2015-2016
Kirkwood
Earn College Credit in High School

PROGRAMS OF STUDY
Jones County Regional Center
www.kirkwood.edu/jonesacademies
Dear Students, Parents and Counselors,

While in high school, students can earn dual credit by enrolling in courses that meet high school requirements and satisfy college credit through Kirkwood Community College. Opportunities include Career Academies (offered at your high school or at the new Kirkwood Jones Regional Education Center), classes on site at your high school, as well as classes offered online or via the Iowa Communications Network (ICN).

As students begin their scheduling process, please take time to discuss the Kirkwood Community College dual credit classes available to high school students. We’ve recently redesigned a portion of our website to include detailed information. You can access that information at www.kirkwood.edu/jrec (just search “earn college credit in high school”).

Kirkwood has recently established a historic partnership with eight area high schools in an effort to provide every high school student an opportunity to further challenge themselves in cutting-edge, career-based curriculum, preparing them for college or career, all while in high school. Our partnership consists of Monticello, Anamosa, Midland, Central City, Springville, Maquoketa Valley, Cascade and potentially more High Schools. We believe this partnership not only rounds out their high school experience, but better prepares them for college, and the best part is that it’s paid for by the high school.

Please feel free to contact me directly if you have any questions.

Sincerely,

Lisa Folken,
Director of Jones Regional and Cedar County Centers
Lisa.Folken@kirkwood.edu
319.465.2305

Craig Stadtmueller
Career Development Coordinator
Craig.Stadtmueller@kirkwood.edu
319-465-2375
WHAT ARE YOU WAITING FOR? DON'T MISS OUT!!!
Enrolling is as easy as 1….2….3!

Step 1.
Review your four-year plan. Determine where you are with graduation and college requirements. Contact your guidance counselor or Craig Stadtmueller at Kirkwood Jones Regional Education Center if you need assistance.

Step 2.
Complete Jones Regional Pre-Registration Form no later than 3/1/15. Preregistrations will be reviewed by your high school and Kirkwood Community College for eligibility and approval.

Step 3.
Apply to www.kirkwood.edu/hscreditapply and attend the required orientation.

Awarding of Credit/Grades

• HIGH SCHOOL CREDIT: Students with a passing grade will receive credit from their high school. Individual school districts determine whether their high school credit will be awarded to meet high school core curriculum requirements or elective credits.

• COLLEGE CREDIT: Students will receive college credit from Kirkwood Community College. The grade earned in this course will be reflected on the student's official college transcript.

• TRANSFERRING CREDIT: Student’s not planning to attend Kirkwood after high school graduation should plan to include this transcript as part of their application process to other colleges or universities. www.kirkwood.edu/transcript. If you plan to attend a private or college out-of-state, please contact the college directly to see how your credits will transfer.

As part of earning college credit for this academy, students must complete an online application to Kirkwood Community College, and must provide a Social Security Number as part of the secure online college application process to create the official student record.
How do I know if I’m ready for college level coursework?

The following profile should offer a guide to students, parents & counselors in selecting students for college credit courses.

**Senior Year Plus Requirements**

As defined by the Iowa Department of Education, Senior Year Plus is an important part of high school reform efforts in Iowa. Through these programs, high school students are provided rigorous opportunities for advanced learning. To this end, Kirkwood partners with Area X school districts to prepare students to learn essential 21st century skills and earn college credit through postsecondary learning options, concurrent enrollment, and Career Edge Academies.

Iowa law requires students, instructors, and institutions to meet certain criteria to be eligible to participate in Senior Year Plus programming.

In order to participate in the Arts and Sciences Academy students must demonstrate proficiency in each of three academic areas- Math, Science, and Reading as indicated by ITED testing.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Fall</th>
<th>Midyear</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th</td>
<td>Math - 243</td>
<td>Math - 249</td>
<td>Math - 249</td>
</tr>
<tr>
<td></td>
<td>Science - 243</td>
<td>Science - 250</td>
<td>Science - 250</td>
</tr>
<tr>
<td></td>
<td>Reading - 243</td>
<td>Reading - 247</td>
<td>Reading - 249</td>
</tr>
<tr>
<td>10th</td>
<td>Math - 252</td>
<td>Math - 257</td>
<td>Math - 257</td>
</tr>
<tr>
<td></td>
<td>Science - 253</td>
<td>Science - 258</td>
<td>Science - 258</td>
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<tr>
<td></td>
<td>Reading - 252</td>
<td>Reading - 257</td>
<td>Reading - 257</td>
</tr>
<tr>
<td>11th</td>
<td>Math - 259</td>
<td>Math - 261</td>
<td>Math - 263</td>
</tr>
<tr>
<td></td>
<td>Science - 260</td>
<td>Science - 265</td>
<td>Science - 265</td>
</tr>
<tr>
<td></td>
<td>Reading - 259</td>
<td>Reading - 262</td>
<td>Reading - 263</td>
</tr>
</tbody>
</table>

If a student is not proficient in one or more of the content areas, the school board may establish alternative but equivalent qualifying performance measures. See page 10-12 of Senior Year Plus guidelines for additional information.

