



SOUTHERNVALE  
COMMUNITY COLLEGE

C a t a l o g 2012-2013

# WELCOME

## MESSAGE FROM THE PRESIDENT

Welcome to Isothermal Community College...a community focused on a common mission of improving lives through learning. Our focus on learning charts the course for our continued journey to be the benchmark for excellence in learning, innovation, service and economic development. Faculty, staff and students are challenged to demonstrate commitment to the "circle" of values that we embrace—Community, Innovation, Responsibility, Collaboration, Leadership, and Excellence. Our collaborative efforts communicate how we have created and continue to promote a climate that nurtures and supports each learner. We are delighted that you have decided to join us on our journey and challenge you during your time with us to excel in your quest for learning. We look forward to an exciting and mutually beneficial learning experience.

*Dr. Myra B. Johnson*



## ISOTHERMAL COMMUNITY COLLEGE BOARD OF TRUSTEES

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# GENERAL INFORMATION

## OFFICE OF THE PRESIDENT

President .....	Dr. Myra B. Johnson
Administrative Assistant to the President.....	DeeDee Barnard
Academic and Student Services and Institutional Assessment.....	Dr. Kimberly Goid, Vice President
Administrative Services.....	Stephen Matheny, Vice President
Community and Workforce Education and Institutional Advancement.....	Thad Harrill, Vice President
Marketing and Community Relations .....	Mike Gavin, Director

## ACADEMIC SERVICES

Academic Development .....	Debbie Puett, Director
Applied Sciences and Technology.....	Amber Thompson, Dean
Arts and Sciences .....	Dr. Kathy Ackerman, Dean
Business Sciences.....	Kim Alexander, Dean
Foothills Nursing Consortium.....	Dr. Jeanette Cheshire, Director
Licensed Practical Nurse Program .....	Dr. Debbie Wilshire, Director
High School Programs.....	Elizabeth Adams, College Liaison

## STUDENT SERVICES

.....	Dr. Karen Jones, Dean
Financial Aid .....	Jeff Boyle, Director
Powers Scholarship Program.....	Karen Harris, Coordinator
Enrollment Management/Admissions .....	Alice McCluney, Director
Registrar .....	Kelly Metcalf
Assistant Registrar/Outreach Specialist .....	Vanessa Capps
Student Activities.....	Ruth Colnot and Keith Rhodes, Coordinators

## LEARNING SUPPORT AND RETENTION

.....	Johnny Smith, Dean
Counseling Services .....	Kimberly Snyder, Counselor
Advising Center.....	Sara Newcomb, Coordinator
Disability and Career Services .....	Alfreda Lindsey, Counselor
Health Sciences Advising.....	Tina Porter, Advisor
Health Sciences .....	Susan Hendrick, Counselor
Testing .....	Angela Reid, Coordinator

## WORKFORCE AND COMMUNITY EDUCATION

Continuing Education .....	Dorina Hood, Dean
Basic Skills .....	Amy Cooke, Director
College & Career Readiness Transition Coordinator.....	George Pebbles, Coordinator
Emergency Services .....	Michael Crater, Coordinator
Nursing Assistant and Allied Health.....	Betsy Carhenson, Coordinator
Polk Center.....	Kate Barkschat, Director
Customized Training .....	Mike Saunders, Director
Small Business Center.....	Faye Bishop, Director
Performing Arts and Conference Center .....	Russell Wicker, Director
Grant Development and Fundraising.....	Jill Francisco, Coordinator

## ADMINISTRATIVE AND SUPPORT SERVICES

Assessment, Planning and Research .....	<i>vacant</i> , Institutional Assessment Analyst
Plant Operations & Maintenance.....	Rick Edwards, Director
Human Resources.....	Cindy Moore, Director
Business Office.....	Amy Penson, Controller
Campus Print Shop.....	Susan Straw, Manager
Information Technology .....	Robby Walters, Director
WNCW-FM Public Radio Station .....	Terri Frasier and David Ester, General Managers
Campus Enforcement .....	Officer Andy Millard and Officer Robert Owens
Library Services.....	Charles Wiggins, Director

For complete college directory, visit [www.isothermal.edu](http://www.isothermal.edu)

# ACADEMIC CALENDAR 2012-2013

## Fall Semester 2012 (80 Days)

August 13	Monday	Convocation - All Faculty & Staff
August 14	Tuesday	Professional Development
August 15-16	Wednesday-Thursday	Last Chance Registration-Fall Semester
August 17	Friday	First Day of Classes, Schedule Adjustments
August 20	Monday	Schedule Adjustments
August 28	Tuesday	Last Day for Official Drop with 75% Refund
September 3	Monday	Labor Day Holiday
October 12	Friday	Fall Break - Faculty, Students
October 17	Wednesday	Grab Day
October 30	Tuesday	Academic Advising Day (No Classes)
November 15	Thursday	Last day to drop with "W"
November 21-23	Wednesday, Thursday, Friday	Thanksgiving Break College Closed
December 14	Friday	Last Day of Classes
December 17	Monday	Faculty Checkout/Grade Rolls
December 21-Jan. 1		Winter Break College Closed

## Spring Semester 2013 (80 Days)

January 2	Wednesday	Faculty & Staff Work Day
January 3-4	Thursday – Friday	Last chance Registration–Spring Semester
January 7, 8	Monday, Tuesday	First Day of Classes, Schedule Adjustments
January 16	Wednesday	Last Day for Official Drop with 75% Refund
January 21	Monday	Martin Luther King Holiday
February 6	Wednesday	Professional Development (No Classes)
March 19	Tuesday	Academic Advising Day (No Classes)
March 29–April 1	Friday & Monday	Spring Holidays Staff, Faculty, Students
April 2-5	Tuesday-Friday	Spring Break - Faculty, Students (4 days)
April 11	Thursday	Last day to drop with "W"
April 18	Thursday	Sport's Day
May 9	Thursday	Last Day of Classes
May 10	Friday	Faculty Checkout/Grade Rolls
May 13	Monday	Faculty-Student Break/RJ:ACH Graduation
May 14	Tuesday	Graduation (Curriculum)
May 15	Wednesday	Graduation (Adult High School & GED)

## Summer Semester 2013

May 15	Wednesday	Registration - Summer Semester
May 16	Thursday	First Day of Classes, Schedule Adjustments
May 22	Wednesday	Last Day for Official Drop with 75% Refund
May 27	Monday	Memorial Day Holiday
July 4	Thursday	Independence Day Holiday
July 11	Thursday	Last day to drop with "W"
July 24	Wednesday	Last Day of Classes
July 25	Thursday	Faculty Checkout/Grade Rolls
July 26-August 9	Friday-Friday	Semester Break-Faculty, Students

# INTRODUCTION

## HISTORICAL SKETCH

Founded in 1964, Isothermal Community College serves Rutherford and Polk counties in the beautiful foothills of western North Carolina. Isothermal, named for the region's steady climate, is a comprehensive, two-year public institution and is a part of the North Carolina Community College System. Isothermal's mission is to "improve life through learning."

The main campus is on 163 acres in Spindale. The Polk campus is in Columbus. The Spindale campus, perched on the shore of an 11-acre lake, is home to The Foundation Performing Arts and Conference Center, the area's premier venue for the arts and other special events. The college also owns and operates WNCN 88.7, an award-winning public radio station that can be heard in parts of five different states: North Carolina, South Carolina, Virginia, Tennessee and Georgia.

In May 2007, the college's Board of Trustees appointed Dr. Myra Johnson as the institution's president. Johnson, formerly Isothermal's vice president of Academic and Student Affairs, replaced Dr. Willard L. Lewis, III, who retired from the post at the end of June after 21 years at the college. Johnson had previously served 23 years at Isothermal.

In January 2008, the doors were opened on the new Willard L. Lewis III Learning Center. The two-story building of approximately 24,000 square feet houses classrooms, office space, high-tech distance learning facilities and the Rutherford Early College High School. The center will ultimately host many of the collaborative efforts for higher learning Isothermal has with Western Carolina, Gardner-Webb and Appalachian State universities.

Interest in a community college for Rutherford and Polk counties began even before a statewide community college system was established. In 1963, the General Assembly passed Chapter 115A, General Statutes of North Carolina, establishing the Department of Community Colleges, and shortly thereafter the Rutherford County Commissioners appointed a committee to study and promote plans for a community college in the county. The preliminary report, submitted in March 1964, recommended that the proposed college serve Rutherford and Polk counties, that a site south of Spindale be chosen, and that the college be financed by a bond issue and a special tax levy. On Sept. 5, 1964, Rutherford County citizens voted by a margin of more than 16 to 1 in favor of a \$500,000 bond issue for construction of the college, to be matched by state funds, and a property tax increase to pay the county's portion of the operating costs. The college was chartered on Oct. 1, 1964, by the State Board of Education. The first meeting of the Board of Trustees was held on Nov. 17, and on Nov. 23 the Board approved the name "Isothermal Community College." Fred J. Eason was chosen by the Board as the College's first president on Dec. 22. On July 1, 1965, the Industrial Education Center, which had been operating since 1962 as an extension of Gaston Technical Institute, became the vocational and technical division of Isothermal Community College. The College thus began operation with 66 students, some of whom received the first diplomas issued by Isothermal in exercises that August. August 1965 also marked the culmination of a fundraising drive by Rutherford and Polk citizens and businesses for the purchase of land for the Spindale campus.

Until the new campus was ready, the vocational-technical, college transfer (began in Sept. 1966) and adult education divisions were scattered in a number of temporary locations in Avondale, Spindale and Caroleen. College transfer and vocational-technical education each had about 100 students. The adult education program was hosted by the creation of the High School Diploma program in May 1967. That same year, Isothermal's Polk County program began with continuing education courses in Tryon. The first three buildings on the Spindale campus (Administration, Library and Continuing Education) opened on April 8, 1968, and the College's first full-fledged graduation exercises were held on Aug. 30. The lake and initial landscaping of the campus were completed by April 27, 1969, when the College's charter was presented. By that time, 554 full-time students were enrolled. On Jan. 11, 1970, the College was accredited by the Southern Association of Colleges and Schools.

Expansion continued with the opening of a new Occupational Education Building in 1972. A satellite program for Polk County was approved in September 1974, and in November 1974 Rutherford County voters passed a \$1.8 million bond issue for additional construction on the Spindale campus. This enabled construction of a new vocational building with electronics facilities which opened in September 1978, and the student center/physical education building which opened in the spring of 1979. Both buildings were dedicated on October 21, 1979. President Eason retired effective June 30, 1978, and the Board of Trustees selected Dr. Ben E. Fountain, Jr. as his successor. Dr. Dillard I. Morrow served as acting president until Dr. Fountain could assume his duties in September.

With help from local business and industry, the Individualized Instruction Center opened in the fall of 1979, and the marble marker at the entrance to the campus was completed in November 1979. Generous support was also evident in the creation of the Robert W. Eaves Outstanding Teacher Award, established in 1982 by the widow of the noted Rutherford County educator. The Polk County Campus also progressed, with the initiation of an independent study program and college transfer courses in 1976, and attainment of classroom space in the old Jervey-Palmer Building in Tryon. A permanent site for the campus became available in October 1982 when the Polk County Commissioners granted the college 10 1/2 acres near St. Luke's Hospital. This new site was dedicated on July 25, 1983. Construction of the new facility was completed in the fall of 1989.

Dr. Willard L. Lewis, III was appointed President on June 9, 1986 following the retirement of Dr. Fountain (1985) and the interim service of Dr. G. Herman Porter. Under the leadership of Dr. Lewis, further expansion of the Spindale campus included the completion of the High Tech Center (1988) which housed drafting, broadcasting, advertising/graphic design and electronics engineering. A second major building program resulted in The Foundation Performing Arts and Conference Center. This 61,216 square-foot facility opened in November of 1999 with a performance by the North Carolina Symphony Orchestra.

Beginning in the 1990's and continuing to date, in conjunction with a reexamination of mission and philosophy, the college has pursued a transformation in culture from the teaching paradigm to the learning paradigm. In seeking ways to improve learning, the college dedicates resources in support of cooperative learning in the classroom as part of an ongoing commitment to the development of a learning-centered environment.

# COLLEGE MISSION, VALUES, AND VISION

## OUR MISSION

Isothermal Community College exists to improve life through learning.

## OUR VALUES

In improving life through learning, we recognize and accept our pivotal leadership role by valuing:

- a shared commitment to the well-being and enrichment of individuals
- lifelong opportunities for personal and professional growth
- responsibility as a catalyst for positive economic development, innovation, community growth, creativity, and the arts
- a climate of integrity, accountability, and respect for individuals
- a culture of collaboration and communication
- achievement realized through perseverance, critical thinking, and personal responsibility for learning
- diversity and the exchange of ideas
- excellence in programs and services
- assessment and the spirit of reflection
- the elimination of barriers to learning
- the learning college culture

## OUR VISION STATEMENT

To be the benchmark for excellence in learning, innovation, service, and economic development.

## OUR VIVID DESCRIPTION

- Preparing learners for future success in a career, further education, and personal enrichment
- Providing cutting edge learning and technology
- Providing choices in support services and delivery methods
- Supporting professional development opportunities
- Involving the learner in his or her own learning process(es)
- Encouraging and modeling the effective and sustainable utilization of resources
- Working collaboratively with public education and the community in meeting local educational goals
- Establishing partnerships to advance excellence in learning
- Maintaining a reputation of excellence that ensures the prestige of our graduates
- Encouraging an entrepreneurial spirit across all levels of the college

Isothermal Community College, a member of the North Carolina Community College System, is a comprehensive, two-year, public institution that serves the individuals in Rutherford and Polk Counties. The College offers individual courses and certificate, diploma, and degree programs that enable students to transfer to four-year institutions or to acquire skills for new or continued employment, as well as to function effectively as citizens in our society. In addition, the College provides training for area business and industry, personal enrichment courses, remedial and developmental courses, and community service activities.

Isothermal Community College shall be open to all eligible individuals who can benefit regardless of age, gender, socioeconomic status, ethnic origin, race, veteran status, religion, or disabilities. The essence of the College's efforts shall be to contribute, in cooperation with other local educational systems and institutions, to a higher quality of life in the community it serves.

## ACCREDITATION

Isothermal Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees.

Inquiries relating to the accreditation status of the College may be made to Commission on Colleges, Southern Association of Colleges and Schools, 1866 Southern Lane, Decatur, Georgia 30033-4097. Telephone number 404-679-4501.

## THE ISOTHERMAL DISTINCTION

Students who complete programs at Isothermal Community College are expected to be able to function effectively as contributing citizens of our society. Our programs, regardless of their content areas, are designed to enable graduates to achieve the following general competencies:

- *Communicate effectively through writing, reading, speaking, listening, and through demonstration of information literacy*
- *Analyze problems and make logical conclusions*
- *Demonstrate positive interpersonal skills through cooperative learning and group interaction*
- *Demonstrate quantitative competencies*
- *Demonstrate basic computer skills*
- *Understand global awareness*
- *Perform technical skills in their chosen occupations*

Achieving these competencies requires a two-fold commitment involving the satisfaction of certain expectations on the part of both Isothermal and its students.

## WHAT STUDENTS CAN EXPECT OF ISOTHERMAL

In their commitment to learning and to the achievement of a true learning-centered community, Isothermal personnel will:

- *Meet student needs by demonstrating professional, friendly, and courteous service in all aspects of student life*
- *Maintain high professional and academic standards*
- *Serve as role models in the development of leadership skills*
- *Respect diversity and treat all students fairly*
- *Be available to students and helpful with student problems*
- *Communicate clear learning objectives and expected outcomes*
- *Provide timely feedback in the assessment of learning outcomes*
- *Stay current in subject matter*
- *Practice effective teaching/learning strategies that promote critical thinking*

## WHAT ISOTHERMAL EXPECTS OF STUDENTS

In their commitment to learning, students will:

- *Accept responsibility for learning*
- *Attend and participate in all classes*
- *Complete required exercises and assignments as directed*
- *Develop a time management plan that includes adequate time for study*
- *Maintain an open-minded attitude toward learning*
- *Strive to become independent critical thinkers*
- *Seek help as needed from appropriate sources*
- *Be respectful and considerate of others*
- *Assume responsibility for knowing and adhering to all college policies*
- *Acknowledge that learning how to learn is the ultimate objective of education*
- *Recognize that struggle and discomfort often precede the rewards that accompany goal completion and success*

With this commitment on the part of all concerned, an exciting partnership will grow and thrive, thus creating a community of learners whose mission is *to improve life through learning*.

## NCCCS PERFORMANCE MEASURES FOR ISOTHERMAL COMMUNITY COLLEGE

Over the past three decades, the North Carolina Community College System has utilized numerous processes to ensure public accountability for state monies spent. These processes have included fiscal audits, program audits, institutional effectiveness plans, and program review.

Since the 1999-2000 fiscal year, a system of accountability based on 12 performance measures had been the cornerstone of public accountability. In the 2007 Session, the General Assembly approved modification to the North Carolina Performance Measures and Standards as adopted by the State Board of Community Colleges, and as a result, the number of performance measures was reduced to 8, and performance finding will be based on all 8 measures. Isothermal Community College is committed to using this system to continuously monitor, evaluate, and improve the quality of programs offered.

**Creating Success**  
NC Community Colleges

10000 University Blvd., Charlotte, NC 28226



In 2010, Isothermal met 7 of the 8 performance measures as shown on the following chart.

Performance Measure	State Performance Standard	Isothermal CSF Data	Standard Met
Progress of Basic Skills Students	75%	86%	Yes
Passing Rates on Licensure/Certification Exams for First-time Test Takers (aggregate rate)	80%	79%	No
Performance of College Transfer Students	83%	89%	Yes
Passing Rates in Developmental Courses	75%	86%	Yes
Success Rate of Developmental Students in Subsequent College-level Courses	80%	90%	Yes
Student Satisfaction of Completers and Non-completers	90%	99%	Yes
Curriculum Student Retention, Transfer and Graduation	65%	71%	Yes
Client satisfaction with Customized Training	90%	96%	Yes

Data Source: 2011 NCCCS Critical Success Factors Report

## OFFICE HOURS

The administrative offices of the College are normally open Monday through Friday from 8:00 a.m. to 4:30 p.m. Hours may vary during summer or breaks.

## GENERAL CLASS HOURS

In order to provide educational opportunities to the majority of the residents of Rutherford, Polk and contiguous counties, most academic programs are offered during both day and evening hours. Day classes are normally scheduled from 8:00 a.m. through 4:45 p.m. Monday through Friday. Evening classes usually are scheduled from 5:00 p.m. through 10:15 p.m. Monday through Thursday evenings. A limited number of special classes are offered on Friday evening and on Saturday.

## VISITS TO THE CAMPUS

Visitors are always welcome. An information desk is maintained on the main floor of the administration building Monday through Friday. The receptionist will contact the Admissions/Outreach office to provide general information. The College also offers Successful Entry and Transition (SET) Sessions to provide prospective students with information about the College, how to apply for admission and financial aid, how to complete other admission steps, and get registered for classes. The schedule of these sessions can be found at [www.isothermal.edu/admissions](http://www.isothermal.edu/admissions). If you would like to schedule a tour of the campus for yourself or a group, please contact the Outreach Coordinator at 828-395-4201 or 828-395-1442.

## NONDISCRIMINATION STATEMENT

Isothermal Community College provides educational and employment opportunities without regard to veteran status, race, color, religion, age, gender, national origin, or disability. Isothermal Community College is committed to this policy. Isothermal Community College supports the protection available to members of its community under all applicable Federal Laws including Title VI and Title VII of the Civil Rights Act of 1964, Equal Pay Act of 1963, Title IX of the 1972 Education Amendments, Executive Order 11246 as amended by 11375, Title VI (section 799A) and Title VIII (section 8451) of the Public Health Service Act, Age Discrimination Act, Americans With Disabilities Act of 1990, and the Rehabilitation Act of 1973.

Any member of the Isothermal Community College Community believing they have been discriminated against or desiring more information concerning these provisions and/or grievance procedures should contact:

Stephen Matheny, Vice President of Administrative Services  
 Isothermal Community College  
 P.O. Box 804  
 Spindale, NC 28160-0804  
 (828) 395-1293

# FACILITIES

## ADMINISTRATION BUILDING

Academic Development, Arts and Sciences Faculty; Institutional Assessment, Research, & Planning; Business Office; Computer Lab; Human Resources; Presidential Office Suite; Public Information Office; Webmaster

## APPLIED SCIENCES & TECHNOLOGY BUILDING

BIET; Computer Engineering Technology; Criminal Justice; Early Childhood; Electronics Technology; Foothills Nursing Consortium; Practical Nursing

## BUSINESS SCIENCES BUILDING

Business Administration, Banking and Finance; Marketing and Retailing, Computer Programming; Computer Information Technology; Entrepreneurship, Healthcare Business Informatics; Healthcare Management Technology; Information Systems Security; Medical Office Administration, Networking Technology, Office Administration; Web Technologies; Accounting Lab; Computer Lab

## BOOKSTORE

The College operates a bookstore where the student may purchase needed books and supplies with profits being used for college projects and services. The normal operating hours are 9:00 a.m. to 3:30 p.m. Tuesday 9:00 a.m. to 6:00 p.m. and Friday 9:00 a.m. to 1:00 p.m. The bookstore also operates extended hours during Last Chance Registration and the first and second week of classes.

## COMMUNICATIONS BUILDING

Advertising & Graphic Design; Campus Print Shop; Customized Training & Development Room; Electrical Technology; Broadcasting & Production Technology; WLOS; WNCW

## THE FOUNDATION - PERFORMING ARTS AND CONFERENCE CENTER

Located on the second and third floors of The Foundation Building, the Foundation Performing Arts and Conference Center plays host to an array of events, from concerts to wedding receptions. Cultural events include a variety of performance disciplines including dance, theatre, popular and classical music, family friendly variety shows, plays produced specifically for young audiences, as well as lectures and seminars. Programming is presented by the college and by community and regional based promoters. A listing of public events can be viewed on the facility web site [www.FoundationShows.org](http://www.FoundationShows.org). The facility box office (828-286-9990) is located at the second floor entrance just off the North parking lot. The conference space is used for a variety of events including proms, weddings, sales, seminars, trade shows, and reunions, as well as smaller meetings and retreats. Some special student ticket pricing is available for select events. Ground Floor: Basic Skills/Adult High School/GED; Customized Training & Development; Continuing Education; Defensive Driving, Sage Truck Driving; Small Business Center; Visitor Information. Second & Third Floor: Box Office; Performing Arts & Conference Center Seminar Rooms A & B; Stage.

## INFORMATION TECHNOLOGY BUILDING

IT Department; Mechanical Drafting Technology

## LIBRARY ([www.isoethermaledu/library](http://www.isoethermaledu/library))

The college library provides resources, services, and facilities to enhance and promote the learning process and to complement the resources of other libraries in the region. The library houses materials in print and a variety of non-print formats in the general collections and supports a local history collection, plus special collections in the Small Business Center and in Learning Support and Retention Services. The library also maintains a reserved collection of professional development resources in support of the Learning College environment. Internet access is available using the public computers in the lobby or through the College's wireless networks. Library services for Polk County Center students are provided through formal agreement with Polk County Public Library.

Through the library website, students may access a growing number of eBooks, periodical articles, reports, statistics, primary source documents, and movies provided through NC LIVE and other research databases. The website also provides links to reviewed general and course-specific Internet sites, helpful information such as research tips, examples of documentation styles, and access to more detailed information on library services for students, employees, and the community.

Library staff provide circulation, interlibrary loan, and reference and referral services, acquire and maintain print and electronic resources, offer individual and group instruction, and support a variety of equipment and software applications including assistive software products. The college library is open to the community and is part of the CMC Library Consortium, a cooperative of academic, public and municipal libraries within Rutherford and Polk counties. The CMC Library Consortium maintains a web-based catalog, available at [www.emclibraries.org](http://www.emclibraries.org).

College Library hours: 7:45 am – 9:00 pm Monday – Thursday, 7:45 am – 4:15 pm Friday  
Holiday, Summer, and Semester Break Hours are Posted

## **LIFELONG LEARNING CENTER**

Arts & Sciences Faculty; K&CH

## **MACHINING TECHNOLOGY BUILDING**

Manufacturing Technology; Mechanical Engineering Technology

## **MAINTENANCE BUILDING**

College Vehicle Reserve; Shipping & Receiving

## **POLK COUNTY CENTER**

The Polk County Center offers a limited number of credit courses. Students may choose to complete specialized course work at the Spindale campus or prepare for transfer to a four-year institution.

A wide variety of non-credit courses (continuing education) ranges from self-enrichment classes to those which offer training to volunteer firemen, rescue personnel, and allied health. Courses to improve occupational skills are offered as well. Adult Basic Education, Adult High School, and General Educational Development (GED) programs are available. English as a Second Language (ESL) classes are offered for persons whose native language is not English. Bulletins listing credit and non-credit courses are mailed out quarterly. News releases describing various courses and special events are placed in local newspapers. Polk Campus Preview appears weekly in the Tryon Daily Bulletin.

Library services for Polk County Center students are provided through formal agreement with Polk County Public Library.

The Polk County Center is fortunate to have dedicated volunteers actively participating in the Polk County Isothermal Community College Foundation, Inc. The Foundation has a significant role in fundraising, provides scholarship aid, and promotes Isothermal Community College in the community.

Regular hours at the Polk County Center are Monday through Thursday, 8:00 a.m. to 9:00 p.m., Friday from 8:00 a.m. to 4:00 p.m., and other prearranged times including weekends. Additional information may be obtained by visiting the campus or calling 828-894-3092.

Polk County Center - Isothermal Community College, 1255 West Mills Street, Columbus, NC 28722

### **CURRICULUM CLASSES**

A limited number of classes are offered for college credit through the Polk County Center.

### **CONTINUING EDUCATION**

The Continuing Education Division provides educational non-credit opportunities for adults who desire to learn occupational skills, to upgrade their capabilities for professional success, or to enrich their personal lives. In order to accommodate a variety of student needs and interests, Continuing Education classes include computer training, Emergency Medical Technician (EMT), Firefighter Certification, preparation for state certification in Nurse Aide I & II and Medication Aide, and national certification in Phlebotomy, Clinical Medical Assistant and Patient Care Technician, as well as a wide range of special interest classes like creative arts, health and fitness, history and current events, and literature.

### **ADULT HIGH SCHOOL DIPLOMA**

The Adult High School Diploma Program is offered online. For information contact Amy Cooke at 828-286-3636 ext. 218.

