

SPRINGVILLE HIGH SCHOOL COURSE GUIDE



2019 - 2020

Students, parents, employees and others doing business with or performing services for the Springville Community School District are hereby notified that this school district does not discriminate on the basis of race, color, national origin, gender, sexual orientation, gender identity, socioeconomic status, disability, religion, creed, age (except for permitting/prohibiting students to engage in certain activities), political party affiliation, marital status, or genetic information in admission or access to, or treatment in, its educational programs and activities, or its employment practices. Any person having inquiries concerning the school district's compliance federal and/or state non-discrimination laws is directed to contact the school district's compliance officer: Melissa Murphy, Secondary School Counselor at 400 Academy Street, Springville, Iowa 52336, or 319-854-6196 from 7:45 a.m. to 3:45 p.m., who has been designated by the school district to coordinate the school district's efforts to comply with federal and/or state non-discrimination laws.

The Springville Community School District offers career and technical programs in the following service areas:

- Agriculture, Food, and Natural Resources
- Applied Science, Technology, Engineering, and Manufacturing
- Business, Finance, Marketing, and Management
- Health Science

Table of Contents

[Preparing for Postsecondary Success](#)

[Course Selection by Career Pathway](#)

[Springville High School Graduation Requirements](#)

[General Information](#)

[Agriculture](#)

[Art](#)

[Business](#)

[Career Education](#)

[Foreign Language](#)

[Health](#)

[Independent/Off-site Options](#)

[Industrial Technology](#)

[Language Arts](#)

[Mathematics](#)

[Music](#)

[Physical Education](#)

[Science](#)

[Social Studies](#)

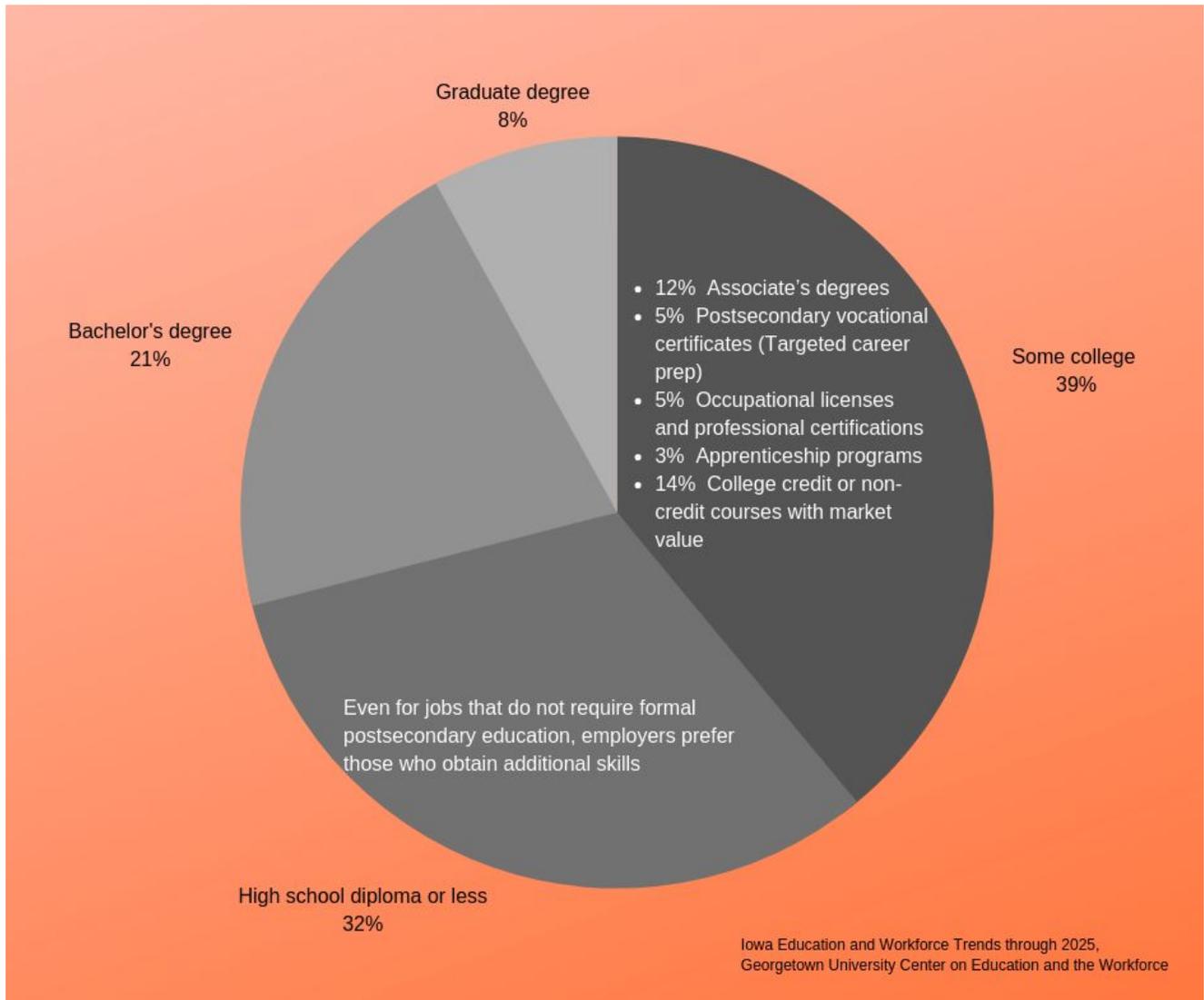
[Appendix A: Definition of College and Career Readiness in Iowa](#)

Preparing for Postsecondary Success

Springville Secondary faculty and staff strive to provide students an excellent foundation so they can grow into responsible, productive citizens who contribute to the community. We expect our students to have the knowledge, skills, and abilities to set and achieve meaningful and realistic goals, and the personal and interpersonal competence to achieve them. Springville Secondary's graduates will be ready for postsecondary success, possessing the content knowledge, self-understanding, and learning skills outlined in the Iowa Department of Education's Definition of College and Career Readiness (Appendix A), and seeing high school graduation as but one stop on the route to lifelong success.

There are many routes to the education and training necessary to postsecondary success: service to the country via Americorp or the military, employer provided on-the-job training, apprenticeships, industry certifications, government licensure, certificate programs at vocational or technical schools, two-year colleges, four-year colleges and universities. As the infographic below indicates, by 2025, most jobs in Iowa will require some postsecondary education, but not a four-year degree:

Postsecondary education requirements--2025



No matter what route one chooses, postsecondary education and training leads to greater earning potential. The figures below show the difference in average earnings among those with various degrees of education:

IOWA MEDIAN ANNUAL PERSONAL INCOME FOR FULL-TIME WORKERS (AGE 25 TO 64) BY EDUCATIONAL ATTAINMENT

EDUCATIONAL ATTAINMENT	MEDIAN ANNUAL PERSONAL INCOME
Less than 9th Grade	\$25,008
9th to 12th Grade, No Diploma	\$30,025
High School Diploma or Equivalent	\$35,000
Some College, No Degree	\$38,010
Associate Degree	\$42,000
Bachelor's Degree	\$60,015
Master's Degree	\$67,824
Professional Degree	\$85,577
Doctorate Degree	\$100,020
Overall	\$43,534

Source: Current Population Survey, 2014-2016 3-Year Average (2013-2015 Income)

In order to best position oneself for postsecondary education and training, students should take rigorous, demanding courses in the core areas of English, math, science, social studies, and foreign language. This is not to say that the fine arts should be ignored: Research demonstrates that students who participate in the fine arts have higher grade point averages, higher standardized test scores, and measurably higher levels of creativity and critical thinking skills.

To prepare for any of these postsecondary options, students should, in addition to meeting graduation requirements, consider the following:

- Many employers consider a foreign language important in today's world and offer additional pay to those who can communicate effectively in a second language. For this reason, Spanish is a recommended elective.
- Knowledge of computer technology is also important in today's technologically-driven workplace: Coursework in computers, such as Computer Business Applications, Desktop Publishing, and Emerging Technology Trends, is also recommended.
- Because the skills required of online learning will be important to 21st century workers—self-motivation, self-direction, and familiarity with the tools of online learning—it is recommended that all students take an online course during their high school careers.

In addition to industry-specific knowledge, there are certain skills that employers require of employees that cross all job titles and pay scales:

Personal Skills		
Integrity <i>Treating others with honesty, fairness and respect</i>	Professionalism <i>Maintaining a professional demeanor at work</i>	Dependability & Reliability <i>Displaying responsible behaviors at work</i>
Initiative <i>Demonstrating a willingness to work and seek out new work challenges</i>	Adaptability <i>Displaying the capability to adapt to new, different or changing requirements</i>	
People Skills		
Teamwork <i>Demonstrating the ability to work effectively with others</i>	Communication <i>Maintaining open lines of communication with others</i>	Respect <i>Working effectively with those who have diverse backgrounds</i>
Applied Knowledge		
Reading <i>Understanding written sentences and paragraphs in work-related documents</i>	Writing <i>Using standard English to clearly communicate thoughts, ideas and information in written form</i>	Mathematics <i>Using mathematics to solve problems</i>
Science <i>Knowing and applying scientific principles and methods to solve problems</i>	Technology <i>Using information technology and related applications to convey and retrieve information</i>	Critical Thinking <i>Using logical thought processes to analyze and draw conclusions</i>
Workplace Skills		
Planning & Organizing <i>Planning and prioritizing work to manage time effectively and accomplish assigned tasks</i>	Problem Solving <i>Demonstrating the ability to apply critical thinking skills to solve problems by generating, evaluating, and implementing solutions</i>	
Decision Making <i>Applying critical thinking skills to solve problems encountered in the workplace</i>	Working with Tools & Technology <i>Selecting, using and maintaining tools and technology to facilitate work activity</i>	

National Network of Business and Industry Associations, 2014



Agriculture, Food & Natural Resources

- ▶ NATURAL RESOURCES SYSTEMS
- ▶ PLANT SYSTEMS
- ▶ POWER, STRUCTURAL & TECHNICAL SYSTEMS
- ▶ ARCHITECTURE & CONSTRUCTION
- ▶ AGRIBUSINESS SYSTEMS
- ▶ ANIMAL SYSTEMS
- ▶ ENVIRONMENTAL SERVICE SYSTEMS
- ▶ FOOD PRODUCTS & PROCESSING SYSTEMS

A career in agriculture, food, and natural resources requires certain skills and education depending on job requirements. Skills include promotion, processing, marketing, distribution, financing, and development of agricultural commodities including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Environmental Studies	Environmental Engineering	\$76,050
Food Science	Health and Food Inspector	\$74,500
Animal Science	Animal Scientist	\$76,970

**Additional Bachelor's Degrees include: Agricultural and Life Sciences Education, Biology, Agricultural Biochemistry, Dairy Science, Agricultural Business, Environmental Science, Agricultural Engineering, Agricultural Studies, Agricultural Systems Technology, Horticulture, Agricultural and Society, Landscape Architecture, Agronomy, Nutritional Science, Animal Ecology, Veterinary Medicine*

Kirkwood Associate's Degree	Sample Career	Salaries
Agricultural Geospatial Technology	Mapping Technician	\$45,000
Agriculture Business	Crop Scouting	\$49,000
Agriculture Production Management	Agriculture Sales	\$33,000
Diesel Ag Technology	Heavy Diesel Equipment Technician	\$41,000
Diesel Truck Technology	Diesel Mechanic	\$40,000
Golf Course and Athletic Turfgrass Management	Grounds Manager	\$47,000
Veterinary Technology	Vet Tech	\$32,000
Humane Officer	Animal Control Officer	\$32,000
Landscape Construction and Design	Landscape Architect	\$54,900
Parks and Natural Resources	Gaming Officer	\$32,600
Water Environmental Technology	Water Treatment Operator	\$45,000





Agriculture, Food & Natural Resources

Kirkwood Diploma	Sample Career	Salaries
Agriculture Production	Seed Production	\$35,000
Pet Grooming	Pet Groomer	\$27,000
Golf Course and Athletic Turfgrass Management	Grounds Maintenance	\$37,500
Veterinary Assistant	Vet Assistant	\$24,000
Animal Control Assistant	Animal Care Assistant	\$24,500
Landscape Construction and Design	Landscape Worker	\$27,700
Water Environmental Technology	Environmental Technician	\$31,000
Water Treatment Specialist	Water Treatment Specialist	\$31,000
Wastewater Specialist	Wastewater Operator	\$39,000
Kirkwood Certificates	Sample Career	Salaries
Agricultural Geospatial Technology	Farm Machinery Operator	\$35,200
Small Scale Food Production	Farm Laborer	\$27,700
Kirkwood Career Academies	Sample Career	Salaries
Agriculture Sciences	Field Technician	\$26,400
Water Environmental Technology	Water Operator	\$24,950



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data—Nov. 2018



High School Courses

- Biology
- Chemistry
- Introduction to Agriculture
- Introduction to Animal Science
- Agribusiness Management
- General Horticulture
- Environmental Service Systems
- Food Products and Processing Systems

High School Related Activities and Clubs

- Job Shadow
- Internship
- FFA



Architecture & Construction

- ▶ CONSTRUCTION
- ▶ DESIGN/PRE-CONSTRUCTION
- ▶ MAINTENANCE/OPERATIONS

A career in architecture and construction requires certain skills and education depending on job requirements. Skills include designing, planning, managing, building, and maintaining the built environment.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Architecture	Architect	\$83,750
Civil Engineering	Civil Engineer	\$81,850
Industrial Design	Electronic Engineer	\$69,800
Industrial Engineer	Industrial Engineer	\$78,950
Construction Management	Construction and Building Inspector	\$62,130

**Additional Bachelor's Degrees include: Art & Design, Community & Regional Planning, Construction Engineering, Construction Management, Forestry, Graphic Design, Industrial Engineering, Industrial Technology, Interdisciplinary Design, Interior Design, Landscape Architecture, Materials Engineering*

Kirkwood Associate's Degree	Sample Career	Salaries
Architecture Technology	Architectural Drafter	\$50,900
CAD/Mechanical Engineering Technology	CAD Drafter	\$54,900
Construction Management	First Line Supervisor	\$61,200
Interior Design	Interior Designer	\$40,000

Kirkwood Diploma	Sample Career	Salaries
CAD/Mechanical Engineering Technology	Mechanical Engineering Technician	\$49,900
Carpentry	Carpenter	\$42,900
HVAC Installer	HVAC Installer	\$50,500
Plumbing Pre-Apprenticeship	Plumber (if followed by an apprenticeship)	\$50,200

Kirkwood Certificates	Sample Career	Salaries
Construction Estimator	Estimator	\$35,000
Construction Supervision Certificate	Construction Coordinator	\$50,950

Kirkwood Career Academies	Sample Career	Salaries
ACE: Construction Trades (Pre-Apprenticeship)	Entry Level Construction Laborer	\$37,050
ACE: Architectural and Engineering Design (Pre-Apprenticeship)	Design Assistant	\$30,100



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data - Nov. 2018



High School Courses

- Introduction to ACE
- Construction Materials Processing
- Construction Technology
- Architectural Plans and Specs
- Residential Construction
- Construction Careers

High School Related Activities and Clubs

- Job Shadow
- Internship
- Industry Tours
- Apprenticeship Fair
- Build Iowa Career Fair



Arts, A/V Technology & Communications

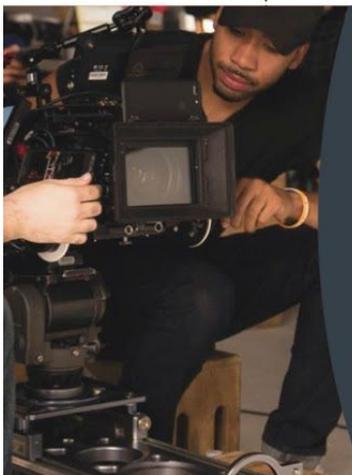
- ▶ AV TECHNOLOGY & FILM
- ▶ JOURNALISM & BROADCASTING
- ▶ PERFORMING ARTS
- ▶ PRINTING TECHNOLOGY
- ▶ TELECOMMUNICATIONS
- ▶ VISUAL ARTS

A career in arts, audio/visual technology and communications requires certain skills and education depending on job requirements. Skills include designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Broadcasting	News Anchor	\$50,850
English	Technical Writer	\$54,650
Theater	Theatre Actor	\$50,900
Kirkwood Associate's Degree	Sample Career	Salaries
Graphic Communication Technology	Graphic Designer	\$45,700
Interior Design	Interior Designer	\$40,000
Web Technologies	Desktop Publisher	\$41,500
Kirkwood Career Academies	Sample Career	Salaries
Arts and Sciences Academy	Camera Operator	\$32,450
Graphic Communication Technology Academy	Merchandise Displayer	\$28,800
Kirkwood Certificates	Sample Career	Salaries
Social Media Marketing	Media Technician	\$34,400
Web Development	Website Developer	\$58,000
Web Design	Website Designer	\$47,700



*Information provided by Emisi National data and Kirkwood Community College Regional Talent Forecast Data - Nov. 2018



High School Courses

- Drawing
- Painting
- Pottery
- Writers' Workshop
- Emerging Technology Trends
- Fundamentals of Webpage Design
- Desktop Publishing
- AV Technology and Film Careers
- Introduction to Careers in Arts, AV Technology, and Communications
- Oral Communication

High School Related Activities and Clubs

- Job Shadow
- Internship
- Yearbook
- Speech
- Drama



Business Management & Administration

- ▶ ADMINISTRATIVE SUPPORT
- ▶ BUSINESS INFORMATION MANAGEMENT
- ▶ GENERAL MANAGEMENT
- ▶ HUMAN RESOURCES MANAGEMENT
- ▶ OPERATIONS MANAGEMENT

A career in business management and administration requires certain skills and education depending on job requirements. Skills include planning, organizing, directing, and evaluating business functions essential to productive business operations.