Participation in all other Career Academies is contingent upon completion of the COMPASS test before registration. Satisfactory placement scores for Reading, Writing, and Math as indicated by ACT scores are sufficient for participation in Career Academies.
**Additional Indicators of Success**

**Academic Skills or Standing**
- Satisfactory attendance record
- Completes all assignments by due date, including assigned reading
- Demonstrates self-motivation as a learner
- Applies classroom learning to cases, observations, and service learning
- Has a minimum GPA of 2.5 in academic courses

**Personal Traits/Dispositions**
- Demonstrates respect for others
- Exhibits intellectual curiosity and openness to new ideas
- Works well as part of a team
- Demonstrates honest and ethical decision-making

**Maturity**
- Demonstrates self-advocacy & communication skills (communicates needs)
- Successfully manages academic, work, extracurricular & other commitments
Preregistration Information

for

Career Academies

Jones Regional Center
## Kirkwood College Credit Companion Courses (to be taken with an Academy)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT-888</td>
<td>Auto Technical Lab</td>
<td>4</td>
</tr>
<tr>
<td>EGT-440</td>
<td>Biotechnical Engineering</td>
<td>3</td>
</tr>
<tr>
<td>SDV-170</td>
<td>Career Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>SDV-102</td>
<td>How College Works</td>
<td>1</td>
</tr>
<tr>
<td>ENV-115</td>
<td>Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>EDU-110</td>
<td>Exploring Teaching</td>
<td>3</td>
</tr>
<tr>
<td>MGT-145</td>
<td>Human Relations in Management</td>
<td>3</td>
</tr>
<tr>
<td>CSC-110</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
</tbody>
</table>

### AUT-888 Auto Technical Lab
Simulated automotive repair environment. Learning activities include complaint, cause and correction to customer vehicles. Parts and labor calculations also covered.

### EGT-440 Biotechnical Engineering
Introduces students to the application of biological and engineering concepts related to biomechanics, genetic engineering and forensics. This course was developed by Project Lead the Way.

### SDV-170 Career Decision Making
Provides an understanding of the career development process, and assists students in making satisfactory career choices. Includes self-assessment, career information research, decision making and job search strategies.

### SDV-102 How College Works
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.

### ENV-115 Environmental Science
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.

### EDU-110 Exploring Teaching
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.

### MGT-145 Human Relations in Management
Emphasizes the importance of proper attitudes towards self, others and organization values. Stresses the development of a good self-concept and the relationship this has to energy levels, emotions, verbal and nonverbal communication. Prepares students to understand how to deal with conflict and how to be a productive member of a work group.

### CSC-110 Introduction to Computers
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.
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<thead>
<tr>
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<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC-110</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>MAT-157</td>
<td>Statistics</td>
<td>4</td>
</tr>
<tr>
<td>WEL-331</td>
<td>Welding Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>ART-186</td>
<td>Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>BUS-102</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>REL-101</td>
<td>Survey of World Religions</td>
<td>3</td>
</tr>
<tr>
<td>SOC-115</td>
<td>Social Problems</td>
<td>3</td>
</tr>
</tbody>
</table>

**SOC-110 Introduction to Sociology**
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.

**MAT-157 Statistics**
Focuses on descriptive statistics (mean, medium, 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 applications to business and other fields. Prereq: MAT-102 or MAT-107 or MAT-155 or MAT-076 through Module 8

**WEL-331 Welding Fundamentals**
Covers basic welding techniques with oxyacetylene and electric welders. Designed for the general tradesperson working in the areas of mechanics and automotive technology. Students are introduced to a variety of welding situations including cutting, brazing and various welding positions on lighter gauges of metal and basic fabrication. (This course may be modified or exchanged for similar course and learning outcomes)

**ART-186 Digital Photography**
Develops familiarity and proficiency with digital cameras, computers and printers. Studies technical and aesthetic issues in visual communication and digital image capture/presentation. Students complete presentations, critiques online, portfolio and displays.