### **GENERAL EDUCATIONAL DEVELOPMENT PROGRAM (GED)**

The GED is a high school completion program. The GED test is offered on the Spindale Campus. Students may enroll at the Polk Center to study and complete their practice tests. There is a charge of \$25.00 for the GED test.

### **ENGLISH AS A SECOND LANGUAGE (ESL)**

The Polk County Center has instruction four days and two evenings a week for those whose native language is not English. Instructors work with students in a lab-type setting which allows each student to proceed at his/her own pace. Specially trained volunteers help students to work with computer programs designed for ESL students. In addition, students learn basic computer skills. The college has had generous cooperation from Polk County Literacy Council and grants from the Polk County Community Foundation in setting up this program.

## THE RUTHERFORDTON LEARNING CENTER

Compensatory Education  
LMT  
ESL  
Lifelong Learning classes  
Nurse Aide  
Truck Driver Training

## STUDENT CENTER

Admissions Office; Advising Center; Arts & Sciences Dean; ASSET/COMPASS Placement Testing; Campus Bookstore; Campus Resource Office; classrooms; OBH - Café; Cosmetology; Employee Fitness Center; Financial Aid Office; Gym & Pool; Learning Support and Retention Services; Physical Education; Student Activities; Student Services; Visitor Information

## WHITE HOUSE

Construction Trades

# ADMISSIONS

[www.isothermal.edu/admissions](http://www.isothermal.edu/admissions)

### ADMISSION REQUIREMENTS AND PROCEDURES

Isothermal Community College operates an "Open Door" admissions policy. Most programs require an approved high school diploma or its equivalent. To inquire about which programs do not require a high school diploma or its equivalent, please call Admissions, 828-395-1442.

High School Diplomas or equivalents must meet one of the following criteria to be accepted for admission into programs requiring a high school diploma:

- High School Diploma from a regionally accredited public or private high school
- High School Diploma from a private or home school that is registered with the appropriate education agency such as the North Carolina Department of Non-public Instruction
- GED or Adult High Diploma from a regionally accredited program
- High School Diploma from a correspondence school that is regionally accredited, accredited by the Distance Education and Training Council (DETC), or part of a regionally accredited college or university

The following are specific requirements for degree, diploma, and certificate programs:

1. Complete an application for admission. (online at [www.isothermal.edu](http://www.isothermal.edu))
2. Submit official high school or GED transcript. (official= sealed from issuing institution)
3. Submit official transcript(s) from all colleges and/or universities attended. (official = sealed from issuing institution)
4. Complete the ASSET or COMPASS placement test. Placement test scores should be no more than three years old. See below for waivers.

Applicants who have completed college level courses in English, reading, and mathematics at a regionally accredited institution with a grade of "C" or better may be exempt from the test upon evaluation by the Registrar's Office.

Also, placement testing may be waived with SAT scores of 500 or higher in math, 500 or higher in critical reading, and 500 or higher in Writing. ACT scores must be 18 or higher in English, 22 or higher in math, and 21 or higher in reading. SAT and ACT scores should be no more than five years old. SAT and ACT scores may waive developmental course. However, placement testing is required for placement into higher level college courses, e.g. MAT 162.

\* **Please note:** Licensed Practical Nursing, Associate Degree in Nursing, and Surgical Technology programs have additional admissions requirements. Specific information regarding these requirements and deadlines can be obtained in the Learning Support and Retention Services or on the webpage, [www.isothermal.edu/career/Health\\_Sciences\\_Advising.htm](http://www.isothermal.edu/career/Health_Sciences_Advising.htm).

\* **Please note:** Basic Law Enforcement Training also has additional admissions requirements.

**Veterans and Veterans' Dependents** receiving veterans' educational benefits must provide official transcripts (high school and college) of all education before certifications can be processed.

Students applying for financial aid must provide all transcripts (high school and college) as required by Admissions.

## INTERNATIONAL STUDENT ENROLLMENT

### GENERAL ADMISSION REQUIREMENTS – FOR ALL INTERNATIONAL STUDENTS

All international students must meet the general admission requirements for their program of study. In addition to general admission requirements, different categories of international students must submit different types of additional documents.

### INTERNATIONAL CATEGORIES AND ADDITIONAL ADMISSION REQUIREMENTS

There are a variety of ways in which international students may apply to Isothermal Community College. Please determine which category below applies to you and then follow the steps noted there.

#### F1 STUDENT VISA

For students who reside permanently in another country but wish to come to the USA for the sole purpose of attending college full time, tuition rates will be out-of-state. In addition to the general admission requirements noted above, you must also submit:

- Notarized Affidavit of Support (I-134) (can be found on the <http://uscis.gov/graphics/index.htm> website, under Immigration Forms) and a notarized bank statement showing current U.S. funds available to cover tuition and living costs all years of study applied for. Approximate costs per semester = \$5,700. (\$3,200 for tuition, \$500 for books-supplies, and \$2,000 for living costs) (subject to change depending on tuition rates each fall).
- "Official" TOEFL scores (500 or above for the paper test, or 173 or above for the computerized test, or 61 or above for the internet test) OR SAT Scores (500 or higher for critical reading, writing and math). If you are from a country whose first language is English, this requirement may be waived upon evaluation.
- Copy of current passport and copy of I-94 (upon arrival to USA)
- High school transcripts must be translated into English, evaluated by an international organization, and sent in a sealed envelope to Isothermal Community College's Admissions Department. Students are responsible for expenses related to transcript translation and evaluation.

Once all the above admissions information is in our possession and you have been evaluated as an eligible candidate to attend Isothermal Community College, the Director of Enrollment Management will generate an I-20 form for you to use in your application for an F1 Student Visa. If you wish to take ESL classes before you enroll in any of our degree, diploma, or certificate programs, you can contact ESL at 828-395-1476. ESL classes are offered through our Continuing Education Department and are therefore considered separate from degree, diploma, or certificate programs. None of the steps noted above are required for taking classes in our Continuing Education Department.

#### PERMANENT RESIDENT

For students who either have an active application for residency to the USA on file with the Department of Homeland Security (DHS), or those who have received their green card, tuition may be either in or out-of-state, depending on the student's circumstance and ability to prove eligibility. In addition to the general admission requirements noted above, you may be asked to submit:

- Copy of the permanent resident card sent to you from DHS
- Completed North Carolina residency application (please contact Admissions at 828-395-1442 to have one sent to you) if you are not a North Carolina resident
- Further documents to prove that you have been a resident of North Carolina for 12 months or more and have been actively supporting the state's tax system. These documents vary from one person to another. To determine which documents can assist with proper evaluation of your circumstance, contact the Director of Enrollment Management at 828-395-1495.
- Please note that these two items will not prevent you from being admitted to college, but can assist in evaluating your eligibility for in-state tuition rates.

#### UNDOCUMENTED IMMIGRANT

Undocumented Immigrants may be admitted to Isothermal Community College under the following circumstances:

1. The student must have graduated from a United States public high school, private high school, or home school as recognized by the state which the school was located. This includes Adult High School diplomas but does not include General Educational Development (GED) diplomas.
2. The student must pay tuition at the out of state rate.
3. The student may only register for classes after the last published date of registration on a space available basis.
4. The student may not be allowed to enroll in certain programs of study that require a state license upon graduation. Programs of this type at Isothermal Community College include (but are not limited to):
  - a. LPN
  - b. RN
  - c. Surgical Technology
  - d. Cosmetology
  - e. Basic Law Enforcement Training

#### OTHER

If you feel you are qualified to attend college for a reason not outlined above, please contact the Director of Enrollment Management at 828-395-1495 to discuss your situation and receive some advice about circumstances and application to Isothermal Community College.

## **WHAT DOES "OFFICIAL" MEAN?**

Official documentation refers to transcripts and other documents that are sent directly to the Admissions Office at Isothermal Community College in a sealed envelope from the issuing institution. Please have all documentation mailed to:  
The Admissions Office  
Isothermal Community College  
PO Box 804  
Spindale, NC 28160

If you have any further questions about international admission to Isothermal Community College, please contact the Director of Enrollment Management at 828-395-1495.

## **TRANSFER ADMISSION REQUIREMENTS**

Transfer applicants must also meet the general admission requirements outlined previously. Each applicant requesting transfer of credits from another institution will be considered on an individual basis (see Transfer of Credit under Academic Procedures and Policies). All transfer students will enter the College in good academic standing. Once enrolled academic standing will be determined by grades on course work completed solely at Isothermal.

## **TRANSIENT STUDENTS**

Transient students who are enrolling at Isothermal Community College should follow procedures below for Special Credit students.

## **SPECIAL CREDIT**

A special credit student is defined as one who is enrolled in curriculum credit courses but who is not working toward a degree, diploma or certificate. Students may enroll in the college as special credit students by submitting an application for admission. Special Credit students enrolling in courses requiring the minimum proficiency in English, reading or math must provide one of the following: 1. An official sealed college transcript showing the appropriate prerequisite courses have been completed with at least a grade of "C" or 2. Satisfactory ASSET, accuplacer, or COMPASS placement test scores no more than three years old. When 15 credit hours have been accumulated, the Admissions Office reserves the right to counsel students to declare a major and submit proof of high school graduation or GED completion. Special credit students will be asked to submit proof of high school graduation or equivalent and meet placement criteria (if they have not already done so) if they desire to be reclassified as curriculum students with intent to pursue and earn a degree, diploma, or certificate.

## **READMISSION AFTER SUSPENSION**

Any student having been suspended for disciplinary reasons from the College must submit a request for readmission to the Dean of Student Services.

## **RUTHERFORD EARLY COLLEGE HIGH SCHOOL (REACH)**

REACH is an innovative high school on the campus of Isothermal. Students enroll at REACH at the beginning of their ninth grade year and continue through their twelfth grade year. While enrolled at REACH, students take a combination of high school and college courses and may graduate with both their high school diploma and their associate's degree.

## **CAREER & COLLEGE PROMISE FOR HIGH SCHOOL STUDENTS**

### **PURPOSE**

The purpose of Career & College Promise is to provide flexible, seamless, student-centered educational opportunities for North Carolina high school students, which maximize the use of resources and educational opportunities not otherwise accessible.

### **DEFINITION**

Career & College Promise occurs when qualified high school students are permitted to enroll in curriculum or continuing education courses. Students must be in 11th or 12th grade, meet admissions requirements for desired pathway, and have approval from their high school principal before being enrolled in college classes.

### **CONTACT**

For more information about the admissions process for Career & College Promise, please contact the Rutherford Liaison at 828-395-1996, the Polk Liaison at 828-394-4092 or Admissions at 828-395-1442.

## **ACADEMIC DEVELOPMENT PLACEMENT POLICY**

Degree seeking students entering Isothermal Community College in the Arts and Sciences, Business Sciences, and Applied Sciences and Technology programs must complete one or more Academic Development courses in the areas of English, reading, or mathematics as a result of any one of the following conditions:

1. A scaled score within the range established by the State of North Carolina on any of the appropriate placement tests.
2. Referral by a faculty member to Academic Development courses when a student's work in curriculum courses demonstrates academic skill deficiencies in one or more of the areas of English, reading, or mathematics.

Minimum cut-off scores have been established by the State of North Carolina. Students scoring below a minimum score in any one of the three areas may meet with the Learning Support and Retention Services counselor to discuss their options.

Students are encouraged to enroll in required Academic Development courses during the first semester of their enrollment because of reading and writing prerequisites for college level courses.

Transfer students who have completed college level or developmental courses in English, reading, or mathematics with a grade of "C" or better will be exempted from placement testing in the area(s) they have completed.

Students must achieve a grade of "C" or better in required Academic Development courses to advance into college curriculum courses. Academic Development students failing to make academic progress may be dismissed from the program after failing the same course twice. Student appeals regarding this action may be directed to the Committee on Admissions, Academic Continuation, and Records. Appeals will be reviewed based on the determination of the student's ability to benefit from continued study. Upon completion of the required Academic Development courses, students may enroll in the regular sequence of English and mathematics courses. Because credits for Academic Development courses are used as institutional credits only, they cannot be counted toward graduation. Academic Development course credits determine course load for payment, eligibility for financial aid, and/or classification of a full-time student. Any exceptions to the overall policy must be approved by the Director of Academic Development.

## **TUITION AND FEES**

Isolateral Community College receives financial support from local, state, and federal sources, allowing each student an educational opportunity at a minimum cost. Tuition is set by the State Board of Community Colleges and is subject to change without notice. Cost of textbooks and supplies are additional expenses which vary according to the program of study.

### **STUDENT ACTIVITY FEE**

Curriculum students are charged a student activity fee. The proceeds from this fee are budgeted in a manner that benefits students.

### **STUDENT IDENTIFICATION CARDS**

Student Identification Cards are issued to students who pay the student activity fee. Students who lose the Student Identification card will be charged a replacement fee.

### **RESIDENCE STATUS FOR TUITION PAYMENT**

North Carolina G.S. 116-143.1 requires that to qualify for in-state tuition, a student must be a legal resident. As well, the student must be able to demonstrate that s/he has maintained domicile (permanent dwelling place of indefinite duration) in North Carolina for twelve months or more immediately prior to his/her classification as a resident for tuition purposes. N.C. G.S. 116-143.1 also set forth statutory definitions, rules, and special provisions for determining resident purposes. Finally, a student must be able to demonstrate an intention to make North Carolina her/his permanent home. Isolateral Community College may not provide prior notice of out-of-state status. It is up to the student to raise the matter with the Admissions Office if s/he has a case to make for in-state status for tuition purposes.

Classification of in-state or out-of-state for tuition purposes will be based on statements and supportive evidence provided by each applicant through filling out of a residency evaluation application and provision of appropriate documents to the Director of Enrollment Management. In some cases the student may be asked to provide additional information to support the residency claim. Failure to provide requested information for residency classification can result in classification as non-resident.

If a change in classification is awarded, it shall be effective at the next academic semester following the date of application for reclassification. Regulations concerning the classification of students by residence are set forth in A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes, available in the Student Services Office.

The requisite domiciliary intent is tested by evaluating relevant, objectively verifiable conduct which may constitute a manifestation of the state of mind of the actor. The following types of inquiries, or combinations thereof, may be significant, though no one item, nor any combination of items, will necessarily control resolution of the question:

- a. Living or not living in the home of one's parents.
- b. Place where one voted or registered to vote.
- c. Place where one has served on jury duty.
- d. Place where one has registered and/or licensed a car.
- e. Place where one last acquired a driver's license.
- f. Place where one has filed state income tax returns.
- g. Place where one maintains personal property and last listed such for taxation.
- h. Place where one owns a home or other real property and pays taxes thereon.
- i. Place where one spends substantial parts of available vacation time.

- j. Place where one is or was employed or working gainfully.
- k. Place where one maintains membership in one or more professional associations, unions, and other organizations.
- l. Place where one last attended or graduated from high school
- m. Place where one resided before enrolling in an institution of higher education.
- n. Sources of one's financial support.

Students classified as out of state, who also qualify for financial aid should be aware that the Pell Grant will be based on in-state rates. Any difference between in-state and out-of-state rates must be paid for by the student.

#### **SENIOR CITIZENS**

Legal North Carolina residents 65 years of age and older as of the first day of classes may be exempted from the payment of curriculum tuition for up to 6 credit hours and extension registration fees in accordance with Chapter 981 of the 1977 Session Laws during the Fall and Spring terms only.

## **TUITION REFUND POLICY AND PROCEDURES**

### **TUITION REFUNDS**

A refund shall not be made except under the following circumstances:

- (1) (a) A 100 percent refund shall be made if the student officially withdraws prior to the first day of class(es) of the academic semester as noted in the College calendar. Also, a student is eligible for a 100 percent refund if the class in which the student is officially registered fails to "make" due to insufficient enrollment.
- (b) 75 percent refund shall be made if the student officially withdraws from the class(es) prior to or on the official 10 percent point of the semester.
- (c) For classes beginning at times other than the first week (seven calendar days) of the semester a 100 percent refund shall be made if the student officially withdraws from the class prior to the first class meeting. A 75 percent refund shall be made if the student officially withdraws from the class prior to or on the 10 percent point of the class.
- (2) To comply with applicable federal regulations regarding refunds, federal regulations will supercede state refund regulations.
- (3) Where a student having paid the required tuition for a semester, dies during the semester (prior to or on the last day of examinations of the college the student was attending), all tuition and fees for that semester may be refunded to the estate of the deceased.

### **Procedures For Requesting A Refund**

- (1) Student must officially withdraw from class(es) using a drop form with proper signatures.
- (2) Drop(s) must be recorded in the computer data system. Students who wish to change their class schedule during Schedule Adjustment Days are advised to drop and add courses during the same registration session to avoid being charged 25% of the tuition for the dropped class.
- (3) Refund will be mailed to student by the Business Office.

## **ACADEMIC POLICIES AND PROCEDURES**

### **REGULATIONS AND REQUIREMENTS**

In publishing these regulations, the College does not recognize any implied contract as having validity beyond the present academic catalog year. The President reserves the right to make changes in curricula and in regulations when, in her judgment, such changes are for the best interest of the students and the College. Until revised, the current catalog is the catalog of record for all students seeking to complete certificate, diplomas, or degrees in the fall of 2012 or later. Students enrolled prior to the fall of 1997 must confer with their advisors and the Office of Student Services in order to determine semester equivalents of quarter course credits.

Each student is responsible for observing the procedures, regulations, and requirements of the College as they are announced here and in other official College publications. This section sets forth some of the requirements and regulations which are of particular concern to students, but it is not intended to constitute a complete list of all such regulations and requirements. Unless otherwise stated, these regulations uniformly govern the academic progress of the student from the first year in the College through the final semester. It must be emphasized that the staff of the College will gladly assist students with details of their program or other academic problems, but that such assistance does not relieve the students of their individual responsibility for meeting the requirements and observing the regulations of the College.

### **REGISTRATION**

The College operates on the semester system. Registration dates are listed in the Student Handbook. All students are required to register in accordance with the procedures and calendar established for the current year. Registration for classes which begin at a time other than the beginning of a semester will be completed on an individual basis.

### **REGISTRATION CLEARANCE**

Students are responsible for obtaining registration clearance for unpaid fines or loans prior to registration. Students with other registration flags must also have clearance.



## **AUDITING COURSES**

Students who wish to audit courses must register through the regular procedure. Audits will be charged the same fee as students taking courses for credit. **AN AUDIT CANNOT BE CHANGED TO CREDIT OR CREDIT TO AUDIT AFTER THE DEADLINE FOR AUDITING COURSES.** Courses taken as an audit may be repeated for credit only. No curriculum course may be audited more than once. (See "Repeating Courses.")

## **STUDENT RECORDS**

Isothermal Community College, in the execution of its responsibilities to students, must maintain accurate and confidential student records. The Office of Student Services has the responsibility for maintaining these records in accordance with existing state laws, College policy, and the Family Educational Rights and Privacy Act of 1974 as amended. Students are notified annually of their rights through the Student Handbook.

### **STUDENT ACADEMIC RECORD**

The Admissions and Records Office will develop and maintain a permanent academic record for each curriculum student who enrolls in the College. This record will include name, address, social security number, student identification number, date of birth, sex, and major. The academic portion of the record will include courses taken, grades, hours attempted, hours earned, quality points, quality point averages, courses and credits transferred (if applicable), and degrees, diplomas, or certificates earned. A transcript(s) of the official academic record may be released or obtained by the student upon written request to the Student Records Office. An official transcript will not be released unless all tuition, fees and other obligations due the College have been satisfied. All transcript requests require a 24 hour processing time.

### **EDUCATIONAL RECORDS AND PRIVACY RIGHTS**

Isothermal Community College, in the execution of its responsibilities to students, must maintain accurate and confidential student records. The Student Services Division has the responsibility for maintaining these records in accordance with existing state laws, College policy, the USA Patriotic Act, Solomon Amendment and the Family Educational Rights, and Privacy Act of 1974 as amended.

Students are notified annually of their rights under this law through the orientation and registration process, and the complete policy along with guidelines and procedures are available in Student Services and printed in the Student Handbook. The Student Handbook is distributed widely in printed form and is available on the college website.

### **TRANSCRIPT OF RECORD**

The transcript is a statement of the official academic record of the student while attending the College. The College will not release an official transcript unless all tuition, fees, and other obligations due to the College have been cleared. Transcripts will not be released without the written consent of the student. (See section entitled **Student Records**).

## **PROGRAM CHANGES**

Program changes should be initiated by the student through his/her advisor or Student Services. The program change form must be submitted to the Admissions Office.

## **SCHEDULE CHANGES**

### **DROP/ADD**

In order to officially drop or add a course, these steps should be followed:

1. Secure a Schedule Change form from the Division Secretary.
2. Have a Drop/Add approved by faculty advisor and instructor. Students who wish to change their class schedule during Schedule Adjustment Days are advised to drop and add courses during the same registration session to avoid being charged 25% of the tuition for the dropped class.
3. Submit the Drop/Add form to Student Services to be officially recorded.

NOTE: Students will not be allowed to add or change sections after the deadline listed in the Academic Calendar and Semester Schedule book. Students may officially drop a course(s) without academic penalty and receive a grade of "W" if this drop is made before the drop deadline as published in the college calendar. The Vice President for Academic and Student Services may approve a drop after the deadline.

### **WITHDRAWAL FROM COLLEGE**

All Official Withdrawals Must:

1. Be made through the Advisor no later than one week before the last day of classes for the term.
2. Be made in person if possible.
3. Be recorded by the Student Records Office to be official.
4. Receive a grade of "W". Students who leave class without officially withdrawing may receive a grade of "F".

NOTE: Students will not be allowed to add or change sections after the deadline listed in the Academic Calendar and Semester Schedule book. Students may officially drop a course(s) without academic penalty and receive a grade of "W" if this drop is made before the drop deadline as published in the college calendar. The Vice President for Academic and Student Services may approve a drop after the deadline.

### WITHDRAWAL DATE

The official withdrawal date will be the date the withdrawal form is submitted to the Records Office.

### ADMINISTRATIVE WITHDRAWAL

An instructor, in consultation with the appropriate instructional administrator, may administratively withdraw any student whose cumulative absences exceed 20% of the scheduled class hours for the semester. The withdrawal must be made by the drop deadline published in the college calendar. The student will receive a grade of W<sup>U</sup>.

In case of extenuating circumstances, a student who has been withdrawn from a course for excessive absences may be re-admitted to class with the permission of the instructor and the appropriate Dean/Director and the completion of a re-admission form. If a student is administratively withdrawn from more than one class in a semester, re-admission to class will be considered on a class-by-class basis. Re-admission forms may be obtained in the Student Services Office.

### STUDENT CLASSIFICATIONS

Freshman—Earned less than 30 credit hours

Sophomore—Earned 30 credit hours or more

Part-time—Enrolled for less than 12 credit hours

Academic Load	Maximum Hours
Arts and Sciences	21 credit hours
Business Sciences	21 credit hours
Applied Sciences	21 credit hours

Approval from the appropriate Dean is required to register for more than the maximum of hours at this or any other institution.

### CLASS ATTENDANCE

Regular class attendance is a student obligation. The student is also responsible for all work, including tests and written assignments, and for all class meetings. No right or privilege exists that permits a student to be absent from any given number of class meetings.

Instructors establish their own class attendance policy. This attendance policy is explained in detail at the first class meeting and includes the relationship of absences to grades.

Students who stop going to class without officially withdrawing may receive a grade of "F" at the end of the semester.

### SCHOOL ABSENCE FOR RELIGIOUS REASONS

Isothermal Community College recognizes the right of students to be absent from class for religious reasons. Students may request a maximum of two excused class days per academic year for observances required by their faith. In accordance with this right, the president has established procedures for requesting, documenting and excusing religious absences. For more information, contact the Records Office.

### EXAMINATIONS

Final examinations in all subject areas are held at the end of each semester in accordance with the college calendar.

### GRADING SYSTEM

Isothermal Community College is on a semester system. One hour of credit is earned for each lecture hour per week. Where laboratory is required, one credit hour is earned for at least two contact hours. Where shop/clinical/practicum is required, one credit hour is earned for three contact hours.

The grading system is as follows:

Grade	Significance	Grade Points
A	Excellence	4 per semester hour
B	Above Average	3 per semester hour
C	Average	2 per semester hour
D	Below Average	1 per semester hour
F	Failed	0 per semester hour
W	Withdrawn	0 per semester hour
I	Incomplete	0 per semester hour
Y	No Credit—Audit	0 per semester hour
S	Satisfactory	0 per semester hour
U	Unsatisfactory	0 per semester hour
WP*	*Withdrawn-Progressing	0 per semester hour
CE	Credit By Examination	0 per semester hour

DE	Diagnostic Examination	0 per semester hour
NS	No Show	0 per semester hour
CR	Transfer Credit	0 per semester hour
R	Repeat	0 per semester hour

*An asterisk (\*) beside a letter grade indicates Academic Development course work, for institutional credits only.  
 A percent (%) beside a letter grade indicates the student was granted an academic fresh start, does not count in GPA calculation.  
 A number (#) beside a "W" grade indicates the student was administratively dropped, and does not count in GPA calculation.*

### GRADE REPORTS

Final grade reports are available online in the student's Patriot Portal/WithAdvisor account.

### WITHDRAWN-PROGRESSING POLICY

The "WP\*" (Withdrawn-Progressing) grade allows a student in an Academic Development course, who has attended regularly and made satisfactory progress, to continue the course in the subsequent semester until all the course requirements are met. The student must register for the course in the subsequent semester. The credit hours and attempted hours will not be given until the course is completed. The grade of "WP\*" may be assigned only the first semester the student enrolls in an Academic Development course. Exceptions to the policy require written permission from the instructor and the Director of Academic Development. Instructors will provide the registrar's office with a list of students who will receive the "WP\*" grade one week prior to the last day of classes for the term. The "WP\*" grade can be assigned only to Academic Development courses.

### GRADE APPEALS

A student, after conferring with the instructor concerned, may present in writing to the appropriate instructional Dean/Director an appeal of a course grade. See the Student Handbook for further information.

### INCOMPLETE POLICY

A grade of "I" is assigned when the course work is incomplete. Unless the instructor has established an earlier time line for completion, this grade must be removed by completing the course before the end of the following semester or the grade automatically becomes an "F" on the permanent record. If a student is registered for a course that requires a pre-requisite with an assigned "I" incomplete grade, the student must complete the course by the third week of the term. Otherwise, the student will be administratively dropped resulting in a reduced enrollment status and ineligibility of a tuition refund.

### REPEATING COURSES

Courses with earned grades of "D" or "F" may be repeated. Courses with earned grade of "C" or better may be repeated only by special permission from the Vice President for Academic and Student Services. When a course has been repeated, the higher grade will be counted. Physical education credit classes may not be taken for a grade of "audit." Credit students may not receive more than five physical education credits. Exceptions for physical education majors may be granted by the Vice President for Academic and Student Services. Non-credit recreation classes offered through Continuing Education may be repeated at will. Courses taken as audit may be repeated for credit only. No course may be audited more than once.

