

Cooperative Innovative High School Programs for:

Dalton McMichael High School  
John Motley Morehead High School  
Reidsville High School  
Rockingham County High School

February 1, 2010

Dear Student:

Are you interested in learning more about ways to start your college education early? If you are, this booklet will provide helpful information about Rockingham Community College's Cooperative Innovative High School programs to get a ***Jump Start*** on your college career! These programs are designed for current high school students to enroll in college courses not otherwise available and to utilize post secondary opportunities as a means of pursuing lifelong educational and training goals. High schools students can enroll in a maximum of seven (7) credit hours per semester. Courses listed in this booklet qualify for honors credit and students are exempt from tuition.

As you begin the registration process for your 2010 – 2011 classes, you have the opportunity to enroll in courses at RCC. You will be attending college classes while receiving high school **and** college university credits. Upon completion of these college/university courses you may continue to take classes at RCC and then transfer to a four-year college or university as a junior. You may also enroll in a four-year college or university upon high school graduation and transfer RCC credits in which you have earned a "C" grade or better in the courses that are designated for college transfer. The receiving institution will determine whether the course will count as a general education, major, or elective credit. Technical and advanced vocational courses can be applied towards a certificate, diploma or associate degree program at RCC. Another Option, the "Learn and Earn Online" program allows 9<sup>th</sup> – 12<sup>th</sup> grade students to take a variety of RCC online college-credit classes. Students can earn both high school and college credit for the completed courses.

Information in this booklet outlines the steps to enroll in RCC courses. I encourage you to share this information with your parents and talk to your high school counselor. By taking the first step to enroll in college courses, you are one step closer to starting your college education.

Please review the information in this booklet carefully, as many changes have been made from the previous academic year. One major change relates to the types of courses in which RCC is able to offer to high school students. Due to the North Carolina General Assembly's elimination of high school student tuition waivers for humanities and social sciences, physical education, and college success skills courses, RCC has limited its college transfer offerings to math, and will continue to offer technical and advanced vocational courses.

If you have any questions, please contact the RCC counselor working with your high school. A list of counselors and their phone numbers is listed on page 5 of this booklet. We look forward to seeing you at RCC!

Sincerely,

Dr. Sheila Ruhland  
Vice President for Instruction  
[ruhlands@rockinghamcc.edu](mailto:ruhlands@rockinghamcc.edu)  
336 342-4261 ext. 2137

## TABLE OF CONTENTS

Cooperative Innovative High School Programs .....	2
Rockingham Community College (RCC) Calendar.....	3
College Transfer Course Requirements.....	3
Technology and Advanced Vocational Courses .....	3
Student Expectations and Program Practices.....	4
Important Information for January 2011 High School Graduates .....	5
Registration Steps .....	5
Student Consent for Release of Record .....	5
College Transfer Courses .....	6
Technology and Advanced Vocational Courses .....	7
Business Administration .....	7
Computer Information Technology .....	7
Criminal Justice .....	8
Electrical/Electronics Technology.....	8
Machining Technology.....	9
Industrial Systems Technology.....	9
Welding Technology .....	10
Learn and Earn Online (LEO) .....	11

Rockingham Community College reserves the right to make changes in regulations, courses, schedules, fees, office locations, and other matters of policy and procedures when necessary. The ***Jump Start*** Cooperative Innovative High School Program booklet is not a guarantee of courses, programs and services offered by the College.

**Students with Disabilities** Rockingham Community College is committed to providing quality educational services to all qualified students in accordance with Section 504 of the Rehabilitation Act of 1973 subsection E and the Americans with Disabilities Act. A student with a disability that may affect his/her education should contact Terry Kent (ext. 2127) or LaVonne James (ext. 2243) in Student Development. It is the responsibility of the student to self-disclose the disability to the college; to provide appropriate, current documentation to the college; and to request accommodations in a timely manner.

### COOPERATIVE INNOVATIVE HIGH SCHOOL PROGRAMS

Admission requirements for the ***Jump Start*** Cooperative Innovative High School Program have been developed to ensure that the student has the academic preparation and background to be successful in college courses. Students cannot enroll in more than seven (7) credit hours per semester. Students will be exempt from tuition but are responsible for textbooks and the RCC technology fee and RCC parking fee. ***Jump Start*** Cooperative Innovative High School Programs are open to home school, private and public high school students who are Rockingham County Residents, provided the student meets the necessary eligibility requirements as outlined in this booklet. Note: Home school students must apply for classes through the LSAU, a non-public governing body.