**BUS-102 Introduction to Business**
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.

**REL-101 Survey of World Religions**
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.

**SOC-115 Social Problems**
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.
BIO-151  Nutrition 3 College Credit Hours
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.

LIT-206  Forms of Literature: Fiction 3 College Credit Hours
Explores, through short stories, novels, films and critical theory, the following questions: What is fiction? What are its common elements? How does understanding these elements and the ways they interconnect affect our understanding of how fiction is crafted, read and interpreted? How is fiction different from or similar to other forms of literary expression?

**Companion Courses Offered for High School Credit Only**

**American Government** 1 Semester
This course will emphasize the development of the American political system by exploring the constitution and three branches of the federal government. State and local government will be examined as well.

**AP Calculus** 2 Semesters
This is an Advanced Placement Program. The student will follow a prescribed course in college calculus. The course will cover the topics of calculus such as limits of functions, differentials, and integrals and their applications. At the conclusion of the course, the student may pay an Advanced Placement Program fee to take a test on this course. If you are successful, you will be given college credit and will pass out of college calculus.
College Credit in High School
… Find your passion
… Get a head start
… Experience college-level expectations
with rock star teachers
… Earn free college credit
… Why not!

Experience
Unique, hands-on laboratory and classroom experiences in basic architecture and construction skills, with support from industry experts, including jobsite tours.

Outcome
Development of entry-level skills and knowledge for those who want to pursue one of the many careers available in the construction industry.

Career Focus
Immediate employment opportunities within the field.

Prepared for further training in the architecture and construction industry.

Potential for stronger competitiveness for application into local apprenticeship programs.

College Credits Earned: up to 14.0

The Kirkwood Architecture and Construction Management 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 Engineering. If you’re planning to transfer to a four-year college or university after attending Kirkwood, specific transfer information can be found at [www.kirkwood.edu/fouryeartransfer](http://www.kirkwood.edu/fouryeartransfer).

Iowa Average Salaries in Architecture and Construction Careers

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Hourly Rate</th>
<th>Annual Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpenter</td>
<td>$17.45</td>
<td>$38,280</td>
</tr>
<tr>
<td>Construction Worker</td>
<td>$19.44</td>
<td>$40,590</td>
</tr>
<tr>
<td>Electrician</td>
<td>$21.85</td>
<td>$46,980</td>
</tr>
<tr>
<td>Brick Masons</td>
<td>$21.81</td>
<td>$45,420</td>
</tr>
<tr>
<td>Architect</td>
<td>$33.62</td>
<td>$72,780</td>
</tr>
</tbody>
</table>

More info can be found at: [www.bls.gov](http://www.bls.gov).

College Credit Courses
Courses subject to change based on college curriculum.

CON-116 | Architectural Plans and Specs | 2 college credits
Introduces the skills and methods for understanding and interpreting construction drawings and technical specifications for residential and commercial buildings.

CON-190 | Residential Construction Lab | 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.

CON-272 | Commercial Construction Lab | 3 college credits
Provides introductory theory and lab experience in basic commercial construction procedures. Primary focus on foundational elements in a variety of construction systems including: foundations, wall systems, masonry, plumbing, HVAC, electrical and interior and exterior finishes. Project coordination and safety will be emphasized.

EGT-460 | Civil Engineering and Architecture | 3 college credits
Students learn about various aspects of civil engineering and architecture and apply their knowledge to the design and development of residential and commercial properties and structures. In addition, students use 3D design software to design and document solutions for major course projects. Students communicate and present solutions to their peers and members of a professional community of engineers and architects. This course is designed for 11th or 12th grade students.
CON-410 | Construction Modeling | 3 college credits
Introduces construction concepts through computerized model building. Explores various wall systems and the phases of the construction process.

Need to Know
Students receive credit from their high school and college credit from Kirkwood. The high school district pays the college tuition.

The grade earned in this course is reflected on the student’s official college transcript. Students not planning to attend Kirkwood after high school graduation should plan to include this transcript as part of the application process to other colleges or universities. www.kirkwood.edu/transcript

As part of earning college credit for this academy, students must complete an online application to Kirkwood Community College, and must provide a social security number as part of the secure online college application process to create the official student record.

Student safety equipment, tools and textbooks are provided the first day of class.

Students are strongly encouraged to have completed or be concurrently enrolled in Algebra & Geometry.

Graduating seniors who successfully complete all four courses may be eligible to apply for a summer internship coordinated through Building Pros of Eastern Iowa and/or the Iowa City Home Buildings Association.

How to Get Started
Talk to your parents and your guidance counselor.

