

2003 - 2004 School Year

*Give yourself an edge!*



Health Sciences



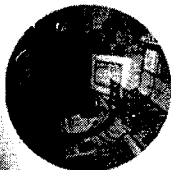
Automotive Technology



Local Area Network



Graphics & Media Communication



Engineering Technology



Human Services



Information Systems Management



Computer Programming

- ✓ Earn college credit while in high school
- ✓ Prepare for high demand careers
- ✓ Hands-on learning
- ✓ Scholarship opportunities
- ✓ Join over 700 area students now enrolled

Talk to your counselor **TODAY!**

In cooperation with

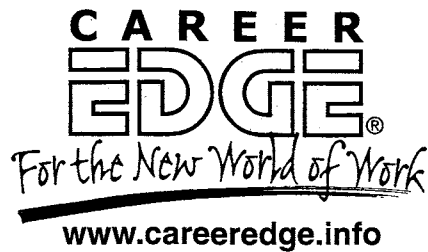
EDGE  
www.kirkwood.edu  
and



www.workplace-learning.org

**EDGE**

www.kirkwood.edu



Welcome to Career Edge...

...an opportunity for you to explore high demand careers while earning both high school and college credit. Your school has teamed up with Kirkwood Community College and other area high schools to create several new "career academies". When admitted to the academy of your choice, you will explore new careers, develop new skills and gain insights into today's workplace and high paying career fields.

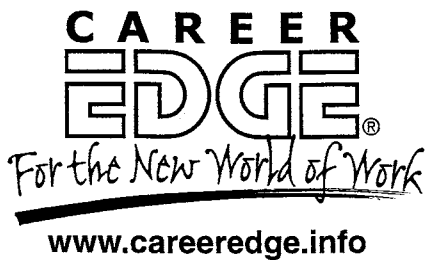
**Give yourself an edge. . .talk to your counselor after you've checked out [www.careeredge.info](http://www.careeredge.info)**

| <b><u>Your Career Edge Academy Options</u></b> |  |
|--|--|
| <b>Health Sciences</b>                         | Explore the wide variety of careers in health. Learn medical terminology, patient care skills and professionalism  |
| <b>Automotive Technology</b>                   | Today's high tech autos require highly trained professionals. National demand for technicians increases annually. Handsome salaries await the auto technicians of tomorrow.        |
| <b>Local Area Networking</b>                   | There is local and national demand for people who develop, operate and maintain critical computer networks. You can earn Cisco certification.                                      |
| <b>Graphics &amp; Media Communications</b>     | Do you enjoy working with computer graphics? Careers in desktop publishing, graphic design and new media development are emerging.   |
| <b>Engineering Technology</b>                  | From test technicians to drafting, technical writing and numerous engineering fields, this academy opens up many career options.   |
| <b>Human Services</b>                          | Opportunities abound in daycare, pre-school, school social work and teaching. A stepping stone to the rewards of working with children and people with disabilities.               |
| <b>Information Systems Management</b>          | From desktop publishing to troubleshooting and technical support, the Information Systems Management world is changing and open to skilled people. You can earn MOUS Certification |
| <b>Computer Programming</b>                    | Learn about personal and business applications of computers along with program design, documentation and basic Java program language.  |

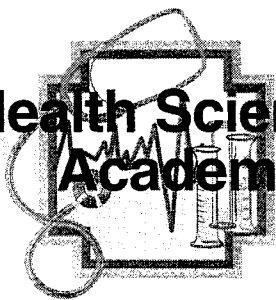
### **What Next?**

You'll find a lot more information on Career Edge academy sites and programs on the pages that follow. And, again, go to [www.careeredge.info](http://www.careeredge.info) and check out the various career links.

You'll also find an **application** for the Career Edge academy of your choice in this section. Check out the academy you're most interested in, talk to your parents and then fill out the application and take it to your counselor to discuss the next steps. Don't forget to look into the **Kirkwood scholarships** too!



# Health Sciences Academy



## Health Careers

This academy includes hands-on patient care and meets two hours a day for the entire school year. In this academy, you'll learn the basic expectations of a health care professional through a combination of classwork, job shadows and assisting with patient care. When you successfully complete this academy, you will be eligible to take the Nurse Aide certification test.

**More information? Check out [www.careeredge.info](http://www.careeredge.info) and click "Health Sciences".**

Students must have a current physical, a Hepatitis B vaccination and are required to purchase "scrubs".

### Classes are available at these locations:

Benton Community High School  
 Jones County Medical Center–Anamosa  
 Linn Mar High School  
 Vinton-Shellsburg High School

Iowa City–Mercy Hospital  
 Kirkwood–Lincoln Center  
 Tipton High School  
 Washington, Iowa–Halcyon House

Iowa Valley High School  
 Kirkwood–Marion Center

| Course No.                   | College Credit Classes/Descriptions   | College Credits |
|------------------------------|---|-----------------|
| HS110U                       | <b>Professionals in Health</b><br>Learn the skills and characteristics expected for professional preparation and employability. Provides an overview of the health industry, current trends, and issues. Study the work environment as it relates to health and safety regulations.                       | 2.0             |
| HS111U                       | <b>Health Skills I</b><br>Learn basic patient care skills, infection control techniques, measuring and recording vital signs and body mechanics. Laboratory practice and skill achievement is required.   | 1.0             |
| HS112U                       | <b>Health Skills II</b><br>Learn the basic skills related to patient mobility; methods for ambulation, positioning and range of motion, and the cause and effects of immobility. Laboratory practice and skill achievement is required.   | 1.0             |
| HS123U                       | <b>Basic Medical Terminology</b><br>Learn the basic word structure and terminology pertaining to body systems including spelling, pronunciation and word usage. Includes a basic overview of anatomy and physiology, special procedures, pharmacology and abbreviations.                                  | 2.5             |
| HS101U                       | <b>First Aid Concepts</b><br>Learn basic first aid concepts along with the types of emergencies and treatments.   | 0.5             |
| HS901U                       | <b>Nurse Aid</b><br>This nurse aide course meets the training requirements of The Omnibus Budget Reconciliation Act of 1987 (OBRA) for aides working in nursing facilities and skilled nursing facilities. Students learn basic care giving skills and concepts to provide safe, effective resident care. | 3.0             |
| HS100U                       | <b>CPR (Cardiopulmonary Resuscitation) For the Healthcare Provider</b><br>Learn basic life support for healthcare providers.  | .05             |
| <b>Total College Credits</b> |   | <b>10.5</b>     |

Healthcare industry tours, job shadows and other workplace experiences will be coordinated through The Workplace Learning Connection.