Students receiving Veterans benefits can receive benefits for repeated courses only if the prior grade is an "F".

### ACADEMIC ALERT

Students whose grade point average (GPA) falls below a 2.0 are placed on Academic Alert. Students on academic alert may benefit from familiarizing themselves with two important college policies: Academic Fresh Start and Course Repeat. Students who repeat classes are encouraged to review their transcripts carefully to ensure that previously earned lower grade(s) have been removed from grade point average calculation. Students on Academic Alert should also consider academic load as well as assistance available through Student Services, Supplemental Instruction, and Academic Advisors.

#### Potential consequences related to ongoing academic alert

When a student's academic performance is chronically poor, e.g., student is performing at or below 1.0 in consecutive semesters, academic advisors may refer these students to the Dean of Student Services who will evaluate the progress of the student and may refer the student to the Committee on Admissions, Academic Continuation, and Records. This committee may (1) approve continued enrollment under specified circumstances or (2) suspend the enrollment of the student for a specified time frame. After the suspension period, the student must seek approval from the Dean of Student Services and/or the Committee on Admissions, Academic Continuation, and Records prior to re-entering.

#### Health Sciences

Information regarding academic progression in health sciences programs may be obtained in the academic departments.

### **ACADEMIC FRESH START POLICY**

Any Isothermal Community College student who has experienced a lapse in enrollment at Isothermal for a period of at least three consecutive academic years may petition in writing to have grades older than three years old and below "C" disregarded in calculating the GPA. Following re-enrollment the student must complete at least 12 semester hours with a minimum grade point average of 2.0 prior to requesting an academic fresh start. In some instances students who change majors and complete 2 academic semesters with at least 12 semester hours and a 2.0 GPA in the new major may petition for an academic fresh start even if there has not been a lapse in enrollment.

The student requesting a fresh start should complete an application for Academic Fresh Start that is available in the Student Services office. Students may be granted an academic fresh start only once. An academic review committee will consider the request and determine the student's eligibility for grade forgiveness. If the request is approved, the grades will be removed from GPA calculation. Students transferring to another college should contact the institution to determine the impact of Academic Fresh Start on transfer. Fresh start GPA calculations are not used in determining eligibility for student financial aid.

### **AWARDING OF CREDIT**

Transfer of credit for educational work taken at a regionally accredited institution may be accepted. Previous course work must be submitted on an official transcript. Credit will normally be allowed for applicable courses in which a grade of "C" or higher has been earned. Grades of previous enrollments will not be used in the grade point calculation of Isothermal Community College. Course work is evaluated according to the student's selected program. Time and program selection may be a factor in determining credit. Some technical credits older than 5 years or more may be subject to review by the Registrar's Office and appropriate faculty/dean. Courses under the 5 year limitation are determined and reviewed by Instructional Deans, and a list is maintained in the Registrar's Office. Students may be requested to provide prior course descriptions and/or documentation demonstrating required knowledge before credits are accepted. Note: Students requiring further math classes are STRONGLY advised to take a refresher course if it has been more than two years since completing their last math course.

Results of the transfer of credit evaluation may be appealed to the Committee on Admissions, Academic Continuation, and Records.

Transfer students must earn 50% of the credits required for graduation in their particular program at Isothermal Community College (see Graduation Requirements).

All transfer students will enter the college in good academic standing. Once enrolled, academic standing will be determined by grades on course work done solely at Isothermal.

### **TRANSFER OF CREDIT WITHIN THE INSTITUTION**

Students transferring from one curriculum to another within the College may be handled in the same manner as transfer credits from another institution. Courses designed for satisfaction of Associate of Arts and Associate of Science degree requirements may be accepted in Associate of Applied Science degree programs; however, courses designed for career preparation in Associate of Applied Science degrees, diploma, and certificates may not apply to Associate of Arts and Associate of Science programs. A list of courses approved for Arts and Sciences credit is maintained in the office of the Dean of Arts and Sciences. Cumulative grade point averages are normally continued when changing programs. The GPA for graduation is based only on the courses required in the program.

### **OTHER CREDIT**

Credit may also be given in the occupational areas for noncollegiate and military educational experiences. These educational experiences will be evaluated on the basis of the current editions of College Credit Recommendations and The Guide To Evaluation of Educational Experiences in The Armed Services. Time and program selection may be a factor in determining credit. A maximum of 16 semester hours may be awarded. (Also, see requirements for the Occupational Education Associate Program.)

### **CREDIT BY EXAMINATION**

Any student at Isothermal Community College may receive course credit by examination through one of the following four methods: 1) Challenge Exam, 2) CLEP Exam, 3) Advanced Placement Exams, or 4) North Carolina High School to Community College Articulation Agreement, or 5) Diagnostic Exam in Academic Development courses.

### **CHALLENGE EXAM**

A student may request permission through the appropriate instructional dean to challenge a course through a comprehensive exam for credit. Only those courses for which tests have been developed and have been filed in the dean's office may be challenged. The procedure for challenging is as follows:

1. The student must be registered for the course, have paid proper tuition, and have approval of the instructor.
2. If the exam is failed, the student must continue the course.
3. A course may be challenged only once and must be done during the first week of class.
4. If the exam is passed, the student's grade must be submitted to the Student Records Office during the first two weeks of the semester. This grade will be recorded as a "CE". (Note: "CE" grades are not acceptable for the Comprehensive Articulation Agreement between the North Carolina Community College System and the UNC system.)

### **ADVANCED PLACEMENT (AP) AND COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)**

College credit may be awarded if appropriate conditions are met by Advanced Placement (AP) or College Level Examination Program (CLEP) test scores. Isothermal academic credit will be granted to enrolled students who receive scores of 3 or higher on the AP tests offered by the College Board. CLEP is granted for scores of 50th percentile or higher. Credit may be considered only for those courses which are in the student's academic program. AP and CLEP credit accepted at other post-secondary institutions is not automatically transferred to Isothermal but is reviewed when official scores are received.

### **NORTH CAROLINA HIGH SCHOOL TO COMMUNITY COLLEGE ARTICULATION AGREEMENT**

North Carolina high school graduates may be awarded college credits for certain high school courses when transferring to Isothermal Community College. Criteria is controlled by Department of Public Instruction and the NC Community College System and is subject to change without notice. The following criteria must be met to receive credit:

1. Grade of B or higher in the high school course
2. A raw score of 80 or higher on the standardized VoCATS post-assessment
3. Graduated from high school
4. Apply to Isothermal Community College in a related major

## **GRADUATION**

### **REQUIREMENTS**

In order to qualify for a degree, diploma, or certificate in a program of study, the student must:

- 1) Complete all of the required courses as outlined in the official Curriculum Standards,
- 2) Earn the minimum required total semester hours,
- 3) Maintain a grade point average of 2.00 or better in the program of study; and
- 4) Submit an application for graduation.

The students are responsible for monitoring their program toward graduation. The college catalog of record for graduation evaluation will be the current catalog.

In the case of students transferring into Isothermal Community College, at least half of the credits required for graduation must be earned at Isothermal Community College.

### **COURSE SUBSTITUTIONS**

Course substitutions may be approved to fulfill graduation requirements provided the substitution is appropriate to the student's program and a comparable course is offered. In all cases course substitutions must be consistent with the program requirements as outlined in the Curriculum Standards published by the North Carolina Community College System. Each student is limited to nine (9) credit hours of substitutions; however, in cases where courses have been discontinued additional substitutions may be approved. All course substitutions must be approved by the appropriate instructional dean and the Vice President for Academic and Student Services and recorded in the Student Records Office.

### **GRADUATION PROCEDURE**

Students are expected to file graduation applications with the Student Records Office at least one semester preceding the completion of degree requirements. Commencement is held at the conclusion of the spring semester. A diploma fee is charged to each graduating student who wishes to purchase a diploma. The specific date of the commencement exercise is listed in the College Calendar in front of this catalog. All students who have completed degree requirements since the previous commencement are invited to participate in graduation exercises.

### **GRADUATION ORDERS**

Graduation applicants will be notified by mail concerning orders for caps, gowns, diplomas, rings, and invitations. Orders are placed in the bookstore.

### **GRADUATION WITH HONORS**

Students who complete a degree, diploma or certificate program with a program of study grade point average of 4.0 will graduate with High Honors. The student who earns a program of study grade point average of 3.50 to 3.99 will graduate with Honors.

## **HONORS & AWARDS**

Students who earn honors and awards are recognized in the following ways:

### **AWARDS DAY**

An annual assembly is held near the end of spring semester to recognize students whose scholarship, leadership, citizenship, and service have been noteworthy.

### **DEAN'S LIST**

Dean's List is designed to recognize all students whose academic performance is outstanding. In order to qualify, a student must carry at least twelve (12) semester hours of credit during the term and maintain a 3.25 grade point average for the semester. Academic Development courses number less than 100 and do not count toward hours earned for the Dean's List.

### **HIGH HONORS**

You will graduate with High Honors if you have completed your degree, diploma, or certificate program with a grade point average of 4.0 in your program of study.

### **HONORS**

You will graduate with Honors if you have completed your degree, diploma or certificate program with a grade point average of 3.50 to 3.99 in your program of study.

### **OUTSTANDING STUDENTS**

Each semester, students who display excellence in an aspect of college life are chosen from the Applied Sciences & Technology, Arts & Sciences, Business Sciences, and Academic Development program areas. These students are recognized as Learning College Student of the Semester. Additional awards or recognition may be provided for students with special achievement in regional, state, or national competition. Nomination forms are submitted in the eighth week of each semester to the Vice President of Academic and Student Services and Institutional Assessment, and awards are presented in the tenth week of the semester.

### **DR. BARBARA PETERSON AWARD OF EXCELLENCE FOR STUDENT PORTFOLIOS**

The Dr. Barbara Peterson Award of Excellence for Student Portfolios is a certificate that may be awarded to as many students as deserve it each semester. Recipients will also be invited to return for Portfolio Workshop Week the following semester to display their work and discuss the process with others. Among the criteria for this award are completeness, quality of artifacts (with an emphasis on reflection), and qualities that make the portfolio stand above the crowd.

### **WHO'S WHO AMONG STUDENTS IN AMERICAN JUNIOR COLLEGES**

Students are selected for the Who's Who Award by vote of the faculty based on academic achievement, service to the community, leadership in extracurricular activities, and potential for continued success. The Who's Who organization assigns a quota of nominees based on Isothermal's enrollment in order to recognize outstanding campus leaders for the year.

### **ROBERT WENDELL FAYES DISTINGUISHED TEACHING AWARD**

Each year, students, faculty, administration, staff, and people from the community have an opportunity to nominate an outstanding instructor for the Robert Wendell Faves Distinguished Teaching Award. Recognition and a monetary award are given to the instructor selected each year. The winner is announced during the graduation ceremonies at the end of spring semester. To be eligible, the instructor must be a full-time employee of Isothermal Community College and must spend at least 25% of his/her employment in teaching. Nomination forms will be made available early spring semester. They can be obtained at the college switchboard, in Student Services, in the library, from departmental secretaries, at The Foundation, and on the college website.

This award is your opportunity to express appreciation to that one instructor who has gone above and beyond the call of duty to help you. Perhaps that instructor has helped you learn the subject matter, excel as a college student, obtain that first job, discover what career you want to pursue in life, or made a significant difference in your education in some way.

# STUDENT SERVICES

The Student Services department offers a variety of services that support the learning environment at Isothermal Community College. Departmental offices are located in the Student Center and include Admissions, Dean of Students, Financial Aid, Records and Registration, and Student Activities. Student Services also handles important college functions such as the publication of the student handbook, the college calendar, graduation, Student Government, and events such as Grab and Sports Days.

## THE STUDENT CENTER

The hub of student activity is the Student Center. Located in the Student Services building the Center offers a lounge, television area, and dining area where food and drinks are available. The Bookstore and the Workforce Investment Act office are also located in this area.

## ACA 115: STUDENT SUCCESS AND STUDY SKILLS

A comprehensive orientation for associate degree seeking students is a required class, ACA 115: Success and Study Skills, a one credit hour orientation class. ACA 115 provides an extensive orientation to not only the College but also to the college experience. Topics that may be covered include (but are not limited to): college resources, policies, what it means to be a learning college; learning styles, time management, test taking, diversity, wellness, goal setting, career exploration, note taking, reading methods, study techniques, critical thinking, and oral and written communication skills, etc. Also, students gain familiarity with the library and federal financial aid, and they are encouraged to seek out cultural experiences.

## HEALTH SERVICES

The College has no facilities for medical treatment other than for minor first aid and assumes no responsibility for injuries or sickness of students. First aid supplies are located at secretaries' desks in each building and in the shop areas.

Students suffering from acute illness or injury requiring more than minor first aid are asked to seek medical treatment. The student is responsible for costs incurred in such treatment.

Students are encouraged to provide themselves with medical insurance to cover illness/injury. Information regarding student accident insurance is available in Student Services. If an accidental injury involves an enrolled student on campus or as part of a related activity, it may be at least partially covered by student accident insurance.

## HOUSING

The College does not provide living accommodations for students. The student is responsible for making his/her own housing arrangements. The College assumes no responsibility for rental negotiations between student and homeowner.

## STUDENT ACTIVITIES

The College encourages student participation in student organizations and activities. Student Activities Coordinators are assigned the responsibility of coordinating all student activities and serve as the SGA advisor. The following are available on campus:

### STUDENT GOVERNMENT ASSOCIATION (S.G.A.)

Students who pay a student activity fee are members of the Student Government Association and are entitled to all membership privileges of the organization. The Student Government Association Officers are active in promoting the interests of the students, improving facilities, planning social functions, and assisting other student organizations. The S.G.A. also includes elected representatives and members at large. Student interest and assistance are welcomed. The S.G.A. President is an ex officio member of the Board of Trustees.

### CLUBS

The following clubs and activities are chartered or otherwise recognized on the campus. These organizations are student driven and provide opportunity to develop leadership skills. Active participation is strongly encouraged to maximize the full student experience.

Art and Computer Design Club (ACDC)  
Afro-American Club  
Chess Club  
Connections Outreach  
Cosmetology - Day  
Cosmetology - Evening  
Foothills Nursing Consortium Student Nurses' Association  
Intramural Sports  
Isothermal Education Society

Machining Technology Club  
Minority Male Fellows Club (MMFC)  
Phi Beta Lambda (PBL)  
Phi Theta Kappa (PTK)  
Twin Phoenix Karate Club  
Anuran (Poetry Magazine)  
Smilept Writer's Association  
Student Practical Nurses' Club

SCHOOL COLORS: Blue and White  
SCHOOL MASCOT: Patriot

## **COLLEGE PUBLICATIONS - PURPOSES AND RESPONSIBILITIES**

The purpose of the **ANURAN** is to fulfill the expectations of an exceptional, annual literary journal. It is designed as a published collection of poems, essays and photographs, the culmination of a yearly poetry, essay and photography contest drawing on the talents of Isothermal and the communities it serves. Primary focus of The Anuran is student and community work. All publications of Isothermal Community College must abide by state and federal laws governing proper journalistic behavior as well as local college regulations.

## **STUDENT FINANCIAL AID**

Isothermal Community College offers a variety of financial assistance for students who, without such help, may be unable to pursue their educational goals. Financial aid awards may come in one or more of the following forms: grants, scholarships, part-time employment, and/or loans. Most financial aid is awarded on the basis of need. In determining the student's need, it is assumed that the student and/or the student's family will provide assistance in an amount proportionate to their income and assets. Financial assistance is intended to be supplementary to the efforts of the family.

### **How to Apply for Financial Aid**

1. Complete all requirements for admission to the College.
2. Complete the Free Application for Federal Student Aid (FAFSA). This application can be completed on the web at [www.fafsa.gov](http://www.fafsa.gov). This form must be completed annually.
3. Submit a completed Isothermal Community College Financial Aid Data Sheet.
4. In some cases a signed federal tax transcript, applicable W-2 forms, and additional income and asset supporting documentation may be requested.
5. Request and submit applications for other aid programs in which you feel you can establish eligibility. A number of financial aid programs require separate applications. Please note these under the "Types of Aid Available" section.
6. Refer to the Student Handbook or contact the Financial Aid Office for financial aid deadlines.

An online version of the FAFSA can be accessed at [www.fafsa.gov](http://www.fafsa.gov). All students and prospective students may apply for aid. Applications must be completed on an annual basis for an academic year which includes the fall, spring, and summer terms. New applications are normally available beginning in January of each year and should be completed between the months of January and May for those desiring to start in the fall semester. Students starting school in the spring or summer terms should complete a FAFSA at least two months prior to the beginning of the term. Only one FAFSA should be submitted each year. Funding for many programs are limited, and late applicants may find that many funds are already obligated. An enrolled student must reapply in order to receive aid during subsequent years of attendance.

### **TYPES OF AID AVAILABLE**

Please note that the information listed below is provided to students as a basic guideline. The information is very general in nature, and the Financial Aid Office should be consulted for further details, rules, and regulations. The information provided comes from data available at the time this catalog was reviewed prior to printing. All information contained in this section is subject to change.

#### **FEDERAL PELL GRANT (PELL)**

This is a federal grant that usually forms the foundation of federal student aid for undergraduate students. To determine eligibility, the student must complete a FAFSA. The U.S. Department of Education will process the information from the FAFSA using a formula called Federal Methodology, which is established by Congress. This grant is designed to assist low-income families and does not have to be repaid.\* Eligible students can receive Pell Grant funds for a maximum of 12 full-time semesters or the prorated equivalent.

#### **FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (FSEOG)**

This is a federal grant designed to assist undergraduate students with exceptional financial need as demonstrated by the results of their FAFSA. FSEOG is a block fund which means each institution has a limited amount of funds available to award. This is a grant and does not have to be repaid.\*

#### **FEDERAL WORK-STUDY (FWS)**

This is a federal program that provides jobs for students who have financial need as demonstrated by the results of their FAFSA. This is a block fund so awards are limited. To apply, students must complete the FAFSA along with an institutional work-study application which can be obtained in the Financial Aid Office. Positions are available both on and off campus. FWS students work a maximum of 29 hours per week and will receive a monthly paycheck based on the actual number of hours worked.\*

\*More detailed information concerning the federal financial aid programs and eligibility requirements can be obtained by visiting [www.studentaid.ed.gov](http://www.studentaid.ed.gov).

#### **NORTH CAROLINA COMMUNITY COLLEGE GRANT (NCCCG)**

This is a state administered grant and is available only to undergraduate students who are residents of North Carolina. The student should complete the FAFSA prior to March 15<sup>th</sup> preceding the fall semester to be considered for this grant. They must also meet the college's Satisfactory Academic Progress requirements. This grant is awarded during the fall and spring semesters to eligible students who have enrolled in at least six credit hours during each semester. Annual award amounts are contingent on funding levels approved by the North Carolina General Assembly. This grant is awarded only for the fall and spring semesters. No additional application is required.



### **NORTH CAROLINA EDUCATIONAL LOTTERY SCHOLARSHIP (NCELS)**

This is a state administered grant that was created by the 2005 General Assembly to provide financial assistance to needy North Carolina resident students attending eligible colleges within the state of North Carolina. Eligibility is determined based on the expected family contribution (EFC). This scholarship is awarded only for the fall and spring semesters. Eligible students must meet the following requirements:

- Be a North Carolina resident for tuition purposes
- Enroll for at least six credit hours per semester in a curriculum program
- Meet the Satisfactory Academic Progress requirements of the institution
- Be admitted, enrolled, and classified as an undergraduate student in matriculated status in a degree, certificate or diploma program at an eligible North Carolina institution (UNC campuses, Community College Campuses, Independent College Campuses and certain other private colleges)

### **NORTH CAROLINA CHILDCARE GRANT**

The North Carolina General Assembly appropriates money for childcare services for student parents at Isothermal Community College. Childcare services funded through this allocation provide contractual services with childcare facilities or individual childcare providers. This grant does not have to be repaid, and funding is limited. Students may request the grant for a maximum of two years.

To be eligible, a student must

- Have children who will need childcare during the hours of student attendance
- Be a resident of Rutherford or Polk County and be eligible for in-state tuition
- File a FAFSA to establish need
- Complete an application with the Financial Aid office
- Enroll in at least six credit hours
- Maintain at least a 2.00 GPA

### **NORTH CAROLINA LESS THAN HALF-TIME GRANT**

This is a state administered grant and is available only to legal residents of North Carolina who are enrolled less than half-time (less than six credit hours). Students must file a FAFSA and have an estimated family contribution (EFC) between 801 and 4000. Students must also meet the college's Satisfactory Academic Progress requirements. This grant is awarded only for the fall and spring semesters. An additional application is not required.

### **FORGIVABLE EDUCATION LOAN FOR SERVICE**

This is a state administered loan that provides financial assistance for students enrolled in fields designated as critical employment shortage areas. For more information contact the College Foundation of North Carolina at 866-866-CFNC.

## **SCHOLARSHIPS**

A number of scholarships are available to Isothermal Community College students. Criteria for selection most often include academic promise/standing and financial need. Other special requirements may be set by the scholarship donor. For institutional scholarships, college personnel participate in the selection of recipients. Students do not usually apply for specific institutional scholarships, but instead complete a general institutional scholarship application along with a recommendation form. Scholarships do not have to be repaid. Listed below are the institutional scholarships that are normally available. Contact the Financial Aid Office for information regarding eligibility requirements and application deadlines.

Andrew Major Scholarship  
Dr. J. F. Sr. and Ola H. Wisnutt Scholarship  
Dr. W. M. Elliott Scholarship  
Eileen Conti Environmental Scholarship  
Edward Barrier Scholarship  
Frank and Mabel West Scholarship  
Gamma Beta, Delta Kappa Gamma Scholarship  
George Chatham Business Sciences Scholarship  
Hewitt Scholarship  
Isothermal Community College Alumni Scholarship  
Jack E. Buchanan Scholarship  
James Monroe McDonald Memorial Scholarship  
J.D. Cooley Scholarship  
John W. Billingsley Scholarship  
Julia Goforth Memorial Scholarship  
Kate Moore Scholarship

Lou Anne Perkins Nelson Scholarship  
Lovelace Nursing Scholarship  
Mable E. & James B. Duggitt Memorial Music Scholarship  
Monroe and Ada Moore McDonald Scholarship  
Norris Ruppe Sunday School Class Scholarship  
Patricia H. Harris Memorial Scholarship  
Pi Conclave of Kappa Kappa Iota Scholarship  
Pinkie H. and T. D. Carson Scholarship  
Polly Hemphill Memorial Business Sciences Scholarship  
Putnam Scholarship  
Robert R. Spratt Memorial Scholarship  
Rutherford County Home Builders  
State Employees Credit Union Foundation Scholarship  
W. H. "Shorty" McDonald Scholarship  
Wells Fargo Technical Scholarship  
William V. Lee Memorial Scholarship

Non-institutional scholarships, defined as scholarships in which college personnel do not participate in the selection of recipients, are awarded to Isothermal Community College students each year. Students interested in applying for these scholarships must contact the grantor. There are several free online scholarship searches available to students. An excellent starting place is FastWeb which is located at [www.fastweb.com](http://www.fastweb.com). Information on other searches can be obtained from the Financial Aid Office.

#### **LEE L. POWERS SCHOLARSHIP PROGRAM**

The Lee L. Powers Scholarship Program was established by Martha Jane Powers in memory of her father, Lee L. Powers. Mr. Powers was a moving force in the history of Rutherford County. He served on many statewide committees which focused on issues such as transportation and senior citizens. The Rutherford County Commissioners named him to the Steering Committee which was instrumental in the establishment of Isothermal Community College. Mr. Powers was also honored by the Shriners of the Oasis Temple as one of those with the longest continuous service. The Lee L. Powers Scholarship Program has allowed Isothermal Community College to create four scholarships; the Lee L. Powers Service Scholarship, Lee L. Powers Merit Scholarship, Lee L. Powers Career and College Promise Scholarship, and Lee L. Powers CNA-I Scholarship.

##### **Lee L. Powers Service Scholarship**

The Lee L. Powers Service Scholarship was established to provide funding of tuition for eligible students. Once tuition demands are met, and if additional revenues are available, a stipend may be allowed for books. The actual amount of the scholarship will be determined by the number of applicants and revenues on hand. This scholarship is available to part-time students on a pro rata basis. Please note funding for this scholarship is limited. Individuals interested in applying for the Lee L. Powers Service Scholarship must complete the Free Application for Federal Student Aid (FAFSA). This application is available online at [www.fafsa.gov](http://www.fafsa.gov). Individuals do not have to qualify for the Pell Grant to be considered for this scholarship. Contact the Financial Aid Office for more information regarding scholarship eligibility requirements.

##### **Lee L. Powers Merit Scholarship**

The Lee L. Powers Merit Scholarship was established to recognize demonstrated meritorious academic achievement for six recent high school graduates. Each scholarship will be sufficient to cover tuition and books at Isothermal Community College. Contact the Financial Aid Office for more information on eligibility requirements, application, and application deadline.

##### **Lee L. Powers Career and College Promise Scholarship**

The Lee L. Powers Dual-Concurrent Enrollment Book Scholarship is intended to assist dual/concurrent enrollment students attending a recognized high school in Rutherford or Polk County with the purchase of textbooks at Isothermal Community College. Recipients of this scholarship receive a maximum book allotment of \$200.00 for use in the Isothermal Community College Bookstore. Excess monies remaining on the recipient's account will be returned to the general scholarship fund. In order to qualify for this scholarship, students must be eligible for the Concurrent/Dual Enrollment tuition waiver.

##### **Lee L. Powers Certified Nursing Assistant (CNA-I) Scholarship**

The Lee L. Powers Certified Nursing Assistant (CNA-I) Scholarship is intended to ensure one-time funding of tuition for students enrolled in the CNA-I program at Isothermal Community College. Awarding of this scholarship is contingent upon the availability of scholarship funds. Contact the Financial Aid Office for more information on the application process and eligibility requirements.

#### **SATISFACTORY ACADEMIC PROGRESS STANDARDS FOR FINANCIAL AID RECIPIENTS**

Federal regulations require students receiving federal student aid to maintain satisfactory academic progress as defined by the institution. Federal student aid includes the Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, and Federal Work Study and Federal Direct Student Loans. The North Carolina Community College Grant and the North Carolina Educational Lottery Scholarship also observe these same standards. The institution's Satisfactory Academic Progress policy must include both qualitative (cumulative grade point average) and quantitative (hours earned compared to hours attempted, as well as a maximum time frame) elements.