Advanced Degree	Sample Career	Salaries
Master's Degree in Business Administration (MBA)	Executive Manager/CEO	\$179,500
Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Business	Operations Manager	\$96,750
Business Administration	Administrative Services Manager	\$88,600
Business Information Systems	Business Analytics & Info Systems	\$122,250
Business Management	Compensation & Benefits Manager	\$106,200
Human Resources	Human Resource Manager	\$102,950
<i>*Additional Bachelor's Degrees include: Business Teaching, Entrepreneurship, International Business</i>		
Kirkwood Associate's Degree	Sample Career	Salaries
Business Administration: Accounting	Accounting Clerk	\$37,400
Business Administration: Financial Services	Credit Counselor	\$40,200
Business Administration: Management	Community Service Manager	\$58,300
Administrative Management	Executive Assistant	\$48,700
Health Information Technology	HIT Technician	\$40,500
Business Administration w/ Transfer Option		
Kirkwood Diploma	Sample Career	Salaries
Office Assistant	Office Clerk	\$34,300
Medical Coding	Medical Secretary	\$35,200
Medical Transcription	Medical Transcriptionist	\$34,700
Kirkwood Certificates	Sample Career	Salaries
Technical Accounting	Bookkeeper	\$37,400
Global Perspectives in Business	Shipping, Receiving, and Traffic Clerks	\$34,600
Entrepreneurship	Business Continuity Planner	\$63,000
Human Resources	HR Assistant	\$39,200
Project Management	Project Manager	\$51,100
Medical Transcription	Medical Transcriptionist	\$28,900
Kirkwood Career Academies	Sample Career	Salaries
Pre-Business Administration	Receptionist	\$28,400
Arts and Sciences	Mail Clerk	\$29,100



**Information provided by Emis National data and Kirkwood Community College Regional Talent Forecast Data -- Nov. 2018*



High School Courses

- Introduction to Business
- Personal Finance
- Computer Business Applications
- Psychology

- Workplace Communication
- Business Law
- Small Business Entrepreneurship
- Technology and Business

High School Related Activities and Clubs

- Job Shadow
- Internship



Education and Training

- ▶ ADMINISTRATION & ADMINISTRATIVE SUPPORT
- ▶ PROFESSIONAL SUPPORT SERVICES
- ▶ TEACHING/TRAINING

A career in education and training requires certain skills and education depending on job requirements. Skills include planning, managing, and providing education and training service, and related learning support services.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Elementary Education	Elementary Special Education Teacher	\$56,350
Secondary Education	High School Teacher	\$54,450
Organizational Leadership	Training Manager	\$87,250
<i>*Additional Bachelor's Degrees include: Athletic Training</i>		
Kirkwood Associate's Degree	Sample Career	Salaries
Early Childhood Education	Childcare Administrator	\$41,600
Exercise Science and Wellness	Fitness Trainer	\$32,800
Liberal Arts – Education w/ Transfer Option		
Kirkwood Diploma	Sample Career	Salaries
Early Childhood Education	Preschool Teacher	\$25,800
Kirkwood Career Academies	Sample Career	Salaries
Pre-Education Transfer	Teacher Assistant	\$24,400
Arts and Science Academy	Childcare Worker	\$20,500
Kirkwood Certificates	Sample Career	Salaries
Early Childhood Paraeducator	Paraeducator	\$24,900



*Information provided by Ensi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- Student Tutor Program
- Psychology
- Introduction to Careers in Education and Training
- Teaching and Training Careers

High School Related Activities and Clubs

- Job Shadow
- Internship

Finance

- ▶ ACCOUNTING
- ▶ BANKING SERVICES
- ▶ BUSINESS FINANCE
- ▶ INSURANCE
- ▶ SECURITIES & INVESTMENTS

A career in finance requires certain skills and education depending on job requirements. Skills include planning services for financial and investment planning, banking, insurance, and business financial management.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Accounting	Accountant	\$66,500
Finance	Financial Analyst	\$78,450
Financial Counseling and Planning	Loan Officer	\$69,100
Kirkwood Associate's Degree	Sample Career	Salaries
Business Administration: Accounting	Accounting Clerk	\$37,000
Business Administration: Financial Services	Financial Clerk	\$40,000
Kirkwood Certificates	Sample Career	Salaries
Technical Accounting	Bookkeeper	\$35,000
Kirkwood Career Academies	Sample Career	Salaries
Pre-Business Administration	Bank Teller	\$27,050
Arts and Sciences	Cashier	\$24,850



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- Introduction to Business
- Introduction to Careers in Finance
- Banking Services Careers
- Economics
- Personal Finance

High School Related Activities and Clubs

- Job Shadow
- Internship



Government & Public Administration

- ▶ FOREIGN SERVICE
- ▶ GOVERNANCE
- ▶ NATIONAL SECURITY
- ▶ PLANNING
- ▶ PUBLIC MANAGEMENT & ADMINISTRATION
- ▶ REGULATION
- ▶ REVENUE & TAXATION

A career in government and public administration requires certain skills and education depending on job requirements. Skills include planning and performing government functions at the local, state, and federal levels, including governance, national security, foreign service, planning, revenue and taxation, and regulations.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Urban Planning	Urban and Regional Planners	\$64,980
Public Administration	Assessor	\$79,050
Accounting	Auditor	\$66,500
Kirkwood Associate's Degree	Sample Career	Salaries
Business Administration	City Clerk	\$43,000
Business Administration: Management	Chamber of Commerce Chair	\$50,000
Administrative Management	Executive Assistant	\$45,500
Water Environmental Technology	Water Treatment Operator	\$45,000
Kirkwood Diploma	Sample Career	Salaries
Office Assistant	Office Assistant	\$34,000
Kirkwood Career Academies	Sample Career	Salaries
Pre-Business Administration	Receptionist	\$28,400
Arts and Sciences	Mail Clerk	\$29,100
Water Environmental Technology	Water Operator	\$24,950



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data - Nov. 2018



High School Courses

- Government
- Economics
- US History
- Social Issues in Popular Culture
- Introduction to Careers in Government and Public Administration
- National Security Careers
- Service Learning

High School Related Activities and Clubs

- Job Shadow
- Internship
- Student Government



Health Sciences

- ▶ BIOTECHNOLOGY RESEARCH & DEVELOPMENT
- ▶ DIAGNOSTIC SERVICES
- ▶ HEALTH INFORMATICS
- ▶ SUPPORT SERVICES
- ▶ THERAPEUTIC SERVICES

A career in health sciences requires certain skills and education depending on job requirements. Skills include planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Advanced Degree	Sample Career	Salaries
Masters degree in Nursing	Nurse Practitioner	\$104,150
Masters degree in Health Science	Physician Assistant	\$110,150
Doctor of Medicine	Family and General Practice Medical Doctor	\$241,070

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Biology	Nurse (with BSD degree)	\$70,650
Dietetics	Dietitian	\$50,500
Healthcare Administration	Healthcare Administrator	\$91,700
Nursing	Nurse (with BSN degree)	\$70,650

**Additional Bachelor's Degrees include: Culinary Food Science, Diet and Exercise, Food Science & Global Health Studies*

Kirkwood Associate's Degree	Sample Career	Salaries
Dental Assisting	Dental Assistant	\$39,900
Dental Hygiene	Dental Hygienist	\$68,700
Dental Technology	Dental Laboratory Tech	\$41,500
Diagnostic Assistant (Radiologic Technology)	Radiologic Technologist	\$51,700
Electroneurodiagnostic Technology	Neurodiagnostic Technologist	\$41,300
Exercise Science & Wellness	Fitness Trainer	\$32,800
Health Information Technology	Health Information Technician	\$40,500
Medical Assisting	Medical Assistant	\$34,000
Medical Laboratory Technology	Clinical Lab Technician	\$48,400
Associate Degree Nursing, RN	Critical Care Nurse	\$57,900
Occupational Therapy Assistant	OTA	\$57,400
Paramedic	Paramedic	\$40,000
Physical Therapy Assistant	PTA	\$47,500
Respiratory Therapist	Respiratory Therapist	\$52,800
Surgical Technology	Surgical Technologist	\$41,700



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018

Health Sciences

Kirkwood Diploma	Sample Career	Salaries
Dental Assisting	Dental Assistant	\$39,900
Medical Coding	Medical Secretary	\$35,200
Medical Assisting	Phlebotomist	\$30,300
Medical Transcription	Medical Transcriptionist	\$34,700
Practical Nursing (LPN)	Nursing Home Nurse-LPN	\$41,600
Pharmacy Technician	Pharmacy Technician	\$31,100
Surgical Technology	Surgical Assistant	\$41,300
Kirkwood Certificates	Sample Career	Salaries
Medical Transcription	Entry Level Medical Transcriptionist	\$34,700
Nurse Aide	Certified Nurse Aide	\$28,300
EMT	EMT	\$34,500
Kirkwood Career Academies	Sample Career	Salaries
Emergency Medical Technician (EMT)	EMT	\$34,500
Patient Care Academy	Certified Nurse Aide	\$28,200
Pharmacy Technician Academy	Pharmacy Technician	\$31,200
Pre-Professional Health Careers Academy	Physical Therapist Aide	\$27,300



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- Biology
- Chemistry
- Anatomy
- Psychology
- Careers in Allied Health
- Introduction to Careers in the Health Sciences
- Public Health: Discovering the Big Picture in Health Care
- Therapeutics: The Art of Restoring and Maintaining Wellness

High School Related Activities and Clubs

- Job Shadow
- Internship



Hospitality & Tourism

- ▶ LODGING
- ▶ RECREATION, AMUSEMENTS & ATTRACTIONS
- ▶ RESTAURANTS & CULINARY ARTS SERVICES
- ▶ TRAVEL & TOURISM

A career in hospitality and tourism requires certain skills and education depending on job requirements. Skills include management, marketing, and operations of restaurants and other culinary arts services, lodging, attractions, recreation events, and travel related services.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Hospitality Management	Executive Hotel Manager	\$97,450
Business Administration	Property Manager	\$67,000
Event Management	Hospitality Professor	\$110,400
Kirkwood Associate's Degree	Sample Career	Salaries
Culinary Arts	Chef	\$38,100
Hospitality Management	Lodging Manager	\$44,000
Kirkwood Diploma	Sample Career	Salaries
Baking & Pastry Arts	Baker	\$25,600
Hospitality Management	Event Planner	\$43,700
Kirkwood Career Academies	Sample Career	Salaries
Hospitality Management Academy	Concierge	\$25,450



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data - Nov. 2018



High School Courses

- Food and Beverage Management
- Food Safety and Sanitation
- Introduction to Hospitality and Tourism Systems
- Marketing and Sales for Tourism and Hospitality
- Introduction to Business
- Fundamentals of Web Page Design
- Desktop Publishing
- Emerging Technology Trends
- Creative Writing
- Computer Business Applications

High School Related Activities and Clubs

- Job Shadow
- Internship



Human Services

- ▶ CONSUMER SERVICES
- ▶ COUNSELING & MENTAL HEALTH SERVICES
- ▶ EARLY CHILDHOOD DEVELOPMENT & SERVICES
- ▶ FAMILY & COMMUNITY SERVICES
- ▶ PERSONAL CARE SERVICES

A career in human services requires certain skills and education depending on job requirements. Skills include preparing individuals that relates to family and human needs such as counseling and mental health services, family and community services, personal care, and consumer services.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Social Work	Social Worker	\$61,300
Elementary Education	Kindergarten Teacher	\$51,100
Psychology	Therapist	\$47,710
Kirkwood Associate's Degree	Sample Career	Salaries
Early Childhood Education	Preschool Teacher	\$25,800
Human Services	Substance Abuse Counselor	\$44,200
Kirkwood Diploma	Sample Career	Salaries
Early Childhood Education	Teacher Assistant	\$24,400
Kirkwood Certificates	Sample Career	Salaries
Early Childhood Paraeducator	Paraeducator	\$24,900
Kirkwood Career Academies	Sample Career	Salaries
Pre-Education Transfer	Teacher Assistant	\$24,400
Pre-Human Services Transfer (Social Work)	Patient Escort	\$28,900
Arts and Science Academy	Childcare Worker	\$20,500



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- Psychology
- Counseling and Mental Health Services
- Early Childhood Development and Services
- Family and Community Services
- Introduction to Human Services
- Introduction to Human Growth and Development
- Service Learning

High School Related Activities and Clubs

- Job Shadow
- Internship



Information Technology

- ▶ INFORMATION SUPPORT & SERVICES
- ▶ NETWORK SYSTEMS
- ▶ PROGRAMMING & SOFTWARE DEVELOPMENT
- ▶ WEB & DIGITAL COMMUNICATIONS

A career in information technology requires certain skills and education depending on job requirements. Skills include building linkages in IT occupations for entry level, technical and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
---	---------------	----------

**Additional Bachelor's Degrees include: Technology, Technology and Engineering Education, Technology Management, Business Analytics and Information Systems, Technical Communication*

Kirkwood Associate's Degree	Sample Career	Salaries
Computer Software Development	Software Developer	\$88,000
Computer Support Specialist	Desktop Configuration Administrator	\$59,700
Graphic Communication Technology	Graphic Designer	\$45,700
Web Technologies	Desktop Publisher	\$41,500
Network and System Administration	Network & Computer Systems Administrator	\$73,900

Kirkwood Diploma	Sample Career	Salaries
PC Technician	Computer Store Technician	\$50,900
Desktop Customer Service	Computer User Support Specialist	\$47,000

Kirkwood Certificates	Sample Career	Salaries
Database Technologies	Computer Operator	\$44,100
Java Programming	JAVA Script Developer	\$78,100
Mobile App Development	Web Application Developer	\$74,800
.NET Programming	Computer Programmer	\$58,100
Healthcare IT Technician	Document Management Specialist	\$77,300
Web Development	Website Developer	\$58,000
Web Design	Website Designer	\$47,700
Network Security	Security Management Specialist	\$63,300
Network and System Administration	Computer Network Support Specialist	\$54,000

Kirkwood Career Academies	Sample Career	Salaries
Computer Software Development (Coding)	User Experience Designer	\$40,000
Network Security	Information Clerk	\$28,800



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data - Nov. 2018



High School Courses

- Fundamentals of Digital Media
- Introduction to Information Technology
- Introduction to Information Technology Support and Services
- Software Development Tools
- Computer Business Applications

High School Related Activities and Clubs

- Job Shadow
- Internship
- Beak Squad



Law, Public Safety, Corrections & Security

- ▶ CORRECTION SERVICES
- ▶ EMERGENCY & FIRE MANAGEMENT SERVICES
- ▶ LAW ENFORCEMENT SERVICES
- ▶ LEGAL SERVICES
- ▶ SECURITY & PROTECTIVE SERVICES

A career in law, public safety, corrections, and security requires certain skills and education depending on job requirements. Skills include planning, managing, and providing legal, public safety, protective services, and homeland security, including professional and technical support services.