Go to www.kirkwood.edu/hscrcreditapply
College Credit in High School
… Find your passion
… Get a head start
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with rock star teachers
… Earn free college credit
… Why not!

Experience
Fast-paced, highly technical environment that blends hands-on skill development in a variety of areas to offer students a competitive edge in today’s workforce.

Outcome
Students learn basic AutoCAD operations, general machine set-up, basic blueprint reading and math skills, as well as computer-based and hands-on training in code writing and CNC machine setup and operations.

Career Focus
Immediate entry-level employment opportunities, prepared for additional college training in today’s high demand, high skill, high wage, advanced manufacturing or related fields.

Determine your interest in the advanced manufacturing field, build professional networking relationships.

College credits earned: AMET: 11 College Credits; Welding: 8 College Credits

Certification opportunities: National Institute for Metalworking Skills (NIMS) and MIG Welding Certifications

The Kirkwood Advanced Manufacturing Engineering Technology 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. If you’re planning to transfer to a four-year college or university after attending Kirkwood, specific transfer information can be found at http://www.kirkwood.edu/fouryeartransfer

Iowa Average Salaries in Advanced Manufacturing Careers
Machinist: $17.19/hour, $36,010
Welder: $16.22/hour, $34,360
CNC Machine Programmer: $21.98/hour, $45,030

More info can be found at: www.bls.gov

College Credit Courses
Courses subject to change based on college curriculum.

Students should select to enroll in either Option A or Option B.

Option A

CAD-300 | AutoCAD for Applied Engineering | 2 college credits
Provides instruction in entry-level two-dimensional mechanical CAD drawing creation and editing, program customization, CAD standards, file manipulation/translation, and library creation/usage. Emphasizes mechanical drawings. Discusses basic computer hardware, software and operating systems. Students should be familiar with keyboarding and microcomputer applications. Prereq/Coreq: CSC-110 or IND-155 or department approval. Comments: Drafting, mathematics (Algebra II) or practical blueprint reading experience strongly recommended.

CSC-110 | Introduction to Computers | 3 college credits (Pre-/co-requisite for Adv. Manu. Academy, offered as companion 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.

MFG-291 | CNC Mill Operator (NIMS) | 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.
MFG-292 | CNC Lathe Operator (NIMS) | 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.

MFG-287 | Manual Press Brake Operations (NIMS) | 3 college credits
Introduces basic lathe operations. Covers manual hydraulic down acting press brake practice, tooling, bending principles 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.

Option B

WEL-370 | Production MIG Welding | 4 college credits
Teaches proper weld safety, machine setup and welding techniques for gas metal arc welding using short arc, spray and pulse metal transfer methods. Students perform American Welding Society compliant welds on stainless, aluminum, and mild steels in the flat and horizontal positions. AWS welder qualifications issued upon successful completion of this course.

WEL-360 | Production TIG Welding | 4 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 stainless, aluminum and mild steels in the flat and horizontal positions. AWS welder qualifications issued upon successful completion of course.

Need to Know
Students receive credit from their high school and college credit from Kirkwood. The high school district pays for the college tuition.

The grade earned in this course is reflected on the student’s official college transcript. Students not planning to attend Kirkwood after high school graduation should plan to include this transcript as part of the application process to other colleges or universities. www.kirkwood.edu/transcript

As part of earning college credit for this academy, students must complete an online application to Kirkwood Community College, and must provide a social security number as part of the secure online college application process to create the official student record.

Student textbooks, safety equipment and tools are provided on the first day of class.

How to Get Started
Talk to your parents and your guidance counselor.

Go to www.kirkwood.edu/hcreditapply
Are You Ready For College?
Are you ready for college? Give yourself an edge over other graduating seniors by starting college classes early. No matter what you are planning to major in, every college requires students to take a core set of arts and science offerings that are commonly referred to as “general education requirements.” College readiness will be assessed by Kirkwood’s Compass Placement Exam. Students must have the pre-requisite coursework and/or qualifying placement scores to enroll in these college courses.

College Credit Courses
Courses subject to change based on college curriculum.

**Students should select to enroll in either option I or II.**

**Arts & Sciences I**

**ENG-105 | Composition I | 3 college credits**
Develops expository writing with emphasis on organization, supporting details, style, vocabulary and library research skills. Prereq: ENG-101 or qualifying placement score.

**ENG-106 | Composition II | 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. Prereq: ENG-105.

**PSY-111 | Introduction to Psychology | 3 college credits**
Introduces the scientific study of mental processes and behavior with emphasis on the nervous system, learning and memory, cognition, sensation and perception, motivation and emotion, personality, intelligence, stress, psychological disorders and therapy, and social influence. Stresses roles of both theory and empirical evidence in describing, explaining and predicting behavior. Encourages critical thinking about research methods and ethics. Prereq: qualifying college level reading placement score.