**Emergency Medical Technician-Basic (EMT-B)**

The EMT-Basic academy meets two hours per day the entire school year on the Kirkwood main campus. You'll explore health careers and develop the skills needed for pre-hospital emergency care. Classwork, field trips, speakers and job shadows related to emergency care leads successful students to be eligible for EMT-B certification.

More information? Go to [www.careeredge.info](http://www.careeredge.info) and click on "Health Sciences"

**Classes are available at Cedar Rapids-Kirkwood Main Campus**

Students must be at least 17 years old before their second semester of EMT-B study. Students must have a current physical and certain immunizations. A uniform will be required.

| Course No.                   | College Credit Classes/Descriptions  | College Credit |
|------------------------------|--|----------------|
| HS110U                       | <b>Professionals in Health</b><br>Learn skills and characteristics expected for professional preparation and employability. Provides an overview of the health industry, current trends, and issues. Study the work environment as it relates to health and safety regulations.  | 2.0            |
| HS100U                       | <b>CPR (Cardiopulmonary Resuscitation) For the Healthcare Provider</b><br>Learn basic life support for healthcare providers.   | 0.5            |
| HS101U                       | <b>First Aid Concepts</b><br>Learn basic first aid concepts along with types of emergencies and treatments.  | 0.5            |
| HS123U                       | <b>Basic Medical Terminology</b><br>Learn the basic word structure and terminology pertaining to body systems, includes spelling, pronunciation and word usage. Includes a basic overview of anatomy and physiology, special procedures, pharmacology and abbreviations.   | 2.5            |
| EM405U                       | <b>Emergency Medical Technician – Basic</b><br>You will develop knowledge and skills in providing basic life support management of medical and traumatic emergencies. Focuses on patient assessment and history taking and management of cardio-respiratory, medical, behavioral, and environmental emergencies, as well as childbirth and pediatrics. | 6.0            |
| EM030U                       | <b>Emergency Medical Technician – Basic Clinical</b><br>Provides opportunities for students to practice patient care under supervision in actual pre-hospital and emergency department settings.   | 1.0            |
| <b>Total College Credits</b> |  | <b>12.5</b>    |

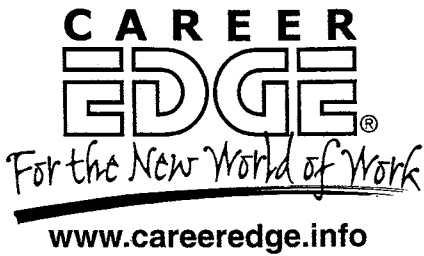
**Job shadow and other workplace exposure will be arranged through The Workplace Learning Connection.**

**Q:** *Where are the "hot" career fields out there?*

**A:** *Check out our website links and be sure to visit with your counselor.*

**Q:** *Are all the Career Edge classes dual (high school and college) credit?*

**A:** *Most are; many others are transferable to Kirkwood.*



In this academy you'll learn the basic skills needed to service and maintain today's sophisticated autos. Program courses are aligned with the National Institute of Automotive Service Excellence, the National Automotive Technician Education Foundation and Automotive Service Excellence standards.

**More information? Go to [www.careeredge.info](http://www.careeredge.info) and click on "Automotive Technology"**

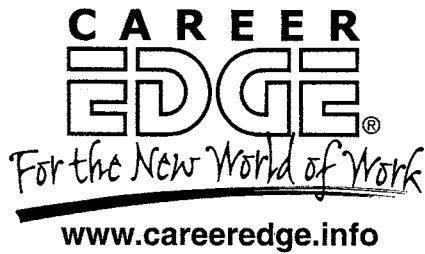
**Classes are available at these locations:**

Kirkwood Automotive Technology Center–Monticello      Iowa City–City High      Prairie High School  
 CR Kennedy High School

| Course No.                   | College Credit Classes/Descriptions   | College Credit |
|------------------------------|---|----------------|
| <b>Year One</b><br>PM107U    | <b>Fundamentals of Auto Servicing</b><br>Provides you 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, belts, lighting, hoses, filters, and cooling systems. This course presents information on auto-related career pathways, local employers, goal setting, skill inventory and developing a personal plan. | 3.0            |
| IT100U                       | <b>Industrial Math</b><br>Covers basic math skills relating to micrometers, torque wrenches, and engine measurement and displacement. You will learn dimensional analysis and significant digit concepts and practice in solving real-world problems. This course also covers introductory algebra concepts.  | 3.0            |
| <b>Year Two</b><br>PM282U    | <b>Automotive Brake Systems</b><br>Learn brake systems theory, diagnosis and repair of drum, disc and anti-lock brake systems. Lab exercises will reinforce theories in practical hands-on exercises on brake systems.  | 3.0            |
| PM287U                       | <b>Basic Electrical – Automotive</b><br>Learn basic fundamental electrical and electronics related to the automobile. Topics covered include voltage, amperage, resistance, Ohm's Law, series, parallel and series parallel circuits and their practical applications towards automotive electrical, including battery load and starter draw tests.   | 3.0            |
| <b>Total College Credits</b> |   | <b>12.0</b>    |

**You'll have many workplace experiences through The Workplace Learning Connection.**

**Q:** Can I take Career Edge classes at another high school?  
**A:** Possibly. Check with your counselor.



You'll develop basic understanding and have practical experience in building and managing a computer network, trouble-shooting PC problems and installing computer software. Successful academy completers will be eligible to take the Cisco Network Associate Certification Exam. Many high-demand, high paying career opportunities await.