#### ***Student Eligibility for College Transfer Courses, Technical and Advanced Vocational Courses***

- ✓ High school students must be at least 16 years of age (by the first day of class),
- ✓ High school students must be recommended by the chief administrative officer of the high school and approved by the appropriate community college personnel (must be done each semester),
- ✓ The chief administrative officer of the high school must certify that the student is taking the equivalent of one-half of a full-time schedule and is making progress toward graduation (must be done each semester), or in case of courses offered in the summer, must certify that the student took the equivalent of one-half of a full-time schedule during the preceding year and is making appropriate progress toward graduation.
- ✓ Enrollment of high school students in any section cannot displace adult college students,
- ✓ High school students must meet the same prerequisites, co-requisites, and course admission requirements as adult college students, and
- ✓ High school students may be admitted for any semester on a space available basis.

***Student Eligibility for Huskins Bill*** (College level academic, technical, and advanced vocational courses not otherwise available to high school students)

- ✓ High school students must be in grades 9-12,
- ✓ High school students must meet the same prerequisite, co-requisites, and course admission requirements as adult college students, and

- ✓ High school students must be recommended by the chief administrative officer of the high school for enrollment (must be done each semester).
- ✓ The chief administrative officer of the high school must certify that the student is taking the equivalent of one-half of a full-time schedule and is making progress toward graduation (must be done each semester),
- ✓ High school students enrolled in the afternoon Huskins classes are not eligible to enroll in college transfer, technical or advanced vocational morning classes.

***Learn and Earn Online (LEO)***

- ✓ High school students must be in grades 9-12.
- ✓ High school students must meet the same prerequisite and admission requirements required of all students.
- ✓ High school students attending a non-public school may enroll in any LEO course with space available that has been offered to but not filled by any eligible public school student.

**ROCKINGHAM COMMUNITY COLLEGE**  
**2010-2011 Calendar (Note: High school students follow RCC calendar, and inclement weather notices)**

**2010**

August 23	Monday	Fall Classes Begin
September 6	Monday	Labor Day Holiday
November 25, 26	Thursday, Friday	Thanksgiving Holidays
December 16	Thursday	Fall Semester Ends

**2011**

January 6	Thursday	Spring Classes Begin
January 17	Monday	King Holiday (college closed)
March 7-11	Monday-Friday	Spring Break
May 6	Friday	Spring Semester Ends

**College Transfer Course Requirements**

MAT 171 and MAT 151 are introductory college mathematics courses. A satisfactory score on the Mathematics Placement Tests or a math SAT score of 500 or higher is required for entry into MAT 151 and MAT 171.

MAT 172 and MAT 271 are higher level mathematics courses. MAT 172 has a prerequisite of MAT 171 or satisfactory score on the Mathematics Placement Test. MAT 271 has a prerequisite of MAT 172 or satisfactory score on the Mathematics Placement Test.

**Technology and Advanced Vocational Courses (including Huskins Bill)**

**Business Administration**

English and reading placement tests are required but will be waived with a critical reading SAT score of 500+ and a writing SAT score of 500+. Otherwise placement testing is required to meet appropriate developmental course prerequisites.

**Computer Information Technology**

Reading and/or math placement tests are required but will be waived with a critical reading SAT score of 500+ and a writing SAT score of 500+. Otherwise placement testing is required to meet appropriate developmental course prerequisites.

**Criminal Justice**

English and reading placement tests are required but will be waived with a critical reading SAT score of 500+ and a writing SAT score of 500+. Otherwise placement testing is required to meet appropriate developmental course prerequisites.

**Electrical/Electronics/Machining/Industrial Systems Technology**

Math placement testing required. Otherwise placement testing is required to meet appropriate developmental course prerequisites.

**Welding Technology**

No placement testing required.