##### **Cumulative Grade Point Average (GPA)**

Students receiving financial aid at Isothermal Community College must maintain a cumulative grade point average of 2.0 or higher. These standards are consistent with academic standards required for graduation.

GPA requirements will be monitored at the end of each semester. Any student earning less than the minimum required cumulative GPA shall be placed on financial aid warning. The student will be notified of his/her status in writing and may receive financial aid for one more semester of enrollment, consecutive or otherwise. If the student does not earn the minimum required cumulative grade point average by the end of the warning semester, he/she will be placed on financial aid suspension. The student is not eligible for aid while on suspension.

\*Credit hours attempted will be cumulative and will count all hours (including developmental) for which the student was enrolled as of the census date of each academic term for which the student received a grade of A, B, C, D, F, I, W, or R.

\*\*Cumulative GPA is computed by dividing the total number of quality points earned by the total credit hours attempted for which the student received grades of A, B, C, D, F, or I. No quality points are earned for a grade of I, and for financial aid purposes it is treated as a failing grade until proven otherwise.

### **MAXIMUM TIME FRAME**

Any student receiving federal financial aid will have a maximum time frame in which he/she is expected to complete a program of study. Federal regulations require that the time frame be no more than 150% of the established length of the current program. At Isothermal Community College, the 150% time frame will be measured in terms of credit hours attempted.\* For example: If a program requires 65 semester credit hours to complete, then a student may receive financial aid for up to 97.5 (65 x 150%) semester hours attempted.

Once it has been determined that a student cannot complete his/her program within the maximum time frame he/she is no longer eligible for financial aid at Isothermal Community College. Should the student complete a diploma or associate degree program after losing eligibility, they should contact the Financial Aid Office for a re-evaluation of their status.

\*For this quantitative measure, credit hours attempted will be cumulative and will include all hours for which the student was enrolled at the end of the census (tuition refund) date of each academic term and received a grade of A, B, C, D, F, I, W, or R. All classes will be counted regardless of whether the class is part of the student's current major or whether the student received financial aid for the class.

### **PROGRESSION RATE**

A student must successfully complete a minimum of 67% of cumulative credit hours attempted. Progress in this area will be evaluated at the end of each term. Any student falling below the 67% requirement shall be placed on financial aid warning and will be notified of that status in writing. Students on warning may receive financial aid for one more semester of enrollment, consecutive or otherwise. If the student does not bring the completion rate up to the required 67% by the end of the warning semester, financial aid suspension will occur and all financial aid will be terminated. The student will not be eligible for aid while on suspension.

Both the qualitative and quantitative standards are cumulative and include all periods of enrollment at Isothermal Community College, even those for which the student did not receive financial aid funds. The Academic Fresh Start Policy, discussed earlier in the catalog, will not improve a student's standings as far as financial aid satisfactory academic progress is concerned.

### **EFFECTS OF ACADEMIC DEVELOPMENT COURSEWORK**

Students who have been accepted into a degree program and are required to take Academic Development coursework, as determined by placement testing, may receive financial aid until they have attempted a total of 30 semester hours. All semester hours attempted will be counted towards the 30 hour maximum limit, regardless of the grade received. Academic Development classes dropped prior to the beginning of a term will not be counted towards the maximum limit.

### **EFFECTS OF PREVIOUS CREDITS**

1. **Transfer Students** Any student transferring from a school other than Isothermal Community College will be considered to be making satisfactory progress at the time of his/her enrollment. The student's maximum time frame will be reduced by the equivalent number of credit hours attempted toward his/her degree.
2. **Isothermal Community College Returning Students** Returning students will have their cumulative GPA carried forward, subject to the institutional policy regarding transfer of credit within the institution. All credit hours attempted will be converted to semester hours and carried forward. This policy is in accordance with federal regulations stating that satisfactory academic progress standards must cover all periods of the student's enrollment, including those periods for which the student did not receive federal student aid funds.
3. **Isothermal Graduates** If a student graduates from a program at Isothermal Community College and desires to pursue another degree, that student will assume the maximum time frame of the new program.

### **PROCEDURE FOR REINSTATEMENT OF FINANCIAL AID**

Students who have had their aid terminated may reestablish eligibility for financial aid in one of two ways: (1) By enrolling for subsequent semester(s) at his/her own expense until satisfactory academic progress is achieved, or (2) By the appeals process, if approved. Retroactive payments of financial aid for periods in which a student did not meet satisfactory progress standards are prohibited.

### **HOW TO APPEAL FINANCIAL AID SUSPENSION**

To appeal financial aid suspension, a student must be able to demonstrate mitigating circumstances. Mitigating circumstances are defined as injury or illness of the student, death of a relative, change in employment situations, or undue hardship caused by special circumstances. The procedure for appeal is as follows.

1. A student will indicate in writing to the Financial Aid Director the reason(s) why he/she did not make satisfactory academic progress and why financial aid should not be terminated. Documentation to support the appeal is highly recommended.
2. The Financial Aid Director will review the appeal and determine whether or not termination of aid is justified. The student will be advised of the decision in writing.
3. Students with approved appeals will be placed in a probationary status and will be required to follow an Academic Plan provided by the Financial Aid Office. If an eligible status has not been attained, students meeting the requirements of the Academic Plan at the end of each semester will automatically have their probationary status continued. Students not meeting the requirements of the Academic Plan will be placed on financial aid suspension and will not be eligible for another appeal until they have completed a minimum of six credit hours at their own expense and made improvement to their standing.

## **POLICY ON RETURN ON TITLE IV FUNDS**

Federal financial aid is awarded to a student under the assumption that the student will attend college for the entire period for which the assistance is awarded. For example, if the student is given aid for the fall semester, it is assumed the student will attend college from the beginning of the fall semester through the end of the fall semester. Federal financial aid regulations specify how Isothermal Community College must determine the amount of Federal Student Aid (FSA) assistance a student has earned if they withdraw from school. The FSA programs that are covered by this law are: Federal Pell Grants, Direct Loans, Federal Supplemental Educational Opportunity Grants (FSEOG), Federal Perkins Loans and in some cases certain state grant aid.

When a student withdraws from all classes during a semester, the amount of FSA program assistance the student has earned up to that point is determined by a specific formula known as Return to Title IV. If the student received (or the student's college or the student's parent received on the student's behalf) less assistance than the amount the student earned, the student may be able to receive those additional funds. If the student received more assistance than the student earned, the excess funds must be returned by the college and/or the student. The amount of assistance the student has earned is determined on a pro-rata basis. For example, if the student completed 30 percent of the semester, the student earned 30 percent of the assistance they were scheduled to receive. Once the student has completed more than 60 percent of the semester, they are considered to have earned all the assistance they were scheduled to receive.

If the student did not receive all of the funds they earned, they may be due a post-withdrawal disbursement. The college may automatically use all or a portion of the student's post-withdrawal disbursement for tuition and fees. For all other college charges, the college needs the student's permission to use the post-withdrawal disbursement. If the student does not give permission, which some colleges ask for upon enrollment, the student will be offered the funds. However, it may be in the student's best interest to allow the school to keep the funds to reduce their debt at the school.

If the student receives (or the student's college or the student's parent receive on their behalf) excess FSA program funds that must be returned, the school must return a portion of the excess equal to the lesser of

1. your institutional charges multiplied by the unearned percentage of your funds, or
2. the entire amount of excess funds.

The college must return this amount even if it didn't keep this amount of your FSA program funds. If the college is not required to return all of the excess funds, the student must return the remaining amount. Any amount of unearned grant funds that must be returned is called an overpayment. The amount of a grant overpayment that the student must repay is half of the unearned amount. The student must make arrangements with the school or the Department of Education to return the unearned grant funds.

The requirements for FSA program funds when a student withdraws are separate from any refund policy the college may have. Therefore, the student may still owe funds to the college to cover unpaid institutional charges. The college may also charge the student for any FSA program funds that the college was required to return. If the student does not know what the college's refund policy is, they may ask for a copy. The college can also provide you with the requirements and procedures for officially withdrawing from college.

## **WORKFORCE INVESTMENT ACT**

The Workforce Investment Act provides funds to students who are enrolled in a technical or vocational program. Eligibility is determined by WIA criteria. Funds may be provided for one or more of the following: tuition, fees, books, transportation, and other support related to training. A limited number of openings are available. For more information please contact a WIA case manager at 828-287-0062 or 828-395-4713 or 828-395-1531.

## **VETERANS AFFAIRS**

Isothermal Community College provides information and assistance to eligible veterans and dependents of disabled or deceased veterans in applying for educational benefits. The Department of Veterans Affairs offers several programs (Chapters):

- Chapter 30—Montgomery G.I. Bill
- Chapter 31—Vocational Rehabilitation
- Chapter 33—Post 9/11 G.I. Bill
- Chapter 35—Survivors & Dependents Educational Assistance
- Chapter 1606—Montgomery G.I. Bill Selected Reserve

Eligibility, length of eligibility, number of months you can receive benefits, and the amount of assistance are determined by the Department of Veterans Affairs. Rates are determined by your chapter and the number of semester credit hours registered for in a given semester.

Before you can draw Veterans Benefits, you must complete all Isothermal admission and Department of Veterans Affairs requirements listed below:

- Complete Application for Benefits.
- Submit certified copy of DD-214 (discharge papers) or NOBE (Notice of Basic Eligibility) and/or approval from the DVA depending on Chapter.
- Complete the Application Process at Isothermal Community College which includes the following:
  - Admission Application
  - Official High School/GED and College Transcripts
  - Placement Test (ASSET or COMPASS)
- Choose a program of study - all programs are not eligible for DVA benefits, check with Isothermal Community College Veterans Office, and
- Submit registration information each semester.

Students receiving benefits from the DVA must report any information or changes to prevent overpayment. If any changes have been made in your enrollment, entrance, re-entrance, program of study, hours of credit, address, name, etc., notify the Isothermal Community College Veterans Office immediately.

The Department of Veterans Affairs will only pay for courses required in your program of study. They will not pay for courses previously passed, audited courses, credits by exam or dropped courses. You will receive payment for remedial courses only if you placed in those courses based on your ASSET or COMPASS scores. A student must maintain satisfactory progress to continue to receive benefits. For more information, please refer to our website [www.isothermal.edu/inaid/veterans-affairs.htm](http://www.isothermal.edu/inaid/veterans-affairs.htm).

### **VOCATIONAL REHABILITATION**

The N.C. Division of Vocational Rehabilitation Services (NCDVRS) offers assistance to students who have disabling conditions and barriers to employment. Each individual who qualifies for services is provided a counselor who works with them to achieve an employment outcome. Services that are offered to each individual vary based on the needs of that student to return to competitive employment. Although not fully encompassing, the following list represents services that might be available to qualifying individuals: tuition, fees, books, supplies, interpreter services, attendant care on campus, and transportation cost services. To determine if a student is eligible for services through NCDVRS, please contact your local office. In Rutherford and Polk County, the number is 828-245-1223.

## **LEARNING SUPPORT AND RETENTION**

The office of Learning Support and Retention is located in Room 9 in the Student Center. The Learning Support and Retention staff members provide a variety of vital services to all enrolled and prospective students, faculty, and staff. When visiting the office of Learning Support and Retention, students can expect to receive knowledgeable assistance provided with a caring attitude.

### **ADVISING CENTER**

The Advising Center supports Isothermal's overall mission to improve life through learning by providing students with correct information that helps lead them towards their destination. Through collaborative efforts, the Advising Center is staffed by professional and caring faculty and staff from across campus who serve as advisers. The Advising Center is located in the Student Center Building near the pool. Please call 828-395-1995 for hours of operation.

### **COUNSELING SUPPORT**

Counseling Support includes such functions as providing career and personality assessments for students, one-on-one discussions to link career results to related programs, and an investigation of resources that give an overview of the future of different types of careers given the economy and other political issues. These services also include some job search supports such as how to write a resume, interview skills, etc. Many of these services are offered through information sharing meetings and with the assistance of the resources available in the office of Learning Support and Retention.

Personal counseling services include timely support and relevant referrals for students dealing with personal issues and crises. Counselors offer assistance with the development of self-management skills, self-concept building, education planning, improvement of interpersonal relationships, and drug and alcohol issues. As well, counseling support play an important role for staff and faculty on campus through the office of Learning Support and Retention and the TALC Campus Life Committee and as a source of educational materials for the entire campus. Students may also access the office of Learning Support and Retention website for information and helpful links available at [www.isothermal.edu](http://www.isothermal.edu).

Academic counseling services include advising students on matters related to their program choice, course selection, educational goals, course workload issues, transfer information, and proactive educational planning to ensure students are on the correct track for reaching their future goals.

#### **DISABILITY SUPPORT**

Isothermal Community College is committed to providing equal access to education for persons with disabilities. However, it is the responsibility of the student to make his or her disability known and to request accommodations. Requests should be made in a timely manner, preferably 30 days prior to registration, and submitted to the Disability Services Coordinator. Every reasonable effort will be made to provide services.

In order to establish the student's eligibility for services, documentation of a disability is required of all students who request accommodations. Documentation must be provided from an appropriately licensed/certified professional and must be complete enough to establish the student's status as a person with a disability as well as establishing the need for any requested accommodations. The age of acceptable documentation is dependent upon the disabling condition, the current status of the student and the student's specific request for accommodations. The Disability Services Coordinator may require that the documentation be no older than three years. Necessary documentation to request accommodations services, in general, should include the following.

- 1) Identification of the nature and extent of the disability including diagnosis,
- 2) Specific information on the functional limitation as related to the academic environment,
- 3) Description of the current course of treatment including medical side effects,
- 4) Prognosis for the disability, and
- 5) Recommended reasonable accommodations.

An Individualized Education Plan (IEP) may help to identify services that have been effective for the student, but will not be considered acceptable documentation of a disability. All documentation and records provided will be maintained in a confidential manner as outlined in the Family Educational Rights and Privacy Act of 1974.

#### **TESTING SUPPORT**

Testing services include the administration of COMPASS placement tests, GED tests, and the TEAS, PSB, and Challenge Exams for applicants to health sciences programs.

Isothermal Community College implemented the COMPASS testing program in the summer of 2000. This program was developed by American College Testing (ACT) specifically to help persons entering two-year community and technical colleges succeed in their educational pursuits. All new students (with the exception of some certificate applicants) are required to take the placement test prior to admission to Isothermal Community College. The placement test measures a student's present skill levels in Writing, Reading, Basic Mathematics, and Algebra and provides valuable assistance in initial course placement.

#### **JOB AWARENESS**

A computer station with Internet access is available in the office of Learning Support and Retention for job search and career assistance. In addition, instructors in each program area assist students as requested.

## **INFORMATION SERVICES AND TECHNOLOGY**

#### **INFORMATION TECHNOLOGY**

The mission of Information Technology (IT) is to interactively empower the learner and the facilitators of learning through direct access to information and services. The goal of the Information Technology staff is to enhance the learning experience of students through the use of appropriate technologies. IT pursues this goal by providing college-wide technology support, and by offering training to staff members who use, or wish to use, technology as part of the learning experience, whether in instructional or support capacities. Information Technology staff maintain an e-mail system for staff and for students, a records system, wireless and wired networks, and the workstations necessary to access online information.

#### **DISTANCE LEARNING SERVICES ([www.isothermal.edu/onlinecourse.htm](http://www.isothermal.edu/onlinecourse.htm))**

The mission of Distance Learning is to provide convenient alternatives to attending traditional on-campus classes for students who wish to take Isothermal Community College courses. Online courses require student workloads comparable to traditional courses. Faculty who teach online courses, and those who may wish to incorporate technology into traditional courses, are offered training in using course management software and other software and equipment. The College cooperates with public and private colleges and universities in mutually beneficial projects that enhance and expand the curricular opportunities of students. In order to address the needs of students for flexible scheduling and delivery of classes, a selection of online courses is offered through Isothermal's Distance Learning initiative. The following chart provides definitions of the types of courses available to Isothermal students.

## COURSE SECTION DESIGNATORS BASED ON INSTRUCTIONAL DELIVERY METHOD

Type of Course	Code	Description of Instructional Delivery Method
Traditional	TR	College credit or continuing education course where the instructor and students meet face-to-face, according to designated dates/times/location and where there is no Internet or other method of delivery requirement.
Self Paced Internet or Online	SP IN	Self Paced Developmental courses only College credit or continuing education course where 100% of the instruction is delivered through the Internet.
Hybrid	HY	College credit or continuing education course where the primary delivery is on line with a requirement that students also meet in traditional face-to-face sessions as determined appropriate by the college. 65% or more of the instruction is delivered through the Internet
Web-supported or Web-assisted	WB	College credit or continuing education course where the primary delivery is via traditional face-to-face method with a requirement that students have Internet access as a supplemental part of the course. 50% or less of the instruction is delivered through the Internet
Information Highway/Two- way Video	IH	College credit or continuing education course where 100% of the instruction is delivered by two- or more way video
Cooperative Education	CP	Instruction consisting of the integration of traditional classroom learning with supervised work experience and where there is no Internet requirement
Independent Study	IS	Self paced course in which a student progresses through the instructional materials at their own pace, regardless of method of delivery
Telecourse	TV	College credit or continuing education course where 100% of the instruction is delivered by video, television or cassette
Digital Media	DM	College credit or continuing education course where 100% of the instruction is delivered by non telecourse digital video or media resources.
Teleweb	TW	College credit or continuing education course where the primary delivery of instruction is via telecourse and also requires Internet access as a supplemental part of the course.

The following may be helpful when selecting the type of course that works for you:

- A student taking an *Internet* course is not required to have a physical presence on our campus to complete the course, e.g., students in another state could take the course. Some internet courses may require testing by proctor.
- A *web supported* or *web-assisted* course is a traditional seated course that includes the use of the web to deliver some course content.
- A *hybrid* course falls between an Internet course and a web-supported course in that a hybrid course reduces time constraints on the student by replacing some of the usual on-campus seated class time with web-accessible resources, e.g., chat, discussion boards, e-mail, etc.

# COLLEGE REGULATIONS & POLICIES

## CONDUCT

The student assumes full responsibility for the consequences of his/her actions and behavior. It is the personal responsibility of each student to uphold the rules and regulations of Isothermal Community College. The College reserves the right to dismiss any student who, in its judgment, conducts him or herself in a manner that is not in compliance with the purposes of this institution. The complete policy for Student Rights, Responsibilities, and Judicial Procedures is available in the Student Services Office and detailed in the Student Handbook which is available in print and on the website.

## COMMUNICABLE DISEASE POLICY

Isothermal Community College shall not exclude individuals with communicable diseases unless a determination is made that the individual presents a health risk to himself/herself or others. It is the policy of Isothermal Community College to consider the educational or employment status of those with a communicable disease on an individual basis. Communicable diseases as defined in this policy include but are not limited to acquired immunodeficiency syndrome (AIDS), chicken pox, hepatitis, measles, tuberculosis, meningitis, mononucleosis and whooping cough.

### COMMUNICABLE DISEASES: ADMINISTRATIVE PROCEDURES

1. All information and records that identify a person as having a communicable disease shall be strictly confidential.
2. Disclosure of medical information shall be by the president only to those on a need-to-know basis to protect the welfare of persons infected with a communicable disease or the welfare of other members of the college community.
3. Unauthorized disclosure of medical information by an employee of the College is prohibited. Violation of this prohibition may result in the suspension from or termination of employment at Isothermal Community College.
4. Persons who know or have a reasonable basis for believing that they are infected with a communicable disease are expected to seek expert advice about their health circumstances and are obligated, ethically and legally, to conduct themselves responsibly toward other members of the college community.
5. Faculty and staff of Isothermal Community College and employees of contractors or contracted services who are infected with a communicable disease are urged to notify the appropriate Dean/Directors so that the College can respond appropriately to their health needs. Students are urged to share information with the appropriate Dean/Directors for the same reason.



6. Persons infected with a communicable disease (including the AIDS virus whether active AIDS, AIDS-Related Complex, or zero positive to virus) will not be excluded from enrollment or employment or restricted in their access to the college's services or facilities unless medically-based judgment in individual cases establish that exclusion or restriction is necessary.
7. Included in making decisions in individual cases which restrict access to enrollment or employment shall be the college president, the college attorney, the Dean/Directors, the individual's personal physician, the local health director (or designee), and if necessary, another physician with expertise in managing communicable disease cases.
8. The college shall communicate the most current information regarding communicable diseases, especially AIDS.

#### **COMPUTER RESOURCES, INTERNET, AND NETWORK USE POLICY**

Information regarding the College Computer Resources, Internet, and Network Use Policy is available in the Student Handbook.

#### **DRUG & ALCOHOL POLICY**

The possession and/or use of any non-prescribed controlled substance as defined in Chapter 90 of the General Statutes of North Carolina and federal laws are not permitted on the campuses of Isothermal Community College. The consumption of alcohol or the possession of an open container which contains alcoholic beverages is prohibited on the campuses of Isothermal Community College. Exceptions shall be made for use of alcohol in instructional situations, e.g. cooking classes, laboratory experiments, or in conjunction with events at The Foundation Performing Arts and Conference Center meeting the requirements of the State ABC Codes and of the non exclusive catering services agreement. Appropriate disciplinary sanctions will be determined by the College on a case by case basis and may include expulsion and referral for prosecution. A full description of the Drug and Alcohol Policy is available in the appendix of the Student Handbook and the Student Life link on the College website.

#### **INCLEMENT WEATHER POLICY**

In the event curriculum classes are canceled due to inclement weather or emergencies, time missed shall be made up by alternative assignments and documented with the appropriate Dean/Director, recorded with the Registrars Office. Alternative assignments may be developed and approved in advance if the course content has such flexibility, e.g. a unit may be held in reserve pending weather cancellations but included in class in the event there are no cancellations. If days canceled exceed five in a semester, break time may be rescheduled for class meetings. Continuing Education classes may be rescheduled with the program supervisor's approval. Adjustments will be reflected on the official class roll.

#### **CRIME AWARENESS AND REGISTERED SEX OFFENDERS**

As required by the Crime Awareness and Campus Security Act of 1990, information regarding crime awareness and campus safety is available in the Student Handbook. Information regarding registered sex offenders in the local region may be obtained by contacting the Rutherford County Sheriff's Department at (828) 287-6247 or at the web site: <http://sbj.us.state.nc.us>.

#### **STUDENT RIGHTS**

It is the duty of the president to exercise full authority in the regulation of student services and discipline in the institution. Delegation of this authority is normally made to the Dean of Students. Nevertheless, it is the duty of the president to insure to every student the right of due process. A complete policy of Student Rights, Responsibilities and Judicial Procedures is available for review in the Student Services Office and detailed in the Student Handbook which is available in print and on the website.

**ADDITIONAL INFORMATION ON RULES AND REGULATIONS IS CONTAINED IN THE STUDENT HANDBOOK. IT IS THE INDIVIDUAL RESPONSIBILITY OF EACH STUDENT TO READ AND UNDERSTAND THIS HANDBOOK. A MANUAL OF STUDENT RIGHTS, RESPONSIBILITIES AND JUDICIAL PROCEDURES IS AVAILABLE UPON REQUEST IN THE STUDENT SERVICES OFFICE.**

#### **TRAFFIC REGULATIONS**

Faculty, staff and visitor parking areas are shown on the Campus Map. These areas, and a small portion in front of Business Sciences Building (Student Parking 2), have yellow parking lines with reserved numbers. Students are asked not to park in these reserved spaces.

Student parking areas have sufficient parking to accommodate all vehicles driven by students. At times, the student may not be able to use the parking area most convenient and will have to park in a student area more removed from his/her destination. Students are required to park in the assigned parking areas. Parking along the roadways and in the staff and faculty parking spaces is prohibited.



# CUSTOMIZED TRAINING & DEVELOPMENT

Isothermal Community College is committed to providing business and industry with a broad array of educational and training services. In addition to customized training and regular curricular offerings, the college can assist business and industry through the following program areas:

## **CUSTOMIZED TRAINING PROGRAM**

The Customized Training Program supports the economic development efforts of the State by providing education and training opportunities for eligible businesses and industries. Amended in 2008, this program combines the New and Expanding Industry Training Program and the Customized Industry Training Program to more effectively respond to business and industry. The Customized Training Program also includes the former Focused Industry Training Program and shall offer programs and training services to assist new and existing business and industry to remain productive, profitable, and within the State.

The program was developed in recognition of the fact that one of the most important factors for a business or industry considering locating, expanding, or remaining in North Carolina is the ability of the State to ensure the presence of a well-trained workforce. The program is designed to react quickly to the needs of businesses and to respect the confidential nature of proprietary processes and information within those businesses.

### **PURPOSE**

The purpose of the Customized Training Program is to provide customized training assistance in support of full-time production and direct customer service positions created in the State of North Carolina, thereby enhancing the growth potential of companies located in the State while simultaneously preparing North Carolina's workforce with the skills essential to successful employment in emerging industries.

### **ELIGIBILITY**

Those businesses and industries eligible for support through the Customized Training Program include Manufacturing, Technology Intensive (i.e., Information Technology, Life Sciences), Regional or National Warehousing and Distribution Centers, Customer Support Centers, Air Courier Services, National Headquarters with operations outside North Carolina, and Civil Service employees providing technical support to US military installations located in North Carolina.

## **SMALL BUSINESS CENTER**

The Small Business Center at Isothermal Community College is a community-based provider of education and training, confidential counseling, information, and referral for persons who are currently in business or those seeking to start a new business in Rutherford and/or Polk County.

The objective of the Small Business Center Network is to increase the success rate and the number of viable small businesses in the State of North Carolina. Throughout the year, the Small Business Center conducts seminars and training that are designed to provide you with up to date information on various small business topics.

At the Small Business Center, we also provide free, confidential counseling services for new and existing businesses. Available on an as-needed basis, our counselors serve as sounding boards for ideas and concerns you may have about your business. Our professional staff will help you find solutions to your challenging business questions. No question is too simple or too complicated.

## **CAREER READINESS CERTIFICATION**

Career Readiness Certification is a credential that can be obtained at Isothermal Community College to take to a job interview. It can show an employer the skills a person has in reading for information, applied math and locating information. The program is self-paced, the hours are flexible and in some cases the class is free.

# CONTINUING EDUCATION

[www.isothermal.edu/ce.edu](http://www.isothermal.edu/ce.edu)

Continuing Education's flexibility provides the opportunity to meet a wide variety of individual and group needs. Adults can study a high tech skills, learn to read, take a course for self-enrichment, or develop quality management techniques. Some courses are offered on a continuing basis while others are given in response to requests of individuals or groups. Groups meet in schools, churches, community clubs, fire stations, and industry throughout Rutherford and Polk counties and on campus. Class hours, the length of the course, and the number of meetings per week can be arranged for the convenience of the participants.