**More information? Go to [www.careeredge.info](http://www.careeredge.info) and click on "Local Area Networking".**

**Classes are available at these locations:**

- |                              |                                 |                               |
|------------------------------|---------------------------------|-------------------------------|
| Anamosa High School          | CR Jefferson High School        | CR Kennedy High School        |
| Benton Community High School | Center Point-Urbana High School | Central City High School      |
| CR Washington High School    | Iowa City – West High           | Linn-Mar High School          |
| Iowa City – City High        | Marion High School              | Midland High School           |
| Mid-Prairie High School      | Prairie High School             | Vinton-Shellsburg High School |
| Monticello High School       |                                 |                               |

Check with your counselor regarding the prerequisites for these dual-credit courses.

| Course No.                   | College Credit Classes/Descriptions  | College Credit |
|------------------------------|--|----------------|
| <b>Year One<br/>DG183U</b>   | <b>Local Area Network Design &amp; Protocols (Cisco 1)</b><br>Provides you with a basic understanding of computer networking. Topics include OSI model and industry standards, network topologies, IP addressing with subnet mask, networking components and basic network design.<br>This course is the pre-requisite for: Router Basics - Cisco 2, NetWare Routing – Cisco 3, Wide Area Telecommunications & Networking - Cisco 4. | <b>3.0</b>     |
| <b>DG190U</b>                | <b>Router Basics (Cisco 2)</b><br>Introduces you to the Cisco family of routers, setup, configuration and management of using routers in a network environment. Pre-requisite: DG183U or permission of instructor.   | <b>3.0</b>     |
| <b>Year Two<br/>DG188U</b>   | <b>NetWare Routing (Cisco 3)</b><br>You'll learn to work with network routing in a service-based network environment using the NetWare network operating system. Topics include router configuration, routed and routing protocols. Pre-requisite: DG183U  | <b>3.0</b>     |
| <b>DG191U</b>                | <b>Wide Area Telecommunications and Networking (Cisco 4)</b><br>Provides you with a basic understanding of how Cisco routers are integrated with PBX interfaces. Topics will include hardware used to connect networks using leased and dial-up telephone lines. Pre-requisite: DG190U or permission of the instructor.  | <b>3.0</b>     |
| <b>Total College Credits</b> |  | <b>12.0</b>    |

**Your LAN academy internship, business tours and job shadow experiences will be worked out with The Workplace Learning Connection.**

**Q:** Do I have to continue my college studies only at Kirkwood?

**A:** While Kirkwood offers dual credit and possible advanced standing for Career Edge academy students, no, you certainly are not limited to Kirkwood. Check with your counselor.



# Graphics and Media Communication Academy



Organizations large and small are looking for talented, skilled people as desktop publishers, graphic artists, electronic pagination specialists or commercial artists. The new world of electronic communications to customers, employees, vendors and the public calls for people with the skills you'll learn in this academy.

**More information? Go to [www.careeredge.info](http://www.careeredge.info) and click on "Graphics and Media Communication"**

**Classes are available at these locations:**

CR Kennedy High School  
Prairie High School

CR Washington High School  
Linn-Mar High School

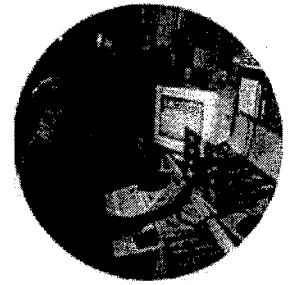
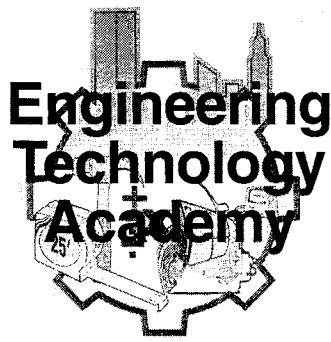
Marion High School

Visit with your counselor regarding the prerequisites needed for these academy courses.

| Course No.                   | College Credit Classes/Descriptions   | College Credit |
|------------------------------|---|----------------|
| DD183U                       | <b>Digital Drawing (Freehand or Illustrator)</b><br>You will learn to design graphics for desktop publishing using the Freehand program. Learn basic drawing and tracing techniques as well as how to create your own artwork using the tools available within the program. You will also learn how to draw basic shapes of various designs as well as how to use files and blended files for shaping artwork.  | 3.0            |
| DD181U                       | <b>Page Layout I (PageMaker or Quark)</b><br>You'll gain a working knowledge of Pagemaker and how to communicate more effectively through eye-catching page layouts, combining graphics and type. Concepts covered include learning the toolbox and tool usage. This course covers importing and editing text and graphics as you create single and spot-color documents including flyers, newsletters and other printed material. You'll learn how to create master pages, use of styles, text and paragraph formatting, and effective use of type and graphics, as well as how to import graphics and setup text styles, columns and grids, and automatic page numbering. | 3.0            |
| DD169U                       | <b>Photoshop I (Raster Image Input and Editing)</b><br>Introduces you to Photoshop image editing. Concepts covered include basic scanning techniques for grayscale and line art images and proper manipulation procedures required for various output sources. Input and output resolutions, file size, multiple file saving formats, simple image enhancements, creating duo-tones.  | 3.0            |
| <b>Total College Credits</b> |   | <b>9.0</b>     |

**Workplace tours, job shadows and internships will be arranged through The Workplace Learning Connection.**

**Check out scholarships for Career Edge students in the back of this brochure!**



The field of engineering is broad and rewarding and students can “get an edge” on careers by successfully completing this academy program. Careers as a technician, telecommunications specialist, mechanical drafting, sales, technical writing and any number of different engineering professions can begin in this Career Edge academy.