***All placement tests are given on the second floor of the Gerald B. James Library. Call Melanie Eley (342-4261, ext. 2308) for an appointment or to have questions answered.***

## STUDENT EXPECTATIONS AND PROGRAM PRACTICES

**Student Expectations:** High school students enrolled in the *Jump Start* Cooperative Innovative High School Program at RCC are expected to:

1. Meet the general admissions criteria and any prerequisite/co-requisite course requirements.
2. Choose courses that are listed in the *Jump Start* Cooperative Innovative High School Program booklet. High school students are not eligible to take courses that are not listed in this booklet.
3. Attend classes on time, be well prepared and exhibit mature conduct at all times.
4. Attend all scheduled classes following the college schedule even when the high school is closed or not in session. This includes high school teacher workdays, high school holidays and inclement weather closings. *Jump Start* students may withdraw from a class according to RCC policy. **A withdrawal from the college course may prevent the student from graduating from high school.**
5. On days the student does not have a scheduled college class, the student does not have to report to RCC. See attached RCC calendar for 2010-2011, p. 3.
6. Pay any incurred fines (parking or library). Students will not receive a grade report, have a transcript sent or register for the next semester at RCC until all college fines have been paid.
7. Purchase course textbooks as required. New and used books are available from the RCC Bookstore located in the Student Center.
8. Pay \$10 parking fee at the start of each semester.
9. Pay technology fee based on credit hours: 1-3 credit hours \$10; 4 or more credit hours \$16 each semester.
10. If the high school student wishes to have the RCC grade(s) sent to his/her high school, the student must complete the Student Consent for Release of Records Form. Please see Student Consent for Release of Records section on page 6 for more information.
11. Follow the policies and procedures that are outlined in this booklet.

**Program Practices:** High school students who successfully complete RCC courses will:

1. Receive high school credit, depending upon the number of college semester hours a student successfully completes. College courses that are transferable to other colleges or universities will receive high school honors credit.
2. Receive college semester hour credit (depending upon the number of college courses a student successfully completes) which may apply toward RCC graduation if the student enters an applicable program.
3. Transfer the credits for college transferable courses to meet general education and/or elective requirements at a senior college or university, or another community college (provided a transcript request form has been completed by the student).
4. Have their RCC semester grade reported in numerical format to their high school. High schools will be provided academic progress reports at mid-semester if the student is performing below average. Reporting grades and progress reports to high schools are only done for students who have submitted a signed Student Consent for Release of Records form to RCC.
5. Receive a separate RCC grade report at the end of each semester. This grade will be mailed to the student's home address.
6. Have their high school, RCC grade, and attendance reports reviewed by the appropriate high school counselor.

**Important Information for January 2011 High School Graduates:** Students who graduate in January 2011 are no longer eligible for Jump Start courses. In order to continue taking courses at RCC, high school students who intend to graduate in January 2011 must enroll in a curriculum program and submit an official transcript that shows a final graduation date. Please contact an RCC counselor for more information.

To learn more about Jump Start, contact your high school guidance counselor or give us a call!

**Office of Admissions and Records  
(336) 342-4261, ext. 2333**

**Mr. Terry Kent**, Ext. 2127  
McMichael High School  
[kentt@rockinghamcc.edu](mailto:kentt@rockinghamcc.edu)

Ms. Carla Moore, Ext. 2100  
Morehead High School  
[moorec@rockinghamcc.edu](mailto:moorec@rockinghamcc.edu)

**Ms. LaVonne James**, Ext. 2243  
Reidsville High School  
[jamesl@rockinghamcc.edu](mailto:jamesl@rockinghamcc.edu)

**Ms. Melanie Eley**, Ext. 2308  
Rockingham County High School  
[eleym@rockinghamcc.edu](mailto:eleym@rockinghamcc.edu)

**REGISTRATION STEPS**

**Fall Enrollment Deadline: June 30, 2010**

**Spring Enrollment Deadline: October 29, 2010**

1. Select the RCC courses you want to take each semester. Choosing the afternoon Huskins classes will make you ineligible to enroll in college transfer, technical or advanced vocational morning classes.
2. See your high school counselor to obtain an RCC *Application for Admission*, or download it from [www.rockinghamcc.edu](http://www.rockinghamcc.edu).
3. Request that an official copy of your high school transcript be sent to RCC.
4. If your course(s) requires placement testing, request a "Test Authorization" form from an RCC counselor. Placement testing is normally available three days per week. Please check with the Admissions Office or the RCC website to find the exact placement testing times scheduled each month. The placement test takes about two hours to complete. If your SAT scores meet the placement criteria you do not have to take the placement test.
5. Go to the Student Development Office in the Whitcomb Student Center to have a counselor review your placement test results or SAT scores (bring your documentation of SAT scores). Bring your completed RCC *Application for Admission* with you. You may be able to go immediately after taking your placement test or you may make an appointment for another day.
6. The RCC counselor will help you fill out a Course Request Form and register you for the fall and spring semesters.
7. You will receive a copy of your schedule in the mail, along with a letter stating the deadline for payment and information about your college ID and parking sticker.
8. Once you are registered for your high school courses, let your high school counselor know the course(s) you have registered for at RCC.
9. Obtain your student ID card and parking sticker in the Whitcomb Student Center.

