

# **AUTOMOTIVE TECHNOLOGY**



## **COURSE DESCRIPTION:**

Technology in the automotive field has changed tremendously since the 1970's when solid state ignition and finally computerization has come into full operation in new vehicles. The "shade tree mechanic" has become a part of history. The mechanic of today needs to understand principles of diagnosing problems before attempting repair. The Career Center utilizes an interrogator that not only diagnoses, but takes the technician mechanic step by step through the process giving verbal instructions.

The course begins at the basics of auto mechanic repair and maintenance of automotive equipment. The principle of automotive mechanics is preventive maintenance of automotive equipment. The principle of automotive mechanics is preventive maintenance through diagnosis of failure, necessary adjustment, and repair/replacement of required parts. Most mechanics are responsible to work on the total vehicle, but some choose to specialize in such areas as transmission maintenance, brakes, front-end alignment, exhaust systems, drivability, etc.

As the automotive mechanics program is designed to prepare the student to enter the field of auto service, emphasis is placed on learning to work as much as possible as a mechanic meeting new and different problems with each vehicle encountered. All of the various components and systems of the automobile are covered including the engine and drive train, fuel systems, brake systems, and electrical systems, etc.

**Dual Credit Opportunities:** Following successful completion of Automotive Technology, students will earn 4 Semester Hours for Kankakee Community College Course: AUTO 1064: Internal Combustion Engines and 4 semester hours for KCC Course AUTO 2243: Alignment, steering and suspension. Students from Will County also have an opportunity to earn dual credit. Successful completion of the two years, earns AUTO101 Basic Automobile Service & Systems at Prairie State College, or AS106 Automotive Fundamentals at Joliet Junior College.

## **REQUIRED/RECOMMENDED TOOLS AND SUPPLIES:**

- Appropriate shoes/boots
- Appropriate clothing; i.e., long pants, etc. (NO SHORTS)
- Safety glasses (first pair provided by KACC)
- Tire pressure gauge
- Pencil/pen
- Notebook.

## **LAB FEES/TEXTBOOK RENTAL:**

The lab fee and textbook rental costs for this class are \$45.

## **ADDITIONAL COSTS:**

Two-year workbook (\$35.00)

## **BUSINESS TECHNOLOGY/MANAGEMENT**



### **COURSE DESCRIPTION:**

The Business Technology/Management Program at KACC is designed to introduce students to the planning, marketing, operation and management of a business. Program content will include general principles and practices of business planning, organization, management, entrepreneurship, information systems, communication, finances and marketing. Interpersonal skills, brainstorming techniques, problem-solving and conflict management will also be covered. In addition, students will utilize Microsoft Office programs to build written communication, desktop publishing, presentation, document and database management, and financial recordkeeping skills. Students will develop their own electronic career portfolio, with resumes, references, job and college search results and interest/skill inventories.

Teaching techniques include textbook lessons and review, classroom discussion and role playing, teamwork, special group and individual project work, research and Virtual Business Management, Retail and Marketing simulation programs. In addition, students will meet and learn from business leaders in the community through guest speakers in the classroom, job shadowing, field trips and internships.

Students will have the opportunity to work on several Career Center projects throughout the year, including community service, business partnership days, SkillsUSA competition and professional development activities. Students will have the opportunity to apply event planning and organization skills through the 8<sup>th</sup> Grade Career Awareness Days project. This project includes development of an event booklet, written communications with businesses, database and information management, and working directly with businesses, students and staff at the event.

Second-year students will have an opportunity to do an internship at a local business, extending their classroom learning directly to the community. Internships are customized to students' future career goals and skill sets.

Students will also participate in the SkillsUSA leadership programs. These programs offer the opportunity for students to network, share ideas and participate in local, state and national competitions in various business-related areas.