**More information? Go to [www.careeredge.info](http://www.careeredge.info) and click on “Engineering Technology”.**

**Classes are available at these locations:**

CR Jefferson High School    CR Kennedy High School    CR Washington High School    Linn-Mar High School

You will need to have successfully completed one year of algebra or have instructor approval before entering this academy. Computer overview , CAD and other technology-related classes are also recommended before enrolling.

| Course No.                   | College Credit Classes/Descriptions   | College Credit |
|------------------------------|---|----------------|
| <b>Year One</b><br>IT135U    | <b>UTC Physics* I (Principles of Technology I)</b><br>In this full-year course, you will investigate systems used in technological devices through hands-on laboratories. Technical principles affecting mechanical, fluid, thermal and electrical systems will be used to investigate force, work, rate, resistance, energy, power and force transformers.<br><i>Note: Completion of one year of Principles of Technology I fulfills the laboratory / other science requirement and may earn physics credit in some technology programs. This course is recommended for students interested in any engineering and/or industrial technology careers.</i>   | 3.0            |
| DD235U                       | <b>Survey of Electronics (Electronics I, II and III)</b><br>In this year-long course you will learn the behavior of electrical circuits and how to analyze circuits mathematically and using test instruments. Computer-assisted instruction is used in conjunction with hands-on activities. This is an applied math and science course that is intended for those who would like to become technicians, engineers or scientists. This course emphasizes the qualitative side of electrical concepts (terms, symbols, general functions of electrical components, etc.)<br><i>Note: The high school <u>Electronics I, II &amp; III</u> courses may be offered as combined two semester courses in some districts. These courses are the same as the <u>Survey of Electronics</u> course at Kirkwood.</i> | 3.0            |
| <b>Year Two</b><br>EE164U    | <b>Electric Circuits I - Full year course taught on the Kirkwood Campus</b><br>In this course you will learn methods of analysis for DC electric circuits and the analysis of AC circuits. You'll begin with a study of the fundamental aspects of electricity, and then examine the same aspects in extensive laboratory sessions.   | 7.0            |
| M100U                        | <b>Technical Mathematics - Full year course taught on the Kirkwood Campus</b><br>You will study applied math with full emphasis on a high skill level in calculations. Topics include concepts of basic algebra, functions and graphs; trig functions, determinants, vectors, quadratic equations, exponents and radicals, J-operator and systems of nonlinear equations.   | 4.0            |
| IT136U                       | <b>UTC Physics II (Principles of Technology II)</b><br>This full year course continues to examine the energy systems used in Principles of Technology I while investigating the concepts of momentum, light, optics, and energy transformers.   | 3.0            |
| <b>Total College Credits</b> |   | <b>20.0</b>    |

**You'll have plentiful workplace experiences arranged by The Workplace Learning Connection.**

**\*Articulated course - see instructor.**





If you are interested in working with people and especially children or people with disabilities, this academy will provide you the initial foundation, insight and experiences for professions ranging from daycare center work, counseling, social service, paraeducator and teaching.

**More information? Go to [www.careeredge.info](http://www.careeredge.info) Click on "Human Services".**

**Classes are available at these locations:**

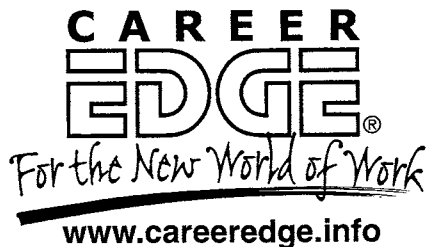
These classes are available over the interactive ICN system and are open to any interested high school juniors and seniors in schools with the ICN system.

| Course No.                   | College Credit Classes/Descriptions  | College Credit |
|------------------------------|--|----------------|
| HA105T                       | <b>Making a Difference</b><br>This course introduces the many careers related to especially working with children and people with disabilities. You will learn about the philosophy of special education, how children with disabilities learn and ways of working with families. Students will visit schools and agencies in the area and work with a mentor of choice. | 3.0            |
| HA120T                       | <b>Observation and Management of Behavior</b><br>You'll learn how to observe and manage behavior of individuals and groups. And you will develop strategies for helping others manage their own behavior.  | 3.0            |
| <b>Total College Credits</b> |  | <b>6.0</b>     |

**Note: Both courses meet part of the requirements for the Iowa Paraeducator Generalist Certification.**

To find the ICN class times that best fits your schedule, visit the "Making a Difference" website <http://www.kirkwood.edu/socialsciences/careeroption/madiff/> If you have questions about the many Human Services career areas open to you and the high school and college programs that will lead you there, visit with your counselor or contact Susan Simon at [ssimon@kirkwood.cc.ia.us](mailto:ssimon@kirkwood.cc.ia.us).

- Q:** *Do I have to pay college tuition to take these dual credit classes?*  
**A:** *No. By agreement with Kirkwood, your high school will pay your tuition.*
- Q:** *OK, what do I have to do to get started?*  
**A:** *Fill out and submit an application and take it to your counselor.*
- Q:** *Do I have to be a junior to get into a Career Edge academy program?*  
**A:** *The academies have been designed for your junior and senior years.*



# Information Systems Management Academy



This academy involves both theory and practical application related to how computers work and are used in the information technology areas of organizations large and small. From the creation of professional documents, web pages and presentations to preparation for the Microsoft Office User Certification (MOUS), academy students will be exposed to the most up-to-date office technology available. Students must have successfully completed an appropriate introductory computer course at their high school prior to enrolling in this academy.

