description: Embedded Language Arts allows all high school seniors to earn one full Language Arts credit upon completion of a career portfolio and passing their career program. This portfolio will be personalized to each student showcasing their knowledge, ability, and experience. Students will be expected to attend ELA class, individual conferences, complete work as assigned and participate in a mock interview. The completed portfolio can be used to apply for jobs, college admissions, internships/apprenticeships, and other training programs. Students who satisfy the requirements of the program and maintain a 70% or higher in ELA will earn one full Language Arts credit which will be transcribed at their home school.