### **REQUIRED/RECOMMENDED TOOLS AND SUPPLIES:**

- Three-ring binder
- Two-pocket folders (8)
- Spiral Notebooks (3)
- Pens and pencils
- Hand-held calculator
- 12-pocket closeable portfolio for model business project
- Plastic storage container with lid (about the size of small shoebox)
- Business attire for presentations and field trips

### **LAB FEES/TEXTBOOK RENTAL:**

The lab fee and textbook rental costs for this class are \$45.

### **ADDITIONAL COSTS:**

- USB Memory Key/Flash Drive – 1GB or more **(Cost - \$20)**
- Entrepreneurial & Small Business Management Workbook **(Cost \$15)**

# **CHILD DEVELOPMENT/PLAYSCHOOL**



## **COURSE DESCRIPTION:**

The Child Development/Playschool Program offers an opportunity for training, experience and time with children as students learn a variety of skills in the childcare field. In addition to developing professional skills in this rewarding field, students have an opportunity to develop observation and analytical skills, competency in basic principles of child growth and development, engage in hands-on experiences with 3, 4 and 5 year-olds in KACC's onsite childcare lab and actively participate in planning and implementing activities within our lab.

Students gain skills and knowledge in areas such as guiding the behavior of children, observing and recording behavior, child growth and development, preschool operation, safety procedures, first aid knowledge and are exposed to a variety of career profiles. The student plans and implements activities in the preschool, acting as both a teaching team member and as a leader. Students have the opportunity to gain experience through internship/job shadowing within the childcare field at an assigned day care facility during their second year.

## **REQUIRED/RECOMMENDED TOOLS AND SUPPLIES:**

- **A TB test (required) at the student's expense (Approx \$10)**  
May be done at Kankakee County Health Department or by a Physician of your choice. *Student must bring proof of their TB test results the first week of school.*
- **A full pair of scrubs - top and bottom – can be purchased at several stores locally**
- One fine point black marker, two black Sharpie markers
- One Large, hard-back, 2", 3-ring binder (black)
- Notebook paper
- One set of black/blue writing pens
- One set of #2 lead pencils
- One package of index cards
- One pair scissors

## **LAB FEES/TEXTBOOK RENTAL:**

The lab fee and textbook rental costs for this class are \$45.

## **ADDITIONAL COSTS**

None

## **COLLISION REPAIR**



### **COURSE DESCRIPTION:**

During the first year of this program, learning experiences are designed to allow students to gain knowledge and skills in repairing automotive bodies and fenders. Planned learning activities in this course are balanced to allow students to become knowledgeable in the fundamental aspects of auto body repair methods and techniques, and to develop practical skills in the basic operations required to prepare the automobile for final paint application. Instruction emphasizes safety principles and practices, hazardous materials, auto body nomenclature, function of individual component the use of parts, manuals, the identification of replacement parts, use of auto body fillers, plastic/glass fillers and special body repair tools, refinishing problems and paint preparation procedures. Practical activities relate to experience in writing and calculating damage estimates, removing and installing body panels, trim and glass, straightening by using hammers, bucks and jacks, and smoothing by filling, grinding and using fillers. Students also learn to prime the area to be painted and prepare the surface for final paint application. These experiences and skills are related to metal, fiberglass or urethane components.

The second year provides experiences designed to further enhance the students' skills in performing more advanced tasks related to automotive body and fender repair. Learning activities in this course emphasize the successful application of the final paint coat and the preparation that precedes it. Emphasis is also placed upon the identification and correction of imperfections and finish buffing of the final coat. Student learning activities include instruction in safety principals and practices, hazardous materials, types and qualities of paints, colors, and refinishing problems; glass standards and installation, special alignment techniques, customer relations, damage estimating and insurance adjustments. Student practical activities relate to experiences in estimating collision damage costs, preparing customer bills, removing and replacing glass surfaces, selecting paints, repainting minor and major damages, repainting total car body, drying or baking painted surfaces, post-paint cleanup, and post-paint polishing. This course also allows students to experience more design-related auto painting utilizing an air-brush application.