**More information? Go to [www.careeredge.info](http://www.careeredge.info) and click on "Information Systems"**

**Classes are available at these locations**

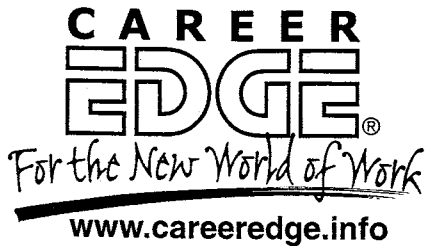
Prairie High School  
Linn-Mar High School

Midland High School  
Washington Iowa High School

Monticello High School  
Vinton-Shellsburg High School

| Course No.      | College Credit Classes   | Note: * indicates courses articulated to Kirkwood. See your counselor or business teacher for details. | College Credit |
|-----------------|--|--|----------------|
| F106T & OF107T  | Word Processing I* - 3 Cr. Hrs. & Word Processing II* - 3 Cr. Hrs.               |  | 6.0            |
| AO102U & OF136U | Accounting Concepts* - 3 Cr. Hrs. & Computer Business Applications* - 3 Cr. Hrs. |  | 6.0            |

| Course No.                   | College Credit Classes/Descriptions  | College Credit |
|------------------------------|--|----------------|
| OF137U                       | <b>Advanced Computer Business Applications</b><br>Extends students' basic knowledge of Microsoft Office Professional software applications including Word, Access, Excel and PowerPoint. Students will use practical problems to illustrate business applications. Pre-requisite: OF136U.  | 3.0            |
| OF154U                       | <b>Introduction to Multimedia</b><br>Introduces techniques and methods for improving communication skills by using multimedia technology as a communication tool, an artistic medium, a teaching and learning tool, or a method of completing business transactions.   | 3.0            |
| OF127U                       | <b>Desktop Publishing</b><br>Allows the student to create professional-quality documents such as a one-page bulletin or a short newsletter using both Office Publisher and PageMaker desktop software. The student will also integrate text, graphic and image files previously created with a variety of application software. Pre-requisite: OF107T or permission of instructor. | 3.0            |
| IT144U                       | <b>Introduction to PC Hardware</b><br>Covers skills needed by LAN technicians to resolve problems associated with PC hardware. Includes troubleshooting of motherboards, computer displays, drives and other forms of storage, and computer memory. Customer service skills will be emphasized.  | 3.0            |
| DG169U                       | <b>Web Page Design Using FrontPage</b><br>Introduces the student to WEB Page Design, creating and managing graphics, FrontPage Explorer, FrontPage Editor, Microsoft Image Composer, web page animation, and Paint Shop Pro.   | 3.0            |
| <b>Total College Credits</b> |  | <b>27.0</b>    |



This academy provides students with broad-based educational experiences that lead to careers in the fast paced computer industry. Learn about personal and business applications of computers along with program design, documentation and basic Java program language. Students must have successfully completed an appropriate introductory computer course at their high school prior to enrolling in this academy.

**More information? Go to [www.careeredge.info](http://www.careeredge.info) and click on "Computer Programming" or visit with your counselor**

**Classes are available at these locations:**

Prairie High School      Kirkwood Training and Outreach Services (KTOS) in Marion to serve interested students from all area high schools

| Course No.                   | College Credit Classes/Descriptions  | College Credit |
|------------------------------|--|----------------|
| DG116U                       | <b>Program Design and Documentation</b><br>Presents the techniques to analyze a problem for solution by computer, and designing and documenting the solution. Includes step-by-step documentation of solution algorithm. Techniques presented include flowcharts, decision tables, Warnier Charts and structured design. A high level programming language will be used to implement design algorithms.          | 4.0            |
| DG174U                       | <b>Object-Oriented Programming with Java</b><br>This course helps first-time programmers understand the Java programming language's significance in today's innovative application development environments. With this knowledge students can develop object-oriented skills to create simple programs using Java Technology, and use, read, and edit Java technology source code. Pre-requisite: DG116U.        | 4.0            |
| DG200U                       | <b>JAVA II</b><br>This course is for students who are familiar with object-oriented concepts. Using the Java II Software Development Kit, students will be taught how to develop applications and applets using the Java Programming Language, the syntax of object-oriented programming; how to create graphical user interfaces, exceptions, file input/output, threads and networking. Pre-requisite: DG174U. | 4.0            |
| <b>Total College Credits</b> |  | <b>12.0</b>    |

Q: *What do you mean "workplace experiences"?*  
 A: *Partner companies provide you with job shadowing, internships and more your senior year.*

Q: *What if I still have some questions?*  
 A: *Go to our website and click on "contact us". We'll help.*

## Your Career Edge Academy Planning Guide

| Grade | Language Arts | Math | Science | Social Science | Career Development | Electives | Electives |
|-------|---------------|------|---------|----------------|--------------------|-----------|-----------|
| 9     |               |      |         |                |                    |           |           |
| 10    |               |      |         |                |                    |           |           |
| 11    |               |      |         |                |                    |           |           |
| 12    |               |      |         |                |                    |           |           |

Community College Programs

College/University Programs

# Career Edge Academy Program Application



**Complete, sign and submit** your application to your high school counselor.  
You will be admitted to the Career Edge Academy program based upon:

- a. Meeting your high school and program prerequisites, if any
- b. Date of your application (apply soon)
- c. Availability of space within the specific Academy program and location

*If you have any questions, you may email us at [caredge@kirkwood.cc.ia.us](mailto:caredge@kirkwood.cc.ia.us).*

Your Name: \_\_\_\_\_

High School: \_\_\_\_\_

Counselor: \_\_\_\_\_

Home Phone: \_\_\_\_\_

Home Address: \_\_\_\_\_

Email: \_\_\_\_\_  OK if we keep in touch via email?

Birth Date: \_\_\_\_\_ Year you will graduate from high school \_\_\_\_\_

### The Career Edge Academy you are applying for:

Automotive Technology

Computer Programming

Health Science:

Human Services

Engineering Technology

Health Careers or

Information Systems Management

Local Area Networking

EMT-B

Graphics & Media Communications

High School location of the Academy I want to attend: \_\_\_\_\_

The term I want to begin my first CareerEdge Academy course is: \_\_\_\_\_

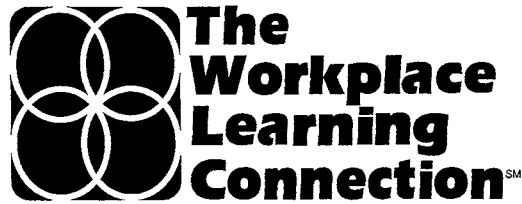
The Academy courses I want to take: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Your Signature: \_\_\_\_\_ Date: \_\_\_\_\_



Our vision is that all area students are prepared to enter  
and succeed in the new world of work.