**SPC-101 | Fundamentals of Oral Communications | 3 college credits**
Studies basic communication theory and practice including communication process, interpersonal relationships, small group interaction and public speaking.

**Arts & Sciences II**

**HIS-151 | US History to 1877 | 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.

**MUS-100 | Music Appreciation | 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.
BIO-154 | Human Biology | 3 college credits
Examines human form and function and the relationship of humans to other living things. Fundamental biological principles as they apply to the human are explored. This course is intended for liberal arts students who do not currently plan to major in the biological or health sciences.

ECN-120 | Macroeconomics | 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. Recommended for students pursuing a baccalaureate degree.

Need to Know
Students enrolled will receive credit from their high school and college credit from Kirkwood. The college tuition is paid for by the high school district.

The grade earned in this course will be reflected on the student’s official college transcript. Students not planning to attend Kirkwood after high school graduation should plan to include this transcript as part of your application process to other colleges or universities. [www.kirkwood.edu/transcript](http://www.kirkwood.edu/transcript)

As part of earning college credit for this academy, students must complete an online application to Kirkwood Community College, and must provide a social security number as part of the secure online college application process to create the official student record.

How to Get Started
Talk to your parents and your guidance counselor.

Go to [www.kirkwood.edu/hcreditapply](http://www.kirkwood.edu/hcreditapply)
KIRKWOOD COMMUNITY COLLEGE - JONES COUNTY REGIONAL CENTER
Automotive Technology Academy

College Credit in High School
… Find your passion
… Get a head start
… Experience college-level expectations
with rock star teachers
… Earn free college credit
… Why not!

Experience
Unique, hands-on learning experience provided in a state of the art transportation lab; work side by side with industry certified technicians to develop high tech skills used in today’s automotive field.

Outcome
Students become skilled in real life bumper to bumper diagnostic and maintenance, with certification opportunities as a power user of Snap-on diagnostic tools.

Career Focus
Immediate entry-level employment skills and certifications, and prepared for further training in the field of automotive, repair, and other related fields.

College credits earned: up to 11.0

Certification Opportunities:
Snap-on Shopkey, Snap-on Meter, and Snap on Ethos Scan Tool

The Kirkwood Automotive Technology Academy provides students with a jump start to earning an associates and/or bachelors degree. Examples of related college majors include, but are not limited to: Automotive Technology, Auto Collision, Welding, Diesel Agriculture and Diesel Truck programs. If you’re planning to transfer to a four-year college or university after attending Kirkwood, specific transfer information can be found at the following link: www.kirkwood.edu/fouryeartransfer

Iowa Average Salaries in Transportation Related Careers
Automotive Service Technicians and Mechanics: $35,200
Auto Body Collision Repair Specialists: $38,500

More info can be found at: www.bls.gov

College Credit Courses
Courses subject to change based on college curriculum.

AUT-104 | Introduction to Automotive Technology | 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.

MAT-715 | Industrial Math I | 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.

AUT-611 | Automotive Electricity | 5 college credits

Need to Know
All Students enrolled will receive credit from their high school and college credit from Kirkwood. The college tuition is paid for by your high school district.

The grade earned in this course will be reflected on the student’s official college transcript. Students not planning to
attend Kirkwood after high school graduation should plan to include this transcript as part of your application process to other colleges or universities. [www.kirkwood.edu/transcript](http://www.kirkwood.edu/transcript)

As part of earning college credit for this academy, students must complete an online application to Kirkwood Community College, and must provide a social security number as part of the secure online college application process to create the official student record.

To meet NATEF standards, students will be required to meet strict attendance guidelines to comply with Kirkwood’s certification. Information will be shared during the first day of class.

Students must have completed, or concurrently enrolled, in Algebra I to take this academy.

Student textbooks, required tools and safety equipment will be provided on the first day of class.

**How to Get Started**

Talk to your parents and your guidance counselor.

Go to [www.kirkwood.edu/hcreditapply](http://www.kirkwood.edu/hcreditapply)
College Credit in High School

… Find your passion
… Get a head start
… Experience college-level expectations
… Earn free college credit
… Why not!

Experience
What if there was a class where curiosity ruled? Where you learned not only how things worked, but how you might make them work better. Where the biggest challenge was between you and your imagination. Discover engineering.

Outcome
Through project-based curriculum, problem-solve real-world engineering challenges through nationally recognized, pre-engineering curriculum.