### **REQUIRED/RECOMMENDED TOOLS AND SUPPLIES:**

- Leather work boots
- Appropriate work clothing with no rips, holes, tears or frays. Clothes must also fit properly. Baggy clothes *will not* be permitted.
- Pencil and paper
- Respirator – must be a dual cartridge (\$20). May be purchased at First Auto Color or CarQuest.

### **LAB FEES/TEXTBOOK RENTAL:**

The lab fee and textbook rental costs for this class are \$45.

### **ADDITIONAL COSTS:**

None



## **COMPUTER TECHNOLOGY I** **THEORY, REPAIR AND BUILDING**

### **COURSE DESCRIPTIONS:**

In this program, a solid foundation of theory on how a computer and other peripherals work is covered. Students receive instruction and hands-on experience in repairing or replacing faulty mechanical or electronic parts and giving technical advice on ways to keep equipment in good operating condition. After completing this program, the student will have an opportunity to go on to become A+ Certified. Students also receive instruction in the area of installing basic networks.

**DUAL CREDIT OPPORTUNITY:** Successful completion of this program allows an opportunity to earn credit at Joliet Junior College for CIS275 – PC Troubleshooting & Toolbox

### **REQUIRED/RECOMMENDED TOOLS AND SUPPLIES:**

- One manual at student's expense – by Sybex
  - “A+ Complete” (more information will be given in class)
- P.C. repair toolkit
- Small mag light or other mini light
- 3-ring binder
- Pen
- Pencil
- Notebook

### **LAB FEES/TEXTBOOK RENTAL:**

The lab fee and textbook rental costs for this class are \$45.

### **ADDITIONAL COSTS/FEES:**

- USB Memory/Flash drive \$10 to \$15

## **COMPUTER TECHNOLOGY II** **(NETWORKING, WEB PAGE GENERATION** **AND THE INTERNET)**



### **COURSE DESCRIPTION:**

This course builds on the skills introduced in Computer Technology 1. Students learn how to connect and install multiple computers and peripherals together to create a computer network. Students build, configure, and maintain network servers along with installing and configuring various network operating systems such as Novell, Windows and Linux. Students learn to use troubleshooting services, system monitoring utilities, and data backup and recovery systems. Other topics include learning how to connect various network components such as servers, computers, and printers together using data cabling, hubs, and switches. Students learn to run, terminate, and troubleshoot data cabling. In addition, students learn how to install and upgrade software across the network, as well as map drives and share resources such as printers, software, and files. The course includes setting up and configuring various network services such as TCP /IP, DHCP, DNS, VPN, terminal services, e-mail and web services. Students learn how to secure and protect network servers and data as well as setting up and configuring a firewall, intrusion detection system, and encryption software for identifying and preventing potential network attacks. This course is taught in conjunction with CompTia's Network and Curriculum. Each student has the option to purchase vouchers for the certification test at half-price.

**DUAL CREDIT OPPORTUNITY:** Successful completion of this program allows an opportunity to earn credit at Joliet Junior College for CIS145 – Fundamentals of Networking.

### **REQUIRED/RECOMMENDED TOOLS AND SUPPLIES:**

- Network & Guide to Networks, 5<sup>th</sup> edition (ISBN: 13:978-1-423-90245-4)
- 3-ring binder
- Pen
- Pencil
- Notebook

### **LAB FEES/TEXTBOOK RENTAL:**

The lab fee and textbook rental costs for this class are \$45.

### **ADDITIONAL COSTS:**

- USB Flash Drive required (\$15-\$20)

# CONSTRUCTION TECHNOLOGY



## **COURSE DESCRIPTION:**

Students in construction technology build and maintain structures ranging from rough scaffolds and concrete forms to homes that require exact finish work. They work with wood, metal, plastic and concrete. Using both hand and power tools, people in the construction trade erect wood frameworks for buildings, install window frames, apply exterior siding and install moldings, cabinets, doors, heating and cooling systems, plumbing and hardware finish. Construction Technology education gives the student the opportunity to participate in the different phases of residential construction. This helps the student decide which trade or craft they would like to serve an apprenticeship.