Advanced Degree	Sample Career	Salaries
Juris Doctor, JD	Attorney/Lawyer	\$108,650
Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Public Health	Occupational Health and Safety Specialist	\$69,950
Criminology	Forensic Scientist	\$70,400
Linguistics	FBI Agent	\$97,000
Kirkwood Associate's Degree	Sample Career	Salaries
Criminal Justice	Police Patrol Officer	\$56,600
Entry-Level Firefighter	Firefighter/Prevention Supervisor	\$68,900
Paralegal Studies	Paralegal	\$48,100
Paramedic	Paramedic	\$40,000
Kirkwood Diploma	Sample Career	Salaries
Entry-Level Firefighter	Firefighter	\$41,200
Kirkwood Certificates	Sample Career	Salaries
Entry-Level Firefighter	Emergency Vehicle Operator	\$26,100
Emergency Medical Technician	EMT	\$26,100
Kirkwood Career Academies	Sample Career	Salaries
Pre-Criminal Justice Transfer	Security Guard	\$27,650
Emergency Medical Technician Academy	EMT	\$34,500
Arts and Sciences Academy	Police Dispatcher	\$44,550



*Information provided by Emis National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- Corrections: Policies and Procedures
- Fire and Emergency Services
- Introduction to Law, Public Safety, Corrections, and Security
- Law Enforcement Field Services
- Legal Services
- Security and Protective Services
- Government
- Computer Business Applications
- Psychology

High School Related Activities and Clubs

- Job Shadow
- Internship



Manufacturing

- ▶ HEALTH, SAFETY & ENVIRONMENTAL ASSURANCE
- ▶ LOGISTICS & INVENTORY CONTROL
- ▶ MAINTENANCE, INSTALLATION & REPAIR
- ▶ MANUFACTURING PRODUCTION PROCESS DEV.
- ▶ PRODUCTION
- ▶ QUALITY ASSURANCE

A career in manufacturing requires certain skills and education depending on job requirements. Skills include planning, managing, and performing the process 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.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Aerospace Engineering	Aerospace Engineer	\$112,550
Mechanical Engineering	Mechanical Engineer	\$74,100
Manufacturing Technology	Industrial Production Manager	\$96,150
Kirkwood Associate's Degree	Sample Career	Salaries
Advanced Manufacturing and Robotics Technologies	CNC Mill Operator	\$37,700
Advanced Welding Technologies	Pipefitter	\$50,200
Automation and Instrumentation Technologies	Electro-Mechanical Technician	\$55,100
CNC Machining Technology	Tool and Die Maker	\$48,200
Electronics Engineering Technology	Security System Technician	\$46,300
CAD/Mechanical Engineering Technology	Mechanical Engineering Technician	\$49,900
Energy Production and Distribution Technologies	Wind Turbine Service Technician	\$62,300
Industrial Maintenance	Electro-Mechanical Technician	\$55,100
Kirkwood Diploma	Sample Career	Salaries
Entry-Level Welding	Brazer	\$37,900
CNC Machining Technology	Machinist	\$39,000
Electronics Engineering Technology	Security System Technician	\$46,300
CAD/Mechanical Engineering Technology	Test Technician	\$40,800
HVAC Installer	Heating and Air Conditioning Mechanic	\$50,500
Electromechanical Technology	Electromechanical Assembler	\$39,500
Plumbing Pre-Apprenticeship	Plumber	\$50,200*
Kirkwood Certificates	Sample Career	Salaries
Industrial Robotics Certificate	Computer Controlled Machine Operator	\$38,300
Kirkwood Career Academies	Sample Career	Salaries
Advanced Manufacturing with Robotics & Welding	Fabricator	\$32,300
Energy, Electrical, and Automation Academy	Vending Machine Service/Repairer	\$31,650



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- Careers in Manufacturing Processes
- Introduction to Careers in Manufacturing
- Introduction to ACE
- Engineering Concepts

High School Related Activities and Clubs

- Job Shadow
- Internship
- Industry Tours

Marketing

- ▶ MARKETING COMMUNICATIONS
- ▶ MARKETING MANAGEMENT
- ▶ MARKETING RESEARCH
- ▶ MERCHANDISING
- ▶ PROFESSIONAL SALES

A career in marketing requires certain skills and education depending on job requirements. Skills such as anticipating, planning, managing, and performing marketing activities to reach organizational objectives such as advertising and promotion techniques, business communication, and business development.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Marketing	Market Research Analyst	\$58,600
Advertising and Digital Media	Public Relations Manager	\$103,500
Communication Studies	Marketing Coordinator	\$59,700
<i>*Additional Bachelor's Degrees include: Global Marketing Sales, Management</i>		
Kirkwood Associate's Degree	Sample Career	Salaries
Business Administration: Marketing Management	Public Relations Specialist	\$56,000
Apparel Merchandising	Apparel Merchandising	\$60,400
Kirkwood Diploma	Sample Career	Salaries
Office Assistant	Office Assistant	\$34,000
Kirkwood Certificates	Sample Career	Salaries
Retail Marketing	Merchandise Displayer	\$28,800
Sales	New Accounts Clerk	\$37,200
Social Media Marketing	Media Technician	\$34,400
Kirkwood Career Academies	Sample Career	Salaries
Pre-Business Administration	Retail Sales	\$28,800
Graphic and Communication Technology	Promotional Assistant	\$33,100



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data - Nov. 2018



High School Courses

- Careers in Marketing Research
- Introduction to Careers in Marketing
- Introduction to Business
- Computer Business Applications
- Creative Writing
- Fundamentals of Web Programming
- Desktop Publishing
- Emerging Technology Trends

High School Related Activities and Clubs

- Job Shadow
- Internship



Science, Technology, Engineering & Math

- ▶ Engineering & Technology
- ▶ Science & Mathematics

A career in science, technology, engineering, and mathematics requires certain skills and education depending on job requirements. Skills include providing, planning, and managing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Bio Chemistry	Bio Chemist	\$66,800
Actuarial Science	Actuary	\$100,750
Seed Science	Seed Scientist	\$76,700

**Additional Bachelor's Degrees include: Ag Engineering, Electrical Engineering, Microbiology, Physics, Geo Science, Ag and Life Sciences Education, Environmental Science, Nutritional Science, Bio Chemistry, Technology and Engineering Education, Animal Science, Family and Consumer Science Education, Physics, Communication Sciences and Disorder, Technology Management, Biological Systems Engineering, Food Science, Political Science, Computer Science, Technology, Chemical Engineering, Industrial Engineering, Seed Science, Earth Science, Applied Physics, Civil Engineering, Industrial Technology, Software Engineering, Graphic Technology, Bio Medical Engineering, Computer Engineering, Management and Information Systems, Statistics, Military Science, Business Analytics and Information Systems, Construction Engineering, Materials Engineering, Technical Communication, Movement and Exercise Science, Mortuary Science, Culinary Food Science, Mathematics, Biology, Science Education, Nuclear Medicine Technology, Dairy Science, Mechanical Engineering, Chemistry, Social Science, Radiation Sciences*

Kirkwood Associate's Degree	Sample Career	Salaries
Advanced Manufacturing & Robotic Technologies	CNC Mill Operator	\$37,700
CAD/Mechanical Engineering Technology	CAD Drafter	\$54,900
Computer Software Development	Software Developer	\$88,000
Computer Support Specialist	Desktop Configuration Administrator	\$59,700
Energy Production & Distribution	Wind Turbine Service Technician	\$62,300
Exercise Science & Wellness	Fitness Trainer	\$32,800
Industrial Maintenance	Electro-Mechanical Technician	\$55,100
Network & System Administration	Network & Computer Systems Administrator	\$73,900
Water Environmental Technology	Water Treatment Operator	\$45,000

Kirkwood Diploma	Sample Career	Salaries
PC Technician	Computer Store Technician	\$50,900
CAD/Mechanical Engineering Technology	Mechanical Engineering Technician	\$49,900
Desktop Customer Service	Computer User Support Specialist	\$47,000
Electromechanical Technology	Electromechanical Assembler	\$39,500



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018

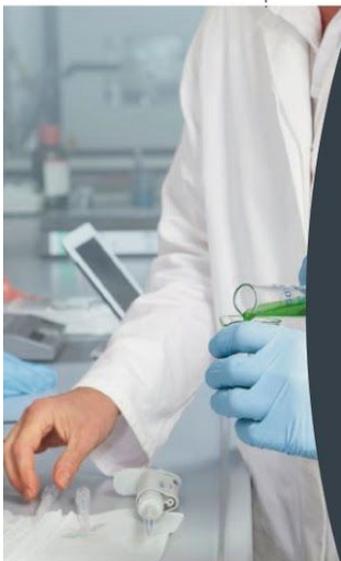


Science, Technology, Engineering & Math

Kirkwood Certificates	Sample Career	Salaries
Industrial Robotics	Computer Controlled Machine Operator	\$38,300
Database Technologies	Computer Operator	\$44,100
Java Programming	JAVA Script Developer	\$78,100
Mobile App Development	Web Developer	\$58,100
.NET Programming	Computer Programmer	\$58,100
Healthcare IT Technician	Document Management Specialist	\$77,300
Network Security	Security Management Specialist	\$63,300
Network and System Administration	Computer Network Support Specialist	\$54,000
Kirkwood Career Academies	Sample Career	Salaries
Advanced Manufacturing with Robotics & Welding	Fabricator	\$32,300
ACE: Architectural and Engineering Design (Pre-Apprenticeship)	Design Assistant	\$30,100
Computer Programming & Web Development	User Experience Designer	\$40,000
Engineering: Project Lead The Way	Sound Engineer	\$48,200
Pre-Professional Health Careers	Physical Therapist Aide	\$27,300
Water Environmental Technology	Water Operator	\$24,950



*Information provided by Emis National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- Engineering Concepts
- Engineering and Product Development
- Introduction to STEM
- Principles of Technology and Engineering
- Science and Mathematics in the Real World
- Scientific Research
- STEM and Problem Solving
- Chemistry
- Physics
- Algebra II
- Calculus

High School Related Activities and Clubs

- Job Shadow
- Internship



Transportation

- ▶ FACILITY & MOBILE EQUIPMENT MAINTENANCE
- ▶ HEALTH, SAFETY & ENVIRONMENTAL MANAGEMENT
- ▶ LOGISTICS PLANNING & MANAGEMENT SERVICES
- ▶ SALES & SERVICE
- ▶ TRANSPORTATION OPERATIONS
- ▶ TRANSPORTATION SYSTEMS/INFRASTRUCTURE PLANNING, MANAGEMENT & REGULATION
- ▶ WAREHOUSING & DISTRIBUTION CENTER OPERATIONS

A career in transportation, distribution, and logistics requires certain skills and education depending on job requirements. Skills include planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water and related professional support services such as transportation infrastructure planning and management, logistic services, mobile equipment and facility maintenance.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Finance	Insurance Appraiser	\$60,600
Business Administration	Transportation Manager	\$83,000
Supply Chain Management	Logistics Coordinator	\$89,100
Kirkwood Associate's Degree	Sample Career	Salaries
Automotive Technology	Automotive Service Technician	\$40,600
Diesel Ag Technology	Heavy Diesel Equipment Technician	\$41,000
Diesel Truck Technology	Diesel Mechanic	\$40,000
Kirkwood Diploma	Sample Career	Salaries
Automotive Collision Repair	Auto Body Technician	\$41,100
Kirkwood Career Academies	Sample Career	Salaries
Automotive Collision	Auto Glass Installer	\$31,000
Automotive Technology	Automotive Service Attendant	\$28,700



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data - Nov. 2018



High School Courses

- Careers in Logistics Planning and Management Services
- Introduction to Careers in Transportation, Distribution, and Logistics
- Geometry
- Algebra II
- Chemistry
- Physics
- Computer Business Applications

High School Related Activities and Clubs

- Job Shadow
- Internship

Springville High School Graduation Requirements

Total credits required for graduation: 54 credits

English	
English 9	2 credits
English 10	2 credits
English 11 or equivalent	2 credits
Oral Communication or Workplace Communication	1 credit
English elective	1 credit
English Total	8 credits

Social Studies	
World History	2 credits
U.S. History	2 credits
Government	1 credit
Economics	1 credit
Social Studies Total	6 credits

Mathematics*	
Algebra I	2 credits
Geometry	2 credits
Algebra II or Fundamentals of Algebra II	2 credits
Pre-calculus	2 credits
Calculus	2 credits
Mathematics Total	6 credits
*Initial placement made in consultation with math teacher	

Science*	
General Science	2 credits

Biology	2 credits
Chemistry	2 credits
Physics	2 credits
Anatomy	2 credits
Astronomy	1 credit
Forensic Science	1 credit
Science Total	6 credits
*Students who begin their high school careers with biology must commit to biology, chemistry, and physics in order to meet Iowa Core requirements.	

Physical Education*	
Physical Education	.5 credit per term
Physical Education Total	4 credits

Health	
Health & Fitness	1 credit
Health & Life Management	1 credit
Health Total	1 credit

Financial Literacy¹	
Personal Finance	1 credit
Financial Literacy	1 credit

Electives	
Electives Total	22 credits

All courses listed are Springville-offered courses; equivalent courses, determined by administration, may be substituted.

Meeting graduation requirements does not ensure admittance to postsecondary institutions. Students should ensure they meet the admissions requirements of their chosen postsecondary institutions by meeting with admissions representatives from schools of interest. The [Regent Admissions Index](#) determines admission to Iowa State University, The University of Iowa, and University of Northern Iowa. Those who wish to participate in

¹ Beginning with Class of 2020

college athletics need to meet requirements set by the [NCAA](#), [NAIA](#), or [NJCAA](#).

General Information

1. Ninth through twelfth grade students must be registered for seven and one-half (7 classes + PE) credits each semester. Study halls are allowed only opposite physical education.
2. Physical Education Policy--Waivers

Students in grades one through twelve are required to participate in physical education courses unless they are excused by the principal of their attendance center.

Students may be excused from physical education courses if the student presents a written statement from a doctor stating that such activities could be injurious to the health of the student or the student has been exempted because of a conflict with the student's religious beliefs, provided such excuse fits within federal and state laws. Parents of students requesting such exemption should file a written request that shall include the basis for the request (e.g. verified health concerns and/or a religious conflict) and a proposed alternative activity or study acceptable to the superintendent. However, the superintendent and/or designee shall have the final authority to determine the alternate activity or study.

Students in grades 9-12 may also be excused from physical education courses if:

- the student is enrolled in academic courses not otherwise available, or
- the student has obtained a physical education waiver for a semester because the student is actively involved in an athletic program.

Twelfth grade students may also be excused from physical education courses if the student is enrolled in a cooperative, work study, or other educational program authorized by the school which requires the student's absence from school.

Students who will not participate in physical education must have a written request or statement from their parents.

3. Semester grades earned in vocal music, instrumental music, and physical education will be figured into computation of class rank and grade point average. The credits received in these courses will count toward graduation and be computed in total credit standings.
4. Semester courses may be added and dropped only during the first TWO days of a new semester. Year-long courses may be added and dropped only during the first TWO days of the start of the school year. While Kirkwood has its own deadlines, Springville students must adhere to Springville drop deadlines, not Kirkwood's, due to the difficulty of adding classes weeks into the school year. Students may drop a course with the permission of the teacher, parent/guardian, and administrator or designee. If a student drops a course after the first two days, the student will earn a failing grade for the course. Likewise, students who drop an academy course will earn an F on their transcript. Add/Drop Slips can be obtained from the school counselor.
5. Students taking a full-year course are expected to be enrolled both semesters and cannot drop the course after the first semester. Should a student fail the first semester, the course can be dropped upon the recommendation of the teacher and the approval of the parent/guardian and the administrator. The student must then enroll in a one-credit course for the second semester. Kirkwood Academies are a full-year commitment.
6. Students may not sign up for one semester of a full-year course unless they are repeating due to failure.