**Note:** Steps 1-6 must be completed prior to the appropriate enrollment deadlines listed at the top of this section.

**Important Information: Student Consent for Release of Records**

The Family Educational Rights and Privacy Act of 1974 (FERPA) limits the extent to which a student's educational information may be released without student consent. A student is protected by FERPA when the student turns 18 years of age or is enrolled in a post-secondary educational institution. FERPA will not allow RCC to release your academic information (to include end of semester grades, progress reports, etc) to your high school unless you give us written permission to do so. Your signature on the Student Consent for Release of Records form will give us permission to send your academic information to your high school.

<b>COLLEGE TRANSFER COURSES</b> <b>(Class Dates and Times are Listed Below)</b>
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College transferable courses are designed to meet degree requirements at Rockingham Community College in the Associate in Arts, Associate in Fine Arts or Associate in Science degree programs. These courses will transfer to most four-year colleges and universities and other community colleges. Students must earn a “C” or better in order for these courses to transfer.

<b><u>Fall 2010</u></b>	Select one course.	<b>Credit</b>
MAT 171	Precalculus Algebra (3 credits) first minimester <i>and</i>	3
MAT 172	Precalculus Trigonometry (3 credits) second minimester 7:50-8:50 a.m. Monday through Friday	3
MAT 171	Precalculus Algebra (3 credits) 8:00-8:50 a.m. Monday, Wednesday, and Friday	3

*Note: Students completing MAT 171 & 172 in the fall are eligible to take MAT 271, Calculus I, in the spring.*

<b><u>Spring 2011</u></b>	Select one course.	<b>Credit</b>
MAT 271	Calculus I 8:00-8:50 a.m. Monday through Friday	4
MAT 151	Statistics I 8:00-8:50 a.m. Monday, Wednesday, and Friday	3
MAT 172	Precalculus Trigonometry 8:00-8:50 a.m. Monday, Wednesday, and Friday	3

#### Course Descriptions

**MAT 151      Statistics I** (3 credits)

This course provides a project-based approach to the study of basic probability, descriptive and inferential statistics, and decision making. Emphasis is placed on measures of central tendency and dispersion, correlation, regression, discrete and continuous probability distributions, quality control, population parameter estimation, and hypothesis testing. Upon completion, students should be able to describe important characteristics of a set of data and draw inferences about a population from sample data. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics (Quantitative Option).

**MAT 171      Precalculus Algebra** (3 credits)

This is the first of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on equations and inequalities, functions (linear, polynomial, rational), systems of equations and inequalities, and parametric equations. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and predictions. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

**MAT 172      Precalculus Trigonometry** (3 credits)

Prerequisite: MAT 171

This is the second of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on properties and applications of transcendental functions and their graphs, right and oblique triangle trigonometry, conic sections, vectors, and polar coordinates. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

**MAT 271      Calculus I** (4 credits)

Prerequisite: MAT 172

This course covers in depth the differential calculus portion of a three-course calculus sequence. Topics include limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable, with applications. Upon completion, students should be able to apply differentiation and integration techniques to algebraic and transcendental functions. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

**TECHNOLOGY AND ADVANCED VOCATIONAL COURSES**  
**BUSINESS ADMINISTRATION Monday, Wednesday, and Friday 8:00-8:50 a.m.**

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Course work includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision making.

Through these skills, students will have a sound business education for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry.

**Fall Semester 2010**

BUS 110 Introduction to Business

**Spring Semester 2011**

MKT 120 Principles of Marketing

**Course Descriptions**

**BUS 110 Introduction to Business (3 credits)**

This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

**MKT 120 Principles of Marketing (3 credits)**

This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.

**COMPUTER INFORMATION TECHNOLOGY**  
**Monday through Friday 8:00-8:50 a.m.**

**Curriculum Description**

The Computer Information Technology curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible curriculum that can be customized to meet community information systems needs.

Course work will develop a student's ability to communicate complex technical issues related to computer hardware, software, and networks in a manner that computer users can understand. Classes cover computer operations and terminology, operating systems, database, networking, security, and technical support.