During the training program, students construct houses on-site and will be involved in all phases of construction. The program is designed as pre-apprentice training and will include the following areas of construction: carpentry, masonry, plumbing, heating, roofing, landscaping, painting, decorating and electrical wiring. The student receives both classroom and on the job training.

**DUAL CREDIT OPPORTUNITY:** Successful completion of this program allows an opportunity to earn credit at Joliet Junior College for AEC 100 – Construction Fundamentals.

## **REQUIRED TOOLS AND SUPPLIES (purchased by student):**

- Notebook for classroom
- Calculator
- 16 or 20 oz claw hammer with unbreakable handle
- Speed square
- 25' power return tape
- Carpenter's pencil
- Nail apron – cloth is acceptable
- Leather work boots (Steel toe not required)
- OSHA approved hard hat
- Safety glasses (first pair provided by KACC)
- Retractable Utility knife
- Chalk line
- Cat's claw
- Also recommend cold weather clothing, work gloves, rubber overshoes for mud.

## **LAB FEES/TEXTBOOK RENTAL:**

The lab fee and textbook rental costs for this class are \$45.

## **ADDITIONAL COSTS:**

None

# COSMETOLOGY



## **COURSE DESCRIPTION:**

The KACC School of Cosmetology program is a Pivot Point member school and provides the training necessary to become a licensed cosmetologist. Students have the opportunity to acquire skills in order to perform services on customers in our full-service salon area, which is open to the public. In the first year, students received instruction in both theory and practical application in tools and their use, shampoo, understanding chemicals and use, types of hair, sanitation, hygiene, skin diseases and conditions, anatomy and physiology, electricity, ethics, nail technology and esthetics as they relate to Cosmetology, while earning hours toward licensure.

During the second year, they will build upon the knowledge and skills attained in year one and will be involved in instruction involving both classroom and hands-on experience with customers in our salon, in the area of shampooing, make-up, facials, hair treatment, hairdressing and hair shaping, hair chemistry, manicuring, pedicuring, sculpture nails, and permanent waving/chemical straightening.

The Cosmetology Program is under the instruction of teachers licensed by the Department of Professional Regulation and complies with all the rules and regulations of the Illinois Beauty Culture Act. The program provides for 1500 hours of training which, is the minimum requirement needed in order to take the State Board Exam for licensing. This includes two full school years, Saturday hours, the summer session between junior and senior year, and the summer session following graduation from high school.

## **REQUIRED TOOLS/SUPPLIES:**

Students are responsible for purchasing an equipment kit for the first year, second year, and for both the summer programs. The items provided in the kit are required to progress in the class. Kit fees for fall, first and second year, are due on or before the first day of class. Kit fees for the summers are due no later than the first day of summer school class. These kits meet industry standards and are sold at our cost. Payment plans are not offered, however, we anticipate being able to accept credit card payments by Fall 2011. **Students will not be enrolled nor will they be able to earn hours toward their Cosmetology license until appropriate fees are paid.**

## **Kit Fees and Summer School Tuition:**

- Equipment kits for first year, second year and summer programs
  - First Year - \$300 kit fee
  - First Year Summer – Tuition \$250, plus Summer Kit fee of \$250
  - Second Year Kit Fee is \$400.00
  - Second Year Summer Tuition is \$250 – No Summer Kit Fee  
(A long hair mannequin has been added to the summer kit.)



## **LAB FEES/TEXTBOOK RENTAL:**

The lab fee cost for this class is \$45.

Students who choose to participate in competitions may also need to purchase additional mannequins, supplies, pay for entry fees and travel costs.







## **DRAFTING/CAD (COMPUTER AIDED DRAFTING)**

### **COURSE DESCRIPTION:**

Manual drafting and computer aided drafting (CAD) is used in many professions to develop ideas and then transfer them to drawings. The drawings then enable others to produce the product or construct the project.