Agriculture

The agriculture, food, and natural resources cluster of classes is designed to prepare students for college, technical training, apprenticeships and careers requiring high achievement in science, math and communication. This diverse cluster of classes prepares learners for careers in the planning, implementation, production, management, processing, and/or marketing of agricultural commodities and services, including food, fiber, wood products, natural resources, and other plant and animal products. It also includes related professional, technical, and educational services. Students interested in this field can work in agribusiness, ag science, fisheries, forestry, horticulture, and wildlife, including becoming a veterinarian or veterinary technician.

Introduction to Agriculture Science I

Grades 9-12

1 Credit

This one semester course is an introductory course to agriculture, food, and natural resources. We look at multiple topics related to agriculture and leadership. You will experience hands-on activities, projects, and problems. Topics include the study of communication, the science of agriculture, plants, animals, natural resources, and agricultural mechanics. Along with the classroom work, students will be encouraged to join and be involved in the FFA. Each student will have the opportunity to work on individual leadership skills and personal development. Students will also be encouraged to have a Supervised Agricultural Experience (SAE).

All students involved in agriculture education classes will be expected to have a project designed to help them learn business skills, record keeping, and involve hands-on experiences.

Introduction to Agriculture Science II

Prerequisite: Intro to Ag Science I preferred

Grades 9-12

1 Credit

This one semester course is a continuation of Introduction to Agriculture Science I.

Introduction to Animal Science I

Prerequisite: Intro to Ag Science I and II preferred, or Instructor Approval

Grades 10 - 12

1 credit

Introduction to Animal Science is a one semester course that imparts information about the care and management of domestic and farm animals. This course covers animal nutrition, health, behavior, selection, reproduction, anatomy and physiology, facilities, product processing and marketing. Students will study a particular species, for example, swine, cattle, horses, fowl, sheep and so on, or they may learn how to care for and maintain livestock as a more inclusive study.

Introduction to Animal Science II

Prerequisite: Intro to Animal Science I preferred, or Instructor Approval

Grades 10 - 12

1 credit

This one semester course is a continuation of Animal Science I.

Agribusiness Management

Prerequisite: Intro to Ag Science I and II preferred, or Instructor Approval

Grades 10 - 12

1 credit

Introduction to Agribusiness is a one semester course that provides students with the information and skills necessary for success in agribusiness and in operating entrepreneurial ventures in the agricultural industry. This course may cover topics such as economic principles, budgeting, risk management, finance, business law, marketing and promotion strategies, insurance, and resource management. Other possible topics include developing a business plan, employee/employer relations, problem-solving and decisionmaking, commodities, and building leadership skills. This course will also incorporate a survey of the careers within the agricultural industry.

General Horticulture

Prerequisite: Intro to Ag Science I and II preferred

Grades 10-12

1 Credit

In this one semester course, students will explore the fastest growing field in the agricultural industry. Students will be introduced to the various types of greenhouses. Students learn how to produce and culture plants in a temperature-controlled environment and examine variables like humidity, light and nutrients. This course will also provide an overview of growing different types of plants, producing food in a water environment to meet the needs of today's increasing population. The hydroponics area includes growing various fruits and vegetables without the use of soil. Students will learn how to address issues such as using less space for food production, water management, including testing for water quality, dissolved oxygen, pH, and ammonia. Students will also receive an introduction to landscape design and agronomy.

The following course is an option for students taking Kirkwood Academy courses at Jones County Regional Center.

➤ **Survey of the Animal Industry**

Grades 11-12

1 HS Credit, 3 College Credits

This one semester course examines breeds, basic management and marketing of farm animals. Composition, evaluation and marketing of animal products. Includes live animal demonstrations with cattle for meat and milk, horses, poultry, sheep and swine.

Art

Not all artists are starving—there are great careers in art. If art is your passion, consider a career as an art critic, an art historian, museum curator, museum administrator, restorer, sculptor, print-maker, photographer, graphic designer, illustrator, exhibition designer, cartoonist, web designer, fine arts appraiser, gallery director, museum educator, photography lab technician, interior designer, fashion designer, architect, art dealer, or greeting card designer. There are hundreds of ways to make a living in art.

Beginning Drawing

Grades 9-12

1 Credit

This one semester course is a beginning studio course that covers the basic language, materials, and processes of two-dimensional art. Students will learn design elements and principles to create pieces of art. Students will be taught in a classical style, beginning with still life studies, progressing to life drawing, plein air landscapes, and choice projects. Students will learn many drawing techniques including pen and ink, charcoal, pencil, and chalk.

Advanced Drawing

Prerequisite: Beginning Drawing

Grades 9-12

1 Credit

Students will continue developing their own personal artistic style and learn more advanced and contemporary artistic techniques in this one semester studio course. Printmaking techniques such as: monoprint, collagraph block, intaglio, stencils, etc. will be used to teach fine art elements and principles. Students will be encouraged to create individual projects to develop their portfolio and have the opportunity to create independent and collaborative mixed media projects on a larger scale than Beginning Drawing.

Beginning Painting

Prerequisite: Beginning Drawing preferred

Grades 9-12

1 Credit

Students in this one semester course will learn basic color theory using several different painting media. As students progress and advance, they will be encouraged to develop their own artistic styles with more choice projects. Students will study famous paintings and artists to help inspire and develop their individual aesthetic.

Advanced Painting

Prerequisite: Beginning Painting

Grades 9-12

1 Credit

In this one semester course, students will continue developing their own personal artistic style using watercolor, tempera, oils, and acrylics, and further develop their understanding of major artists, art movements, and styles.

Beginning Pottery

Grades 9-12

1 Credit

This one semester course offers a comprehensive beginning studio course that focuses on creating three-dimensional works and covers the basic language of art elements and principles. Student projects will focus on ceramics and clay techniques; various methods of techniques to create and finish functional and non-functional pieces of ceramic art will be emphasized. Students will learn characteristics of clay as a raw material, the transformation under heat and the various firing and glazing techniques. Students will study famous pieces of 3D artwork and artists to help inspire and

Advanced Pottery

Prerequisite: Beginning Pottery

Grades 9-12

1 Credit

Advanced Pottery is a one semester course in which students will develop an individual aesthetic. It is focused heavily on throwing on the wheel. Students need the basic pottery skills of Beginning Pottery in order to create high quality works of art on the wheel.

Beginning 3-D Art

Prerequisite: Beginning Pottery

Grades 9-12

1 Credit

In this one semester course, students will work with a variety of materials such as wire, wood, textiles, and metal and also will continue to develop ceramics and clay skills and techniques. Students will have the opportunity to build three-dimensional pieces of art focusing on the art elements and principles of quality artwork and craftsmanship. This course will require students to create realistic, abstract, non-objective, functional, and non-functional pieces of sculpture. Independent projects will be encouraged for students to explore their individual interests and ideas.

Advanced 3-D Art

Prerequisite: 3-D Art

Grades 9-12

1 Credit

Advanced 3D Art is a one semester course with more advanced expectations on project requirements as well as more advanced art materials. Many projects throughout this course would have an emphasis on various forms of technology, such as photography, Photoshop, IPhoto, and other computer software. Students would have a "showcase" opportunity, where they would work independently (with the art teacher) on a large-scale project of interest.

Art Workshop

Prerequisite: Instructor approval

Grades 11-12

1 Credit, Repeatable

This one semester course is an independent studio course, in which students are expected to work independently on media of their choosing. They may experiment with many different media, or specify in one specific emphasis. Project pace and product are determined by the students (within reason). Students are expected to be independent thinkers and problem-solvers, and further their artistic skills.

Graphic Communication Technology Academy

Kirkwood Community College

Grades 11-12

4 HS Credits, 12 College Credits

The Kirkwood Graphics Communication Academy provides students with a jump start to earning an associates, bachelors and/or graduate degree. Examples of college majors include, but are not limited to, Graphic Communication Technology, Web Design, Graphic Design. Careers might include: advertising, marketing, printing and publishing companies, and web design. The following courses are included in this full year academy:

➤ **Design Fundamentals**

1 HS Credit, 3 College Credits

Introduces design concepts and fundamental skills through studio exercises. Explores design elements such as shape, value, texture, color, line, space and mass. Students generate creative ideas and employ a variety of media and materials to gain visual sensitivity through practical experience.

➤ **Illustrator I**

1 HS Credit, 3 College Credits

This course introduces Adobe Illustrator and its applications in graphic communication. Class activities include projects to explore the Adobe Illustrator tools as they apply to object (vector) based files, as well as Adobe Illustrator filters and layers. Students learn basic drawing and tracing techniques, creating line

art, logos and learning how to simplify art work through stylizing. Creative use of type is also explored. Students learn to set up color for reproduction, and also learn to save and manage files, and how files interact with page layout and paint (raster) programs.

➤ **Digital Layout**

1 HS Credit, 3 College Credits

This course provides working knowledge of the CS3 Adobe InDesign page layout program and its use in creating effective page layouts combining graphics and type. Topics covered include: toolbox and tool usage, importing and editing text and graphics, master pages, use of styles, text and paragraph formatting, general layout and design concepts, printing operations, importing graphics and setting up text styles, columns and grids. Students create various single and spot-color documents including flyers, newsletters, and other printed materials.

➤ **Digital Imaging**

1 HS Credit, 3 College Credits

This course introduces electronic image editing software using Photoshop. Concepts covered include basic scanning techniques for grayscale and line art images, proper manipulation procedures required for various output sources, including input and output resolutions, file size, multiple file saving formats, simple image enhancements and creating duo-tones, and other creative applications of Photoshop.

Business

Business is a field that goes in many different directions. Students who enjoy courses in this area might want to explore careers in computer and information systems, business management, human resource management, marketing and public relations, sales, personnel, economics, accounting, or finance.

Computer Business Applications

Grades 9-12

1 Credit

Computer Business Applications is a one semester course that covers the use of Microsoft Office. Students will learn how to utilize different functions of Microsoft Word, such as drawing tools and formatting tools, create Excel spreadsheets, PowerPoint presentations, and Access databases. Students have the opportunity to become Microsoft Office Certified in this course.

Personal Finance

Grades 9-12

1 Credit

This one semester course is designed to train students in handling their personal finances. Areas of study include budgeting, checking accounts, savings, investing, credit and insurance.

Introduction to Business

Grades 9-12

1 Credit

Introduction to Business is a one semester course that surveys all aspects of business including environment, creation, finance, marketing, and management. It will provide a foundation for students that plan on pursuing other business classes.

Fundamentals of Web Programming

Grades 11-12

1 HS Credit, 3 College Credits

Fundamentals of Web Design is a one semester course that introduces a student to basic web page development languages including HTML markup language, Cascading Style Sheet (CSS) formatting, and JavaScript language on an introductory level. This course is offered at Springville Secondary for Kirkwood Community College credit.

Desktop Publishing

Grade 11-12

1 HS Credit, 3 College Credits

This one semester course will provide students an opportunity to create professional quality documents such as one-page bulletins and short newsletters using Adobe InDesign CS2. Students will also be introduced to the Adobe Photoshop CS2, which is an advanced picture editing software that allows for manipulation of different aspect of images. This course is offered at Springville Secondary for Kirkwood Community College credit.

Emerging Technology Trends

Grade 11-12

1 HS Credit, 3 College Credits

In this one semester course, students will develop knowledge of multimedia concepts by studying multimedia software and the hardware components needed to develop and view multimedia productions. Assessment projects are used by students for demonstration of knowledge of multimedia elements (copyright, video, graphics, sound, animation), knowledge of tools (digital camera, video camera, scanner, cams), and knowledge of editing software (sound editing, video editing, graphics editing). This course is offered at Springville Secondary for Kirkwood Community College credit.

The following courses are options for students taking Kirkwood Academy courses at Jones County Regional Center.

➤ **Introduction to Computers**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

This one semester course familiarizes the student with business, personal and industrial uses of microcomputers. Broad based overview of microcomputer topics is presented; concepts of storage media, file organization and data representation are also presented. The fundamentals of computer problem solving and programming are discussed. This course is offered as a one-semester companion course to Kirkwood's academy students.

➤ **Introduction to Business**

Grades 11-12

1 HS Credit, 3 College Credits

This one semester course focuses on American and global business and introduces the student to each primary facet of operating a business. This course will help the student understand economic, social and political influences that affect business success. This course is offered as a one-semester companion course to Kirkwood's academy students.

➤ **Business Innovations**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

This one semester course applies creativity and innovation to manage projects in conjunction with STEM mentors from local businesses. Provides an experiential learning environment designed to foster development of entrepreneurial leadership skills through strategic development and execution.

➤ **Personal Finance**

Grades 11-12

1 HS Credit, 3 College Credits

This one semester course provides a comprehensive examination of the concepts and principles of personal finance and offers solid strategies for successful management and planning. Students learn planning, analyzing and controlling financial resources, and develop the knowledge and skills necessary to take advantage of favorable financial opportunities, resolve personal financial problems, achieve self-satisfaction and strive towards financial security.

Computer Programming and Software Development Academy

Kirkwood Community College

Grades 11-12

4 HS Credits, 12 College Credits

The Kirkwood Computer Programming and Software Development Academy provides students with a jump start to earning an associates, bachelors and/or graduate degree. Examples of college majors include, but are not limited to: Computer Support Specialist, Computer Programmer, Computer Information Systems, CISCO. The following courses are included in this full year academy:

➤ **Introduction to Programming Logic**

1 HS Credit, 3 College Credits

Introduces students to basic computer programming ideas and foundational principles such as problem decomposition and step-wise refinement. Explores problem solving using well-developed programming logic derived with pseudo code, flow charts and related techniques. Focuses on translating student developed solutions into simple programs for testing using an instructor-selected, high-level programming or scripting language.

➤ **Fundamentals of Web Programming**

1 HS Credit, 3 College Credits

Fundamentals of Web Design introduces a student to basic web page development languages including HTML markup language, Cascading Style Sheet (CSS) formatting, and JavaScript language on an introductory level.

➤ **Java**

Prerequisite: Minimum grade of C- in CIS-121: Intro to Programming Logic

1 HS Credit, 3 College Credits

Introduces Java programming language with focus on syntax and the object-oriented model upon which it is based. Teaches how to code, test and debug simple Java applications, and includes creation of classes plus classes in the API. Demonstrates the concepts of encapsulation, inheritance, information/implementation hiding, state retention, messages, classes and polymorphism.

➤ **Client Side Scripting**

Prerequisite: CIS-207: Fundamentals of Web Programming and CIS-121: Intro to Programming Logic

1 HS Credit, 3 College Credits

Offers in-depth practical Web client script programming. Emphasizes JavaScript and DOM scripting. Explores the use and modification of open-source scripts and script libraries.

Hospitality Management Academy

Kirkwood Community College

Grades 11-12

3.8 HS Credits, 11.5 College Credits

Complete this Academy and you'll be ready to begin the Hospitality Management degree program at Kirkwood. Career options upon completion include: accommodation manager, catering supervisor, event organizer, wedding planner, hotel or restaurant manager. This academy includes a professional certification opportunity: National Restaurant Association Educational Foundation certification exam. The following courses are included in this full year academy:

➤ **Introduction to Lodging Operations**

.67 HS Credits, 2 College Credits

Provides students with an overview of the lodging industry and how its functions are organized and operated. Introduces each of the seven traditional disciplines: general management, hotel sales, financial control, rooms operations, food and beverage operations, human resources, and physical plant maintenance. Emphasizes business ethics and effective communication.

➤ **Hospitality Marketing & Social Media**

1 HS Credit, 3 College Credits

Explores the process to plan and execute the conception of pricing, promotion, and distribution of ideas, goods and services. Creates hospitality-oriented exchanges to satisfy individual and organizational objectives. Teaches strategies for integrating a social media plan into the traditional marketing plan. Focuses on effective social media platforms to drive business and for beneficial responses to customer needs within hospitality.

➤ **Sanitation and Safety**

.67 HS Credits, 2 College Credits

Studies basic principles of bacteriology, food borne illness, sanitation, workplace safety, personal hygiene, food security, health regulations and inspections. Emphasizes the importance of sanitary equipment and facilities, and pest control. Students must complete the National Restaurant Association Educational Foundation certification exam to pass this course.