## ADMISSION AND REGISTRATION

Adults 18 years of age or older are eligible to participate in Continuing Education classes. High school students from Rutherford and Polk counties, ages 16 and 17, may enroll in a course with permission from their high school.

## REGISTRATION FEES

Student fees depend on the type of course. There are no registration fees for Adult Basic Education, HRD, and the High School Diploma programs. Law enforcement, fire, rescue, and EMT personnel pay no fees for their in-service training. Prisoners and mentally handicapped adults are fee exempt. North Carolina residents 65 and over, do not pay a fee for some classes.

## CONTINUING EDUCATION REFUND POLICY

1. A student who withdraws from a class prior to the first day of class or if the class is canceled will be eligible for a 100 percent refund of the registration fee.
2. After the class has started, a 75% refund will be made if the student withdraws prior to or on the 10% point of the class.
3. An option to a refund: The student may request a transfer to another Continuing Education course before 10% of the course has expired. The course that is being transferred into must be within the same semester, have space available, and have the instructor's approval.
4. Exceptions to this policy can be made by the following:

Courses Originating In	Exceptions Made By
Continuing Education Division	Dean of Continuing Education
Polk Campus	Polk Campus Director

## CONTINUING EDUCATION REPETITION POLICY

Continuing Education students may enroll in a course as many times as necessary to accomplish their personal or educational/training goals, provided they: 1.) continue to show progress, 2.) do not prohibit other students from participating, 3.) pay the appropriate fees, and 4.) do not violate North Carolina Department of Community College policy.

Students who take the same Occupational Extension course more than twice are required to pay for the actual cost of the course or the registration fee, whichever is more. This applies if the course is repeated within a five-year period since September 1, 1993. Courses taken for certification, licensure, or recertification are exempt from this policy.

## CONTINUING EDUCATION UNITS

One Continuing Education Unit will be awarded for each 10 contact hours of instruction that will be determined prior to the beginning of the experience. A decision to award the CEU will be made after the program or activity has been offered. Calculations of contact hours will include the following elements:

1. Classroom time with direct participation between the students and instructors will be converted directly to contact hours.
2. Activities that use instruction such as supervised independent study, directed reading, or project based assignments will be awarded CEU's. Contact hours will be determined after finding the average amount of time and hours required to complete the learning activity.
3. Field trips and other experiential course activities will be awarded CEU's. This will usually be done on the basis of two hours required for each contact hour of instruction.

The CEU is used in three ways, as follows:

1. A unit of measure to recognize an individual's participation in non-credit activities that meet appropriate criteria.
2. The accounting unit of Isothermal Community College non-credit courses, programs, and activities.
3. The basis for quality assurance in Continuing Education programming.

The Dean of Continuing Education and the Director of Polk Campus have responsibility for final determination of the CEU's awarded for a particular Continuing Education experience. The instructor will verify and report that each participant has or has not met the specified requirements for satisfactory completion and is or is not awarded a CEU. A permanent record of the student's participation will be maintained by Isothermal Community College.

## **OCCUPATIONAL EXTENSION**

Occupational classes help adults build their job skills or knowledge. These classes are held on campus or in the workplace. Business, industry and public service organizations have benefited from their employee's development through occupational courses. Here are some examples of occupational oriented courses.

<b>CPR</b>	<b>HRD</b>	<b>Team Building</b>
Emergency Medical Services	Law Enforcement	Teacher Renewal Credit
Fire Fighting	Leadership Rutherford	Truck Driver Training
First Aid	Nursing Assistant	

## **SELF-ENRICHMENT**

Self-enrichment courses help adults broaden their talents, stimulate their creativity, develop new skills, improve themselves, and just have fun. Examples of these courses include:

Cake Decorating	Crafts	Language & Culture	Pottery
Ceramics	Creative Writing	Music	Quilting
Computers Skills	Dance	Notary Public	Sign Language
Cooking & Nutrition	Health & Wellness	Painting	Vehicle Inspection/Emissions

## **ADULT BASIC EDUCATION**

Adult Basic Education is designed for those who need basic reading, writing, and mathematics skills. It offers training that will help adults become better shoppers, consumers, workers, and problem solvers. Classes may be geared toward helping adults get better jobs or improving present literacy-related job skills. Emphasis is placed on individual study for advancement at one's own pace. The program uses a variety of materials, ranging from basic reading to high school entry level, which are designed for adults. Adult Basic Education uses the CASAS system.

Classes usually meet for a three-hour session twice a week. To accommodate a variety of student needs, both daytime and evening classes are scheduled. They are held on campus, in neighborhoods or work places throughout Rutherford and Polk counties. There are no fees for these classes.

Upon completion of basic instruction, the student is eligible to study toward an Adult High School Diploma or GED.

## **ENGLISH FOR SPEAKERS OF OTHER LANGUAGES - ESL**

The Adult Basic Skills Program offers ESOL. This program is designed for adults who want to learn the English language skills necessary to function effectively in an English-speaking environment. ESL classes are held on campus and in businesses and industries in Rutherford and Polk counties.

## **HRD PROGRAM**

*"Our mission is to educate and train individuals for success in the workplace."* The HRD (Human Resources Development) programs help unemployed, under employed, and dislocated workers with motivation, attitudinal changes, and pre-job orientation. Instruction addresses six core competencies:

1. assessment of individual assets and limitations
2. development of a positive self-concept
3. development of employability skills
4. development of communication skills
5. development of problem-solving skills
6. development of awareness of information technology in workplace

The structured pre-employment training and counseling are designed to help participants achieve success. Students learn how to be better employees through a variety of instructional activities: individual participation, group interaction, discussion, creative expression, projects, team tasks. Students are encouraged to use their abilities, to develop attitudes and skills necessary to obtain and maintain satisfactory employment. Some classes include specific work-related training appropriate for employment such as basic office assistant, bank teller, child care worker.

## **COMPENSATORY EDUCATION**

The Compensatory Education Program is provided for adults with mental handicaps. The focus of the program is on skills needed by adults with mental handicaps to function as independently as possible in society. It assumes an end result of productivity, employment, independence, and self-sufficiency. The education programming includes: language, math, social science, community living, consumer education, health, and vocational education.

These educational opportunities enable adults with mental handicaps to become more independent and self-directed. Also, they become more familiar with occupational skills and acquire skills to meet and manage community, social, work, and personal adult responsibilities.

In order to accommodate student needs, classes are offered during the day and evening with class hours being flexible. Classes are offered in communities, rest homes, and vocational workshops. There is no registration fee.

## **ADULT HIGH SCHOOL**

The adult high school programs, Adult High School Diploma (AHS/D) and the General Educational Development (GED), provide self-paced, individualized instruction to adults. Guidelines for the AHS/D program are established through the Department of Community Colleges and through a cooperative agreement with the Polk County Board of Education, the Rutherford County Board of Education, and Isothermal Community College. Guidelines for the GED program are set by the Department of Community Colleges and the American Council on Education.

Any 18 year old or older may enroll in either program. A sixteen or seventeen year old may apply with special written permission from proper authorities.

### **ADULT HIGH SCHOOL DIPLOMA REQUIREMENTS**

- 1) Satisfactory completion of units in English, mathematics, social studies, sciences, and health.
- 2) Satisfactory completion of elective units.
- 3) Passing score on the North Carolina Competency Test.

## **GENERAL EDUCATIONAL DEVELOPMENT (GED)**

### **GED Testing**

A North Carolina High School Equivalency Diploma is awarded upon satisfactory completion of a series of tests in the areas of writing, reading, social studies, science, and mathematics. Spanish versions of the tests are also available. Anyone interested in taking the GED tests should first contact the Adult High School Coordinator in the Oak Room of the Foundation at 828-395-1361. GED Testing accommodations may be available to examinees with documented disabilities. Contact the Chief Examiner at 828-395-1435 for more information.

GED practice tests and GED study material are available in all classes. Individual scores on the practice GED test determine whether or not the student needs to study and determines the subject(s) to review before attempting the official test. A student must be a resident of North Carolina to take the official GED test in North Carolina.

Classes are offered in communities throughout Rutherford and Polk counties, in industries, and on both the Spindale and Polk campuses. Morning, afternoon, and evening classes are available. There is no registration fee. There is a charge of \$25.00 for the GED test.

## **PROFESSIONAL TRUCK DRIVER TRAINING**

[www.isothermal.edu/truck](http://www.isothermal.edu/truck)

The Professional Truck Driver Training is a certified program of the Professional Truck Driving Institute. This 168 hour program is offered in daytime or evening classes. Work with the truck in addition to classroom will be scheduled at times from early morning to late evening, Monday-Sunday. Classes start about every five weeks.

### **PROGRAM FEATURES**

- 44 hours of individual driving time and 124 hours of classroom
- One-on-one instruction behind the wheel
- Satisfaction guarantee
- CDL State testing conducted in-house
- Job placement assistance, if needed

### **ADMISSION REQUIREMENTS**

- 21 years of age to drive interstate
- High School or GED graduate. Non-graduates can take a placement test
- Valid driver's license
- Motor vehicle driving record free of any current serious offenses
- Be able to pass a DOT physical and drug screen

# PROGRAMS OF STUDY

Programs of study fall into two major categories—college transfer and career preparation. The Associate of Arts and Associate of Science Degree Programs are designed primarily for students planning to transfer to a four-year college or university. The Associate of Applied Science Degree, Diploma, and Certificate Programs are designed for career preparation. Some Associate of Applied Science Degree Programs are also transferable to four-year colleges and universities.

## DEGREE PROGRAMS

<u>Program</u>	<u>Code</u>	<u>Page #</u>
<b>ARTS AND SCIENCES</b>		
Associate of Arts	A 10 10 0	42
Associate of Science	A 10 40 0	43
<b>BUSINESS TECHNOLOGIES</b>		
Business Administration	A 25 12 0	56
Banking and Finance	A 25 12 A	58
Marketing and Retailing	A 25 12 F	59
Computer Programming	A 25 13 0	65
Computer Information Technology	A 25 26 0	63
Entrepreneurship	A 25 49 0	79
Healthcare Business Informatics	A 25 51 0	82
Healthcare Management Technology	A 25 20 0	83
Information Systems Security	A 25 27 0	85
Medical Office Administration	A 25 31 0	91
Networking Technology	A 25 34 0	93
Office Administration	A 25 37 0	96
Paralegal	A 25 38 0	97
Web Technologies	A 25 29 0	100
<b>COMMERCIAL &amp; ARTISTIC PRODUCTION TECHNOLOGIES</b>		
Advertising and Graphic Design	A 30 10 0	49
Broadcasting and Production Technology	A 30 12 0	50
<b>CONSTRUCTION TECHNOLOGIES</b>		
Building Construction Technology	A 35 14 0	53
Electrical/Electronics Technology	A 35 22 0	76
<b>ENGINEERING TECHNOLOGIES</b>		
Computer Engineering Technology	A 40 16 0	61
Electronics Engineering Technology	A 40 20 0	77
Mechanical Engineering Technology	A 40 32 0	89
Sustainability Technologies	A 40 37 0	98
<b>HEALTH SCIENCES</b>		
Associate Degree Nursing	A 45 11 0	44
<b>INDUSTRIAL TECHNOLOGIES</b>		
Industrial Systems Technology	A 50 24 0	84
Manufacturing Technology	A 50 32 0	86
Mechanical Drafting Technology	A 50 34 0	87
Welding Technology	A 50 42 0	101
<b>PUBLIC SERVICE TECHNOLOGIES</b>		
Cosmetology	A 55 14 0	66
Criminal Justice Technology	A 55 18 0	70
Early Childhood Education	A 55 22 0	72
General Occupational Technology	A 55 28 0	80
Occupational Education Associate	A 55 32 0	94
School Age Education	A 55 44 0	75

## DIPLOMA PROGRAMS

<u>Program</u>	<u>Code</u>	<u>Page #</u>
<b>ARTS &amp; SCIENCES</b>		
Diploma of Arts	D 10 10 0	42
Diploma of Science	D 10 40 0	43
<b>BUSINESS TECHNOLOGIES</b>		
Business Administration	D 25 12 0	57
Medical Office Administration	D 25 31 0	92
Office Administration	D 25 32 0	97
<b>COMMERCIAL &amp; ARTISTIC PRODUCTION TECHNOLOGIES</b>		
Broadcasting and Production Technology		
Audio Production	D 30 12 0 01	51
Video Production	D 30 12 0 02	52
<b>CONSTRUCTION TECHNOLOGIES</b>		
Building Construction Technology		
Carpentry	D 35 14 0 01	54
Cabinetmaking	D 35 14 0 02	54
Electrical/Electronics Technology	D 35 22 0	76
<b>ENGINEERING TECHNOLOGIES</b>		
Computer Engineering Technology	D 40 16 0	62
Electronics Engineering Technology	D 40 20 0	78
Sustainability Technologies	D 40 37 0	99
<b>HEALTH SCIENCES</b>		
Practical Nursing	D 45 66 0	46
Surgical Technology	D 45 74 0	46
<b>INDUSTRIAL TECHNOLOGIES</b>		
Computer-Integrated Machining	D 50 21 0	64
Mechanical Drafting Technology	D 50 34 0	88
Welding Technology	D 50 42 0	102
<b>PUBLIC SERVICE TECHNOLOGIES</b>		
Cosmetology	D 55 14 0	67
Criminal Justice Technology	D 55 18 0	71
Early Childhood Education	D 55 22 0	73
General Occupational Technology	D 55 28 0	81
Occupational Education Associate	D 55 32 0	95
<b>TRANSPORTATION SYSTEMS TECHNOLOGIES</b>		
Collision Repair and Refinishing Technology	D 60 13 0	60

## CERTIFICATE PROGRAMS

<u>Program</u>	<u>Code</u>	<u>Page #</u>
<b>BUSINESS TECHNOLOGIES</b>		
Business Administration	C 25 120 02	58
Business Administration/Bookkeeping	C 25 120 01	58
Computer Information Technology	C 25 26 0	64
Entrepreneurship	C 25 49 0	80
Medical Office Administration	C 25 310 01	92
Medical Coding	C 25 310 02	93
Medical Transcription	C 25 310 03	93
Networking Technology	C 25 34 0	94
Office Administration	C 25 37 0	97
Web Technologies	C 25 29 0	101

<u>Program</u>	<u>Code</u>	<u>Page #</u>
<b>COMMERCIAL &amp; ARTISTIC PRODUCTION TECHNOLOGIES</b>		
Advertising and Graphic Design	C 30 10 0	50
Broadcasting and Production Technology		
Basic Audio Production	C 30 12 0 01	52
Basic Video Production	C 30 12 0 02	52
<b>CONSTRUCTION TECHNOLOGIES</b>		
Building Construction Technology		
Basic Carpentry	C 35 140 01	55
Advanced Carpentry	C 35 140 02	55
Basic Plumbing	C 35 140 03	55
General Contractor Licensing Preparation	C 35 140 05	55
Cabinetmaking	C 35 140 06	55
Basic Construction	C 35 140 08	55
Elementary Carpentry	C 35 140 09	55
Sustainable Building Design	C 35 140 10	56
Electrical/Electronics Technology		
Electrical Wiring	C 35 220 01	77
Industrial Controls	C 35 220 02	77
<b>ENGINEERING TECHNOLOGIES</b>		
Computer Engineering Technology		
Computer Upgrade/Repair	C 40 16 0	62
Electronics Engineering Technology	C 40 20 0	79
Mechanical Engineering Technology	C 40 32 0	91
Sustainability Technologies	C 40 37 0	99
<b>HEALTH SCIENCES</b>		
Licensed Practical Nurse Refresher	C 45 39 0	44
<b>INDUSTRIAL TECHNOLOGIES</b>		
Computer Integrated Machining		
Machining	C 50 21 0 01	65
CNC	C 50 21 0 02	65
Motorsports Machining	C 50 21 0 03	65
Industrial Systems Technology	C 50 24 0 01	85
Industrial Systems – Pipefitting Technology	C 50 24 0 02	85
Manufacturing Technology	C 50 32 0	87
Mechanical Drafting Technology	C 50 34 0	89
Welding Technology	C 50 42 0	102
<b>PUBLIC SERVICE TECHNOLOGIES</b>		
Basic Law Enforcement Training	C 55 12 0	50
Cosmetology Instructor	C 55 16 0	69
Criminal Justice Technology	C 55 18 0	72
Early Childhood Education	C 55 22 0	74
Esthetics Instructor	C 55 27 0	70
Esthetics Technology	C 55 23 0	68
Infant/Toddler Care	C 55 29 0	74
Manicuring Instructor	C 55 38 0	69
Manicuring/Nail Technology	C 55 40 0	68
Occupational Education Associate	C 55 32 0	95
<b>TRANSPORTATION SYSTEMS TECHNOLOGIES</b>		
Collision Repair and Refinishing Technology		
Basic Collision Repair and Refinishing	C 60 13 0 01	61
Advanced Collision Repair and Refinishing	C 60 13 0 02	61

## ONE PLUS ONE PROGRAMS

### **Physical Therapy Assistant, Dental Hygiene, and Occupational Therapy Assistant**

Through an agreement with Greenville Technical College, a limited number of Isothermal students can enter these vital health care programs. These programs are arranged as two separate components called One Plus One (1+1). The first component is taken at Isothermal and the second at Greenville Tech. Please contact the Arts and Sciences Dean for further information.

### **Health Information Technology**

Health Information Technology is a 1-1 collaborative agreement program between McDowell Technical Community College and Isothermal Community College. For more information, please see the dean of Business Sciences.

## COOPERATIVE EDUCATION PROGRAM

Cooperative Education is an alternative college program in which students are employed for specific periods of on- or off-campus work. This employment is related as closely as possible to each student's course of study and individual interest. The blend of classroom theory and practical on-the-job training adds a vital dimension to learning experiences. Numerous advantages accrue from the Cooperative Education approach to learning, such as career direction and financial assistance for participating students, a source of manpower for employers, and an avenue to better relate the college to the community.

A student may participate in the Co-Op Program and earn credit toward degree requirements depending on his/her major.

In order to be eligible for the Co-Op Program, the student must:

1. Be enrolled in a curriculum program that includes Co-op as an option or requirement.
2. Have been at Isothermal for at least 1 semester.
3. Have at least a 2.0 GPA.
4. Be employable.
5. Be at least 17 years of age.
6. Have met the curriculum restrictions in accordance with the NCCCS Curriculum Procedures.

## ACADEMIC DEVELOPMENT

This college level educational support program is designed to enable students to complete their chosen curriculum by increasing options for academic success.

Students whose placement tests indicate a need for one or more Academic Development courses are given a specific in-class diagnostic exam to further assess strengths and needs in the areas of English, college reading, and mathematics. These diagnostic exams help instructors plan programs that will help students be successful.

Courses are offered in various levels of English, college reading, and mathematics. Class formats include self-paced, lecture, web-assisted, and online instruction. In every case, instructors work with students to provide them with a foundation for confident, life-long learning.

Both day and evening classes are available in the following Academic Development Courses:

ENG 080	Writing Foundations
ENG 085	Reading and Writing Foundations
ENG 090 & ENG 090A	Composition Strategies
ENG 095	Reading & Composition Strategies
RED 080	Introduction to College Reading
RED 090	Improved College Reading
MAT 060	Essential Mathematics
MAT 070	Introductory Algebra
MAT 080	Intermediate Algebra

Other college-wide services offered by Academic Development:

- Supplemental Instruction
- Writing Center
- Math Tutoring



## ARTS AND SCIENCES PROGRAM

### Objectives:

The primary objective of the Arts and Sciences Curricula is to provide students with the general education courses required in the first two years of a traditional four-year degree. Depending on proposed majors at the four-year schools, students at Isothermal Community College will pursue either the A.A. (Associate of Arts) or the A.S. (Associate of Science) degree.

### Graduation Requirements:

Students enrolled in both the A.A. and the A.S. degree programs must earn 65 semester hours in designated disciplines with an overall grade point average of 2.0 to graduate. Both programs require a 44 hour general education core as well as other institutional requirements. A.S. degree students are required to take additional hours in upper level math and science while A.A. degree students take more electives in the liberal arts.

### Transfer Core Diploma

A Transfer Core Diploma is an option for students who complete the 44 hour core but do not plan to complete the A.A. or A.S. degree before transferring. See advisors in Arts and Sciences for additional information.

### Transferability of courses:

A Comprehensive Articulation Agreement (C.A.A.) between the North Carolina Community College System and the 16 institutions of the University of North Carolina contains the following components:

1. Students who complete the A.A. or A.S. degree at a college within North Carolina Community College System are assured admission to one of the 16 universities within the UNC system and will transfer as juniors. They will still be responsible for any institutional requirements at the transfer university, such as foreign language. If these requirements have not been met at the community college, they will have to be completed at the transfer university. (Note: This agreement does not guarantee acceptance at the student's first choice institution.)
  2. Students who complete the 44 hour general education core at a college within the North Carolina Community College System will have met the general education requirements at the universities within the North Carolina University System. Some universities have institutional requirements such as foreign language which, if not taken as a part of the 44 hour core, will be required after transfer.
  3. Students who transfer before completing the 44 hour core will have transcripts evaluated on a course by course basis and will be required to meet the general education requirements of the transfer institution.
- \* An Independent Comprehensive Articulation Agreement (I.C.A.A.) allows for transfer to a limited group of private colleges.

Students who transfer to private colleges that are not included in the I.C.A.A. or to public universities outside of North Carolina will have transcripts evaluated in accordance with their policies. The final decision on transferability rests with the transfer institution.

The average rate of student persistence toward degree completion at Isothermal Community College is available in the office of Student Services.

**GRADUATION COURSE REQUIREMENTS  
ASSOCIATE OF ARTS (A.A.) - DEGREE (A 10 10 0)**

The Associate of Arts degree will be awarded to those students completing the general liberal arts requirements listed below. When considering options, students should consult four-year college catalogs to determine institutional and program requirements at the schools to which they intend to transfer.

**44 hours general education core**

<u>Subject</u>	<u>Course(s)</u>	<u>Minimum Credit Hours</u>
Composition/Communication	ENG 111, 112, 113, 114	6
Literature	Two courses from: ENG 231, 232, 233, 241, 242, 261, 262	6
Humanities/Fine Arts	Two courses with two different prefixes from: ART 111, DRA 122 HUM 115, 120, 122, 130, 160, 211, 212, 220 MUS 110, 112, 113, 114 PHI 215, 220, 221, 240 REL 110, 111, 112, 211, 212 SPA 111-181, 112-182, 211/281, 212/282	6
History	*Two courses from the following: HIS 111, 112 or 151, 112	6
Social/Behavioral Science	Two courses with two different prefixes from: ANT 210, 220, ECO 251, 252, GEO 111, 112, 113, 130 POL 120, 220, PSY 150, 237, 239, 241, 281 SOC 210, 213, 220	6
Mathematics	Two courses from the following: MAT 140, 151, 161, 162, 171, 172, 175, 263, 271, 272, 273 (One course must be an introductory college level math course such as 161 or 171) Note: Elementary, Middle Grades, and Special Education majors may take MAT 141, 142 for the math requirement pending transfer school preferences.	6
Laboratory Science	Two laboratory science courses from the following: AST 111, 151, 152, BIO 110, 111, 112, 120, 140, CHEM 131, 132, 151, 152, PHY 110, 151, 152, 251, 252	8
<b>Other Requirements:</b>		
Orientation	**ACA 115 and ACA 122	2
Physical Education	PED 110 or 111 and one PED activity course	2
Computer Requirement	CIS 110 or higher level course	3
Electives	(Choose from approved list of transferable courses)	15
<b>Total Hours:</b>		<b>65-66**</b>

\*HIS 111 & 112 are preferred by many universities.

\*\*ACA 115 and ACA 122 are institutional requirements not included in the 64 hour state requirement.

**GRADUATION COURSE REQUIREMENTS  
ASSOCIATE OF SCIENCE (A.S.) - DEGREE (A 10-40 0)**

The Associate of Science degree will be awarded to students who complete the requirements listed below. Students planning to transfer to science/math based programs within the UNC System should also follow the guidelines in articulation agreements available through advisors and/or consult four-year college catalogs when considering course options.

**44 hours general education core**

<b>Subject</b>	<b>Course (s)</b>	<b>Minimum Credit Hours</b>
Composition/Communication	ENG 111, 112, 113, 114	6
Literature	One courses from: ENG 231, 232, 233, 241, 242, 261, 262	3
Humanities/Fine Arts	Two courses with two different prefixes from: ART 111, HUM 115, 120, 122, 130, 160, 211, 213, 220 MUS 110, 112, 113, 114 PHI 215, 220, 221, 240 REL 110, 111, 112, 211, 212	6
History	One courses from: HIS 111, 112, or HIS 131, 132	3
Social/Behavioral Science	Two courses with two different Prefixes from: ANT 210, 220, ECO 251, 252, GEO 111, 112, 113, 130, POL 120, 220 PSY 150, 237, 239, 241, 281, SOC 210, 213	6
Mathematics	Two courses from the following: MAT 175, (171 and 172), 271, 272	6
Laboratory Science	Two courses from the same discipline: BIO 111, 112, CHEM 151, 152, PHY 151, 152, 251, 252	8
<b>Other Requirements:</b>		
Orientation	**ACA 115 and ACA 122	2
<b>***Additional hours in upper level math and science</b>		14-16
Electives		2-4
<b>Total Hours:</b>		<b>65-66**</b>

*NOTE: Computer competency is a must for A.S. degree students. A PS 110 or equivalent level computer course is recommended.*

*\*HIS 111 & 112 are preferred by most universities*

**\*\*ACA 115 and ACA 122 are institutional requirements not included in the 64 hour state requirement.**

## HEALTH SCIENCES

### Associate Degree Nursing - Degree (A 45 11 0)

#### Curriculum Description

The Associate Degree Nursing curriculum provides knowledge, skills, and strategies to integrate safety and quality into nursing care, to practice in a dynamic environment, and to meet individual needs which impact health, quality of life, and achievement of potential.

Course work includes and builds upon the domains of healthcare, nursing practice, and the holistic individual. Content emphasizes the nurse as a member of the interdisciplinary team providing safe, individualized care while employing evidence-based practice, quality improvement, and informatics.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN). Employment opportunities are vast within the global health care system and may include positions within acute, chronic, extended, industrial, and community health care facilities.