The Drafting/CAD program at the Career Center is a two-year program offered to juniors and seniors. Even though this course is designed around a two-year curriculum, sometimes students can only fit one year into their class schedule, and are welcome to attend.

During the first year, the program focuses on manual drafting and blueprint reading in the engineering and architectural fields. Students will learn how to manually sketch and draft two and three-dimensional geometric shapes. They will then move on to more complex drawings of houses, machine parts and other things designed by engineers and architects.

Second-year students may choose to focus on either engineering or architectural drafting. They will have the opportunity to job shadow and intern with professionals in their field of interest. Students will learn how to use the AutoCAD program and will be introduced to other software programs which are utilized by engineers and architects.

**DUAL CREDIT OPPORTUNITIES:** Students who successfully complete the first year will earn dual credit with Kankakee Community College for “DRFT1154 – Technical Drafting and Blueprint Reading class. Students who successfully complete the second year will earn dual credit with KCC for their course, DRFT2114 – Computer Aided Drafting I.” Following successful completion of this two-year program, students from Beecher High School have an opportunity to earn 3 dual credit hours from Prairie State College – CADMD 141: Technical Drafting I.

### **REQUIRED TOOLS AND SUPPLIES:**

- Notebook, 3-Ringbinder with dividers
- Notebook Paper
- Calculator
- Pocket-sized sketch pad
- Mechanical pencil
- 2mm lead holder
- USB Flash drive (\$15 - \$20)



### **LAB FEES/TEXTBOOK RENTAL:**

The lab fee and textbook rental costs for this class are \$45.



## **FIRE /RESCUE**

### **COURSE DESCRIPTION:**

The Fire Rescue program is set to follow the State of Illinois Fire Marshall's Office Division of Standards for entry level in the fire and rescue field. Following IFSTA Essential Manual, first-year students will learn the basics of the fire service. Students will learn how to use self-contained breathing apparatus, ropes and knots, ladders, and hoses. Using a special smoke trailer, students will be exposed to simulated fire conditions under a safe environment. They will learn how to do search and rescue, auto extrication, and how to safely remove victims of automobile crashes. Students will also participate in a rigorous physical exercise program to prepare them for fire service CPAT testing.

Second-year students will start their leadership skills training, training as a company officer and Incident Commander. Students will also learn how to operate a fire pump with our on-site fire department pumper. Students will go through Hazardous Materials for the First Responder, CPR for the Health Care Provider through the American Heart Association, and AED Training.

Second-year students can do internships with area fire departments. They will build on the skills developed in the first year and learn about detection systems as well as basic emergency medical techniques and practices. All classes will follow the standards of the Illinois State Fire Marshall, Illinois Department of Public Health, and Illinois Department of Transportation.

Please Note: This program is very physically demanding during practical (hands on) evolutions.

**DUAL CREDIT OPPORTUNITY:** Following successful completion of this two-year program, student from Beecher High School have an opportunity to earn dual credit at Prairie State College for FST 101: Intro to Fire Technology.

### **REQUIRED/RECOMMENDED TOOLS AND SUPPLIES:**

- **Firefighting gloves and nomex hood (REQUIRED); can be purchased from Illinois Fire & Police Equipment in Bourbonnais (approx \$90)**
- Pen
- Pencil
- Notebook for classroom.
- Physical examination highly recommended to be respirator qualified.

### **LAB FEES/TEXTBOOK RENTAL:**

The lab fee and textbook rental costs for this class are \$45.