➤ **Menu Planning**

.5 High School Credit, 1.5 College Credits

Studies the principles of menu marketing and management. Focuses on writing and analyzing menus for various population groups, types of food service facilities and service styles.

➤ **Purchasing, Receiving, and Inventory**

.67 HS Credits, 2 College Credits

Studies principles in purchasing, receiving, issuing and inventory management. Emphasizes cost management techniques. Practices skills in a clinical lab experience supervised by the purchasing manager of The Hotel at Kirkwood Center.

➤ **Customer Service Strategies**

.33 HS Credits, 1 College Credit

Designed to help students target their customers and develop appropriate services. Discusses the use of effective customer services as a competition tool.

Career Education

Explore interests in a variety of areas to discover what could be a passion, or--equally important--what is not.

Student Tutor Program

Prerequisite: Minimum GPA of 3.0, Administrator Approval, Good standing behaviorally

Grades 11-12

1 Credit, Repeatable

P/F Grading

As the need arises for older students to help younger students struggling academically, we want to supply that need with students willing to tutor in either the elementary or middle school areas. Students who decide to take this opportunity will be assigned a student or students to tutor and/or mentor on a daily basis. This one semester course includes an orientation at the beginning of each semester and journal entries throughout the semester.

Student Technology Team (Beak Squad)

Prerequisite: Administrator Approval, Good standing behaviorally

Grades 11-12

1 Credit, Repeatable

P/F Grading

Students interested in technology who enroll in this one semester course will work with hardware and software under the guidance of the technology coordinator. A background in technology is important to success in this course. Students will repair district technology, work with teachers and students to implement technology, and participate in technology meetings as student representatives.

Service Learning

Prerequisite: Administrator Approval, Good standing behaviorally

Grades 11-12

1 Credit, Repeatable

P/F Grading

It is important for students to be contributing, productive members of the community. In order to encourage this, students will be granted credit for verified service learning experience of a minimum of four hours per week. Students wishing to enroll in this one semester opportunity will be assisted in finding or creating service learning positions in the surrounding community.

Area 10 Job Shadow Program

Grades 10-12

No credit

The Area 10 Job Shadow Program is coordinated by Workplace Learning Connection. Job shadows are one-time experiences, two to six hours long, where students shadow an employee at an area business partner to get a close up view of what a career entails. Students must complete an application and provide their own transportation. Students are allowed to participate in one job shadow per year. Beginning with the Class of 2020, students will be expected to complete a minimum of two job shadows while in high school. Please see website for complete details: <http://www.kirkwood.edu/site/index.php?p=32896>.

Area 10 Internship Program

Prerequisite: Job shadow preferred

Grades 11-12

1 Credit, Repeatable

The Area 10 Internship Program is coordinated by Workplace Learning Connection. Internships require working 45-90 hours over the course of the academic term, and can be completed during the summer. The internship application is a vetted process with an application and interview. Not all students are ready for an internship and may not be accepted into the program.

The following courses are options for students taking Kirkwood Academy courses at Jones County

Regional Center.

➤ **How College Works**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Explores students' individual strengths, and life and vocational goals, as they identify a college program or major. Emphasizes using self-assessments to identify appropriate career areas, understanding the differences between high school and college expectations, taking and using placement tests for college admission, and managing personal finances to afford a college education.

➤ **Exploring Teaching**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Introduces the concerns and activities of beginning teachers. The focus is on developing generic teaching skills applicable from preschool through high school. Microteaching is used to simulate actual teaching situations. Case studies are used to discuss common teaching problems.

➤ **Introduction to Criminal Justice**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Provides an overview of the American criminal justice system and examines the process of justice administration through the agencies of law enforcement, courts and corrections.

➤ **Introduction to Human Services**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Introduces the value base of human services and evaluates problems that can be encountered in working with people when these values conflict with client needs. Introduces the framework of human services approach, specifically information of individual values, systems analysis, problem solving and conflict resolution. Concepts of systems analysis are accompanied by application of these concepts to problems.

Career Academies

Grades 11-12

2 Terms

Credits vary

We are able to offer students off-campus Career Academy courses by way of a partnership with Kirkwood Community College and other area high schools. Courses are held at the Jones County Regional Center in Monticello. Students receive high school and college credit for Career Academy courses. Contact the school counselor with questions. Information can also be found at www.kirkwood.edu/careeracademies. Students are asked to reflect how they demonstrate the indicators of success found on page 40 as they consider academy enrollment. Career Academies include:

- Advanced Manufacturing with Robotics & Welding
- Architecture, Construction & Engineering
- Automotive Technology
- Project Lead the Way Pre-engineering
- Computer Programming and Software Development
- Graphic Communication Technology
- Emergency Medical Technician
- Patient Care

SELECT FOR SUCCESS

THE RIGHT STUDENTS FOR THE RIGHT REASONS

Kirkwood partners with area school districts to prepare students to learn essential skills and earn college credit through a variety of concurrent enrollment options. Iowa law requires students, instructors and institutions to meet certain criteria to be eligible to participate in this programming.

To participate, students must:

- Satisfy Kirkwood Community College prerequisites, which may include a satisfactory placement score for reading, writing and math, indicated by the college's recognized placement exams.

OPTIONS TO EARN COLLEGE CREDIT IN HIGH SCHOOL AT KIRKWOOD:

Arts and Science Academy

- To participate in liberal arts courses, students must demonstrate proficiency in each of the three academic areas – math, science and reading – as indicated by Iowa Assessment Testing or an alternative measure of proficiency adopted by the school board. Students must also satisfy Kirkwood Community College prerequisites.

Career Academy

- Participation in career and technical courses is not based on proficiency of Iowa Assessment scores. Students will need to satisfy Kirkwood Community College prerequisites on individual courses as needed.

ADDITIONAL INDICATORS OF SUCCESS:

Academic skills or standing:

- Satisfactory attendance record
- Successfully completes related high school coursework (where applicable)
- Completes all assignments by due date, including assigned readings
- Demonstrates self-motivation as a learner
- Applies classroom learning to real-life cases, observations and service learning
- Has a minimum cumulative GPA of 2.5

Personal traits/dispositions:

- Demonstrates respect for others
- Exhibits intellectual curiosity and openness to new ideas
- Works well as part of a team
- Demonstrates honesty and ethical decision-making
- Willingness to devote several hours each week outside of class to study, review and prepare for coursework

Maturity:

- Demonstrates self-advocacy and communication of needs
- Completes successful transition into junior or senior year of high school
- Successfully manages academic, work, extracurricular and other commitments
- Takes responsibility for their learning and success

Kirkwood
COMMUNITY COLLEGE

Summer Concurrent Enrollment Programs

The summer college credit program is designed to increase participation in career and technical education programs aligned to Iowa's in-demand occupations. Springville Secondary students are able to take summer courses in high demand occupational areas at Kirkwood Community College locations. The high demand occupational area and courses available within it are indicated below:

Healthcare and Biosciences

➤ **Nurse Aide**

1.16 HS Credits, 3.5 College Credits

Provide safe, effective resident care by mastering basic care-giving skills and concepts. This class includes 30 hours lecture, 15 hours lab and 30 hours clinics per state guidelines.

Information Technology

➤ **Computer Science**

Prerequisite: ACT Math score of 25 or 61% on ALEKS

1.33 HS Credits, 4 College Credits

Introduces computer programming including data types, expressions, input/output, control structures, functional and object-oriented programming, and simple data structures. Emphasizes problem-solving skills through program refinement, documentation and programming style.

Construction and Engineering

➤ **Internship**

Prerequisite: Completion of ACE Academy or ACE class from high school ACE academy instructor with recommendation

.67 HS Credit, 2 College Credits

Provides full-time work in an approved, construction-related position that includes instructor visitations/evaluations and employer evaluations of performance. Students gain experience in planning and production monitoring.

➤ **Estimating for Construction and Architecture**

1 HS Credit, 3 College Credits

Introduces the basic principles and skills necessary to develop estimates for residential projects. Concentrates on calculating material and labor quantities. Introduces techniques for pricing.

Advanced Manufacturing Production, Installation & Maintenance

➤ **Introduction to Welding, Safety & Health of Welders: Sense 1**

.33 HS Credit, 1 College Credit

Provides an orientation to the welding profession, including basic safety and health within the welding profession. Aligns to SENSE Level 1, Module 1 and Module 2 - Key Indicators 1-6.

➤ **Shielded Metal Arc Welding I: SENSE 1**

1 HS Credit, 3 College Credits

Focuses on safety, amperage settings, polarity and the proper selection of electrodes for the shielded metal arc welding process. Prepares students to perform American Welding Society compliant welds on carbon steel, using visual and destructive methods for determining weld quality. Aligns to SENSE Level 1 Module 4 - Key Indicators 1-7 for the flat and horizontal positions, as well as Module 2 - Key Indicator 7, Module 3 - Key Indicator 3, and Module 9 - Key Indicator 2.

Foreign Language

A second language is useful in a number of different ways: Students with a second language have a competitive edge in the job market, and they can work in international business, or as translators and interpreters, linguists, or teach a second language to English speakers or teach English to non-native speakers. Learning a second language opens up many opportunities in every field. Many colleges and universities require at least two years of foreign language credits, and some majors require four years. Keep your options open and take a foreign language in high school!

Spanish I

Grades 9-12

2 Credits

Spanish I provides students with a full year introduction to the language and to the cultures of the Spanish-speaking countries. This course focuses on learning basic grammar constructions and vocabulary words by doing various listening, writing, and speaking activities to develop a solid foundation for continued study.

Spanish II

Prerequisite: Successful completion of Spanish I with a minimum grade of C-

Grades 9-12

2 Credits

Spanish II is a full year experience that builds on the information covered in Spanish I by introducing additional verb tenses, vocabulary and cultural information. Students in Spanish II will learn to develop a wider variety of sentences and a broader knowledge of the Spanish-speaking world through reading, listening, writing, and role playing activities.

Spanish III

Prerequisite: Successful completion of Spanish II with a minimum grade of C-

Grades 9-12

2 Credits

Spanish III is a full year experience that builds on the foundation developed in Spanish I and Spanish II by introducing more advanced verb tenses and increasing the students' speaking and writing abilities in Spanish. It introduces even more vocabulary words and phrases and more situation in which Spanish can be used. Students will also be more skillful in reading and translating short passages and stories in the language.

Spanish IV

Prerequisite: Successful completion of Spanish III with a minimum grade of C-

Grades 9-12

2 Credits

Spanish IV is the culmination of the Spanish sequence. This a full year experience focuses mainly on using the students' knowledge of the language to read and discuss passages of writing from Spanish-speaking countries or cultures, and reading short stories written by Spanish-speaking authors. Grammar and vocabulary are still reviewed and studied, but more so in conjunction with the above content.

Spanish V

Prerequisite: Successful completion of Spanish IV with a minimum grade of C-

Grades 9-12

2 Credits

Spanish V is the culmination of the Spanish sequence. This a full year experience focuses mainly on using the students' knowledge of the language to read and discuss passages of writing from Spanish-speaking countries or cultures, and reading short stories written by Spanish-speaking authors. Grammar and vocabulary are still reviewed and studied, but more so in conjunction with the above content.

Health

Students interested in the field of health can apply that knowledge to a number of settings: they can provide direct patient care by becoming a nurse or doctor, become an alternative medical practitioner, go into medical research, or become a laboratory technician. Students interested in becoming physical, occupational, speech, or massage therapists benefit from a background in health.

One of the two following courses is required for graduation:

Health and Fitness

Grades 9-12

1 Credit

This class will meet for one semester. Topics covered in this class include safety and injury prevention, substance use and abuse, nutrition and fitness, mental and emotional health, personal health, consumer health, and human growth and development, in combination with an active fitness component to convey the importance of life-long wellness habits.

Health and Life Management

Grades 9-12

1 Credit

This one semester course focuses on personal health topics such as nutrition, stress management, substance abuse prevention, etc. while developing decision-making, communication, interpersonal, and coping skills and strategies.

The following course is an option for students taking Kirkwood Academy courses at Jones County Regional Center.

➤ **Nutrition**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Designed to show the relationship between sound nutrition and good health. Topics studied are: energy requirements, carbohydrates, lipids, proteins, vitamins, minerals, metabolism, physical exercise, dieting, weight problems, evaluation of nutritional claims, vegetarianism, and proper nutrition during pregnancy and lactation. This course is offered as a one-semester companion course to Kirkwood's academy students.

Emergency Medical Technician Academy

Kirkwood Community College

Prerequisite: Student must be 17 on first day of the spring semester of year enrolled, Completion of high school biology with C or higher

Grades 11-12

5.16 HS Credits, 15.5 College Credits

The Kirkwood Emergency Medical Technician Academy Program can lead students to college certificates such as diplomas, associates, bachelors and graduate degrees. Examples of college majors include, but are not limited to: EMT, Paramedic, Nursing, Pre-Med. The following courses are included in this full year academy:

➤ **Exploration of Healthcare Careers**

1 HS Credit, 3 College Credits

Explores all aspects of health care and careers in the field. Focuses on understanding basic wellness, and growth and development of the human being. Includes field trips to an emergency room at a local hospital, a surgical center, a free healthcare clinic, a dental clinic, an outpatient OT/PT/speech center, administrative offices at a nursing home and a laboratory. Covers the past, present and future of health care. Introduces key career cluster terms and career options within each career cluster. Provides career information, including education required for each area, educational costs to attain a degree versus

expected career earnings, job descriptions, case studies and skills needed for specific career areas. Results in CPR for the Healthcare Provider and Basic First Aid certification upon successful completion.

➤ **Medical Terminology**

1.33 HS Credit, 4 College Credits

A comprehensive study of medical terminology as the language of medicine. Analyzes words by dividing them into component parts. Relates the medical terms to the structure and functional pathology of diseases and current medical procedures. Emphasizes word usage, abbreviations, pronunciation and spelling.

➤ **Emergency Medical Technician I**

1.33 HS Credit, 4 College Credits

Prepares the student to provide emergency medical care at an Emergency Medical Technician (EMT) level as outlined by the National Emergency Medical Services Education standards. Introduces basic emergency care concepts in a preparatory module, including fundamental knowledge of the EMS system, safety/well-being of the EMT and medical/legal and ethical issues to the provision of emergency care. HIPAA, Infection Control and Mandatory Reporting for child/adult training for health care providers is required. Students earn American Heart Association Basic Life Support certification.

➤ **Emergency Medical Technician II**

1.16 HS Credits, 3.5 College Credits

Continues EMS-260. Introduces shock and resuscitation, patient assessment, care and transportation of the acutely ill trauma patient, special patient populations and EMS operations. Focuses on Geriatric Education for EMS (GEMS), Hazmat Awareness and Incident Command. Students are required to demonstrate proficiency for skills within the scope of practice for patients of all ages.

➤ **Emergency Medical Technician II Clinical**

.33 HS Credit, 1 College Credit

Prepares students to provide emergency medical assessment, care and transportation of acutely ill or injured patients of all ages. Develops student proficiency in previously learned skills when providing direct patient care in selected clinical settings. Requires student participation in and documentation of patient contacts and field experience approved by the medical director and the EMS program director. Students must demonstrate competency in skills for patients of all ages within the scope of practice

Patient Care Academy

Kirkwood Community College

Prerequisite: Student must be 16 prior to March 1 of the year enrolled, completion of high school biology with a C or higher within the previous two years

Grades 11-12

4.16 HS Credits, 12.5 College Credits

The Kirkwood Patient Care Academy Program can lead students to college certificates such as diplomas, associates, bachelors and graduate degrees. Examples of college majors include, but are not limited to: Nursing, Athletic Training, Pre-Med, Exercise Science, Physical Therapy. The following courses are included in this full year academy:

➤ **Exploration of Healthcare Careers**

1 HS Credit, 3 College Credits

Explores all aspects of health care and careers in the field. Focuses on understanding basic wellness, and growth and development of the human being. Includes field trips to an emergency room at a local hospital, a surgical center, a free healthcare clinic, a dental clinic, an outpatient OT/PT/speech center, administrative offices at a nursing home and a laboratory. Covers the past, present and future of health care. Introduces key career cluster terms and career options within each career cluster. Provides career information, including education required for each area, educational costs to attain a degree versus expected career earnings, job descriptions, case studies and skills needed for specific career areas. Results in CPR for the Healthcare Provider and Basic First Aid certification upon successful completion.