Graduates should qualify for employment in entry-level positions with businesses, educational systems, and governmental agencies which rely on computer systems to manage information. Graduates should be prepared to sit for industry-recognized certification exams.

**Fall Semester 2010**

NET 125 Networking Basics

**Spring Semester 2011**

CIS 115 Introduction to Programming & Logic

**Course Descriptions**

**CIS 115 Introduction to Programming & Logic (3 credits)**

This course introduces computer programming and problem solving in a structured program logic environment. Topics include language syntax, data types, program organization, problem solving methods, algorithm design, and

logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural science/mathematics (Quantitative Option).

**NET 125      Networking Basics (3 credits)**

This course introduces the networking field. Emphasis is placed on network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols.

<b>CRIMINAL JUSTICE</b> <b>Monday, Wednesday, and Friday 8:00-8:50 a.m.</b>
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The Criminal Justice Technology curriculum is designed to provide knowledge of criminal justice systems and operations. Study will focus on local, state, and federal law enforcement, judicial processes, corrections, and security services. The criminal justice system's role within society will be explored. Emphasis is on criminal justice systems, criminology, juvenile justice, criminal and constitutional law, investigative principles, ethics, and community relations. Additional study may include issues and concepts of government, counseling, communications, computers, and technology.

Employment opportunities exist in a variety of local, state, and federal law enforcement, corrections, and security fields. Examples include police officer, deputy sheriff, county detention officer, state trooper, intensive probation/parole surveillance officer, correctional officer, and loss prevention specialist.

**Fall Semester 2010**

CJC 111      Introduction to Criminal Justice

**Spring Semester 2011**

CJC 141      Corrections

**Course Descriptions**

**CJC 111      Introduction to Criminal Justice (3 credits)**

This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

**CJC 141      Corrections (3 credits)**

This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system.

<b>ELECTRICAL/ELECTRONICS/MACHINING/ INDUSTRIAL SYSTEMS TECHNOLOGIES</b> <b>Fall Semester 1:00-3:00 p.m., Monday through Thursday</b> <b>Spring Semester, 1:00-3:20 p.m., Monday and Wednesday and 1:00-3:50 p.m., Tuesday and Thursday</b>
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Note: Students completing these courses may enroll at RCC the following fall in Electrical/Electronics Technology, Machining Technology or Industrial Systems Technology. Therefore, all three curriculum descriptions are included.

<b>ELECTRICAL/ELECTRONICS TECHNOLOGY</b>
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The Electrical/Electronics Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial, and industrial facilities. Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices,

digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code (NEC), and other subjects as local needs require. Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice assisting in the layout, installation, and maintenance of electrical/electronic systems.

## MACHINING TECHNOLOGY

The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment, and sophisticated precision inspection instruments. Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations, and make decisions to insure that work is quality maintained. Employment opportunities for machining technicians exist in manufacturing industries, public institutions, governmental agencies, and in a wide range of specialty machining jobs.

## INDUSTRIAL SYSTEMS TECHNOLOGY

The Industrial Systems Technology curriculum is designed to prepare or upgrade individuals to safely service, maintain, repair, or install equipment. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial systems.

Students will learn multi-craft technical skills in blueprint reading, mechanical systems maintenance, electricity, hydraulics/pneumatics, welding, machining or fabrication, and includes various diagnostic and repair procedures. Practical application in these industrial systems will be emphasized and additional advanced course work may be offered.

Upon completion of this curriculum, graduates should be able to individually, or with a team, safely install, inspect, diagnose, repair, and maintain industrial process and support equipment. Students will also be encouraged to develop their skills as life-long learners.

### **Fall Semester 2010      Must select both courses.**

MAC 151      Machining Calculations  
\*MNT 131      Metalworking Processes

*\*\* Please note that the above changes are contingent upon approval of the RCC Curriculum Committee of changes proposed to the Industrial Systems Technology program and final approval from the North Carolina Community College System.*

### **Spring Semester 2011      Must select both courses.**

ELC 112      DC/AC Electricity  
ISC 112      Industrial Safety

### **Course Descriptions**

#### **MAC 151      Machining Calculations (2 credits)**

This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations.

#### **\*MNT 131      Metalworking Processes (3 credits)**

This course introduces the standard practices that are found in a metal workshop. Topics include the proper care/use of basic hand tools and precision measuring instruments and layout procedures/operation of lathes, drill presses, grinders, milling machines, and power saws. Upon completion, students should be able to work safely in the metal workshop and use basic metalworking equipment.