### **ADDITIONAL COSTS:**

Students are **required** to pay a CPR-AED fee for AHA Healthcare provider fee for Professional Rescuer Certification:

- \$5 for CPR Card
- KACC T-shirt for fire science class (prices quoted at time of purchase)

# HEALTH OCCUPATIONS I



## **COURSE DESCRIPTION:**

Students enrolled in the Health Occupations Program at KACC can become a CNA (Certified Nurse Assistant) The Health Occupations I program at KACC is taught by Registered Nurses (RN's) who are certified to teach the CNA program through the Illinois Department of Public Health. This program prepares students for their continued education at local community colleges and university-level programs in the following healthcare fields:

LPN	Radiology	Respiratory Therapy
RN	EMT-Basic	Occupational Therapy
Medical Technologist	Physical Therapy	Pre-Med

The CNA program at KACC is approved by the Illinois Department of Public Health. After successful completion, the student is eligible to take the Illinois CNA Test to become certified as a nurse assistant. In the CNA program, students learn basic nursing skills such as vital signs, nutrition, rehabilitation and personal care of patients.

## **DUAL CREDIT OPPORTUNITIES:**

- Following successful completion of Health Occupations I, students earn 8 Semester Credit Hours for Course PNUR1438: Nursing Assistant (C.N.A.) AT Kankakee Community College; or, for Peotone students, Course NA101: Certified Nursing Assistant Training at Joliet Jr. College.

## **REQUIRED/RECOMMENDED TOOLS AND SUPPLIES:**

- Watch (must have second hand)
- White uniform pants and navy scrub top
- White shoes for clinical
- Name pin purchased through KACC
- Pens
- Pocket notebook.
- **A Hepatitis B vaccine (recommended, but not mandatory) at student's expense**
- **A two-step TB test is required.** The TB Test is a responsibility of the student. This test must be done **prior** to the beginning of the school year and can be done through the Kankakee County Health Department or your personal physician. Students are to bring their results of the test to their instructors when they begin class
- **Fingerprint Background Check** – will be done at KACC at the beginning of the school year. This is a requirement of the Illinois Department of Public Health.
- **Drug Screen may** be a requirement of the medical facilities in which clinical hours are earned.

## **LAB FEES/TEXTBOOK RENTAL:**

The lab fee and textbook rental costs for this class are \$45.

**ADDITIONAL COSTS:**

- **After successful completion of state requirements, Health Occupations I students will have a CNA State Test (Fee from 2010 was \$64.00)**
- **Class Fee is due and payable to Kankakee Area Career Center within the first week of School. The fee per year is:  
\$75, covering the cost of Fingerprint Background Check, Picture ID Badge and Mosby's Nurse Assistant Workbook**

## **HEALTH OCCUPATIONS II**



### **COURSE DESCRIPTION:**

This course is designed to provide students with a sequence of organized learning experiences and skills to prepare a person to recognize the signs and symptoms of illness and injury to begin the approved and appropriate life-support procedures such as cardiopulmonary resuscitation (CPR) and will become CPR certified. The course will also include skill development to prepare students for a health-occupations related occupation.

Students will learn how to identify medical terms by analyzing their components. Emphasis will be placed on defining medical prefixes, root words, suffixes and, abbreviations. The primary focus is on the development of both oral and written skills in the language used to communicate within healthcare professions.

### **DUAL CREDIT OPPORTUNITIES:**

- Following successful completion of Health Occupations II, students earn 2 Semester Credit Hours for course HLTH1312: Medical Terminology at Kankakee Community College, or for Peotone Students, BIO 100: Medical Terminology at Joliet Junior College.

### **REQUIRED/RECOMMENDED TOOLS AND SUPPLIES:**

- Notebook, 3-Ringbinder with dividers
- Notebook Paper
- Pens and Pencil

### **LAB FEES/TEXTBOOK RENTAL:**

The lab fee and textbook rental costs for this class are \$45.

### **ADDITIONAL COSTS:**

- **Class Fee is due and payable to Kankakee Area Career Center within the first week of School. The fee per year is:  
\$35, covering the cost of CPR Card, Picture ID badge and workbook.**





## **LAW ENFORCEMENT**



### **COURSE DESCRIPTION:**

The two-year Career Center Law Enforcement Program provides students with a basic introduction to all facets of law enforcement. Upon completion of the program, students should have a working knowledge of law enforcement procedures and activities that will enhance their skills on the community college and university levels.