➤ **Medical Terminology**

1.33 HS Credits, 4 College Credits

A comprehensive study of medical terminology as the language of medicine. Analyzes words by dividing them into component parts. Relates the medical terms to the structure and functional pathology of diseases and current medical procedures. Emphasizes word usage, abbreviations, pronunciation and spelling.

➤ **Professionals in Health**

.67 HS Credit, 2 College Credits

Learn the skills and characteristics expected for professional preparation and employability. Explore the health industry, see current trends and issues, and study the work environment as it relates to health and safety regulations. Students will also learn basic life support techniques used by healthcare professionals (CPR for Healthcare Providers) and Basic First Aid.

➤ **Nurse Aide**

1.16 HS Credits, 3.5 College Credits

Provide safe, effective resident care by mastering basic care-giving skills and concepts. This class includes 30 hours lecture, 15 hours lab and 30 hours clinics per state guidelines.

OR

➤ **Health Support Professional**

1.16 HS Credits, 3.5 College Credits

Provides an introduction to key skills needed to be a direct care worker. Includes core, personal activities of daily living, and health monitoring and maintenance. Requires passage of CORE by 70 percent or better to proceed into the HMM (Health Monitoring & Maintenance) and PADL (Personal Activities of Daily Living) modules.

Independent/Off-site Options

Resource

Prerequisite: Teacher recommendation

Grades 9-12

2 Credits, Full year course

This course will provide an opportunity for students with Individualized Educational Plans to receive support and an opportunity to achieve identified goals. This is offered as a pass/fail course.

Odysseyware

Grades 9-12

1-2 Terms

Credits vary

We are able to offer courses not otherwise available through Odysseyware, an online program. Students who have scheduling conflicts or the need for summer courses should see the school counselor for more information.

Iowa Learning Online (ILO)

Grades 9-12

1-2 Terms

Credits vary

Students may have the opportunity to sign up for courses offered online or via the ICN. ILO is a service of IPTV. ILO offers both high school and college courses. Students interested in college courses must meet PSEO guidelines. Further information can be found at www.iowalearningonline.org. Courses offered and the dates they are offered vary. See the counselor for details.

Iowa Online Advanced Placement Academy (IOAPA)

Grades 9-12

Credits vary

The *Iowa Online Advanced Placement Academy (IOAPA)* has been established to deliver Advanced Placement (AP) courses to high school students across the State of Iowa utilizing Apex Learning on-line. AP courses give students an opportunity to receive college-level credit by way of coursework and examination while still in high school. Actual credit is determined by the college the student eventually attends. At the present time, AP web-based courses are available for IOAPA students through Apex Learning. Current course descriptions and syllabi are available at www.iowaapacademy.org.

Arts & Sciences: Liberal Arts Transfer Academy

Grades 11-12

2 Terms

Credits vary

We are able to offer students off-campus Liberal Arts Academy courses by way of a partnership with Kirkwood Community College and other area high schools. Courses are held at the Jones County Regional Center in Monticello. Students receive high school and college credit for Liberal Arts and Career Academy courses. Students who wish to enroll in a liberal arts academy must achieve Iowa Assessment scores indicated in the table below, or meet the alternative assessment standard of acceptable MAP scores or teacher recommendation. Students are asked to reflect how they demonstrate the indicators of success found on page 46 as they consider academy enrollment.

Grade	9	10	11
Midyear NSS Scores	Math - 249 Science - 250 Reading - 247	Math - 257 Science - 258 Reading - 257	Math - 261 Science - 265 Reading - 262

SELECT FOR SUCCESS

THE RIGHT STUDENTS FOR THE RIGHT REASONS

Kirkwood partners with area school districts to prepare students to learn essential skills and earn college credit through a variety of concurrent enrollment options. Iowa law requires students, instructors and institutions to meet certain criteria to be eligible to participate in this programming.

To participate, students must:

- Satisfy Kirkwood Community College prerequisites, which may include a satisfactory placement score for reading, writing and math, indicated by the college's recognized placement exams.

OPTIONS TO EARN COLLEGE CREDIT IN HIGH SCHOOL AT KIRKWOOD:

Arts and Science Academy

- To participate in liberal arts courses, students must demonstrate proficiency in each of the three academic areas – math, science and reading – as indicated by Iowa Assessment Testing or an alternative measure of proficiency adopted by the school board. Students must also satisfy Kirkwood Community College prerequisites.

Career Academy

- Participation in career and technical courses is not based on proficiency of Iowa Assessment scores. Students will need to satisfy Kirkwood Community College prerequisites on individual courses as needed.

ADDITIONAL INDICATORS OF SUCCESS:

Academic skills or standing:

- Satisfactory attendance record
- Successfully completes related high school coursework (where applicable)
- Completes all assignments by due date, including assigned readings
- Demonstrates self-motivation as a learner
- Applies classroom learning to real-life cases, observations and service learning
- Has a minimum cumulative GPA of 2.5

Personal traits/dispositions:

- Demonstrates respect for others
- Exhibits intellectual curiosity and openness to new ideas
- Works well as part of a team
- Demonstrates honesty and ethical decision-making
- Willingness to devote several hours each week outside of class to study, review and prepare for coursework

Maturity:

- Demonstrates self-advocacy and communication of needs
- Completes successful transition into junior or senior year of high school
- Successfully manages academic, work, extracurricular and other commitments
- Takes responsibility for their learning and success

Kirkwood
COMMUNITY COLLEGE

Postsecondary Enrollment Option (PSEO)

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12, 9-10 if identified as gifted and talented

Credits Vary

Program Overview

First established in 1987, the Postsecondary Enrollment Options (PSEO) program is intended to promote rigorous academic pursuits and to provide a wider variety of options to high school students.

The program allows eleventh and twelfth grade students, as well as ninth and tenth grade students identified as gifted and talented by their local district, to enroll in college courses. Through the program, individual students may enroll in a college or university course if the course is not offered at their school. Successful completion of the course also generates high school credit and applies toward district subject area and graduation requirements.

The school district pays the eligible postsecondary institution for the cost of the course or \$250, whichever is lower. If the student successfully completes the course, it is provided free to the student (except possible equipment purchases). If a student fails to complete the course and is not eligible for a waiver, the student or his or her parent or guardian may be required to reimburse the district's cost.

Student Eligibility

In addition to the Senior Year Plus (SYP) student eligibility requirements, students also must meet the following requirements to be eligible to enroll in PSEO courses.

Definition of Eligible Student

- Must be a resident of Iowa;
- An eleventh or twelfth grade student;
- A ninth or tenth grade student identified as gifted and talented pursuant to Iowa Code section 257.43.

A student enrolled in an accredited nonpublic school who meets all eligibility requirements may apply to take courses under PSEO through the school district where the accredited nonpublic school is located, provided that neither the accredited nonpublic school nor the school district offers a comparable course.

A student under competent private instruction who meets all eligibility requirements may apply to take PSEO courses through the public school district in which the student is dually enrolled, provided that the resident school district does not offer a comparable course, and shall be allowed to take such courses on the same basis as a regularly enrolled student of the district.

Eligible Postsecondary Courses

The administrative rules for PSEO are intended to implement the policy of the State to promote rigorous academic pursuits. Therefore, postsecondary courses eligible for students to enroll in under PSEO shall be limited to:

- Nonsectarian courses.
- Courses that are not comparable to courses offered by the school district where the student attends which are defined in rules adopted by the board of directors of the public school district.
- Credit-bearing courses that lead to an educational degree. Please note a postsecondary certificate does not meet the definition of a degree. If a course is only a part of a certificate program, it is not eligible for PSEO.
- Courses in the discipline areas of mathematics, science, social sciences, humanities, and career and technical education.
- The courses in a professional studies program offered by community colleges.

A school district or accredited nonpublic school district shall grant credit to an eligible student enrolled in an eligible postsecondary course under this program. Pursuant to 281-IAC 22.16, secondary students shall not "audit" postsecondary courses. The student must take the course for credit and must meet all of the requirements of the course which are required by the postsecondary institution.

Credits

A school district, the Iowa School for the Deaf, the Iowa Braille and Sight Saving School, or accredited nonpublic school shall grant high school credit to an eligible student enrolled in a course under PSEO if the eligible student successfully completes the course as determined by the eligible postsecondary institution.

- The board of directors of the school district, the State Board of Regents for the Iowa School for the Deaf and the Iowa Braille and Sight Saving School, or authorities in charge of an accredited nonpublic school shall determine the number of high school credits that shall be granted to an eligible student who completes a course.
- Eligible students may take up to seven semester hours of credit during the summer months when school is not in session and receive credit for that attendance, if the student pays the cost of attendance for those summer credit hours. The cost of attendance is not limited to \$250—the \$250 per course limit applies only to tuition reimbursements made by the school district. Courses taken during a summer term may not supplant courses offered by the district during the academic school year.
- The high school credits granted to an eligible student under this division shall count toward the graduation and subject area requirements of the school district of residence, the Iowa School for the Deaf, the Iowa Braille and Sight Saving School, or accredited nonpublic school of the eligible student. Evidence of successful completion of each course and high school credits and college credits received shall be included in the student's high school transcript.

Tuition Reimbursements and Adjustments

The failure of a student to complete or otherwise receive credit for an enrolled course requires the student, if 18 years of age or older, to reimburse the school district for the cost of the enrolled course. If the student is under 18 years of age, the student's parent or guardian shall sign the student registration form indicating that the parent or guardian assumes all responsibility for the costs directly related to the incomplete or failed coursework.

Transportation

The parent or guardian of an eligible student who has enrolled in and is attending an eligible postsecondary institution under PSEO shall furnish transportation to and from the postsecondary institution for the student.

Industrial Technology

A background in Industrial Technology allows students to pursue opportunities in many fields of construction, such as carpentry, masonry, roofing, plumbing, and electricity. Industrial Technology courses also provide the necessary background for students interested in drafting and architecture, and various types of engineering, such as civil, mechanical, and materials. These courses concentrate primarily on the ACE (Architecture, Construction and Engineering) career paths. All these courses include a component for career exploration and investigation.

Engineering Concepts

Grades 9-12

1 Credit

This one semester course integrates technology-oriented applications of mathematics and science into basic engineering activities. Primarily concentrating on mechanical and structural engineering, topics include the engineering design process, design analysis, data collection and data analysis as well as career investigation. This course provides students with an overview of the practical uses of applying engineering concepts to simple lab projects. Projects include but are not limited to CO2 cars and craft stick bridges. Assessments are completed in class and are based on quality of work completed, employability skills, and other items as determined by the instructor.

Introduction to Architecture, Construction, and Engineering Technologies

Grades 9-12

1 Credit

This course is designed to give students a basic introduction and overview to the topics available in Industrial Technology. It will cover a wide range of study of the following areas: Manufacturing, Energy and Power, Architecture/Construction, and Transportation. Most units will include safety, hands-on work, and in some areas a project. The curriculum is designed around exploration of these systems, their impacts on society, and potential careers in each segment. Students will develop problem-solving skills, utilize research and investigation skills, and explore career awareness. Assessments are completed in class and are based on quality of work completed, employability skills, and other items as determined by the instructor.

Construction Materials Processing

Grades 9-12

1 Credit

This is a one semester foundational course for the architecture and construction cluster. Students will learn concepts in residential construction materials and building techniques through classroom investigations. Concepts include: jobsite safety, lumber, foundations, rough framing roofing, interiors, and other topics within the construction cluster. Students will experience plan development, plan reading and creating project drawings, tool identification and safe usage, material identification, cost estimation, and production. Students will receive instruction in hand and power tool usage on applicable projects that utilize the knowledge gained from classroom investigations as they continue developing team-building skills by working collaboratively. Assessments are completed in class and are based on quality of work completed, employability skills, and other items as determined by the instructor.

Construction Technology

Prerequisite: Construction Materials Processing

Grades 9-12

1 Credit

This one semester course is designed to advance the knowledge and practical skills that were introduced in the Construction Materials Processing. Students will be responsible for the construction of individual and/or group project(s) built throughout the semester. Projects will be determined by the needs and wants of the school and community. Projects are assigned and developed according to the skill levels and experience of the students. Projects can range from basic furniture and cabinetry to small building construction. There will be a wide range of topics investigated during each project, such as job safety, job site management, production planning, project

problem solving, and project review. Assessments are completed in class and are based on work completed, employability skills, and other skills as determined by the instructor.

Architectural Plans and Specs

Grades 11-12

1 HS Credit, 3 College Credits

This semester course introduces the skills and methods for understanding and interpreting construction drawings and technical specifications for residential and commercial buildings. This course is offered at Springville Secondary for Kirkwood Community College credit.

Residential Construction

Grades 11-12

1 Credit

This one semester course provides introductory theory and lab experience in residential construction. The course covers a wide range of topics including but not limited to: lab and job-site safety, foundations, rough framing, building envelope, exterior finishes, interior finishes, and MEP's (mechanicals, electrical, plumbing). Students in this course will be able to: demonstrate the proper use of basic tools and techniques, as part of a construction crew; select and use hand and power tools; recognize unsafe working conditions; identify, describe, layout, measure, cut, and place components used in residential construction systems; follow instructions and take responsibility for information; identify mistakes and take corrective actions; and work effectively as part of a team.

ACE (Architecture, Construction & Engineering) Academy

Kirkwood Community College

Grades 11-12

6 HS Credits, 18 College Credits

The Kirkwood Architecture, Construction & Engineering (ACE) Academy can lead students to college certificates, diplomas, associates, bachelors and graduate degrees. Examples of college majors include, but are not limited to: Architectural Technology, Carpentry, Construction, Masonry Technology, Plumbing Technology and Construction or Civil Engineering. The following courses are included in this full year academy:

➤ **Construction Lab**

1 HS Credit, 3 College Credits

Provides introductory theory and lab experience in basic residential construction procedures and safety for those with little or no construction experience. Includes foundation systems, floor systems, basic wall construction, roof systems, basic mechanical systems as well as interior and exterior finishes.

➤ **Architectural Plans and Specs**

1 HS Credit, 3 College Credits

Introduces the skills and methods for understanding and interpreting construction drawings and technical specifications for residential and commercial buildings.

➤ **ACE Professions**

1 HS Credit, 3 College Credits

Overviews the commercial construction industry through a case study of local Architectural, Construction (both General Contractor and Subcontractors) & Engineering professions. Emphasizes the players as well as the processes and legal/contractual issues involved in a typical project. Includes job shadow opportunities.

➤ **Architectural Modeling**

1 HS Credit, 3 College Credits

Introduces construction concepts through computerized model building. Explores various wall systems and the phases of the construction process.

➤ **Introduction to BIM (Build Information Modeling)**

1 HS Credit, 3 College Credits

Introduces a building information modeling CAD program and the process involved in generating a complete set of working drawings. Emphasizes drawing set up, file management, architectural information organization, attention to detail, converting sketches to CAD, modifying CAD drawings and applying problem-solving skills.

➤ **Structures in MEP (Mechanical, Electrical, and Plumbing)**

1 HS Credit, 3 College Credits

Continues the study of materials, methods and terminology used in modern construction. Focuses on mechanical, electrical and plumbing systems, and their coordination with other systems. Includes the use of charts and tables to evaluate system requirements.

Advanced Manufacturing/Engineering Technology and Welding Academy

Kirkwood Community College

Grades 11-12

6 HS Credits, 18 College Credits

The Kirkwood Advanced Manufacturing/Engineering Technology and Welding Academy can lead students to college certificates, diplomas, associates, bachelors and graduate degrees. Examples of college majors include, but are not limited to: CAD/Mechanical Engineering Technology, CNC Machining Technology, Welding, Manufacturing Technology and Industrial Engineering. This academy has a strict attendance policy to meet industry standards for certification. The following courses are included in this full year academy:

➤ **CNC Mill Operator (NIMS)**

1 HS Credit, 3 College Credits

Introduces basic milling operations. Covers manual and CNC milling practices, tooling, machining practices and applied mathematics. Emphasizes teamwork, critical thinking and problem solving through hands-on experience and practical applications. This course aligns with NIMS (National Institute of Metalworking Skills) standards.