Better prepared for demanding rigor of two- and four-year engineering programs.

PLTW alumni are studying engineering and technology in greater numbers than the national average, with a higher retention rate in college engineering, science and related programs than non-PLTW students.

Career Focus
Determine if engineering is the right career path for you.

College credits earned: 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. If you’re planning to transfer to a four-year college or university after attending Kirkwood, specific transfer information can be found at the following link:

www.kirkwood.edu/fouryeartransfer

Iowa Average Salaries in Engineering
Electronic Engineering Technician: $49,140
Computer Engineers: $98,610
Civil Engineers: $77,990
Biomedical Engineers: $81,540
More info can be found at: www.bls.gov

College Credit Courses
Courses subject to change based on college curriculum.

EGT-400 | Introduction to Engineering Design™ (IED) | 3 College Credits
Uses a design development process while enriching problem-solving skills; students create and analyze models using specialized computer software.

EGT-410 | Principles of Engineering™ (POE) | 3 College Credits
Explores technology systems and manufacturing processes; addresses the social and political consequences of technological change.

Additional course offered as a companion course: Biotechnical Engineering

Need to Know
All courses are available as dual credit courses and students may be eligible for Regent-accepted, transferrable (EGR) engineering credit. All courses are worth 3 credit hours. In order to receive transferrable EGR credit, students must receive a stanine score of 6 or greater on the end of course assessment. If a student does not achieve this they will still receive EGT credit from Kirkwood.

Prerequisites: Introduction to Engineering Design is considered a prerequisite to Principles of Engineering. Students should have completed Algebra I (or currently enrolled in while in Introduction to Engineering Design). Students enrolled in Principles of Engineering should also be enrolled in a college-prep math course.

Students enrolled will receive credit from their high school and college credit from Kirkwood. The college tuition is paid for by the high school district.

The grade earned in this course will be reflected on the student’s official college transcript. Students not planning to attend Kirkwood after high school graduation should plan to include this transcript as part of your application process to
other colleges or universities.  www.kirkwood.edu/transcript

As part of earning college credit for this academy, students must complete an online application to Kirkwood Community College, and must provide a social security number as part of the secure online college application process to create the official student record.

**How to Get Started**
Talk to your parents and your guidance counselor.

Go to www.kirkwood.edu/hcreditapply
College Credit in High School
… Find your passion
… Get a head start
… Experience college-level expectations
with rock star teachers
… Earn free college credit
… Why not!

Experience
Graphic design careers cover all ends of the creative spectrum. Explore cutting edge technology and software used by today’s commercial artists.

Outcome
All graphic design jobs require attention to detail, design, problem solving skills, and up-to-date use of the latest software. Students will build on their creative foundational art skills to explore a new level of creativity, layout and design fundamentals, and produce outstanding digital artwork.

Career Focus
Immediate employment opportunities using Adobe Photoshop, InDesign and Illustrator.

College credits earned: 12

The Kirkwood Graphics and Media 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. If you’re planning to transfer to a four-year college or university after attending Kirkwood, specific transfer information can be found at the following link: www.kirkwood.edu/fouryeartransfer

Iowa Average Salaries in Graphic and Web Design
Graphic Designer: $38,730
Web Designer: $53,462
Web Developer: $62,837

More info can be found at: www.bls.gov

College Credit Courses
Courses subject to change based on college curriculum.

ART-186 | Digital Photography | 3 college credits
Develops familiarity and proficiency with digital cameras, computers and printers. Studies technical and aesthetic issues in visual communication and digital image capture/presentation. Students complete presentations, critiques online, portfolio and displays.

GRA-127 | Illustrator I | 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.

GRA-131 | Digital Layout | 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.

GRA-140 | Digital Imaging | 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.
Need to Know
Students enrolled will receive credit from their high school and college credit from Kirkwood. The college tuition is paid for by the high school district.

The grade earned in this course will be reflected on the student’s official college transcript. Students not planning to attend Kirkwood after high school graduation should plan to include this transcript as part of your application process to other colleges or universities. [www.kirkwood.edu/transcript](http://www.kirkwood.edu/transcript)

As part of earning college credit for this academy, students must complete an online application to Kirkwood Community College, and must provide a social security number as part of the secure online college application process to create the official student record.

How to Get Started
Talk to your parents and your guidance counselor.

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Jones County Regional Center - Academy Plans of Study

KIRKWOOD COMMUNITY COLLEGE - JONES COUNTY REGIONAL CENTER

Hotel Management Academy

**College Credit in High School**

Find your passion.
Get a head start.
Experience college with rock star teachers.
Earn free college credit.