Students will be given the opportunity to achieve some proficiency in the following areas: Traffic & Accident Investigation; Vehicle Stops and Approach; Patrol & Arrest Techniques; Telecommunications Skills; Illinois Vehicle Code; Corrections; Drug Identification/Drug Laws; Courts & Legal System; Interview Techniques; Search & Seizure/Evidence Procedures/Crime Scene Investigation; Illinois Criminal Code; Fingerprint Techniques; Criminal Investigation; Report Writing; and, Private Security.

Also included in the program will be interview and interrogation techniques, arrest and handcuffing procedures. In this pre-law enforcement course, student experiences will involve simulations, demonstrations, guest lectures, tours of various law enforcement departments, and a shadowing program developed with the cooperation of the Kankakee County Sheriffs Police.

**DUAL CREDIT OPPORTUNITIES:** Students from Will County home schools have an opportunity to earn dual credit following successful completion of this two-year program. Prairie State College Dual Credit for CJ 101: Intro to Criminal Justice, CJ201: Criminal Law I and, CJ106, Intro to Corrections. At Joliet Jr. College, dual credit may be earned for CRJ 100: Intro to Criminal Justice

### **REQUIRED TOOLS AND SUPPLIES:**

#### **Law Enforcement I and II**

Spiral Notebook  
3-Ring Binder  
Pens & Pencils

#### **Law Enforcement II**

Notebook Paper  
Graph Paper  
Ruler

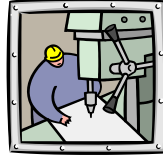
### **LAB FEES/TEXTBOOK RENTAL:**

The lab fee and textbook rental costs for this class are \$45.

### **ADDITIONAL COSTS:**

None

# **PRECISION METALWORKING**



## **COURSE DESCRIPTION:**

Precision Metalworking is a two-year program developed to instruct the student in the metalworking and tool & die careers. The student will be able to analyze specifications, set up and operate milling and drilling machines, lathes, bench-grinders and surface-grinders, along with various hand tools to create and complete a project which will be both accurate and visually pleasing ~ a project which you, the student, will assemble from parts using the above equipment

Other projects will consist of c-clamps, hammers, parallels, clocks, air powered turbine engines as well as hand-crank and air-powered piston engines.

Maintenance and repair of equipment is done enhancing the use of hand-tools with a more in-depth knowledge of the equipment used to create projects.

Students will learn to manage time, create goals for the future and gain knowledge to formulate a career path leading to great-paying jobs and opening doors of opportunity for advancement.

## **Dual Credit Opportunities:**

Kankakee Community College: Students who successfully complete the first year of Precision Metalworking will receive 4 Semester Hours of dual credit at KCC for MCHN1214 Machine Tool 1. Students who successfully complete the second year of Precision Metalworking will receive 4 Semester Hours of dual credit at KCC for MCHN1224 Machine Tool 2.

Beecher High School students who successfully complete this program has an opportunity to earn dual credit at Prairie State College for MT101: Metal Working Process I, and MT 102: Metal Working Processes II.

## **REQUIRED/RECOMMENDED TOOLS AND SUPPLIES:**

- Long-sleeved work shirt
- Work pants (clothes must fit properly, baggy clothes will not be permitted)
- Steel-toe leather work shoes
- Safety glasses (first pair provided by KACC)
- Calculator
- Metal scribe
- Six-inch ruler
- #2 pencil
- Pocket-size notebook

## **LAB FEES/TEXTBOOK RENTAL:**

The lab fee and textbook rental costs for this class are \$45.

## **ADDITIONAL COSTS:**

None

# WELDING TECHNOLOGY



## **COURSE DESCRIPTION:**

Welding is one of the most important crafts necessary for the manufacturing and construction of various products such as buildings, ships, aircraft, storage vessels, power plants, automobiles, etc. Everything from Nuclear Reactors to the toaster found in your kitchen is made possible by the process of welding.