➤ **CNC Lathe Operator (NIMS)**

1 HS Credit, 3 College Credits

Introduces basic lathe operations. Covers manual and CNC lathe turning practices, tooling, machining practices and applied mathematics. Emphasizes teamwork, critical thinking and problem solving through hands-on experience and practical applications. This course aligns with NIMS (National Institute of Metalworking Skills) standards.

➤ **Introduction to Welding Safety & Health for Welders (SENSE 1)**

.33 HS Credit, 1 College Credit

This course will cover the basics of safety and health within the welding profession and orientation to the occupation. This course aligns to SENSE Level 1, Module 1: Occupational Orientation and Module 2: Safety and Health of Workers.

➤ **Virtual Reality Information**

.33 HS Credit, 1 College Credit

Provides students the opportunity to demonstrate various techniques using the Lincoln VTECH Virtual Reality Welder. Focuses on understanding and applying the correct techniques and practices used in welding processes.

➤ **Computer Integrated Manufacturing (CIM)**

1 HS Credit, 3 College Credits

Teaches robotics and automated manufacturing concepts by creating three-dimensional designs with modeling software, then producing actual models of student designs. This course was developed by Project Lead the Way (PLTW).

➤ **Gas Metal Arc Welding Short Circuit Transfer (SENSE 1)**

.67 HS Credit, 2 College Credits

Focuses on proper weld safety, machine setup and welding techniques of Gas Metal Arc Welding Short-Circuiting Transfer. Students perform American Welding Society compliant welds on carbon steel, in flat, horizontal, vertical and overhead positions. This course will prepare students to take an AWS welder certification test, which is recommended for its successful completion. This course aligns with SENSE Level 1 Module 5: Gas Metal Arc Welding Key Indicators 1-7. Also aligns to SENSE Level 3, Drawing and Welding Symbol Interpretation, Key Indicator 3.

➤ **Gas Metal Arc Welding Spray Transfer (SENSE 1)**

.67 HS Credit, 2 College Credits

Focuses on proper weld safety, machine setup and welding techniques of Gas Metal Arc Welding Spray Transfer. Students perform American Welding Society compliant welds on carbon steel in flat and horizontal positions. This course will prepare students to take an AWS welder certification test, which is recommended for its successful completion. It aligns with SENSE Level 1 Module 5 Key Indicators 1, 2, and 8-12. Also aligns to SENSE Level 3, Drawing and Welding Symbol Interpretation, Key Indicator 3.

➤ **Gas Tungsten Arc Welding (GTAW) for Carbon Steel (SENSE 1)**

.67 HS Credit, 2 College Credits

Focuses on proper weld safety, machine setup and welding techniques for Gas Tungsten Arc Welding. Students perform American Welding Society compliant welds on carbon steel in the flat, horizontal, vertical and overhead positions. This course will prepare students to take an AWS welder certification test, which is recommended for successful completion of this course. This course aligns to SENSE Level 1, Module 7 - Key Indicators 1-7, as well as Module 2-Key Indicator 7, Module 3-Key Indicator 3, and Module 9-Key Indicator 2.

Engineering: Project Lead the Way Academy

Kirkwood Community College

Grades 11-12

2 HS Credits, 6 College Credits

The Kirkwood PLTW Academy provides students with a jump start to earning an associates, bachelors and/or graduate degree. Examples of college majors include, but are not limited to: Electronics Engineering Technology and Engineering in a wide variety of disciplines.

Project Lead the Way is a nationally recognized, high school pre-engineering curriculum designed to help students develop better problem solving skills by immersing them in real-world engineering challenges. The courses are available to students in 9-12th grade and all use project-based, hands-on experiences to teach students the key elements and skills of engineering and technology-based careers. By completing a series of Project Lead the Way courses, students will be preparing themselves for the demanding rigor of two-year engineering technology and four-year engineering programs.

All PLTW courses are available as dual credit courses and students may be eligible for regent-accepted, transferable engineering credit. In order to receive transferable engineering credit, students must receive a stanine score of 6 or greater on the end of course assessment. If a student does not complete these qualifiers, they will still receive non-transferable engineering credit from Kirkwood. The following courses are included in this full year academy:

➤ **Introduction to Engineering Design™**

Prerequisite/Corequisite: Algebra I

1 HS Credit, 3 College Credits

Uses a design development process while enriching problem-solving skills; students create and analyze models using specialized computer software.

➤ **Principles of Engineering™**

Prerequisite: Algebra I

Corequisite: College prep math course

1 HS Credit, 3 College Credits

Explores technology systems and manufacturing processes; addresses the social and political

consequences of technological change.

Automotive Technology Academy

Kirkwood Community College

Grades 11-12

5 HS Credits, 15 College Credits

In this Academy, students acquire the basic skills necessary to service and maintain today's more sophisticated automobiles. In this year-long academy program, students will earn 12 college credits, each of which are aligned with the National Automotive Technician Education Foundation (NATEF), and the Automotive Service Excellence (ASE) standards. The following courses are included in this full year academy:

➤ **Introduction to Automotive Technology**

1 HS Credit, 3 College Credits

Provides the beginning apprentice technician with an introductory overview of automotive servicing from a maintenance and replacement standpoint. Classroom and hands-on activities emphasize routine maintenance procedures in the care of tires, batteries, lighting, belts, hoses, filters and cooling systems. Presents career information on career pathways, employers, goal setting, skills inventory, student club information and personal plan.

➤ **Maintenance and Light Repair**

1.33 HS Credits, 4 College Credits

Students demonstrate knowledge of the skills necessary to successfully perform common maintenance and light repair task in engine systems, automatic transmission/transaxle, manual drive train and axles, suspension and steering, brakes, electrical, and heating and air conditioning.

➤ **Industrial Math I**

1 HS Credit, 3 College Credits

Covers basic math skills such as addition, subtraction, multiplication and division of whole numbers, decimals and fractions. Covers specifically dimensional analysis and significant digit concepts. Also gives practice and solving stated problems and covers introductory algebra concepts.

➤ **Automotive Electricity**

Prerequisite: AUT-104 Introduction to Automotive Technology.

1.67 HS Credits, 5 College Credits

Introduces electrical and electronic circuit theory. Covers voltage, amperage, resistance, Ohm's Law and practical application on series, parallel and series-parallel circuits. Emphasizes studying circuits through electrical wiring diagrams and introduces scan tools and digital storage oscilloscopes. Covers diagnosis of electrical circuits with and without multiplex network control. Includes certification as power users of the Snap-On 525D multi-meter.

Language Arts

Employers prefer job-seekers with strong written and oral communication skills. Someone with a passion for language arts can work as a print or online newspaper or magazine writer or editor, a librarian, reporter, desktop publisher, or administrative assistant, just to name a few, and strong language arts skills enhance employability in all fields.

English 9

2 Credits

Ninth-grade English is the first full year course in the series of English requirements for the high school student. It prepares ninth graders for high school reading, writing, and speaking. Reading includes a variety of literary genres. Writing is both expository and creative with emphasis on usage, grammar, spelling, and vocabulary. A research paper and presentation are included in this course.

English 10

Prerequisite: Successful completion of English 9

2 Credits

Tenth-grade English is a required full year class for the high school students. It continues to refine the skills of reading, writing, and speaking that began in ninth grade. The reading material includes a variety of literary genres. Various types of writing are exercised throughout this course, including research.

English 11

Prerequisite: Successful completion of English 10

2 Credits

Eleventh-grade English is a required full year class, which emphasizes both the fiction and non-fiction genres of American authors and the connection between the authors and the material. The writing projects will include creative writing, essays, and research. The research will culminate with a major persuasive paper and presentation.

College English

Prerequisite: Successful completion of English 11 with a minimum grade of B or Instructor Approval

Grade 12

2 Credits

This full year course emphasizes preparing students for college. In the area of literature, students read and analyze classics commonly discussed in college courses. In the area of writing, the students experience styles of writing needed in college. This class is fast paced and the student needs to be able to work independently.

Oral Communication

Grade 12

1 Credit

Oral Communication is a one semester course designed to help each student improve his/her communication skills. Emphasis is placed on developing human relationships, speech presentations, and general communication skills.

Workplace Communication

Grade 12

1 Credit

Workplace Communication is a one semester course that enables students to develop communication skills that can be used in a variety of professional situations. The course is designed to help students improve their communication skills. Emphasis is placed on developing professional relationships, presentation skills, and general workplace communication skills.

Poetry

Grades 9-12

1 Credit

The biggest barrier to appreciating poetry is understanding it. In this one semester course, students will closely read and analyze notable poetry from the 19th and 20th centuries. The course will focus on interpretation and appreciation of poetry. Through this, students will gain a deeper understanding of figurative language and abstract thought. Assignments will include analytical essays, annotations, close reading reflections, and developing a portfolio of an influential poet.

Writers' Workshop

Grades 11-12

1 Credit

This one semester class is an elective geared to creative writing pursuits of the individual student. Emphasis will be placed upon creativity, audience awareness, writing and creativity methodology, and reader appeal. Students will be encouraged and directed to study themselves as writers and identify and hone their own writing styles. Writer/reader interaction will be done regularly. The class is structured as a workshop with individuals following both prescribed and individual writing pursuits. Grades will be based upon volume of writing in free flows and prescribed writings, experimentation, sharing, interaction with other writers as responders, individually selected writings carried to publication, and a large, individually planned and created project. This course will emphasize the production of a literary magazine and other journalistic pursuits.

Contemporary Literature

Grades 9-12

1 Credit

This one semester course will examine literature and discuss their relation to current events. Students will be asked to apply themes, plots, and characters to present-day issues. Understanding will be expressed through the use of projects, presentations, and comparative analyses.

Multicultural Literature

Grades 9-12

1 Credit

This one semester course will offer a diverse look into literature encompassing various countries, belief systems, and lifestyles. Students will participate in discussion over a variety of topics unique to the cultures represented. They will demonstrate understanding of these multicultural works through analytical papers, presentations, and discussions.

The following courses are options for students taking Kirkwood's Liberal Arts & Sciences: Liberal Arts Transfer Academy courses at Jones County Regional Center.

➤ **Composition I**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment, Accuplacer Writing 82 or ACT English 18

Grades 11-12

1 HS Credit, 3 College Credits

Develops expository writing with emphasis on organization, supporting details, style, vocabulary, and library research skills.

➤ **Composition II**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment, Successful completion of Comp. I

Grades 11-12

1 HS Credit, 3 College Credits

Teaches precise and responsible use of research tools. Requires critical analysis of reading materials, audience and self when communicating content material. Develops students' ability to use effective and ethical arguments.

➤ **Fundamentals of Oral Communication**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment
Grades 11-12

1 HS Credit, 3 College Credits

Studies basic communication theory and practice including communication process, interpersonal relationships, small group interaction and public speaking.

➤ **Film Topics: Animation**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Offers in-depth study of various topics in film studies. Some topics offered are the study of genre theory, specific genres, film adaptation of literature and drama, moral themes and documentary film. All film topics will study the relationship between the topic and culture, identify operating principles and relevant contextual forces, and apply these concepts to the study of specific films.

Mathematics

Students must progress forward in math; initial placement is determined in consultation with the student's eighth grade math teacher. Students should strive to complete Algebra II or Fundamentals of Algebra II.

Someone with an interest in math can find work in any number of fields. Statisticians, actuaries, surveyors and GIS specialists, physicists, cost estimators, computer scientists, surveying and mapping technicians, engineers of all sorts, and painting contractors need strong math skills.

Fundamentals of Algebra

Prerequisite: Teacher recommendation

Grade 9

2 Credits

Advanced Fundamentals of Algebra

Prerequisite: Successful completion of Fundamentals of Algebra

Grade 10

2 Credits

Algebra I

Grade 9

2 Credits

This full year course expands students' knowledge and skills into the more abstract concepts of algebra. This course provides the mathematical foundation for Geometry, Chemistry, Physics, Biology, and most business courses. This course will include the following topics: rules and properties of algebra, solving equations, inequalities, and algebraic systems, operations and properties of exponents and radical expressions, representations of linear models in tables and graphs, and operations and properties of quadratic equations and other polynomials.

Geometry

Prerequisite: Successful completion of Algebra I

Grades 9-10

2 Credits

This full year course expands the mathematical fundamentals learned in Algebra I into the applied concepts of geometric shapes and theory. The students will learn: inductive and deductive reasoning techniques and skills, geometric construction, the properties of geometric shapes, congruence and similarity, transformations and tessellations, geometric area and volume calculations, Pythagorean Theorem and right triangles.

Algebra II Fundamentals

Prerequisite: Completion Algebra I, Geometry preferred, Instructor Approval

Grades 11-12

2 Credits

This year-long course that will focus on the fundamental and practical use of Algebra 2 concepts. Topics covered will be typical algebra 2 concepts such as linear, quadratic, polynomial, rational, exponential, logarithmic, and trigonometric functions. These concepts will be put into an applied, practical context.

Algebra II

Prerequisite: Successful completion Algebra I, Geometry preferred

Grades 10-12

2 Credits

This full year course extends and deepens the student's knowledge of algebraic and geometric concepts in order to prepare them for college level mathematics. This course includes the following topics: the use of graphing calculator functions, operations with more complex fractions, simplifying radical expressions, operations and composition of functions, solving quadratic functions, equations and inequalities, solving two and three variable systems, operations and properties of matrices, beginning trigonometry, higher order polynomial

factoring and operations, introduction to complex numbers.

Pre-calculus

Prerequisite: Successful completion of Algebra II

Grades 11-12

2 Credits

This full year course is intended for students who are college-bound in a scientific and/or engineering field of study. The course includes the following topics: advanced functions; advanced trigonometry; vectors, polar coordinates, and parametric equations; conic sections, limits and their properties; derivatives, differentials and integrals.

Calculus

Prerequisite: Successful completion of Pre-calculus or Instructor Approval

Grades 11-12

2 Credits

In Calculus, students learn to understand change geometrically and visually, analytically, numerically, and verbally. Instead of simply getting the right answer, students in this full year course learn to evaluate the soundness of proposed solutions and to apply mathematical reasoning to real-world models.

The following course is an option for students taking Kirkwood Academy courses at Jones County Regional Center.

➤ **Statistics**

Prerequisite: Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment, ALEKS 30%, ACT Math 19

Grades 11-12

1.33 HS Credit, 4 College Credits

This course focuses on descriptive statistics (mean, median, mode, standard deviation and variance) and introduces correlation and linear regression. Emphasizes inferential statistics and probability distributions as applied to confidence intervals, hypothesis testing of mean and standard deviation, and application to business and other fields. This course is offered as a one-semester companion course to Kirkwood's academy students.

Music

Music careers are many and varied. Students interested in music can become performers, but there are many more careers in writing and producing music, such as arranger, producer, orchestrator, composer, film scorer, jingle and songwriter, and conductor. Those interested in the business side of music can become a booking agent, business or personal manager, music merchandiser, or music publisher. There are also careers that require an understanding of music and technology: MIDI engineer, producer, programmer, sound designer, or sound technician. Individuals interested in using music to help others can explore careers in music therapy. If you have a strength in music, it can be combined with other interest areas to lead to a rewarding career.

Instrumental Music

Concert Band

Grades 9-12

2 Credits

The Concert Band is the core performance group in the instrumental music program and members are enrolled for a full academic year. All members of this group also perform as members of the marching band and the pep band. Concert Band is open to any student, although those without prior instrumental experience may be asked to take lessons with the director prior to enrolling. Students will study both Western and international traditions of music primarily through performance. In addition, students are encouraged to participate in solo and small ensemble music experiences. Participation in all concerts and large group contest is required. All students using a school instrument, including percussionists, must pay a rental fee of \$25.00 a rental per semester.

Musical Pride Marching Band

Grades 9-12

All Concert Band Members are required to participate in Marching Band. Marching Band takes place during the first quarter of school, with an additional summer band camp that takes place prior to school starting. Marching Band is also open to seventh and eighth grade students. Participation in all performances is required.

Jazz Band

Grades 9-12

The Jazz Band rehearses before school during the second and third quarters of the school year. Members of this group are selected from the concert band. As per state requirement, all jazz band members must be enrolled in concert band or attending at least three practices for concert band each week. Jazz Band meets two to three times each week. Additional rehearsals may be added if needed. Participation in all performances is required.