**The Workplace Learning Connection** is a nationally-recognized local service for area schools and businesses, coordinating work-based learning opportunities, such as:

- **worksite tours**
- **job shadows**
- **internships**
- **career exploration experiences.**

**The Workplace Learning Connection** works with the CAREER EDGE Academy students and faculty to supplement the classroom portion of the curriculum with connections to the business partners in each academy. Families are included in the application process and receive information as their student is placed in a worksite experience.

For more information about **The Workplace Learning Connection**, go to:

[www.workplace-learning.org](http://www.workplace-learning.org)

or hot links from

[www.careeredge.info](http://www.careeredge.info) and [www.ClickOnMyCareer.com](http://www.ClickOnMyCareer.com)



## **SCHOLARSHIPS AVAILABLE FOR DESERVING CAREER EDGE STUDENTS!**

Not only can you earn college credits while in high school, explore the career fields of your choice and get an "edge" on the new world of work, you may also qualify for one or more valuable Kirkwood scholarships available for Career Edge students!

There are many, many scholarships ranging in value from \$250.00 to \$2500.00 per year in:

- Local Area Networking
- Graphics and Communication
- Engineering Technology
- Health Sciences

Go to [www.kirkwood.edu/foundation](http://www.kirkwood.edu/foundation) to search out more information on the many scholarships and to request your own copy of the Kirkwood Scholarship booklet. It's well worth your time.

### **Three valuable scholarships are worthy of special note for Career Edge students:**

#### **Rockwell Collins Career Edge Academy**

20 awards of up to \$1000.00 each for deserving students pursuing college degrees and careers in engineering and information technology fields.

#### **National Science Foundation Technology Scholars Program**

Up to 36 awards per year of up to \$3,125.00 each for academically and financially deserving students pursuing education and careers in areas calling for strong science backgrounds.

#### **Information Technology (IT) Career Edge Academy**

Up to 100 annual awards of up to \$1000.00 each for deserving students who are pursuing information technology degrees and career fields.

It's easy to apply for Kirkwood scholarships as a Career Edge student:

1. Complete and submit a Kirkwood application ( [www.kirkwood.edu/application](http://www.kirkwood.edu/application) )
2. Complete and submit a scholarship application (between Jan. 2 and March 12, 2003)
3. Submit a one-page summary of why you deserve a scholarship and why you have chosen your particular academic and career field.
4. Include letters of support and recommendation.
5. Include your high school and earned college credit transcripts with your application.
6. If you feel financial need is an issue, go to [www.fafsa.ed.gov](http://www.fafsa.ed.gov) , fill out and submit this Federal student aid form. It must be submitted no later than March 12, 2003.

Your parents and/or guidance counselor can help you with this process. It's not hard and will possibly be valuable time spent.

***As a Career Edge student, you may be eligible for one...or more... valuable Kirkwood scholarships. Check it out...today!***



**CAREER EDGE ACADEMY**  
**Participating High Schools**

**Local Area Network Academy**

|                       |                       |
|-----------------------|-----------------------|
| Alburnett             | Iowa City–West High * |
| Anamosa *             | Linn-Mar              |
| Benton Community *    | Marion *              |
| CR-Jefferson *        | Midland of Wyoming *  |
| CR-Kennedy *          | Mid-Prairie *         |
| CR-Washington *       | Monticello *          |
| Center Point-Urbana * | Prairie *             |
| Central City *        | Vinton-Shellsburg *   |
| Iowa City-City High * | Washington            |

**Graphics and Communication Media Academy**

**Interested for '03 – '04**

|                 |           |                    |
|-----------------|-----------|--------------------|
| CR-Kennedy *    | Marion *  | Anamosa *          |
| CR-Washington * | Prairie * | Benton Community * |
| Linn-Mar *      |           |                    |

**Automotive Technology Academy**

**Interested for '03 – '04**

|              |                       |
|--------------|-----------------------|
| Anamosa      | CR-Kennedy *          |
| Midland      | Iowa City–City High * |
| Monticello * | Olin                  |
|              | Prairie *             |

**Health Sciences Academy**

|                     |                     |
|---------------------|---------------------|
| Alburnett           | Iowa Valley *       |
| Anamosa *           | Linn-Mar *          |
| Belle Plaine        | Lisbon              |
| Benton Community *  | Lone Tree           |
| CR-Jefferson        | Marion *            |
| CR-Kennedy          | Midland of Wyoming  |
| CR-Metro            | Monticello          |
| CR-Washington       | Mount Vernon        |
| Center Point-Urbana | Prairie             |
| Central City        | Solon               |
| Clear Creek-Amana   | Tipton *            |
| English Valleys     | Vinton-Shellsburg * |
| Iowa City-City High | Washington *        |
| Iowa City-West High |                     |

**Engineering Technology Academy**

CR-Jefferson \*  
CR-Kennedy \*  
CR-Washington  
Linn-Mar\*  
Marion



**Information Systems Management**

Midland of Wyoming \*

**Interested for '03 – '04**

Anamosa \*  
Benton Community \*  
Highland \*  
HLV \*  
Iowa City-Alternative HS \*  
Linn-Mar \*  
Kirkwood HS – Lincoln Center \*  
Monticello \*  
Mt. Vernon \*  
North Cedar \*  
Prairie \*  
Solon \*  
Vinton-Shellsburg \*  
Washington \*

**Computer Programming Academy**

**Interested for '03 – '04**

CR-Jefferson  
CR-Kennedy  
CR-Washington  
KTOS Center \*  
Linn-Mar  
Marion  
Prairie \*  
Solon \*