Careers in the field of welding contain a wide range of possibilities. There are certified welders, fitters, inspection and design professionals, welding engineers and those who are involved in study and development of new metals and joining processes.

Salary opportunities in the welding field are excellent. You can go as far as your skill sets and knowledge will take you.

During the first year, the welding program will consist of exercises using the oxy-acetylene, shielded metal arc, gas metal arc and flux cored arc welding processes in the flat, horizontal and vertical positions. You will also gain experience in the separation of metal using the oxy-fuel and plasma processes. The study of welding symbols, blueprint reading, joint design and metallurgy are also included.

The second year focuses on advanced Application of first year study such as Bend-test, pipe welding and weldments in the overhead position.

## **Dual Credit:**

**Kankakee Community College (KCC):** Students who successfully complete the first year Welding program at KACC will receive 4 Semester hours credit with KCC for their Course “WELD1114 Basic Welding.” Students who successfully complete a second year in the KACC Welding program will receive 4 Semester hours credit with KCC for the course “WELD2224 Metallic Inert Gas Welding.”

**Joliet Junior College (JJC):** Peotone High School Students can receive credit for WELD114 KACI ARC Welding I; and, Weld 121 Oxygen-Acetylene Weld 1. Second Year Students will receive dual credit for: Weld 115: Shielded Metal Arc Welding II (Flat & Horizontal); Weld 141: Gas Metal Arc Welding (all position, Mild steel/Alum); and WELD 142: Flux Cored Arc Welding.

**Prairie State College:** First-year students may earn dual credit for WELD 101 Principals of Flat Welding. Second-year students may earn dual credit for WELD 102: Horizontal and Vertical Welding.

## **REQUIRED/RECOMMENDED TOOLS AND SUPPLIES:**

- **Welding jacket (required)**
- **Long leather welding gloves (required)**
- **All-leather work boots (must be over top of ankle) – (required)**
- **Welding Helmet with No. 5 & 10 Extra-Clear Lenses ( approximately \$25.00)**
- **Work Jeans** (must be in good shape, not ripped or frayed)
- Tape measurer – 12’ minimum length
- Ear plugs
- Safety glasses (first pair provided by KACC)



- Tip cleaner and wire brush
- Pen
- Pencil
- Notebook – regular and pocket note book

**LAB FEES/TEXTBOOK RENTAL:**

The lab fee and textbook rental costs for this class are \$45.

**ADDITIONAL COSTS:**

None



## **INTERNSHIP PROGRAM**

### **COURSE DESCRIPTION:**

The Internship Program provides an opportunity for the business community to form an educational partnership with our school and our students. Instructors, students, and business mentors work together to provide students with continuous learning and real-life experience through a cooperative plan of classroom and on-the-job educational experiences in the student's chosen career field.

Students apply for the program during the second semester of their junior year. The Program Coordinator reviews the applications, interviews the students, gathers the necessary information, and works with business partners to place the student in a career-related job.

Students work at the internship site at least two days per week and a maximum of three days per week. They attend their related class a minimum of two days per week.

Successful completion of the Internship Program provides students with some of the following advantages:

- Encourages development of real-world employability skills, responsibility and maturity for students
- Increases student motivation
- Results in improved job entry placement and advancement opportunities for graduating students
- Provides more opportunity for interaction with adult role models
- Decreases drop-out rate
- Provides opportunity for career exploration prior to making college and long-range planning commitments

All placements must be approved by the instructor and evaluations are completed weekly. The students may be removed from the internship program if procedures are not followed (further explanation in Internship Handbook) or poor evaluations are received by the student.

### **REQUIRED/RECOMMENDED TOOLS AND SUPPLIES:**

- See Internship Handbook

### **ADDITIONAL COSTS:**

- Transportation costs to and from internship sites.