Vocal Music

Choir

Grades 9-12

2 Credits

Choral music is the basis for all other music in this vast world we live in, and members are enrolled for a full academic year. In mixed chorus the techniques and styles on which all music is based are learned and used. A wide variety of musical genres and styles are incorporated in the school year. Mixed chorus is open to anyone in high school who enjoys singing or would like to give it a chance. Concert attendance and large group contest participation are required. Voice lessons will be scheduled for all high school students in vocal music. Each student will have one scheduled lesson per week, during the school day.

Serenade

Grades 9-12

The High School Select Choir is an audition only choir that is open to all members of the Mixed Chorus. Auditions will be held in the fall of each year voicing will be chosen at the discretion of the director. There will be early morning rehearsals starting in October/November. Solo/small group competition is required for this group.

The following course is an option for students taking Kirkwood Academy courses at Jones County Regional Center.

➤ **Music Appreciation**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Includes study of elements and forms of music with attention to major historical periods and composers of historical significance and survey of indigenous music.

Physical Education

Physical education allows students the opportunity to develop the knowledge and skills necessary to careers in recreation and fitness, recreational therapy, personal training, coaching, professional athletics, dancing, and any number of careers that place physical demands on the body.

Strength and Weight Training

Grades 9-12

0.5 Credit, Repeatable

Strength and weight training includes a background of knowledge necessary to provide each student with a comprehensive personal fitness program. Basic concepts relating to exercise physiology, anatomy, and kinesiology will provide the student with the framework necessary to understand general fitness training concepts. Personal assessments, goal sets, and program design will allow students to monitor their progress. The instructor and student will plan specific exercise prescriptions. Students will keep a folder including daily logged workouts, goal sets, and assessments.

Lifetime Physical Education

Grades 9-12

0.5 Credit, Repeatable

Lifetime PE seeks to achieve lifetime health and fitness through a combination of lifestyle choices, nutrition, and physical activity. This course introduces students to those physical activities that can provide life-long participation. Units include cardiovascular fitness, strength training, flexibility development, and methods for maintaining physical fitness through recreation and sport. Included are opportunities for instruction in bowling, cross-country skiing, walking, running, weight training, golf, tennis, self-defense, and aerobics.

Recreation Physical Education

Grades 9-12

0.5 Credit, Repeatable

Recreation Sports courses provide students with knowledge, experience, and an opportunity to develop skills more than one recreational sport or outdoor pursuit. Units may include basketball, football, volleyball, floor hockey, adventure activities, Frisbee, bocce ball, fishing, hiking, and soccer.

Science

Students interested in science can work as scientists of all sorts, including in earth and environmental sciences, engineering, life science, and physical science. Within each area are numerous careers such as climate change analyst, environmental compliance inspector, industrial health and safety engineer, meteorologist, park ranger, and water treatment plant operator for those interested in environmental sciences; those interested in engineering can go into biofuel or biodiesel technology and product development, environmental engineering, fuel cell engineering, or engineering technologies. The life sciences also offer many opportunities: agricultural inspector, audiologist, biological technician, medical and clinical laboratory technician, nuclear medicine, pharmacology, and zoology, to name a few. Those interested in the physical sciences have career options ranging from astronomer to landscape architect to robotics to wind energy.

There are several pathways a student can take through the science curriculum, depending on career goals:

General Science → Biology → Astronomy → Forensics (For those interested in the environmental and physical sciences)

General Science → Biology → Chemistry → Physics (For those interested in technical and engineering sciences)

General Science → Biology → Chemistry → Anatomy & Physiology (For those interested in the medical sciences)

Some students with a strong background in science may be able to begin their high school science pathway with biology. If this option is chosen, students must complete biology, chemistry, and physics to meet the requirements of the Iowa Core Curriculum. Students will be considered on the basis of Iowa Assessment and MAP scores, and teacher recommendation.

General Science

Grade 9

2 Credits

This full year course provides a general overview of the physical sciences. Students will focus on critical thinking and discovery of relationships between science and their everyday lives. The course will focus on a basic overview of matter (chemistry) in the first semester with the second semester focusing on energy (physics). Additionally, this course will look to build basic laboratory and observational skills needed for future science courses.

Biology

Prerequisite: General Science or Instructor Approval

Grades 9-12

2 Credits

Students in this full year course will achieve a greater understanding of the living world. Topics include basic bio-chemistry, cellular biology, genetics, human anatomy, evolution, and an exploration of the plant and animal kingdoms. This course will include reading assignments, note taking from lectures, and laboratory explorations. Laboratory explorations will include observations of preserved and live specimens, microscope use, and dissections.

Astronomy

Prerequisite: General Science

Corequisite: General Science

Grades 9-12

1 Credit

This semester course will look at the basic structure and organization of the universe and gradually tighten its focus on the Earth, its composition, and formation. Topics will include the formation and organization of the universe, the composition of stars, the history of astronomy as a science, our solar system, the composition of

the Earth, plate tectonics, and basic geology. This course will include lab and field work, with the possibility of field trips and guest speakers. The second half of this course will look at the earth more closely, examining it as a living system. Students will break down the various components and cycles that exist in the natural world and discover the interconnectivity of these variables. Furthermore, students will look into potential threats to the natural world and humanity's involvement by looking at conservation practices, and past and present legislation. This course will include lab and field work, with the possibility of field trips and guest speakers.

Forensic Science

Prerequisite: General Science

Corequisite: General Science

Grades 9-12

1 Credit

In this semester course, students will study the methods used by criminal investigators to solve crimes. Students will learn the methods used to analyze evidence from fingerprints to DNA. This course will include several lab activities.

Anatomy

Prerequisite: Biology

Grades 11-12

2 Credits

This full year course will broadly focus on the different systems in the human body, how the systems work together and what happens when parts of the body malfunction. This course will include a study of major body systems, basic medical terminology, and select organ dissections.

Physics

Prerequisite: Biology, Algebra II preferred

Corequisite: Algebra II

Grades 11-12

2 Credits

This full year course is a non-calculus, algebra-based course. Physics will combine laboratory activities with lecture and problem solving sessions. Physics course topics will include mechanics, sound, light, electricity, motion, and atomic and nuclear applications for daily living.

Chemistry

Corequisite: Algebra II

Grades 11-12

2 Credits

Chemistry courses involve studying the composition, properties, and reactions of substances. Students in this full year course typically explore such concepts as the behaviors of solids, liquids, and gases; acid/base and oxidation/reduction reactions; and atomic structure. Chemical formulas and equations and nuclear reactions are also studied.

The following course is an option for students taking Kirkwood Academy courses at Jones County Regional Center.

➤ **Environmental Science**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Examines environmental issues from a scientific perspective. Topics examined include ecosystems, energy, global warming, ozone depletion, air pollution, water resources, population growth and biodiversity. Students are required to analyze environmental problems and draw conclusions.

Social Studies

A background in social studies is an asset in many fields: archeology and anthropology; social sciences such as economics, sociology, and psychology; politics and government; law enforcement careers ranging from police officer to paralegal and lawyer to judge to parole or probation officer; and urban planning. Knowledge gained from these courses is useful to city and county clerks, clerks of court, and bailiffs. It complements a number of professions.

World History

Grades 9-12

2 Credits

World History is a full year course. The first term covers the period from prehistory through the Renaissance and Reformation. It will cover such topics as Early Civilization, Greek and Roman times, Ancient Africa, Ancient Civilizations in Europe and Asia, the Renaissance and the Reformation. The second term covers world history from the 17th century and covers topics such as the Ages of Exploration and Enlightenment, the Industrial Revolution, the great World Wars, the Rise of Communism, the End of Imperialism, the Cold War, and the Post Cold War Era. This course is required for graduation.

U.S. History

Grade 9-12

2 Credits

This full year course covers U.S. History from 1861-to the end of the 20th century. The Civil War, the closing of the frontier, Industrialization, Immigration, the Progressive Movement, the First World War, the Great Depression, World War II, Cold War America, the Civil Rights Movement, Vietnam, the Nixon and Reagan Eras, and Post Cold War America are covered. This course is required for graduation.

Economics

Grades 11-12

1 Credit

The purpose of this semester course is to help develop an ability to understand and make reasoned judgments about major economic questions. The students will learn about the market economy, the impact of the government on the economy, and the unemployment-inflation dilemma. Personal economics will also be included as students will be introduced to personal investment and budgeting principles. This course is required for graduation.

Government

Prerequisite: US History

Grades 11-12

1 Credit

This one semester course will cover an overview of government through the study of the United States Constitution and the federal system of government. The structure (executive, legislative, and judicial branches) and the relationships between the national, state, and local government will be studied. Students will examine the role and function of political parties, the growth of government, the philosophy of the democratic process, and the obligation of citizens in our society. Current governmental issues will also be analyzed and discussed throughout the class and applied to the lives of the students. This course is required for graduation.

Modern U.S. History

Grades 9-12

1 Credit

Modern U.S. History is a one-semester course structured to give the student an understanding of current issues in many areas of a political, social, and economic nature. The course emphasizes research done by the student since the topics chosen are very fluid in their nature, meaning that the topics and the amount of coverage on the topics will fluctuate on any given day, week, or month depending on topics current in the media.

Military History

Grades 9-12

1 Credit

This one semester course is an elective history course surveying military history from antiquity to the present. The course seeks to take a glimpse of the various stages of military history over the past 5000 years, as it has evolved and changed. To do this, various focus points have been selected in an attempt to create a broad view of this immense subject. The vastness of the material necessitates that not all stages of development and change can be covered but this allows the course a degree of freedom that is valuable in studying this subject and means that the course will surely evolve and change as it continues to be taught.

History Through Film

Grades 11-12

1 Credit

This one semester course will discuss how the motion picture industry has changed since its origins in the early 1900's. Students will watch Oscar-winning movies and study award winning actors, actresses, and directors. There will be quizzes over the handouts on the movies and tests over the units studied. There will also be one paper written about an award winning actor or actress. The main decades that will be focused on will be the 1950's, 60's and 70's. This class will explore how movies have made many social statements about the various time periods and the influence of past movies on today's culture.

Psychology

Grades 9-12

1 Credit

Psychology provides tools to help us gain insight into our own behavior, as well as our relationship with others. In this one semester class we will explore the influences of society on individual behavior and group relationships, as well as biological explanations for human behavior. During the course you will learn more about the social and biological aspects of human behavior as you gain insight into your life and the lives of those around you. This class is strongly recommended for any student planning on attending college, as most colleges will require students to take at least one semester of psychology during their college careers.

Social Issues through Popular Culture

Grades 9-12

1 Credit

Social Issues through Pop Culture is a one semester course that will focus primarily on current and historical social issues through the lens of popular culture. The focus of the class will be to examine social issues such as race, gender, sexual orientation, culture, etc. through music, sports, television, movies, etc.

World Geography and Current Affairs

Grades 9-12

1 Credit

The intent of this one semester class is to provide students with an overview of world geography and connect the world geography to current affairs. Topics covered may include geographic, political, economic, and social issues of a particular country or region.

The following courses are options for students taking Kirkwood's Arts & Sciences: Liberal Arts Transfer Academy courses at Jones County Regional Center.

➤ **Introduction to Psychology**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Provides an introduction to the study of behavior with emphasis in the areas of learning, cognition, motivation, personality, behavioral disorder, therapy, and social influence. An understanding of the impact of both theoretical perspective and experimental evidence on the formulation of the science of human behavior is also stressed. Psychological theories and principles are utilized to explain and predict behavior.

➤ **Introduction to Sociology**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Surveys the basic principles, concepts, research strategies and empirical findings representative of the field today. The course examines the range of sociological thought, identifies areas of specialization within the discipline and establishes a basis for further study in the field.

➤ **US History to 1877**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Studies the European background, the colonial experience, the revolutionary period and 19th century history to the Civil War. Includes political, economic and social history of this period as well as the development of American thought.

➤ **Principles of Macroeconomics**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Introduces principles of the economizing problem with emphasis on national income and employment analysis. Includes national income accounting the business cycle, money and banking, fiscal and monetary theory, policy, and economic growth.

➤ **Survey of World Religions**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Introduces the study of religions and religious phenomena through an examination of several historical and contemporary religions from around the world. Includes a study of some of the following: American Indian traditions, Hinduism, Buddhism, Judaism, Christianity, Islam, Shintoism, ancient and contemporary feminist spirituality, gnosticism, shamanism, Confucianism and Taoism.

➤ **Social Problems**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Examines social problems as consequences of given types of social organization. Students examine research and theory to build an understanding of the definition, existence and persistence of social problems, as well as collective efforts to resolve those problems.

➤ **American Government**

Prerequisite: Iowa Assessment NSS scores found on page 45 or alternative assessment

Grades 11-12

1 HS Credit, 3 College Credits

Studies American policy based on a close examination of the processes of decision making. Emphasis is placed on voting behavior and citizen interaction within the system.

Appendix A



DEFINITION OF COLLEGE AND CAREER READINESS IN IOWA

College and Career Readiness in Iowa: Iowa students who are college and career ready have acquired the necessary knowledge, skills, and strategies to be successful in post-secondary opportunities as demonstrated through multiple sources of evidence, including those generated by students. Iowa students who are college and career ready have successfully:

1. Achieved Proficiency In Essential Content Knowledge



2. Acquired Practical Transition Skills

3. Developed Key Learning Skills And Cognitive Strategies



4. Built A Strong Foundation Of Self Understanding And Engagement Strategies

Definition of Key Terms:

Student: A student is a person who is enrolled in a PK-12 educational program.



Post-secondary opportunities: Post-secondary opportunities include two or four-year degree programs, certificate or licensure programs, apprenticeships, training programs in the military, on-the-job training, and industry-based certifications.



Multiple sources of evidence: Multiple sources of evidence imply that data about student learning progressions in each of the four readiness areas has been obtained in a variety of ways.



Outcome categories with description on back side



DEFINITION OF COLLEGE AND CAREER READINESS IN IOWA

Outcome categories with description: The following outcomes begin to define the knowledge, skills and strategies that students who are college and career ready have acquired. The four areas are highly interdependent and mutually enhancing; as students develop skills in one area it enhances the development of skills in other areas.

1. Essential Content Knowledge:



- » Students have the knowledge and skills associated with college and career readiness within the Iowa Core.
- » Students have the academic and technical content knowledge and skills to enroll in and successfully complete credit-bearing post-secondary courses, workforce or military training, certificate or licensure programs, and/or apprenticeship programs.

2. Transition Skills:



- » Students have set goals for school, career, and post-secondary opportunities and are knowledgeable about a wide variety of pathways and requirements to achieve these goals.
- » Students have the practical knowledge and skills needed to successfully navigate transitions within the PK-12 system and develop plans consistent with their goals and aspirations.
- » Students have the practical knowledge and skills needed to successfully navigate through post-secondary program selection and admissions and enter into a career pathway that can provide economic security and personal satisfaction.

3. Learning Skills and Cognitive Strategies:



- » Students are collaborative, reflective learners who apply meta-cognitive skills to better understand their learning strengths and increase their learning capacity.
- » Students are able to set goals, demonstrate persistence, effectively manage time, employ organizational and study skills, and utilize technology to enhance their learning.
- » Students can formulate problems, conduct research, interpret and communicate findings, incorporate feedback and generate innovative solutions.
- » Students can successfully engage in collaborative inquiry and numerous learning processes while valuing diversity and various perspectives.
- » Students can construct meaning for themselves as an active part of the learning development process and begin to understand the world through many sources of information.
- » Students utilize appropriate advocacy skills to make necessary arrangements for accommodations and adaptations to enhance their learning.

4. Built a Strong Foundation of Self Understanding and Engagement Strategies:



- » Students are able to identify and navigate their personal, civic, and social responsibilities to engage in local, national, and global contexts.
- » Students take a leadership role and engage others to address issues that are important to them and the world around them.
- » Students are self-regulated, self-directed, confident, and aware of their strengths and areas for growth. They are able to reflect on feedback and use it appropriately to take action. They demonstrate the ability to take initiative, seek appropriate resources, as well as manage, monitor and modify their effort to accomplish the desired result.
- » Students understand themselves, their values and beliefs, and can comfortably interface (communicate with and build relationships) with others including those with diverse perspectives and backgrounds. They are able to identify and resolve conflicts through various modes.