*\*\* Please note that the above changes are contingent upon approval of the RCC Curriculum Committee of changes proposed to the Industrial Systems Technology program and final approval from the North Carolina Community College System.*

#### **ELC 112      DC/AC Electricity (5 credits)**

Corequisites: MAT 060

This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, troubleshoot, and repair DC/AC circuits.

**ISC 112 Industrial Safety (2 credits)**

This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA and environmental regulations. Upon completion, students should be able to demonstrate knowledge of a safe workplace.

**WELDING TECHNOLOGY**
**Fall Semester: 1:00-3:00 p.m., Monday through Thursday**  
**Spring Semester: 12:40-2:55 p.m., Monday through Thursday**

The Industrial Systems Technology curriculum is designed to prepare or upgrade individuals to safely service, maintain, repair, or install equipment. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial systems.

Students will learn multi-craft technical skills in blueprint reading, mechanical systems maintenance, electricity, hydraulics/pneumatics, welding, machining or fabrication, and includes various diagnostic and repair procedures. Practical application in these industrial systems will be emphasized and additional advanced course work may be offered.

Upon completion of this curriculum, graduates should be able to individually, or with a team, safely install, inspect, diagnose, repair, and maintain industrial process and support equipment. Students will also be encouraged to develop their skills as life-long learners.

Completion of this certificate (students must also complete WLD 143) provides students with a sound understanding of the technology and applications essential for successful employment in the welding and metal industry. Students completing these courses learn to read and interpret symbols and specifications commonly used in welding; safely set up welding and oxy-fuel equipment, perform welding, brazing, and soldering processes, including SMAW fillet and groove welds on carbon steel plate, and inert gas welding in flat, horizontal, and overhead positions.

**Fall Semester 2010 Must select both courses.**

WLD 112 Basic Welding Processes  
 WLD 141 Symbols & Specifications

**Spring Semester 2011 Must select both courses.**

WLD 117 Industrial SMAW  
 WLD 212 Inert Gas Welding

**Course Descriptions**
**WLD 112 Basic Welding Processes (2 credits)**

This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.

**WLD 117 Industrial SMAW (3 credits)**

This course introduces the SMAW (stick) process for joining carbon steel components for industrial applications. Topics include padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, student should be able to safely perform SMAW fillet and groove welds on carbon steel plate with prescribed electrodes.

**WLD 141 Symbols & Specifications (3 credits)**

This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

**WLD 212 Inert Gas Welding (2 credits)**

This course introduces inert gas-shielded welding methods (MIG/TIG). Topics include correct selection of consumable and non-consumable electrodes, equipment setup, safety, and welding techniques. Upon completion, students should be able to perform inert gas welding in flat, horizontal, and overhead positions.



Qualified students in participating high schools can take a variety of online college-credit courses at no cost to them or their families. Students can earn high school and/or college credit for completed courses. Students are responsible for textbooks and other RCC fees.

**Participation Requirements**

- High school students in grade 9-12 can enroll.
- Students must meet community college requirements.
- Students must meet required course prerequisites.

**High School Credit**

- Students may receive both high school and college credit for completed courses.
- Approved standard courses will receive up to 4 quality points.
- Honors courses will receive up to 5 quality points.

**Learn and Earn Online Courses**

- A variety of online courses are offered at no cost to the student.
- Courses can be applied toward high school graduation and associate degrees.
- Courses are the same courses as those taught on campus and will change each semester.
- Access to courses is provided during the regular school day.
- Some of the courses offered fall 2010 and spring 2011 are listed below.

*Western Civilization I & II*  
*Business Law*  
*Developmental Psychology*  
*Introduction to Ethics*  
*General Psychology*  
*Introduction to Computers*

*Introduction to Sociology*  
*Literature-Based Research*  
*Macroeconomics*  
*Microeconomics*  
*Music Appreciation*  
*Prof Research & Reporting*

For a complete list of Learn and Earn online courses available, visit the RCC Website:  
<http://www.rockinghamcc.edu/pages/learnandearn.php>

**How to Get Started**

Discuss the program with your parents and then contact your school guidance counselor. They will provide you with specific information regarding your high school course requirements and how you can meet those requirements by completing Learn and Earn Online Courses.

**For more information, contact:**

Charlotte Meeks  
Coordinator Distance Learning/AT3  
Rockingham Community College  
Phone: 336-342-4261 ext. 2255  
Email: meeksc@rockinghamcc.edu