**Early Childhood Education Academy**

Linn-Mar \*

\* Academy Program Site

## **Career Edge Academy - Engineering Technology Scholarship Opportunities at Kirkwood Community College**

|  |                       |
|--|-----------------------|
| Ament Engineering Scholarship                    | \$500 per year        |
| Howard R. Green Scholarship                      | \$1,000 per year      |
| Rohde Family Engineering Scholarship             | \$1,000 per year      |
| Shive-Hattery, Inc. Scholarship (2)              | \$500 per year        |
| Highway Equipment Company Scholarship            | \$1,000 per year      |
| Highway Equipment Company Endowed Scholarship    | \$300 per year        |
| NSF Technology Scholars Program (36)             | \$2,500 per year      |
| Ballantyne Memorial Endowed Scholarship          | \$500 per year        |
| Hal Dane / Kiwanis Endowed Scholarship           | \$250-\$500 per year  |
| Lee Liu Endowed Scholarship (1+)                 | \$500 per year        |
| Jack & Jackie Roland Endowed Scholarship         | \$500 per year        |
| Kenneth Wirth Endowed Scholarship                | \$250-\$500 per year  |
| Alumni Scholarship                               | \$250-\$500 per year  |
| Bob & Joye Davidson Endowed Scholarship          | \$250-\$500 per year  |
| B. A. & Margaret Jensen Endowed Scholarship      | \$250-\$500 per year  |
| Samuel S. Johnson Family Endowed Scholarship     | \$250-\$500 per year  |
| Kirkwood 5K Race General Scholarship             | \$450 per year        |
| Leaders for Tomorrow Scholarship (50)            | \$1,000 per year      |
| Norm & Marian Nielsen Endowed Scholarship (5)    | \$1,000 per year      |
| Presidential Scholarship (20)                    | \$2,000 per year      |
| Chad Skogman Memorial Scholarship                | \$500-\$1,000 per yr. |
| Campbell F. & Doris J. Watts Endowed Scholarship | \$250-\$500 per year  |
| Nadine V. Wax Endowed Scholarship                | \$250-\$500 per year  |

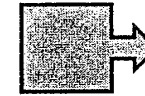
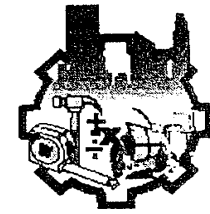
For more scholarships and related information go to: [www.kirkwood.edu](http://www.kirkwood.edu)

## **Career Edge Academy - Local Area Network Scholarship Opportunities at Kirkwood Community College**

|  |                       |
|--|-----------------------|
| NSF Technology Scholars Program (36)             | \$2,500 per year      |
| Norm & Joyce Humble Endowed Scholarship          | \$250-\$500 per year  |
| Ballantyne Memorial Endowed Scholarship          | \$500 per year        |
| Hal Dane / Kiwanis Endowed Scholarship           | \$250-\$500 per year  |
| Lee Liu Endowed Scholarship (1+)                 | \$500 per year        |
| Jack & Jackie Roland Endowed Scholarship         | \$500 per year        |
| Kenneth Wirth Endowed Scholarship                | \$250-\$500 per year  |
| Alumni Scholarship                               | \$250-\$500 per year  |
| Bob & Joye Davidson Endowed Scholarship          | \$250-\$500 per year  |
| B. A. & Margaret Jensen Endowed Scholarship      | \$250-\$500 per year  |
| Samuel S. Johnson Family Endowed Scholarship     | \$250-\$500 per year  |
| Kirkwood 5K Race General Scholarship             | \$450 per year        |
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| Campbell F. & Doris J. Watts Endowed Scholarship | \$250-\$500 per year  |
| Nadine V. Wax Endowed Scholarship                | \$250-\$500 per year  |

For more scholarships and related information go to: **[www.kirkwood.edu](http://www.kirkwood.edu)**

**Engineering / Industrial  
Technological Sciences:  
Engineering Technology**



| Grade | Language Arts | Math   | Science                                | Social Science           | *Required Classes  | Electives   | Off Campus Experiences   |
|-------|---------------|--|--|--------------------------|--|---|--|
| 9     | LA 9          | Pre-Algebra or Algebra I                         | Environmental Science                  |                          | *Algebra   | Computer Overview<br><br>Technology Education 1-2 |  |
| 10    | LA 10         | Algebra I or Geometry                            | Biology or Chemistry or Earth Sciences | World History            | Or *Algebra  | CAD 1-2-3   |  |
| 11    | LA 11         | Geometry or Algebra II                           | Principles of Technology I             | U.S. History             | *Electronics (Full year with Dual Credit)<br><br>*Principles of Technology I             |   | *Job Shadowing   |
| 12    | LA 12         | Senior year Math and/or Tech Math in Electronics | Principles of Technology II            | Government and Economics | *Electronics with Tech Math (Full year with Dual Credit)<br>*Principles of Technology II |   | *Senior Internship<br><br>*Electronics with Integrated Math at KCC (Dual Credit) |

**Community College Programs**

**Two Year Associate Degree Programs**  
*Electronics Engineering Technology*  
*Industrial Maintenance Technology*  
*CAD/Mechanical Engineering Technology*  
*Telecommunications*

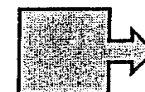
*Pre-Engineering-2 yr. Transfer Program (H.S. courses may count as electives)*



**College/University Programs**

Associate of Applied Science Degree Transfer to--  
*Electromechanical Technology*  
 University of Northern Iowa  
*Technology Management*  
 University of Northern Iowa

Associate of Science Degree Pre-Engineering Transfer to—  
*Engineering* – University of Iowa  
*Engineering* – Iowa State University



# The Academy of Engineering Technology

2002-2003

Program requirements for full-time students in the Academy

Prerequisite: Must have successfully completed Algebra 1 before entering the Academy

First year Academy students must take

|                              |                                |
|------------------------------|--------------------------------|
| Principles of Technology I   | One year of articulated credit |
| Electronics I                | One year of dual credit        |
| One job shadowing experience | One day                        |

Second year Academy students must take

|                                  |                                |
|----------------------------------|--------------------------------|
| Principles of Technology II      | One year of articulated credit |
| Electronics with Integrated Math | One year of dual credit        |

This will be an integrated class with Technical Math folded into the instruction. The class will be taught at Kirkwood each afternoon for two hours and fifteen minutes. The school district will pay the costs related to taking this class, but students must provide their own transportation.

|                               |                    |
|-------------------------------|--------------------|
| Internship (90 hours minimum) | Generally not paid |
|-------------------------------|--------------------|

These hours may be arranged during the school day, during the summer between the junior and senior years or in some cases, evenings and/or weekends.