**Experience**

Day to day operations of front of house operations in the hospitality industry.

**Outcome**

Foundational skills and certification to give you a jump start into an associates degree program or beyond.

**Career Focus**

Hotel management, lodging, hospitality related careers.

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**College Credits Earned:** 10

**Certification:** National Restaurant Association Educational Foundation certification exam

The goal of the Hotel Management Academy is to prepare students for entry-level positions in front-of-house operations within the hospitality industry. Successful completion of the Hotel Management Academy will set students on a career path that encompasses all aspects of hotel operations, including food and beverage management. Students in this Academy will learn about the day-to-day operations of a lodging facility and the wide range of career options that exist within the hospitality industry, many of which are based upon the fundamental principles of business, marketing, and personnel management.

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**College Credit Courses**

Courses subject to change based on college curriculum.

**CSC-110 | Introduction to Computers | 3 college credits**

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.

**HCM-100 | Sanitation & Safety | 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.

**HCM-600 | Intro to Lodging Operations | 2 college credits**

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

**HMC-XXX | Hospitality Marketing (Course is under development) | 3 credits.**

Studies the process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services to create the exchanges that satisfy individual and organizational goals with a special focus on hospitality arena.

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**Need to Know**

Students receive credit from their high school and college credit from Kirkwood. The high school district pays the college tuition.
The grade earned in this course is reflected on the student’s official college transcript. Students not planning to attend Kirkwood after high school graduation should plan to include this transcript as part of the application process to other colleges or universities. <a>www.kirkwood.edu/transcript</a>

As part of earning college credit for this academy, students must complete an online application to Kirkwood Community College, and must provide a social security number as part of the secure online college application process to create the official student record.

The Hotel Management Academy is linked to the curriculum offered within Kirkwood Community College’s Hotel Management Associate of Applied Science Degree, offered by the Hospitality Arts Department. Kirkwood’s Hotel Management program is delivered within a national one-of-a-kind facility that provides students with the opportunity to receive extensive real-time training within the onsite full service hotel property, The Hotel at Kirkwood, a AAA Four Diamond rated property. The A.A.S. Degree program uniquely affords students with opportunities to receive instruction and career development from not only the faculty within the Hospitality Arts department, but also from the managerial team of The Hotel at Kirkwood. It is access to this same source of expertise that is offered within the Hotel Management Academy, along with supporting material from the American Hotel and Lodging Association’s Educational Institute (AHLAEI).

**How to Get Started**
Talk to your parents and your guidance counselor.

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College Credit in High School
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… Why not!

Experience
Geek squad™ beware! Unique, hands-on hybrid learning environment with networking, programming logic, computer support and PC hardware.

Outcome
Information technology is part of our everyday lives. Careers in this field will continue to grow exponentially, especially in the next decade. This academy exposes students at an introductory level to networking, programming and PC hardware to give students a better idea of which path would be best suited for them in Information Technology.

Career Focus
A+ Certification is the starting point for a career in the Information Technology industry. Immediate employment opportunities for A+ certification, prepared for a wide-variety of college majors focusing on computer science fields.

College credits earned: up to 12.0
The Kirkwood Information Technology 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. If you’re planning to transfer to a four-year college or university after attending Kirkwood, specific transfer information can be found at the following link: www.kirkwood.edu/fouryeartransfer

Iowa Average Salaries in IT Careers
Systems Analyst and Internet Programmer: $64,820
Customer Support Specialist: $44,220
Computer science engineer: $71,896

More info can be found at: www.bls.gov

College Credit Courses
Courses subject to change based on college curriculum.

CIS-128 | Programming Concepts | 3 college credits
Introduces computer programming, including the technical aspects of designing and coding computer programs to accomplish business objectives, and how this technology fits into companies’ overall information systems needs. Explores application software development and explains basic programming logic structures, facilitating successful designing, coding and testing.

NET-165 | Network Plus | 3 college credits
Prepares users for a basic introduction to networking, and can also be used to prepare for CompTIA's Network+ certification exam. Presents current networking hardware and software along with the skills necessary to succeed in the field of networking. Covers protocols, network design and implementation, and troubleshooting and support.

NET-122 | Computer Hardware Basics | 3 college credits
Introduces the operation of a modern personal computer from a hardware point of view. Students learn about the basic components of a computer and develop troubleshooting skills for advanced courses. Some of the areas covered include system boards, storage drives, memory and power supplies. In addition, some software topics, such as operating systems, are presented. Low-level laboratory exercises enhance and reinforce understanding of the material covered.