		Class Hours	Lab Hours	Clin. Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 26 Credit Hours</b>				
	BIO 168 Anatomy & Physiology I	3	3	0	4
	BIO 169 Anatomy & Physiology II	3	3	0	4
	BIO 175 General Microbiology	2	2	0	3
	ENG 111 Expository Writing	3	0	0	3
	ENG 113 Literature Based Research	3	0	0	3
	Humanities Elective	3	0	0	3
	PSY 150 General Psychology	3	0	0	3
	PSY 241 Developmental Psychology	3	0	0	3
<b>II.</b>	<b>Required Core Courses - 43 Credit Hours</b>				
	NUR 111 Intro to Health Concepts	4	6	6	8
	NUR 113 Family Health Concepts	3	0	6	5
	NUR 114 Holistic Health Concepts	3	0	6	5
	NUR 211 Health Care Concepts	3	0	6	5
	NUR 212 Health System Concepts	3	0	6	5
	NUR 213 Complex Health Concepts	4	3	15	10
<b>III.</b>	<b>Other Major Required Courses - 4 Credit Hours*</b>				
	NUR 214 Nursing Transition Concepts	3	0	3	4
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>				
	ACA 115 Success & Study Skills	0	2	0	1
<b>Total Required Hours</b>					<b>69</b>

*Note: The Associate Degree A 45 11 0 is offered for students entering the program in fall 2009. Students admitted to the program before fall 2009 are in the Associate Degree Nursing Non-degree A 45 12 0 program. If a student's program in the program is interrupted after the A 45 11 0 curriculum A 45 11 0 begins, that student must re-apply to the A 45 11 0 curriculum.*

*\*For students accepted as advanced placement, pending approval by NCCCS.*

### Licensed Practical Nurse Refresher - Certificate (C 45 39 0)

#### Curriculum Description

The Licensed Practical Nurse Refresher curriculum provides a refresher course for individuals previously licensed as Practical Nurses and who are ineligible for reentry into nursing practice due to a lapse in licensure for five or more years. *Individuals entering this curriculum must have been previously licensed as a Practical Nurse.*

Course work includes common medical-surgical conditions and nursing approaches to their management, including mental health principles, pharmacological concepts, and safe clinical nursing practice.

Graduates will be eligible to apply for reinstatement of licensure by the North Carolina Board of Nursing. Employment opportunities include hospitals, long term care facilities, clinics, physicians' offices, industry, and community health agencies.

		Class Hours	Lab Hours	Clin. Hours	Credit Hours
	NUR 107 LPN Refresher	9	0	9	12
<b>Total Required Hours</b>					<b>12</b>

## PRACTICAL NURSE EDUCATION (PNE) ADMISSION PROCESS

### General Admission Requirements:

Applicants for the Practical Nurse Program must fulfill the following general admission requirements to be admitted to Isothermal Community College. Materials can be submitted to Admissions, PO Box 804, Spindale, NC 28160.

1. Complete an application for admission to ICC (online at [www.isothermal.edu/admissions](http://www.isothermal.edu/admissions))
2. Submit all official and sealed high school transcript(s) or GED scores to the Admissions Office. The transcript must be from a regionally accredited high school or a state registered private or home school indicating a college preparatory course of study and demonstrating that the applicant is a high school graduate or the equivalent.
3. Submit all official and sealed college transcript(s) from the issuing institution to the Admissions Office. Please note that transfer credit can only be awarded for courses that reflect a GPA of 2.0 or higher.
4. Complete college placement test (ASSET-COMPASS), which includes Reading, Writing and Math skills. Schedule of times and dates are available in the Office of Learning Support and Retention, Student Center (Building #10). Applicants who have completed college level courses in English, Math, and Reading at an accredited college(s) with a grade of "C" or better are exempt from the tests. Completion of only one of the above will require testing in the other areas. Academic Development or enrichment courses completed at an accredited college with a grade of "C" or better may be considered in determining placement test exemptions.

### Pre-Health Science Advisor Requirements

5. Complete all Academic Development courses required as a result of placement tests with a grade of "C" or better.

Improved College Reading	RED 090
Composition Strategies	ENG 090 & ENG 090A
Essential Mathematics	MAT 060
Introductory Algebra	MAT 070
6. Overall, cumulative grade point average of 2.0 in all college courses
7. Submit three (3) references (not relatives or close friends) Example: one from a teacher, a work supervisor, and work employee or person of your choosing. References that are more than one year old at the time of the general admission requirement deadline will not be acceptable. References must be received by Tina Porter, Pre-Health Science Advisor, located in the Office of Learning Support and Retention in envelopes sealed by the reference persons on forms provided.
8. You are responsible for making sure that all requirements have been met and that all materials have been received by the Office of Learning Support and Retention according to the deadlines listed. Please make sure that a Data Change form has been submitted to the Office of Learning Support and Retention with current accurate mailing address and phone number for you
9. Completion of these requirements will NOT guarantee admission into the program.
10. Students are encouraged to enroll in and complete the following required courses prior to being admitted to the PNE program.

ACA 115 – Success & Study Skills
BIO 168 – Anatomy and Physiology I
BIO 169 – Anatomy and Physiology II
ENG 111 – Expository Writing
PSY 110 – Life Span Dev. or [PSY 150 Gen. Psych and PSY 241 – Dev. Psych]

While waiting for admission, students are encouraged to complete other courses such as CNA II, Medical Terminology I, and Medical Terminology II.
11. All applicants' information must be updated annually. If you have previously applied, you must return to the Office of Learning Support and Retention to fill out a Pre-Health Science re-application form.

### Practical Nursing Program Requirements for those accepted into the program:

12. Accepted students must be listed on the North Carolina NAI registry by first day of class. (For information on registry verification go to [www.nactar.org](http://www.nactar.org), for questions regarding steps leading to registry listing go to [www.pearsonvue.com](http://www.pearsonvue.com), formerly [www.promissor.org](http://www.promissor.org).)
13. Accepted students must have an Isothermal Community College student ID card made prior to the start of the program. ID cards are made during the first few weeks of Fall and Spring semester. Student ID cards are issued without charge to students who have paid the student activity fee.
14. Accepted students must complete Basic Cardiac Life Support (BCLS) for the Healthcare Provider that is offered through the American Heart Association. Must provide proof when submitting medical forms to the PN Director.
15. Upon acceptance into the LPN program, the following items must be completed at the student's expense.

Criminal Background Check (Statewide Criminal NC; Residency History)
12 Panel Drug Test
Nationwide Database with Sex Offender Index

An acceptable background check is required for clinical experiences. The background checks will be completed during the first semester, NLR III. Students must be able to attend clinical experiences in all agencies used by the college. Information for obtaining the background checks will be provided to all students by the Director of PNE. Isothermal does not have access to or awareness of the background results. Clinical agencies will notify the student directly regarding any issues with the background/drug test results.

While the above information is not required by Isothermal Community College for either general college admission or entrance into the nursing program, students should be aware that this information will be required by the personnel department at your future clinical location. Failure to provide this information to a clinical site in a timely fashion could result in a cancellation of your clinical site arrangements.

\*\*\*If there are any questions, please call Tina M. Porter, Health Sciences Specialist at (828) 395-1621 or e-mail: [tporter@isothermal.edu](mailto:tporter@isothermal.edu). Located in the Student Center.

## Practical Nursing - Diploma (D 45 66 0)

### Curriculum Description

The Practical Nursing curriculum prepares individuals with the knowledge and skills to provide nursing care to children and adults.

Students will participate in assessment, planning, implementing, and evaluating nursing care.

Graduates are eligible to apply to take the National Council Licensure Examination (NCLEX-PN) which is required for practice as a Licensed Practical Nurse. Employment opportunities include hospitals, rehabilitation/long term care/home health facilities, clinics, and physicians' offices.

		Class Hours	Lab Hours	Clin. Hours	Credit Hours
I.	<b>General Education Requirements - 6 Credit Hours</b>				
	ENG 111 Expository Writing	3	0	0	3
	PSY 110 Life Span Development	3	0	0	3
II.	<b>Required Core Courses - 33 Credit Hours</b>				
	NUR 101 Practical Nursing I	7	6	6	11
	NUR 102 Practical Nursing II	8	0	12	12
	NUR 103 Practical Nursing III	6	0	12	10
III.	<b>Other Major Required Courses - 8 Credit Hours</b>				
	BIO 168 Anatomy and Physiology I	3	3	0	4
	BIO 169 Anatomy and Physiology II	3	3	0	4
IV.	<b>Other Required Hours - 1 Credit Hour</b>				
	ACA 115 Success & Study Skills	0	2	0	1
<b>Total Required Hours</b>					<b>48</b>

## SURGICAL TECHNOLOGY ADMISSION PROCESS

Isothermal Community College, in conjunction with Cleveland Community College and McDowell Technical Community College, will offer a one-year diploma program in Surgical Technology. This program prepares individuals to assist in the care of surgical patients in the operating room and to function as a member of a surgical team. Students will apply theoretical knowledge to the care of patients undergoing surgery, develop skills necessary to prepare patients for surgery, and assist surgeons during operations.

The Foothills Surgical Technology Consortium includes:

- Cleveland Community College**, Cleveland County  
137 South Post Road, Shelby, NC 28150 (704) 484-4000
- Isothermal Community College**, Rutherford and Polk County  
286 JCC Loop Road, PO Box 804, Spindale, NC 28160 (828) 286-3636
- McDowell Technical Community College**, McDowell County  
54 College Drive, Marion, NC 28752 (828) 652-6021

Prospective Surgical Technology candidates residing in the counties listed above must apply to the college serving their county. Applicants of other counties may apply to the college of their convenience. **Priority will be given to service area applicant's first, then other North Carolina residents, then out-of-state students.**

Graduates of this program will be eligible to apply to take the (NBSTSA) National Board of Surgical Technology and Surgical Assisting Exam. All Surgical Technology classes will be held in Cleveland Community College.

Employment opportunities include: Inpatient/outpatient surgery centers, labor/delivery units, dialysis units/facilities, physicians' offices, and central supply processing units.

Applicants for the Surgical Technology Program must meet the following general admission requirements in order to be considered for admission:

1. Complete and submit an application for admission to Isothermal Community College. Current or returning students may complete a Change of Major Form to declare Surgical Technology as their intended major.
2. Submit an Official high school transcript or GED transcript (must be a high school graduate or the equivalent.) (Official transcripts must be in a sealed envelope from the sending school.)

3. Submit an Official transcript from all colleges attended. (College courses accepted for transfer must reflect a 2.0 grade point average. (Official transcripts must be in a sealed envelope from the sending school.)
4. Complete the college placement test. The placement tests consist of four parts: Reading, Writing, Numerical skills, and Algebra. Applicants who have completed college level courses in English, reading and math at accredited college(s) with a grade of "C" or better are exempted from the test. Exemptions are, also possible with SAT/ACT scores. Developmental or enrichment courses completed at an accredited college with a grade of "C" or better may be considered in determining placement test exemptions. Placement tests can not be arranged until previous steps have been completed.
5. Complete all Academic Development courses required as a result of placement testing with a grade of "C" or better by the specified deadline.

Improved College Reading	RFD 090
Composition Strategies	ENG 090 & ENG 090A
Essential Mathematics	MAT 060

6. Must have a cumulative 2.0 GPA in most recent high school/college/GED course work.

Students should be aware that upon admission to a program with a clinical component criminal background checks and/or drug testing are required by the clinical facilities on clinical site. Isothermal Community College is an open door college and will not refuse admission to anyone based on a criminal record. However, the clinical site reserves the right to refuse to permit someone with a criminal record, positive drug test, and/or visible tattoo to use its facility. Information for obtaining the background checks will be provided to all students by the Director of the Surgical Technology program. If a student does not complete the clinical portion, he or she will not be able to successfully complete the Surgical Technology Program.

It is required that all accepted students have the HEPATITIS B SERIES. One shot should be completed before entering the program. Malpractice and accident insurance is required of all accepted applicants. This charge will be added to the tuition and fees at the time of registration.

Ten (10) students from each consortium school will be accepted into the Surgical Technology program. Final admission will be based on:

- a. Review of the applicant's academic record.
- b. PSB-Health Occupations Aptitude Exam results.
- c. Documentation of physical and emotional health that would provide evidence indicative of the applicant's ability to provide safe care to the public.
- d. Completion of required immunizations.
- e. Completion of CPR/Healthcare provider certification.

If you have further questions, please contact Tina M. Porter, Counseling/Health Sciences Specialist, at (828) 395-1621.

## Surgical Technology – Diploma (D 45 74 0)

### Curriculum Description

The Surgical Technology curriculum prepares individuals to assist in the care of the surgical patient in the operating room and to function as a member of the surgical team.

Students will apply theoretical knowledge to the care of patients undergoing surgery and develop skills necessary to prepare supplies, equipment, and instruments; maintain aseptic conditions; prepare patients for surgery; and assist surgeons during operations.

Graduates of this program will be eligible to apply to take the National Board for Surgical Technologist and Surgical Assistance (NBS/STA). Employment opportunities include labor/delivery/emergency departments, inpatient/outpatient surgery centers, dialysis units/facilities, physicians' offices, and central supply processing units.

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Clin. Hours</u>	<u>Credit Hours</u>
<b>I.</b>	<b>General Education Requirements – 6 Credit Hours</b>				
	ENG 111 Expository Writing	3	0	0	3
	CIS 110 Introduction to Computers	2	2	0	3
<b>II.</b>	<b>Required Core Courses - 33 Credit Hours</b>				
	SUR 110 Intro to Surgical Technology	3	0	0	3
	SUR 111 Periop Patient Care	5	6	0	7
	SUR 122 Surgical Procedures I	5	3	0	6
	SUR 123 SUR Clinical Practice I	0	0	21	7
	SUR 134 Surgical Procedures II	5	0	0	5
	SUR 135 SUR Clinical Practice II	0	0	12	4
	SUR 137 Prof Success Prep	1	0	0	1
<b>III.</b>	<b>Other Major Required Courses - 8 Credit Hours</b>				
	* BIO 163 Basic Anatomy and Physiology	4	2	0	5
	BIO 175 General Microbiology	2	2	0	3
	* BIO 168 and BIO 169 are recommended				
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>				
	ACA 115 Success & Study Skills	0	2	0	1
	<b>Total Required Hours</b>				<b>48</b>

## ASSOCIATE OF APPLIED SCIENCE DEGREE (A.A.S.)

### Graduation Requirements

An Associate of Applied Science (A.A.S.) Degree will be awarded to students completing a prescribed two-year program of study with a minimum of a 2.0 grade point average and passing all courses.

## DIPLOMA and CERTIFICATE PROGRAMS

A diploma or certificate will be awarded to students completing a prescribed program of study of one year or less with a minimum of a 2.0 grade point average.

Degree, diploma, and certificate programs are listed alphabetically in the pages that follow. Upon completion of all courses listed in a program, the student is eligible to receive the program credential.



## Advertising and Graphic Design - Degree (A.30.10.0)

### Curriculum Description

The Advertising and Graphic Design curriculum is designed to provide students with knowledge and skills necessary for employment in the graphic design profession which emphasizes design, advertising, illustration, and digital and multimedia preparation of printed and electronic promotional materials.

Students will be trained in the development of concept and design for promotional materials such as newspaper and magazine advertisements, posters, folders, letterheads, corporate symbols, brochures, booklets, preparation of art for printing, lettering and typography, photography, and electronic media.

Graduates should qualify for employment opportunities with graphic design studios, advertising agencies, printing companies, department stores, a wide variety of manufacturing industries, newspapers, and businesses with in-house graphics operations.

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 15 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	ENG 113 Literature - Based Research	3	0	3
	OR			
	ENG 114 Professional Research & Reporting			
	MAT 115 Mathematical Models	2	2	3
	Humanities Elective	3	0	3
	Social Science Elective	3	0	3
<b>II.</b>	<b>Required Core Courses - 7 Credit Hours</b>			
	GRD 110 Typography I	2	2	3
	GRD 280 Portfolio Design	2	4	4
<b>III.</b>	<b>Required Subject Courses - 22 Credit Hours</b>			
	ART 131 Drawing I	0	6	3
	GRD 131 Illustration I	1	3	2
	GRD 141 Graphic Design I	2	4	4
	GRD 142 Graphic Design II	2	4	4
	GRD 151 Computer Design Basics	1	4	3
	GRD 152 Computer Design Tech I	1	4	3
	ART 121 Two-Dimensional Design	0	6	3
<b>IV.</b>	<b>Other Major Required Courses - 26 Credit Hours</b>			
	GRA 110 Graphic Arts Orientation	2	0	2
	GRD 111 Typography II	2	2	3
	GRD 132 Illustration II	1	3	2
	GRD 153 Computer Design Tech II	1	4	3
	GRD 160 Photo Fundamentals I	1	4	3
	GRD 161 Photo Fundamentals II	1	4	3
	GRD 241 Graphic Design III	2	4	4
	GRD 242 Graphic Design IV	2	4	4
	GRD 281 Design of Advertising	2	0	2
	<b>5 Semester Hours To Be Selected From The Following:</b>			3
	ART 132 Drawing II			
	ART 140 Basic Painting			
	BUS 230 Small Business Management			
	COE 111 Co-op Work Experience I			
	COE 121 Co-op Work Experience II			
	GRA 131 Graphic Arts I			
	GRD 133 Illustration III			
	GRD 162 Photography Portfolio			
	GRD 210 Airbrush I			
	GRD 263 Illustrative Imaging			
	WEB 110 Internet Web Fundamentals			
	WEB 120 Intro Internet Multimedia			
	WEB 140 Web Development Tools			
<b>V.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>76</b>

## Advertising and Graphic Design – Certificate (C 30 10 0)

		Class Hours	Lab Hours	Credit Hours
<b>Advertising and Graphic Arts Design – 16 Credit Hours</b>				
ART 121	Two-Dimensional Design	0	6	3
ART 131	Drawing I	0	6	3
GRD 141	Graphic Design I	2	4	4
GRD 151	Computer Design Basics	1	4	3
GRD 160	Photo Fundamentals I	1	4	3

## Basic Law Enforcement Training - Certificate

### Curriculum Description

Basic Law Enforcement Training (BLET) is designed to give students essential skills required for entry-level employment as law enforcement officers with state, county, or municipal governments, or with private enterprise.

This program utilizes State commission-mandated topics and methods of instruction. General subjects include, but are not limited to, criminal, juvenile, civil, traffic, and alcoholic beverage laws; investigative, patrol, custody, and court procedures; emergency responses, and ethics and community relations.

Students must successfully complete and pass all units of study which include the certification examination mandated by the North Carolina Criminal Justice Education and Training Standards Commission and the North Carolina Sheriffs' Education and Training Standards Commission to receive a certificate.

		Class Hours	Lab Hours	Credit Hours
<b>Basic Law Enforcement Training - 19 Credit Hours (C 55 12 0)</b>				
CJC 100	Basic Law Enforcement Training	9	30	19

## Broadcasting and Production Technology – Degree (A 30 12 0)

### Curriculum Description

Students enrolled in the Broadcasting Production Technology curriculum will develop professional skills in radio, television, audio, video, and related applications.

Training will emphasize speech, script writing, production planning, editing, and post production. Students will also study the development of the broadcasting industry; sales, ethics, law, marketing, and management. Hands-on training and teamwork approaches are essential to the instructional process.

Upon successful completion, students are prepared to enter broadcasting, production, and related industries in a variety of occupations.

		Class Hours	Lab Hours	Co-Op Hours	Credit Hours
<b>I. General Education Requirements - 15 Credit Hours</b>					
ENG 111	Expository Writing	3	0	0	3
ENG 113	Literature - Based Research	3	0	0	3
OR					
ENG 114	Professional Research and Reporting				
MAT 115	Mathematical Models	2	2	0	3
	Humanities Elective	3	0	0	3
	Social Science Elective	3	0	0	3
<b>II. Required Core Courses - 13 Credit Hours</b>					
BPT 110	Introduction to Broadcasting	3	0	0	3
BPT 111	Broadcast Law and Ethics	3	0	0	3
BPT 112	Broadcast Writing	3	2	0	4
BPT 113	Broadcast Sales	3	0	0	3

		Class Hours	Lab Hours	Co-Op Hours	Credit Hours
<b>III.</b>	<b>Other Major Required Courses - 34 Credit Hours</b>				
	Options: Select 6 credit hours from the following courses:				
	BPT 135 Radio Performance I	0	6	0	2
	BPT 136 Radio Performance II	0	6	0	2
	BPT 137 Radio Performance III	0	6	0	2
	BPT 235 TV Performance I	0	6	0	2
	BPT 236 TV Performance II	0	6	0	2
	BPT 237 TV Performance III	0	6	0	2
	<b>Additional Major Required Courses</b>				
	BPT 131 Audio/Radio Production I	2	6	0	4
	BPT 132 Audio/Radio Production II	2	6	0	4
	BPT 140 Introduction to TV Systems	2	0	0	2
	BPT 210 Broadcast Management	3	0	0	3
	BPT 215 Broadcast Programming	3	0	0	3
	BPT 231 Video/TV Production I	2	6	0	4
	BPT 232 Video/TV Production II	2	6	0	4
	COE 111 Co-Op Work Experience I	0	0	10	1
	FVP 227 Multimedia Production	2	3	0	3
	Options: Select 12 credit hours from the following courses:				
	BPT 115 Public Relations	3	0	0	3
	BPT 121 Broadcast Speech I	2	3	0	3
	BPT 122 Broadcast Speech II	2	3	0	3
	BPT 138 Radio Performance IV	0	6	0	2
	BPT 139 Radio Performance V	0	6	0	2
	BPT 220 Broadcast Marketing	3	0	0	3
	BPT 238 TV Performance IV	0	6	0	2
	BPT 239 TV Performance V	0	6	0	2
	BPT 241 Broadcast Journalism I	3	2	0	4
	BPT 242 Broadcast Journalism II	3	2	0	4
	BPT 250 Institutional Video	2	3	0	3
	BPT 255 Computer-Based Production	2	3	0	3
	BPT 260 Multi-Track Recording	2	2	0	3
	CIS 110 Introduction to Computers	2	2	0	3
	COE 115 Work Exp. Seminar I	1	0	0	1
	COE 121 Co-Op Work Experience II	0	0	10	1
	WEB 110 Internet/Web Fundamentals	2	2	0	3
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>				
	ACA 115 Success & Study Skills	0	2	0	1
	<b>Total Required Hours</b>				<b>75</b>

### Broadcasting and Production Technology / Audio Production – Diploma (D 30 12 0 01)

		Class Hours	Lab Hours	Co-Op Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 6 Credit Hours</b>				
	ENG 111 Expository Writing	3	0	0	3
	Social Science Elective	3	0	0	3
<b>II.</b>	<b>Major Required Courses - 40 Credit Hours</b>				
	BPT 110 Introduction to Broadcasting	3	0	0	3
	BPT 111 Broadcast Law and Ethics	3	0	0	3
	BPT 112 Broadcast Writing	3	2	0	4
	BPT 113 Broadcast Sales	3	0	0	3
	BPT 121 Broadcast Speech I	2	3	0	3
	BPT 122 Broadcast Speech II	2	3	0	3
	BPT 131 Audio/Radio Production I	2	6	0	4

		<u>Class</u> <u>Hours</u>	<u>Lab</u> <u>Hours</u>	<u>Co-Op</u> <u>Hours</u>	<u>Credit</u> <u>Hours</u>
BPT 132	Audio/Radio Production II	2	6	0	4
BPT 135	Radio Performance I	0	6	0	2
BPT 136	Radio Performance II	0	6	0	2
BPT 137	Radio Performance III	0	6	0	2
BPT 210	Broadcast Management	3	0	0	3
CIS 110	Introduction to Computers	2	2	0	3
COE 111	Co-Op Work Experience I	0	0	10	1

**Total Required Hours**

46

### Broadcasting and Production Technology / Video Production – Diploma (D 30 12 0 02)

		<u>Class</u> <u>Hours</u>	<u>Lab</u> <u>Hours</u>	<u>Co-Op</u> <u>Hours</u>	<u>Credit</u> <u>Hours</u>
<b>I.</b>	<b>General Education Requirements - 6 Credit Hours</b>				
	ENG 111 Expository Writing	3	0	0	3
	Social Science Elective	3	0	0	3
<b>II.</b>	<b>Major Required Courses - 39 Credit Hours</b>				
	BPT 110 Introduction to Broadcasting	3	0	0	3
	BPT 111 Broadcast Law and Ethics	3	0	0	3
	BPT 112 Broadcast Writing	3	2	0	4
	BPT 113 Broadcast Sales	3	0	0	3
	BPT 121 Broadcast Speech I	2	3	0	3
	BPT 122 Broadcast Speech II	2	3	0	3
	BPT 140 Introduction to TV Systems	2	0	0	2
	BPT 231 Video/TV Production I	2	6	0	4
	BPT 232 Video/TV Production II	2	6	0	4
	BPT 235 TV Performance I	0	6	0	2
	BPT 236 TV Performance II	0	6	0	2
	BPT 237 TV Performance III	0	6	0	2
	CIS 110 Introduction to Computers	2	2	0	3
	COE 111 Co-Op Work Experience I	0	0	10	1

**Total Required Hours**

45

### Broadcasting and Production Technology – Certificate

		<u>Class</u> <u>Hours</u>	<u>Lab</u> <u>Hours</u>	<u>Credit</u> <u>Hours</u>
<b>Basic Audio Production - 18 Credit Hours (C 30 12 0 01)</b>				
	BPT 121 Broadcast Speech I	2	3	3
	BPT 131 Audio/Radio Production I	2	6	4
	BPT 132 Audio/Radio Production II	2	6	4
	BPT 135 Radio Performance I	0	6	2
	BPT 136 Radio Performance II	0	6	2
	BPT 260 Multi-Track Recording	2	2	3
<b>Basic Video Production - 17 Credit Hours (C 30 12 0 02)</b>				
	BPT 140 Introduction to TV Systems	2	0	2
	BPT 231 Video/TV Production I	2	6	4
	BPT 232 Video/TV Production II	2	6	4
	BPT 235 TV Performance I	0	6	2
	BPT 236 TV Performance II	0	6	2
	BPT 250 Institutional Video	2	3	3

## Building Construction Technology – Degree (A 35 14 0)

### Curriculum Description

The Building Construction Technology curriculum is designed to provide students with an overview of the building construction industry. Construction lab/lecture courses and other related classes, provide students with up-to-date knowledge on materials, trends, and techniques of the ever-changing construction industry.

Course work includes basic construction concepts such as general construction, blueprint reading, construction estimating, and project management. Students will also diversify their knowledge of construction in other areas such as electrical wiring, construction surveying, plumbing, statics/strength of materials, and HVAC.

Graduates should qualify for entry-level jobs in any general construction setting and be able to advance quickly to management positions such as supervisors, superintendents, project coordinators, project planners, estimators, and inspectors.

			Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 15 Credit Hours</b>				
	ENG 111	Expository Writing	3	0	3
	ENG 113	Literature-Based Research OR	3	0	3
	JNG 114	Professional Research & Reporting			
	MAT 115	Mathematical Models OR	2	2	3
	MAT 161	College Algebra			
		Humanities Elective	3	0	3
		Social Science Electives	3	0	3
<b>II.</b>	<b>Required Core Courses - 12 Credit Hours</b>				
	BPR 130	Blueprint Reading/Const	1	2	2
	CST 131	OSHA Safety Certification	2	2	3
	CST 221	Statics-Structures	3	3	4
	CST 241	Planning-Estimating I	2	2	3
<b>III.</b>	<b>Required Subject Courses - 8 Credit Hours</b>				
	CAR 111	Carpentry I	3	15	8
<b>IV.</b>	<b>Other Major Hours - 40 Credit Hours</b>				
	BUS 230	Small Business Management	3	0	3
	CAR 112	Carpentry II	3	15	8
	CAR 114	Residential Bldg Codes	3	0	3
	CIS 110	Introduction to Computers	2	2	3
	CST 211	Construction Surveying	2	3	3
	CST 251	Electrical Wiring Systems	2	2	3
	MAS 140	Intro to Masonry	1	2	2
	PLU 111	Intro to Basic Plumbing	1	3	2
	WOL 110	Basic Construction Skills	2	3	3
		Technical Electives (Select from the following)			10
	AHR 151	HVAC Duct Systems I (1-3-2)			
	AHR 210	Residential Building Code (1-2-2)			
	AHR 211	Residential System Design (2-2-3)			
	ARC 111	Intro to Arch. Technology(1-6-3)			
	CAB 110	Shop Operations (3-3-4)			
	CAB 111	Cabinetmaking I (4-9-7)			
	CAB 112	Cabinetmaking II(5-12-9)			
	CAB 113	Cabinetmaking III(4-6-6)			
	CAR 110	Intro to Carpentry (2-0-2)			
	CAR 113	Carpentry III (3-9-6)			
	CAR 115	Residential Planning/Estimating (3-0-3)			
	CAR 116	Metal Framing (1-3-2)			
	CAR 150	Concrete Construction (2-9-5)			
	CST 242	Planning/Estimating II (3-2-4)			
	CST 244	Sustainable Bldg Design (2-3-3)			
	DFT 115	Architectural Drafting (1-2-2)			
	DFT 151	CAD I (2-3-3)			
	PLU 211	Commercial Ind Plumbing (2-2-3)			

			Class Hours	Lab Hours	Credit Hours
	SST 110	Intro to Sustainability (3-0-3)			
	SST 120	Energy Use Analysis (2-2-3)			
	SST 140	Green Building Concepts (1-3-2)			
	WLD 112	Basic Welding Processes (1-1-2)			
<b>V.</b>	<b>Other Required Hours - 1 Credit Hour</b>				
	ACA 115	Success & Study Skills	0	2	1
<b>Total Required Hours</b>					<b>76</b>

### Building Construction Technology / Carpentry – Diploma (D 35 14 0 01)

			Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 6 Credit Hours</b>				
	ENG 101	Applied Communications I OR	3	0	3
	ENG 111	Expository Writing			
	MAT 101	Applied Mathematics I OR	2	2	3
	MAT 115	Mathematical Models			
<b>II.</b>	<b>Major Required Courses - 8 Credit Hours</b>				
	BPR 130	Blueprint Reading/Const	1	2	2
	CST 131	OSHA/Safety/Certification	2	2	3
	CST 241	Planning/Estimating I	2	2	3
<b>III.</b>	<b>Required Subject Courses - 8 Credit Hours</b>				
	CAR 111	Carpentry I	3	15	8
<b>IV.</b>	<b>Other Major Courses - 23 Credit Hours</b>				
	BUS 230	Small Business Management	3	0	3
	CAR 112	Carpentry II	3	15	8
	CAR 113	Carpentry III	3	9	6
	CAR 114	Residential Bldg Codes	3	0	3
	WOI 110	Basic Construction Skills	2	3	3
<b>V.</b>	<b>Other Required Hours - 1 Credit Hour</b>				
	ACA 115	Success & Study Skills	0	2	1
<b>Total Required Hours</b>					<b>46</b>

### Building Construction Technology / Cabinetmaking – Diploma (D 35 14 0 02)

			Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements – 6 Credit Hours</b>				
	ENG 101	Applied Communications I OR	3	0	3
	ENG 111	Expository Writing			
	MAT 101	Applied Mathematics I OR	2	2	3
	MAT 115	Mathematical Models			
<b>II.</b>	<b>Major Required Courses – 33 Credit Hours</b>				
	BPR 130	Blueprint Reading Const	1	2	2
	CAB 110	Shop Operations	3	3	4
	CAB 111	Cabinetmaking I	4	9	7
	CAB 112	Cabinetmaking II	5	12	9
	CAB 113	Cabinetmaking III	4	6	6
	CST 131	OSHA/Safety/Certification	2	2	3
	DFI 115	Architectural Drafting	1	2	2

			Class Hours	Lab Hours	Credit Hours
III.	<b>Other Required Hours – 1 Credit Hours</b>				
	ACA 115	Success & Study Skills	0	2	1
	<b>Total Required Hours</b>				<b>40</b>

### Building Construction Technology – Certificate (C 35 14 0)

			Class Hours	Lab Hours	Credit Hours
<b>Basic Carpentry - 16 Credit Hours (C 35 14 001)</b>					
	BPR 130	Blueprint Reading/Const	1	2	2
	CAR 111	Carpentry I	3	15	8
	CAR 114	Residential Bldg Codes	3	0	3
	CST 241	Planning / Estimating I	2	2	3
		<b>OR</b>			
	CAR 115	Residential Planning/Estimating			
<b>Advanced Carpentry - 14 Credit Hours (C 35 14 002)</b>					
	CST 131	OSHA/Safety Certification	2	2	3
	BUS 230	Small Business Management	3	0	3
	CAR 112	Carpentry II	3	15	8
<b>Basic Plumbing - 13 Credit Hours (C 35 14 003)</b>					
	BPR 130	Blueprint Reading/Const	1	2	2
	CST 241	Planning/Estimating I	2	2	3
		<b>OR</b>			
	CAR 115	Residential Planning/Estimating			
	PLU 111	Intro to Basic Plumbing	1	3	2
	PLU 211	Commercial/Ind Plumbing	2	2	3
	CST 131	OSHA/Safety Certification	2	2	3
<b>General Contractor Licensing Preparation - 13 Credit Hours (C 35 14 005)</b>					
	BPR 130	Blueprint Reading/Const	1	2	2
	CAR 110	Introduction to Carpentry	2	0	2
	CAR 114	Residential Building Codes	3	0	3
	CST 131	OSHA/Safety Certification	2	2	3
	CST 241	Planning/Estimating I	2	2	3
		<b>OR</b>			
	CAR 115	Residential Planning/Estimating			
<b>Cabinetmaking – 18 Credit Hours (C 35 14 006)</b>					
	BPR 130	Blueprint Reading/Const	1	2	2
	CAB 111	Cabinetmaking I	4	9	7
	CAB 112	Cabinetmaking II	5	12	9
<b>Basic Construction – 14 Credit Hours (C 35 14 008)</b>					
	BPR 130	Blueprint Reading/Const	1	2	2
	CAR 110	Intro to Carpentry	2	0	2
	CST 251	Electrical Wiring Systems	2	2	3
	MAS 140	Intro to Masonry	1	2	2
	PLU 111	Intro to Basic Plumbing	1	3	2
	WOL 110	Basic Construction Skills	2	3	3
<b>Elementary Carpentry - 13 Credit Hours (C 35 14 009)</b>					
	BPR 130	Blueprint Reading/Const	1	2	2
	CAR 111	Carpentry I	3	15	8
	WOL 110	Basic Construction Skills	2	3	3

		Class Hours	Lab Hours	Credit Hours
<b>Sustainable Building Design – 16 Credit Hours (C 35 14 0 10)</b>				
ARC 111	Intro to Arch Technology	1	6	3
CST 131	OSHA Safety Certification	2	2	3
DET 115	Architectural Drafting	1	2	2
SST 110	Intro to Sustainability	3	0	3
SSI 120	Energy Use Analysis	2	2	3
SST 140	Green Building Concepts	1	3	2

### **Business Administration – Degree (A 25 12 0)**

#### **Curriculum Description**

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 base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry.

		Class Hours	Lab Hours	Credit Hours
<b>I. General Education Requirements - 15 Credit Hours</b>				
ECO 252	Prin of Macroeconomics	3	0	3
ENG 111	Expository Writing	3	0	3
	Humanities elective	3	0	3
COM 231	Public Speaking	3	0	3
*MAT 115	Mathematical Models	2	2	3
*A math course higher than MAT 115 may be substituted.				
<b>II. Required Core Courses - 19 Credit Hours</b>				
ACC 120	Prin of Financial Acct	3	2	4
BUS 115	Business Law I	3	0	3
BUS 137	Principles of Management	3	0	3
CIS 110	Introduction to Computers	2	2	3
ECO 251	Prin of Microeconomics	3	0	3
MKT 120	Principles of Marketing	3	0	3
<b>III. Other Major Required Courses - 38/39 Credit Hours</b>				
ACC 121	Prin of Managerial Acct	3	2	4
BUS 110	Introduction to Business	3	3	3
BUS 121	Business Math	2	2	3
BUS 153	Human Resource Management	3	0	3
BUS 225	Business Finance	2	2	3
BUS 253	Leadership and Mgt. Skills	3	0	3
BUS 260	Business Communication	3	0	3
CTS 130	Spreadsheet	2	2	3
COE 110	World of Work	1	0	1
<b>Elective (choose a Track) (12 – 13 credit hours)</b>				
<b>ACCOUNTING TRACK</b>				
ACC 129	Individual Income Taxes	2	2	3
ACC 180	Practices in Bookkeeping	3	0	3
BAF 110	Principles of Banking	3	0	3
ENTR 240	Funding for Entrepreneurs	3	0	3
<b>MARKETING TRACK</b>				
ETR 230	Entrepreneur Marketing	3	0	3
MKT 220	Advertising & Sales Promotion	3	0	3
MKT 223	Customer Service	3	0	3
WEB 140	Web Development Tools	2	2	3



		Class Hours	Lab Hours	Credit Hours	
<b>ENTREPRENEURSHIP TRACK</b>					
	BUS 139	Entrepreneurship I	3	0	3
	BUS 230	Small Business Management	3	0	3
	EFR 220	Innovation and Creativity	3	0	3
	BUS 280	NC REAL	4	0	4
	OR				
	WEB 210	Web Design	2	2	3
<b>TECHNOLOGY TRACK</b>					
	CTS 125	Presentation Graphics	2	2	3
	DBA 110	Database Concepts	2	3	3
	WEB 140	Web Development Tools	2	2	3
	WEB 210	Web Design	2	2	4
<b>GENERAL BUSINESS TRACK</b>					
	ACC 129	Individual Income Tax	2	2	3
	MKT 220	Advertising and Sales	3	0	3
	BUS 230	Small Business Management	3	0	3
	SPA 120	Spanish for the Workplace	3	0	3
	**OST 131 may be chosen if student lacks typing skills				
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>				
	ACA 115	Success and Study Skills	0	2	1
<b>Total Required Hours</b>				<b>73-74</b>	

### Business Administration - Diploma (D 25 12 0)

		Class Hours	Lab Hours	Credit Hours	
<b>I.</b>	<b>General Education - 9 Credit Hours</b>				
	ECO 252	Prin of Macroeconomics	3	0	3
	ENG 111	Expository Writing	3	0	3
	MAT 115	Mathematical Models	2	2	3
<b>II.</b>	<b>Required Core Courses - 13 Credit Hours</b>				
	ACC 120	Prin of Financial Acct	3	2	4
	BUS 115	Business Law I	3	0	3
	BUS 137	Principles of Management	3	0	3
	MKT 120	Principles of Marketing	3	0	3
<b>III.</b>	<b>Other Major Required Courses - 22/23 Credit Hours</b>				
	ACC 121	Prin of Managerial Acct	3	2	4
	BUS 110	Introduction to Business	3	0	3
	BUS 121	Business Math	2	2	3
	BUS 225	Business Finance	2	2	3
	CIS 110	Introduction to Computers	2	2	3
	CTS 130	Spreadsheet	2	2	3
	COE 110	World of Work	1	0	1
	<b>Elective (Choose one)</b>				
	BUS 153	Human Resource Management	3	0	3
	BUS 253	Leadership and Mgt. Skills	3	0	3
	BUS 260	Business Communication	3	0	3
	ECO 251	Prin of Microeconomics	3	0	3
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>				
	ACA 115	Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>45/46</b>	

## Business Administration – Certificate

			Class Hours	Lab Hours	Credit Hours
<b>Business Administration - 16/17 Credit Hours (C 25 12 0 02)</b>					
CIS 110	Introduction to Computers		2	2	3
ACA 115	Success and Study Skills		0	2	1
BUS 110	Introduction to Business		3	0	3
BUS 115	Business Law I		3	0	3
BUS 137	Principles of Management		3	0	3
MKT 120	Principles of Marketing		3	0	3

## Business Administration – Bookkeeping Certificate

			Class Hours	Lab Hours	Credit Hours
<b>Bookkeeping - 15 Credit Hours (C 25 12 0 01)</b>					
ACC 120	Principles of Financial Acct		3	2	4
ACC 121	Principles of Managerial Acct		3	2	4
ACC 180	Practices in Bookkeeping		3	0	3
CIS 110	Introduction to Computers		2	2	3
ACA 115	Success & Study Skills		0	2	1

## Business Administration - Degree (A 25 12 A) Banking and Finance Concentration

### Curriculum Description

Banking and Finance is a concentration under the curriculum title of Business Administration. This curriculum is designed to prepare individuals for a career with various financial institutions and other businesses.

Course work includes principles of banking, money and banking, lending fundamentals, banking and business law, and practices in the areas of marketing, management, accounting, and economics.

Graduates should qualify for a variety of entry-level jobs in banking and finance. Also available are employment opportunities with insurance, brokerage and mortgage companies, and governmental lending agencies.

			Class Hours	Lab Hours	Credit Hours
<b>I. General Education Requirements – 15 Credit Hours</b>					
ECC 252	Prin of Macroeconomics		3	0	3
ENG 111	Expository Writing		3	0	3
	Humanities elective		3	0	3
COM 231	Public Speaking		3	0	3
MAT 115	Mathematical Models		2	2	3
<b>II. Required Core Courses - 19 Credit Hours</b>					
ACC 120	Prin of Financial Acct		3	2	4
CIS 110	Introduction to Computers		2	2	3
BUS 115	Business Law I		3	0	3
BUS 137	Principles of Management		3	0	3
ECC 251	Prin of Microeconomics		3	0	3
MKT 120	Principles of Marketing		3	0	3
<b>III. Required Concentration Courses - 12 Credit Hours</b>					
BAF 110	Principles of Banking		3	0	3
BAF 131	Fund Of Bank Lending		3	0	3
BAF 141	Law and Banking: Principles		3	0	3
BAF 222	Money and Banking		3	0	3

		Class Hours	Lab Hours	Credit Hours
<b>IV. Other Major Required Courses - 25/26 Credit Hours</b>				
ACC 121	Prin of Managerial Acct	3	2	4
ACC 129	Individual Income Taxes	2	2	3
CTS 130	Spreadsheet	2	2	3
COE 110	World of Work	1	0	1
BUS 110	Introduction to Business	3	0	3
BUS 121	Business Math	2	2	3
BUS 225	Business Finance	2	2	3
BUS 260	Business Communication	3	0	3
	Elective (Choose One)			
ACC 180	Practices in Bookkeeping	3	0	3
CIS 165	Desktop Publishing I	2	2	3
CTS 125	Presentation Graphics	2	2	3
OST 131	Keyboarding	1	2	2
OST 136	Word Processing	2	2	3
<b>V. Other Required Hours - 1 Credit Hour</b>				
ACA 115	Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>72/73</b>

### Business Administration - Degree (A 25 12 F) Marketing and Retailing Concentration

#### Curriculum Description

Marketing and Retailing is a concentration under the curriculum title of Business Administration. This curriculum is designed to provide students with fundamental skills in marketing and retailing.

Course work includes marketing, retailing, merchandising, selling, advertising, computer technology, and management.

Graduates should qualify for marketing positions within manufacturing, retailing, and service organizations.

		Class Hours	Lab Hours	Credit Hours
<b>I. General Education Requirements - 15 Credit Hours</b>				
ECO 252	Prin of Macroeconomics	3	0	3
ENG 111	Expository Writing	3	0	3
	Humanities elective	3	0	3
COM 231	Public Speaking	3	0	3
MAJ 115	Mathematical Models	2	2	3
<b>II. Required Core Courses - 19 Credit Hours</b>				
ACC 120	Prin of Financial Acct	3	2	4
BUS 115	Business Law I	3	0	3
BUS 137	Principles of Management	3	0	3
CIS 110	Introduction to Computers	2	2	3
ECO 251	Prin of Microeconomics	3	0	3
MKT 120	Principles of Marketing	3	0	3
<b>III. Required Concentration Courses - 15 Hours</b>				
*MKT 122	Visual Merchandising	3	0	3
*MKT 123	Fundamentals of Selling	3	0	3
MKT 220	Advertising & Sales Promotion	3	0	3
*MKT 225	Marketing Research	3	0	3
*MKT 226	Retail Applications	3	0	3
<b>IV. Other Major Required Courses - 25/26 Credit Hours</b>				
ACC 121	Prin of Managerial Acct	3	2	4
BUS 110	Introduction to Business	3	0	3
BUS 121	Business Math	2	2	3
BUS 253	Leadership and Mgt. Skills	3	0	3
BUS 260	Business Communication	3	0	3
CTS 130	Spreadsheet	2	2	3

		Class Hours	Lab Hours	Credit Hours
COE 110	World of Work	1	0	1
+ MKT 223	Customer Service	3	0	3
<b>Elective (Choose One)</b>				
	ACC 180	3	0	3
	CTS 125	2	2	3
	OST 131	1	2	2
	OST 136	2	2	3
<b>V. Other Required Hours - 1 Credit Hour</b>				
ACA 115	Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<u>75/76</u>

+ = Conducted at Cleveland Community College

### Collision Repair and Refinishing Technology – Diploma (D 60 13 0)

#### Curriculum Description

The Collision Repair and Refinishing Technology curriculum prepares individuals to become qualified technicians who possess the diverse skills required to perform quality repairs and proper refinishing techniques on automobile bodies and to diagnose and repair mechanical and electrical systems.

Coursework includes classroom and laboratory experiences that integrate technical application with academic theory. Emphasis is placed on autobody fundamentals, painting and refinishing, structural and non-structural damage repair, mechanical and electrical component repair or replacement, and common industry practices.

Graduates should be qualified to take National Institute for Automotive Service Excellence (ASE) certification examinations and also for entry-level employment in automotive dealerships, independent repair shops, or through self-employment, as collision repair and refinishing technicians.

		Class Hours	Lab Hours	Credit Hours
<b>I. General Education Requirements - 6 Credit Hours</b>				
ENG 101	Applied Communications I	3	0	3
MAT 101	Applied Mathematics I	2	2	3
<b>II. Required Core Courses - 31 Credit Hours</b>				
AUB 111	Painting & Refinishing I	2	6	4
AUB 121	Non-Structural Damage I	1	4	3
AUB 131	Structural Damage I	2	4	4
AUB 134	Autobody MIG Welding	1	4	3
AUB 136	Plastics and Adhesives	1	4	3
AUB 112	Painting & Refinishing II	2	6	4
AUB 122	Non-Structural Damage II	2	6	4
AUB 132	Structural Damage II	2	6	4
AUB 114	Special Finishes	1	2	2
<b>III. Other Major Required Courses - 11 Credit Hours</b>				
AUB 141	Mech & Elec Components I	2	2	3
AUB 150	Automotive Detailing	1	3	2
AUB 160	Body Shop Operations	1	0	1
AUB 162	Autobody Estimating	1	2	2
CIS 110	Introduction to Computers	2	2	3
	OR			
BUS 230	Small Business Management			
<b>Total Required Hours</b>				<b>48</b>

## Collision Repair and Refinishing Technology – Certificates

		Class Hours	Lab Hours	Credit Hours
<b>Basic Collision Repair and Refinishing – 14 Credit Hours (C 60 13 001)</b>				
AUB 111	Painting & Refinishing I	2	6	4
AUB 121	Non-Structural Damage I	1	4	3
AUB 131	Structural Damage I	2	4	4
AUB 134	Autobody MIG Welding	1	4	3
<b>Advanced Collision Repair and Refinishing – 12 Credit Hours (C 60 13 002)</b>				
AUB 112	Painting and Refinishing II	2	6	4
AUB 122	Non-Structural Damage II	2	6	4
AUB 132	Structural Damage II	2	6	4

## Computer Engineering Technology – Degree (A 40 16 0)

### Curriculum Description

The Computer Engineering Technology curriculum provides the skills required to install, service, and maintain computers, peripherals, networks, and microprocessor and computer controlled equipment. It includes training in both hardware and software, emphasizing operating systems concepts to provide a unified view of computer systems.

Coursework includes mathematics, electronics, digital circuits, and programming, with emphasis on the operation, use, and interfacing of memory and devices to the CPU. Additional topics may include communications, networks, operating systems, programming languages, Internet configuration and design, and industrial applications.

Graduates should qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring a knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 15 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	ENG 114 Prof Research & Reporting OR	3	0	3
	ENG 113 Literature-Based Research			
	MAF 161 College Algebra	3	0	3
	Humanities Elective	3	0	3
	Social Science Elective	3	0	3
<b>II.</b>	<b>Required Core Courses - 7 Credit Hours</b>			
	CET 111 Computer Upgrade/Repair I	2	3	3
	ELN 133 Digital Electronics	3	3	4
<b>III.</b>	<b>Required Subject Courses - 12 Credit Hours</b>			
	ELC 131 DC/AC Circuit Analysis	4	3	5
	ELN 131 Semiconductor Applications	3	3	4
	CSC 134 C++ Programming OR	2	3	3
	CSC 139 Visual BASIC Programming OR			
	CET 161 Procedural Programming			
<b>IV.</b>	<b>Other Major Required Courses - 39 Credit Hours</b>			
	CET 172 Internet Technologies	2	3	3
	CET 211 Computer Upgrade/Repair II	2	3	3
	CIS 110 Intro to Computers	2	2	3
	ELC 112 DC/AC Electricity	3	6	5
	ELC 127 Software for Technicians	1	3	2
	ELC 128 Intro to PLC	2	3	3

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
	ELN 152 Fabrication Techniques	1	3	2
	ELN 232 Introduction to Microprocessors	3	3	4
	ELN 249 Digital Communications	2	3	3
	MAT 162 College Trigonometry	3	0	3
	PHY 131 Physics-Mechanics	3	2	4
	PHY 132 Physics-Elect & Magnetism	3	2	4
<b>V.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>74</b>

### Computer Engineering Technology – Diploma (D 40 16 0)

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>I.</b>	<b>General Education Requirements - 6 Credit Hours</b>			
	ENG 101 Applied Communications I OR	3	0	3
	ENG 111 Expository Writing (3-0-3)			
	MAT 101 Applied Mathematics I OR	2	2	3
	MAT 115 Mathematical Models (2-2-3)			
<b>II.</b>	<b>Required Major Courses - 7 Credit Hours</b>			
	CET 111 Computer Upgrade/Repair I	2	3	3
	ELN 133 Digital Electronics	3	3	4
<b>III.</b>	<b>Required Subject Courses - 4 Credit Hours</b>			
	ELN 131 Semiconductor Applications	3	3	4
<b>IV.</b>	<b>Other Major Courses - 25 Credit Hours</b>			
	CET 172 Internet Technologies	2	3	3
	CET 211 Computer Upgrade/Repair II	2	3	3
	CIS 110 Intro to Computers	2	2	3
	ELC 112 DC/AC Electricity	3	6	5
	ELC 127 Software for Technicians	1	3	2
	ELC 128 Intro to PLC	2	3	3
	ELN 152 Fabrication Techniques	1	3	2
	ELN 232 Introduction to Microprocessors	3	3	4
<b>Total Required Hours</b>				<b>42</b>

### Computer Engineering Technology – Certificate (C 40 16 0)

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>Computer Upgrade/Repair - 13 Credit Hours</b>				
	CET 111 Computer Upgrade/Repair I	2	3	3
	CET 211 Computer Upgrade/Repair II	2	3	3
	ELC 112 DC/AC Electricity	3	6	5
	ELN 152 Fabrication Techniques	1	3	2

## Computer Information Technology - Degree (A 25 26 0)

### 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.

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>I.</b>	<b>General Education Requirements - 15 Credit Hours</b>			
	ECO 252 Prin of Macroeconomics	3	0	3
	ENG 111 Expository Writing	3	0	3
	Humanities Elective	3	0	3
	COM 231 Public Speaking	3	0	3
	MAT 115 Mathematical Models	2	2	3
	OR			
	MAT 161 College Algebra			
<b>II.</b>	<b>Required Core Courses - 36 Credit Hours</b>			
	BUS 110 Introduction to Business	3	0	3
	CIS 110 Introduction to Computers	2	2	3
	CIS 115 Intro to Prog & Logic	2	3	3
	CIS 120 Hardware/Software Support	2	3	3
	CTS 285 Systems Analysis & Design	3	0	3
	CTS 289 System Support Project	1	4	3
	DBA 110 Database Concepts	2	3	3
	NOS 110 Operating System Concepts	2	3	3
	NOS 130 Windows Single User	2	2	3
	NOS 230 Windows Admin I	2	2	3
	NET 125 Networking Basics	1	4	3
	SEC 110 Security Concepts	3	0	3
<b>III.</b>	<b>Other Major Required Courses - 22 Credit Hours</b>			
	CTS 130 Spreadsheet	2	2	3
	CTS 155 Tech Support Functions	2	2	3
	CIS 165 Desktop Publishing I	2	2	3
	CTS 125 Presentation Graphics	2	2	3
	COE 110 World of Work	1	0	1
	OSP 136 Word Processing	2	2	3
	WEB 140 Web Development Tools	2	2	3
	Elective			3
	Choose one of the following courses:			
	NET 126 Routing Basics			
	CSC 334 C++ Programming			
	CSC 339 Visual Basic Programming			
	WEB 110 Internet/Web Fundamentals			
	WEB 115 Web Markup and Script			
	SEC 150 Secure Communications			
	SEC 160 Secure Administration I			
	NOS 120 Linux/Unix Single User			
	WEB 210 Web Design			
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1

**Total Required Hours**

74

## Computer Information Technology - Certificate

	Class Hours	Lab Hours	Credit Hours
<b>Computer Information Technology - 18 Credit Hours (C 25 26 0)</b>			
CIS 110	2	2	3
NOS 110	2	3	3
NET 125	1	4	3
DBA 110	2	3	3
CTS 130	2	2	3
Choose one course below:			
CTS 125	2	2	3
SEC 110	3	0	3

## Computer-Integrated Machining - Diploma (D 50 21 0)

### Curriculum Description

The Computer-Integrated Machining curriculum prepares students with the analytical, creative and innovative skills necessary to take a production idea from an initial concept through design, development and production, resulting in a finished product.