Students may take any additional math classes that are appropriate and the classes may be articulated with KCC. (Carry Kirkwood credit) These will be handled on an individual basis.

Dual credit courses provide both high school and college credit and will appear on both a high school and college transcript. The college credit will apply to specific programs at Kirkwood and will generally be transferable as elective credit to other colleges.

Articulated credit courses provide high school credit. If the student enrolls at Kirkwood Community College within one year of high school graduation and completes 12 semester hours of college credit at Kirkwood, this credit will be placed on the student's college transcript and will apply to specific programs at Kirkwood. If the student enrolls in a program at Kirkwood that does not require this course, the credit may apply as elective credit. Articulated credit courses are not designed to transfer to other colleges and no assurance is given that they will transfer. High school Academy courses may be counted as electives in the Pre-Engineering program at Kirkwood.

Students may be designated as part-time Academy students if they are unable to meet all of the program requirements. All students will be eligible for the special opportunities and may be eligible for scholarships at Kirkwood Community College.

# KIRKWOOD COMMUNITY COLLEGE

## Competency Certificate

THIS CERTIFIES THAT

HAS ACHIEVED AND DEMONSTRATED THE NECESSARY COMPETENCIES FOR



Digital Drawing 1      Catalog No. - DD162U

**CAREER  
EDGE®**  
*For the New World of Work*

AND IS THEREFORE RECOGNIZED ON

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
INSTRUCTOR

*David R. Bunting*  
\_\_\_\_\_  
DAVID R. BUNTING EXECUTIVE DIRECTOR, SECONDARY PROGRAMS,  
KIRKWOOD COMMUNITY COLLEGE

# Digital Drawing 1 (Freehand 1 or Illustrator 1-Vector Drawing)

Catalog No. - DD162U

Competencies Certificate for Kirkwood Community College.

Career Edge Academy - Graphics & Media Technology.

4 3 2 1 0

Evaluate the student using the rating scale below. Fill in the circle under the appropriate number to indicate the degree of competency achieved.

The numerical ratings of 4, 3, 2, 1 and 0 are not intended to represent the traditional school grading system of A, B, C, D and F.

Please use the descriptions below associated with each of the numbers to evaluate the degree of competency achieved.

## Rating Scale:

**4: Skilled:** Can demonstrate, explain or complete task promptly and accurately. Needs little or no supervision.

**3: Moderately Skilled:** Can demonstrate, explain or complete task. Needs only normal supervision and guidance of completed work. Meets minimum, entry-level requirements.

**2: Limited Practice:** Can do most parts of the task; needs help only on hardest parts. May not meet all minimum, entry-level requirements. Needs close supervision.

**1: Exposure Only:** Can do simple parts of task. Needs to be told or shown how to do most of task. Needs extremely close supervision.

**0: Incomplete skills:** Can not demonstrate, explain or complete task promptly and accurately. Complete training required.

- |   |   |
|---|---|
| <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <p>• <b>Be able to explain the differences between Raster and Vector based programs.</b><br/>Student has demonstrated an understanding of both formats and their function pertaining to graphic communications.</p>   |
| <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <p>• <b>Have basic knowledge of Freehand / Illustrator tools and their function.</b><br/>Demonstrated an understanding and skill of general drawing tools.<br/>Understands how transformation based operations work and how they can be applied using manual tool or dialogue box actions.<br/>Tool modification using modifier keys while drawing.</p>   |
| <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <p>• <b>Know the different file formats that Freehand / Illustrator can save artwork.</b><br/>Demonstrated the ability to look for icon and extension clues for format information as well as the ability to use "save as" and export features. Student was able to understand the purpose and use of the different file formats used in graphic communications, as well as printing and placing limitations of each with other graphics programs.</p>  |
| <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <p>• <b>Have a base understanding of how lines and shapes are use to ceate art in Freehand / Illustrator.</b><br/>Demonstrated the ability to create vector art work from a variety of shapes and lines.<br/>Completed Variation or tie-in assignments to practice technique.<br/>Student is able to demonstrate pathfinding operations, filtering and colorizing modes (PMS, CMYK, tints, creating color list)<br/>Student understands and can utilize shape and stroke blending as a illustrating technique.<br/>Student understands how to use shapes as a mask, as well as the use of compounding (ILL.), join commands (FH).</p>   |
| <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <p>• <b>Know how to use paths, points, point handles and bezier curves.</b><br/>Demonstrated basic tool operation in the exploration of points, point handles and bezier curves.<br/>Has demonstrated the ability to modify paths using conversion tools and key board shortcuts.</p>   |
| <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <p>• <b>Be able to use layer operations to organize drawing.</b><br/>Demonstrated the ability to use basic layering, to organize drawings for easy rendering and editing.<br/>Student is able to modify layer for use as a tracing template, as well as locking to prevent editing.<br/>Student understand how page setup and image management techniques are used to set drawing up for final graphic use.<br/>Specific kinds of layering (ie: text, graphics, die cut layer etc.)</p>   |
| <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <p>• <b>Be able to set type and using stroke and fill features to enhance it.</b><br/>Student is able to set type using text tools within drawing program.<br/>Demonstrated the ability to set type size, leading, kerning / spacing techniques.<br/>Student is able place text on a path, convert text to outlines / paths.<br/>Colorizing (PMS, CMYK, tints), pattern fills and masking using text based elements.<br/>Understands the concept of font management / linking when exporting graphics to other programs.</p>  |
| <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <p>• <b>Be able to create simple line drawings to illustrations of medium difficulty.</b><br/>Student completed projects / lessons that promote understanding of vector drawing, shape and transformation tools.<br/>Demonstrated an understanding of the importance of good line quality and management of symmetry.<br/>Student has completed projects which include spot color and process color management.<br/>Student understands the concept of color separation as it applies to their illustration.<br/>Student completed projects that were exported into other programs like Pagemaker or Quark.<br/>Demonstrated the ability to adapt print out to a variety of output devices.</p> |