NET-137 | Advanced PC Concepts | 3 college credits
Follows and builds on the prerequisite, Computer Hardware Basics. The first half of the course is spent reviewing, but also going into more depth on the topics covered in the beginning hardware course. The second half of the course deals primarily with software considerations (such as BIOS, drivers and operating systems) necessary to understanding how modern PCs work. Throughout the course, tie-in to A+ certification topics is done for the benefit of those who plan to take the Comp-TIA exam.
**Need to Know**
Students enrolled will receive credit from their high school and college credit from Kirkwood. The college tuition is paid for by the high school district.

The grade earned in this course will be reflected on the student’s official college transcript. Students not planning to attend Kirkwood after high school graduation should plan to include this transcript as part of your application process to other colleges or universities. [www.kirkwood.edu/transcript](http://www.kirkwood.edu/transcript)

As part of earning college credit for this academy, students must complete an online application to Kirkwood Community College, and must provide a social security number as part of the secure online college application process to create the official student record.

**Program Details**
Students will meet Monday-Friday for 1.5 hours for the entire school year.

**How to Get Started**
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… Earn free college credit
… Why not!

Experience
Unique, hands-on learning experience providing care for patients in a clinical setting. Work side-by-side with health care professionals in a health care facility and fulfill prerequisites for many college health programs.

Outcome
Perform basic nursing skills through hands-on, direct patient care. Examples include: assessment of vital signs, such as taking blood pressure, temperature and respiration; performing basic hygiene and transfer skills (bathing, dressing and feeding) and learning to communicate with residents and the health care team.

Career Focus
Immediate employment opportunities for CNA certification, prepared for a wide-variety of college majors focusing on patient care fields.

Determine if you are ready for a career in the health care field, build professional networking relationships.

College credits earned: up to 12.5

Certification opportunities: State of Iowa Nurse Aide Certification Exam (CNA), First Aid and American Heart Association CPR

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, Occupational Therapy, Radiology and Respiratory Therapy.

If you’re planning to transfer to a four-year college or university after attending Kirkwood, specific transfer information can be found at www.kirkwood.edu/fouryeartransfer

Iowa Average Salaries in Health Care Careers
C.N.A.: $12/hour, $24,330
LPN: $36,820
RN/BSN: $53,300
Physical Therapist: $77,540
Physician Assistant: $85,880
Physician/Surgeon/Other: $196,230

More info can be found at www.bls.gov

College Credit Courses
Courses subject to change based on college curriculum.

HSC-205 | Exploration of Healthcare Careers | 3 college credits
Explores all aspects of health care and careers in the field. Includes field trips to the University of Iowa and the Kirkwood Simulation Center. 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 potential 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.

HSC-115 | Medical Terminology | 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.

HSC-107 | Professionals in Health | 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.

HSC-168 | Nurse Aide | 3.5 college credits
Provide safe, effective resident care by mastering basic care giving skills and concepts. This class includes 32 hours lecture, 27 hours lab and 32 hours clinics per state guidelines.

**Need to Know**
It is highly recommended that students complete a high school biology course within the last two years and achieved a C or higher. In order to be awarded the 91-hour nurse aide completion certificate, you must meet standards imposed by the state of Iowa. Absenteeism and tardiness may result in dismissal from the program. In order to move into the clinical experience in March or April, you must have a 79 percent or higher in the nurse aide course, and meet guidelines determined by the state of Iowa and the course instructor.

Textbooks are provided to students.

You will be required to purchase a scrub uniform (approximate cost $35-40) during the first semester of class.

You are required to have a current physical (a Kirkwood physical form is required and can be used during a sports physical) and immunization records completed and then submitted to Certified Background during the first semester of the academy. Per state requirements, all health care facilities require criminal background checks, including students in a clinical setting. More information will be shared at the required orientation.

Students receive credit from their high school and college credit from Kirkwood. College tuition is paid by the high school district.

The grade earned in this course is reflected on the student's official college transcript. Students not planning to attend Kirkwood after high school graduation should plan to include this transcript as part of the application process to other colleges or universities. [www.kirkwood.edu/transcript](http://www.kirkwood.edu/transcript)

As part of earning college credit for this academy, students must complete an online application to Kirkwood Community College to create the official student record.

**Program Details**
You will meet for 1.5 hours, Monday-Friday, for the entire school year. This will be adjusted for the clinical experience.

**How to Get Started**
Talk to your parents and your guidance counselor.

Go to [www.kirkwood.edu/hscreditapply](http://www.kirkwood.edu/hscreditapply)