Coursework may include manual machining, computer applications, engineering design, computer-aided drafting (CAD), computer-aided machining (CAM), blueprint interpretation, advanced computerized numeric control (CNC) equipment, basic and advanced machining operations, precision measurement and high-speed multi-axis machining.

Graduates should qualify for employment as machining technicians in high-tech manufacturing, rapid-prototyping and rapid-manufacturing industries, specialty machine shops, fabrication industries, and high-tech or emerging industries such as aerospace, aviation, medical, and renewable energy, and to sit for machining certification examinations.

	Class Hours	Lab Hours	Credit Hours
<b>I. General Education Requirements - 9 Credit Hours</b>			
ENG 101	3	0	3
MAT 101	2	2	3
MAT 102	2	2	3
<b>II. Required Subject Courses - 16 Credit Hours</b>			
BPR 111	1	2	2
MAC 111	2	12	6
MAC 112	2	12	6
MAC 121	2	0	2
<b>III. Other Major Required Courses - 22 Credit Hours</b>			
BPR 121	1	2	2
CIS 110	2	2	3
ISC 110	1	0	1
OR			
ISC 121			
MAC 113	2	12	6
MAC 122	1	3	2
MAC 124	1	3	2
MAC 151	1	2	2
MAC 222	1	3	2
MAC 224	1	3	2
<b>Total Required Hours</b>			<b>47</b>



## Computer-Integrated Machining - Certificate

		Class Hours	Lab Hours	Credit Hours
<b>Machining Certificate - 12 Hours (C 50 21 001)</b>				
MAC 111	Machining Technology I	2	12	6
MAC 112	Machining Technology II	2	12	6
<b>CNC Certificate - 16 Hours (C 50 21 002)</b>				
MAC 113	Machining Technology III	2	12	6
MAC 122	CNC Turning	1	3	2
MAC 124	CNC Milling	1	3	2
MAC 121	Introduction to CNC	2	0	2
MAC 222	Advanced CNC Turning	1	3	2
MAC 224	Advanced CNC Milling	1	3	2
<b>Motorsports Machining Certificate - 16 Hours (C 50 21 003)</b>				
MAC 111	Machining Technology I	2	12	6
BPR 111	Blueprint Reading	1	2	2
MAC 122	CNC Turning	1	3	2
MAC 124	CNC Milling	1	3	2
MAC 121	Introduction to CNC	2	0	2
MAC 151	Machining Calculations	1	2	2

## Computer Programming - Degree (A 2S 13 0)

### Curriculum Description

The Computer Programming curriculum prepares individuals for employment as computer programmers and related positions through study and applications in computer concepts, logic, programming procedures, languages, generators, operating systems, networking, data management, and business operations.

Students will solve business computer problems through programming techniques and procedures, using appropriate languages and software. The primary emphasis of the curriculum is hands-on training in programming and related computer areas that provide the ability to adapt as systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as programmers, programmer trainees, programchandy ds, computer operators, systems technicians, or database specialists.

		Class Hours	Lab Hours	Credit Hours
<b>I. General Education Requirements - 15 Credit Hours</b>				
EEO 252	Prin of Macroeconomics	3	0	3
ENG 111	Expository Writing	3	0	3
	Humanities Elective	3	0	3
COM 231	Public Speaking	3	0	3
MAT 115	Mathematical Models	2	2	3
	OR			
MAT 161	College Algebra	3	0	3
<b>II. Required Core Courses - 42 Credit Hours</b>				
BUS 110	Introduction to Business	3	0	3
CIS 110	Introduction to Computers	2	2	3
CTS 115	Intro to Prog and Logic	2	3	3
CSC 134	C++ Programming	2	3	3
CSC 234	Advanced C++ Programming	2	3	3
CTS 285	Systems Analysis and Design	3	0	3
CSC 289	Programming Capstone Project	1	4	3
DBA 110	Database Concepts	2	3	3
NET 125	Networking Basics	1	4	3
NOS 110	Operating System Concepts	2	3	3
SEC 110	Security Concepts	3	0	3
NOS 120	Linux/UNIX Single User	2	2	3

		Class Hours	Lab Hours	Credit Hours
	CSC 139 Visual Basic Programming	2	3	3
	CSC 239 Advanced Visual Basic Programming	2	3	3
<b>III.</b>	<b>Other Major Required Hours - 16 Credit Hours</b>			
	COE 110 World of Work	1	0	1
	WEB 182 PHP Programming	2	2	3
	WEB 250 Database Driven Websites	2	2	3
	WEB 115 Web Markup and Scripting	2	2	3
	Computer Electives - Select a minimum of 6 Credit Hours from the following:			
	CTS 120 Hardware/Software Support			
	CTS 125 Presentation Graphics			
	CTS 130 Spreadsheet			
	CTS 155 Tech Support Functions			
	NET 126 Routing Basics			
	NOS 130 Windows Single User			
	SEC 150 Secure Communications			
	SEC 160 Secure Admin I			
<b>IV.</b>	<b>Other Required Hour - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
	<b>Total Required Hours</b>			<b>74</b>

### Cosmetology - Degree (A 55 14 0)

#### Curriculum Description

The Cosmetology curriculum is designed to provide competency-based knowledge, scientific/artistic principles, and hands-on fundamentals associated with the cosmetology industry. The curriculum provides a simulated salon environment which enables students to develop manipulative skills.

Course work includes instruction in all phases of professional imaging, hair design, chemical processes, skin care, nail care, multi-cultural practices, business/computer principles, product knowledge, and other selected topics.

Graduates should qualify to sit for the State Board of Cosmetic Arts examination. Upon successfully passing the State Board exam, graduates will be issued a license. Employment is available in beauty salons and related businesses.

		Class Hours	Lab Hours	Co-Op Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 15 Credit Hours</b>				
	ENG 111 Expository Writing	3	0	0	3
	ENG 113 Literature - Based Research	3	0	0	3
	OR				
	ENG 114 Professional Research & Reporting				
	MAT 115 Mathematical Models	2	2	0	3
	Humanities Elective	3	0	0	3
	Social Science Elective	3	0	0	3
<b>II.</b>	<b>Required Core Courses - 34 Credit Hours</b>				
	COS 111 Cosmetology Concepts I	4	0	0	4
	COS 112 Salon I	0	24	0	8
	COS 113 Cosmetology Concepts II	4	0	0	4
	COS 114 Salon II	0	24	0	8
	COS 115 Cosmetology Concepts III	4	0	0	4
	COS 116 Salon III	0	12	0	4
	COS 117 Cosmetology Concepts IV	2	0	0	2
<b>III.</b>	<b>Other Major Required Courses - 24 Credit Hours</b>				
	CIS 110 Introduction to Computers	2	2	0	3
	COS 118 Salon IV	0	21	0	7
	COS 223 Contemp Hair Coloring	1	3	0	2
	COS 225 Adv Contemp Hair Coloring	1	3	0	2

		<u>Class</u> <u>Hours</u>	<u>Lab</u> <u>Hours</u>	<u>Co-Op</u> <u>Hours</u>	<u>Credit</u> <u>Hours</u>
	Computer Related Elective (choose one):				3
	CTS 130 Spreadsheet				
	DBA 110 Database Concepts				
	WEB 110 Internet Web Fundamentals				
	<b>Options: Select 7 credit hours from the following courses:</b>				
	BUS 115 Business Law I	3	0	0	3
	BUS 137 Principles of Management	3	0	0	3
	BUS 230 Small Business Management	3	0	0	3
	BUS 253 Leadership & Mgt Skills	3	0	0	3
	COE 111** Co-Op Work Experience I	0	0	10	1
	COE 115** Work Experience Seminar I	1	0	0	1
	COS 119 Esthetics Concepts I	2	0	0	2
	COS 224 Trichology and Chemistry	1	3	0	2
	COS 240 Contemporary Design	1	3	0	2
	COS 121 Manicure-Nail Technology I	4	6	0	6
	COS 222 Manicure-Nail Technology II	4	6	0	6
	COS 250 Computerized Salon Ops	1	0	0	1
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>				
	ACA 115 Success & Study Skills	0	2	0	1
<b>Total Required Hours</b>					<b>74</b>

**\*\*NOTE:** A cosmetology student who has completed 1200 hours of cosmetology coursework, taken and passed the Cosmetology Apprenticeship Exam, and received their license may return to work an additional 300 hours through a co-op work experience. Any student who does participate, the hours will be documented and the Registrar will be notified to assure these guidelines are met.

### Cosmetology - Diploma (D 55 14 0)

		<u>Class</u> <u>Hours</u>	<u>Lab</u> <u>Hours</u>	<u>Co-Op</u> <u>Hours</u>	<u>Credit</u> <u>Hours</u>
<b>I.</b>	<b>General Education Requirements - 6 Credit Hours</b>				
	ENG 101 Applied Communications I	3	0	0	3
	MAT 101 Applied Mathematics I	2	2	0	3
<b>II.</b>	<b>Required Core Courses - 34 Credit Hours</b>				
	COS 111 Cosmetology Concepts I	4	0	0	4
	COS 112 Salon I	0	24	0	8
	COS 113 Cosmetology Concepts II	4	0	0	4
	COS 114 Salon II	0	24	0	8
	COS 115 Cosmetology Concepts III	4	0	0	4
	COS 116 Salon III	0	12	0	4
	COS 117 Cosmetology Concepts IV	2	0	0	2
<b>III.</b>	<b>Other Major Required Courses - 7 Credit Hours</b>				
	CIS 110 Introduction to Computers	2	2	0	3
	COS 223 Contemp Hair Coloring	1	3	0	2
	COS 225 Adv Contemp Hair Coloring	1	3	0	2
<b>Total Required Hours</b>					<b>47</b>

## Manicuring/Nail Technology - Certificate

### Curriculum Description:

The Manicuring/Nail Technology curriculum provides competency-based knowledge, scientific/artistic principles, and hands-on fundamentals associated with the nail technology industry. The curriculum provides a simulated salon environment which enables students to develop manipulative skills.

Course work includes instruction in all phases of professional nail technology, business/computer principles, product knowledge, and other related topics.

Graduates should be prepared to take the North Carolina Cosmetology State Board Licensing Exam and upon passing be licensed and qualify for employment in beauty and nail salons, as a platform artist, and in related businesses.

		<u>Class</u> <u>Hours</u>	<u>Lab</u> <u>Hours</u>	<u>Co-Op</u> <u>Hours</u>	<u>Credit</u> <u>Hours</u>
<b>Manicure - 12 Credit Hours (C 55 40 0)</b>					
COS 121	Manicure/Nail Technology I	4	6	0	6
COS 222	Manicure/Nail Technology II	4	6	0	6

## Esthetics Technology - Certificate (C 55 23 0)

### Curriculum Description

The Esthetics Technology curriculum provides competency-based knowledge, scientific/artistic principles and hands-on fundamentals associated with the art of skin care. The curriculum provides a simulated salon environment which enables students to develop manipulative skills.

Course work includes instruction in all phases of professional Esthetics Technology; business human relations, product knowledge, and other related topics.

Graduates should be prepared to take the North Carolina Cosmetology State Board Licensing Exam and upon passing be licensed and qualify for employment in beauty and cosmetic/skin care salons, as a platform artist, and in related businesses.

		<u>Class</u> <u>Hours</u>	<u>Lab</u> <u>Hours</u>	<u>Credit</u> <u>Hours</u>
<b>I.</b>	<b>General Education Requirements</b>			
	None			
<b>II.</b>	<b>Major Courses</b>			
	Core Required Courses			
COS 119	Esthetics Concepts I	2	0	2
COS 120	Esthetics Salon I	0	18	6
COS 125	Esthetics Concepts II	2	0	2
COS 126	Esthetics Salon II	0	18	6
<b>Total Required Hours</b>				<u>16</u>

## Cosmetology Instructor - Certificate (C 55 16 0)

### Curriculum Description

The Cosmetology Instructor curriculum provides a course of study for learning the skills needed to teach the theory and practice of cosmetology as required by the North Carolina Board of Cosmetic Arts.

Course work includes requirements for becoming an instructor, introduction to teaching theory, methods and aids, practice teaching, and development of evaluation instruments.

Graduates of the program may be employed as cosmetology instructors in public or private education and business.

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>I. General Education Requirements</b>				
	None			
<b>II. Major Courses</b>				
	Required Core Courses			
	COS 271 Instructor Concepts I	5	0	5
	COS 272 Instructor Practicum I	0	21	7
	COS 273 Instructor Concepts II	5	0	5
	COS 274 Instructor Practicum II	0	21	7
<b>Total Required Hours</b>				<u>24</u>

## Manicuring Instructor - Certificate (C 55 38 0)

### Curriculum Description

The Manicuring Instructor curriculum provides a course of study covering the skills needed to teach the theory and practices of manicuring as required by the North Carolina State Board of Cosmetology.

Course work includes all phases of manicuring theory laboratory instruction.

Graduates should be prepared to take the North Carolina Cosmetology State Board Manicuring Instructor Licensing Exam and upon passing be qualified for employment in a cosmetology or manicuring school.

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>I. General Education Requirements</b>				
	None			
<b>II. Major Courses</b>				
	Required Core Courses			
	COS 251 Manicure Instructor Concepts	8	0	8
	COS 252 Manicure Instructor Practicum	0	15	5
<b>Total Required Hours</b>				<u>13</u>

## Esthetics Instructor - Certificate (C 55 27 0)

### Curriculum Description

The Esthetics Instructor curriculum provides a course of study covering the skills needed to teach the theory and practices of esthetics as required by the North Carolina State Board of Cosmetology.

Course work includes all phases of esthetics theory laboratory instruction.

Graduates should be prepared to take the North Carolina Cosmetology State Board Esthetics Instructor Licensing Exam and upon passing be qualified for employment in a cosmetology or esthetics school.

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
I.	<b>General Education Requirements</b>			
	None			
II.	<b>Major Courses</b>			
	Required Core Courses			
	COS 253 Esthetics Instructor Concepts I	6	15	11
	COS 254 Esthetics Instructor Concepts II	6	15	11
	<b>Total Required Hours</b>			<u>22</u>

## Criminal Justice Technology - Degree (A 55 18 0)

### Curriculum Description

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.

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
I.	<b>General Education Requirements - 24 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	ENG 113 Literature-Based Research	3	0	3
	OR			
	ENG 114 Professional Research and Reporting			
	MAT 115 Mathematical Models	2	2	3
	OR			
	MAT 161 College Algebra			
	PSY 150 General Psychology	3	0	3
	SOC 210 Introduction to Sociology	3	0	3
	SOC 220 Social Problems	3	0	3
	POL 120 American Government	3	0	3
	Humanities Elective	3	0	3
II.	<b>Required Core Courses - 22 Credit Hours</b>			
	CJC 111 Introduction to Criminal Justice	3	0	3
	CJC 112 Criminology	3	0	3
	CJC 113 Juvenile Justice	3	0	3
	CJC 131 Criminal Law	3	0	3

		Class Hours	Lab Hours	Credit Hours
	CJC 212 Ethics and Community Relations	3	0	3
	CJC 221 Investigative Principles	3	2	4
	CJC 231 Constitutional Law	3	0	3
<b>III.</b>	<b>Other Major Required Courses - 29 Credit Hours</b>			
	CIS 110 Introduction to Computers	2	2	3
	CJC 120 Interviews-Interrogations	1	2	2
	CJC 121 Law Enforcement Operations	3	0	3
	CJC 122 Community Policing	3	0	3
	CJC 132 Court Procedure and Evidence	3	0	3
	CJC 141 Corrections	3	0	3
	CJC 215 Organization and Administration	3	0	3
	CJC 223 Organized Crime	3	0	3
	CJC 225 Crisis Intervention	3	0	3
	CJC Electives:			3
	CJC 232 Civil Liability			
	CJC 214 Victimology			
	CJC 222 Criminalistics			
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>76</b>

### Criminal Justice Technology - Diploma (D 55 18 0)

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 9 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	PSY 150 General Psychology	3	0	3
	SOC 210 Introduction to Sociology	3	0	3
<b>II.</b>	<b>Required Core Courses - 12 Credit Hours</b>			
	CJC 111 Introduction to Criminal Justice	3	0	3
	CJC 112 Criminology	3	0	3
	CJC 131 Criminal Law	3	0	3
	CJC 231 Constitutional Law	3	0	3
<b>III.</b>	<b>Other Major Required Courses - 24 Credit Hours</b>			
	CIS 110 Introduction to Computers	2	2	3
	CJC 113 Juvenile Justice	2	0	3
	CJC 121 Law Enforcement Operations	3	0	3
	CJC 132 Court Procedure and Evidence	3	0	3
	CJC 141 Corrections	3	0	3
	CJC 212 Ethics and Community Relations	3	0	3
	CJC 215 Organization and Administration	3	0	3
	CJC Elective			3
	CJC 232 Civil Liability			
	CJC 214 Victimology			
	CJC 222 Criminalistics			
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>46</b>

## Criminal Justice Technology - Certificate

		Class Hours	Lab Hours	Credit Hours
<b>Criminal Justice - 18 Credit Hours (C 55 18 0)</b>				
CJC 111	Introduction to Criminal Justice	3	0	3
CJC 113	Juvenile Justice	3	0	3
CJC 121	Law Enforcement Operations	3	0	3
CJC 141	Corrections	3	0	3
CJC 212	Ethics and Community Relations	3	0	3
CJC	Electives:			3
	CJC 232 Civil Liability			
	CJC 214 Victimology			
	CJC 222 Criminalistics			

## Early Childhood Education - Degree (A 55 22 0)

### Curriculum Description

The Early Childhood Education curriculum prepares individuals to work with children from birth through eight in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with families and children. Students will foster the cognitive, language, physical/motor, social/emotional, and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school-age programs.

		Class Hours	Lab Hours	Credit Hours
<b>I. General Education Requirements - 15 Credit Hours</b>				
ENG 111	Expository Writing	3	0	3
ENG 114	Professional Research and Reporting	3	0	3
	OR			
ENG 113	Literature-Based Research			
	OR			
ENG 112	Argument-Based Research			
MAT 115	Mathematical Models	2	2	3
	Humanities Elective	3	0	3
	Social Science Elective	3	0	3
<b>II. Required Core Courses - 29 Credit Hours</b>				
EDU 119	Intro to Early Child Education	4	0	4
EDU 131	Child, Family, and Community	3	0	3
EDU 146	Child Guidance	3	0	3
EDU 151	Creative Activities	3	0	3
EDU 153	Health, Safety and Nutrition	3	0	3
EDU 221	Children with Exceptional	3	0	3
EDU 271	Educational Technology	2	2	3
EDU 280	Language & Literacy Experiences	3	0	3
EDU 284	Early Child Capstone Prac	1	4	4
<b>III. Required Subject Courses - 6 Credit Hours</b>				
EDU 144	Child Development I	3	0	3
EDU 145	Child Development II	3	0	3



		Class Hours	Lab Hours	Credit Hours
<b>IV.</b>	<b>Other Major Required Courses - 12 Credit Hours</b>			
	CIS 110 Introduction to Computers	2	2	3
	EDU 184 Early Child Intro Pract	1	3	2
	EDU 214 Early Child Intern Pract	1	9	4
	EDU 259 Curriculum Planning	3	0	3
	<b>Choose one of the following Tracks</b>			
	<b>Track A (Early Childhood - 13 Credit Hours)</b>			
	EDU 185 Cognitive and Language Activity	3	0	3
	EDU 234 Infants, Toddlers, and Twos	3	0	3
	EDU 252 Math and Science Activities	3	0	3
	EDU 254 Music and Movement for Children	1	2	2
	HEA 112 First Aid and CPR	1	2	2
	<b>Track B (Administration - 12 Credit Hours)</b>			
	EDU 261 Early Childhood Administration I	3	0	3
	EDU 262 Early Childhood Administration II	3	0	3
	BUS 153 Human Resources Management	3	0	3
	BUS 230 Small Business Management	3	0	3
	<b>Track C (Special Education - 12 Credit Hours)</b>			
	EDU 154 Social/Functional Behav Dev	3	0	3
	EDU 223 Specific Learning Disab	3	0	3
	EDU 247 Sensory and Physical Disab	3	0	3
	EDU 248 Developmental Delays	3	0	3
	<b>Track D (College Transfer - 13 Credit Hours)</b>			
	HUM 211 Humanities I	3	0	3
	SOC 210 Introduction to Sociology	3	0	3
	PEP 110 Fit and Well for Life	1	2	2
	PEP 152 Swimming - Beginning	0	2	1
	AST 151 General Astronomy	3	0	3
	AST 151A General Astronomy Lab	0	2	1
<b>V.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
	<b>Total Required Hours</b>			<b>75/16</b>

### Early Childhood Education - Diploma (D 55 22 0)

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 6 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	MAT 115 Mathematical Models	2	2	3
<b>II.</b>	<b>Required Core Courses - 19 Credit Hours</b>			
	EDU 119 Intro to Early Child Education	4	0	4
	EDU 131 Child, Family, and Community	3	0	3
	EDU 146 Child Guidance	3	0	3
	EDU 151 Creative Activities	3	0	3
	EDU 153 Health, Safety and Nutrition	3	0	3
	EDU 221 Children with Exceptional	3	0	3
<b>III.</b>	<b>Required Subject Courses - 6 Credit Hours</b>			
	EDU 144 Child Development I	3	0	3
	EDU 145 Child Development II	3	0	3

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>IV. Other Major Required Courses - 16 Credit Hours</b>				
CIS 110	Introduction to Computers	2	2	3
EDU 184	Early Child Intern Pract	1	3	2
EDU 259	Curriculum Planning	3	0	3
EDU 261	Early Childhood Administration I	3	0	3
EDU 262	Early Childhood Administration II	3	0	3
HEA 112	First Aid and CPR	1	2	2
<b>Total Required Hours</b>				<b>47</b>

### Early Childhood Education - Certificate

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>Early Childhood - 17 Credit Hours (C 55 22 0)</b>				
EDU 119	Intro to Early Child Education	4	0	4
EDU 184	Early Child Intro Pract	1	3	2
EDU 259	Curriculum Planning	3	0	3
EDU 261	Early Childhood Administration I	3	0	3
EDU 262	Early Childhood Administration II	3	0	3
HEA 112	First Aid and CPR	1	2	2

### Infant/Toddler Care - Certificate

#### Curriculum Description

The curriculum prepares individuals to work with children from infancy to three years of age in diverse learning environments. Students will combine learned theories, competency-based knowledge, and practice in actual settings with infants and toddlers.

Course work includes infant/toddler growth and development; physical/nutritional needs of infants and toddlers; safety issues in the care of infants and toddlers; care and guidance; communication skills with families and children; design an implementation of appropriate curriculum; and other related topics.

Graduates should be prepared to plan and implement developmentally appropriate infant/toddler programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Early Head Start Programs, and other infant/toddler programs.

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>Infant/Toddler - 16 Credit Hours (C 55 29 0)</b>				
EDU 119	Introduction to Early Childhood Education	4	0	4
EDU 131	Child, Family, and Community	3	0	3
EDU 144	Child Development I	3	0	3
EDU 153	Health, Safety and Nutrition	3	0	3
EDU 234	Infant, Toddlers and Twos	3	0	3

## School-Age Education - Degree (A 55 44 0)

### Curriculum Description

This curriculum prepares individuals to work with children in elementary through middle grades in diverse learning environments. Students will combine learned theories with practice in actual settings with school-age children under the supervision of qualified teachers.

Course work includes child growth/development; computer technology in education; physical/nutritional needs of school-age children; care and guidance of school-age children; and communication skills with families and children. Students will foster the cognitive/ language, physical/motor, social-emotional, and creative development of school-age populations.

Graduates are prepared to plan and implement developmentally appropriate programs in school-aged environments. Employment opportunities include school-age teachers in child care programs, before/after school programs, paraprofessional positions in public/private schools, recreational centers, and other programs that work with school-age populations.

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 15 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	ENG 114 Professional Research and Reporting	3	0	3
	<b>OR</b>			
	ENG 113 Literature-Based Research			
	MAT 115 Mathematical Models	2	2	3
	Humanities Elective	3	0	3
	Social Science Elective	3	0	3
<b>II.</b>	<b>Required Core Courses - 15 Credit Hours</b>			
	EDU 131 Child, Family, and Community	3	0	3
	EDU 163 Classroom Mgt. and Instruction	3	0	3
	EDU 271 Educational Technology	2	2	3
	EDU 285 Internship-Exp-School Age	1	9	4
	EDU 289 Adv. Issues/School Age	2	0	2
<b>III.</b>	<b>Required Subject Courses - 12 Credit Hours</b>			
	EDU 144 Child Development I	3	0	3
	EDU 145 Child Development II	3	0	3
	EDU 221 Children with Exceptional	3	0	3
	EDU 118 Princ. and Prac of Inst Asst	3	0	3
<b>IV.</b>	<b>Other Major Required Courses - 29 Credit Hours</b>			
	CIS 110 Introduction to Computers	2	2	3
	EDU 119 Intro to Early Child Education	4	0	4
	EDU 146 Child Guidance	3	0	3
	EDU 151 Creative Activities	3	0	3
	EDU 184 Early Child Intro Pract	1	3	2
	EDU 214 Early Child Intern Pract	1	9	4
	EDU 259 Curriculum Planning	3	0	3
	EDU 281 Instruc Strat Read and Writ	2	2	3
	EDU 284 Early Child Capstone Prac	1	9	4
<b>V.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>72</b>

## Electrical/Electronics Technology - Degree (A 35 22 0)

### Curriculum Description

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.

Course work, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, electronics, programmable logic controllers, industrial motor controls, applications of the National Electric Code, 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.

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 15 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	ENG 113 Literature - Based Research	3	0	3
	OR			
	ENG 114 Professional Research and Reporting			
	MAT 115 Mathematical Models	2	2	3
	Humanities Elective	3	0	3
	Social Science Elective	3	0	3
<b>II.</b>	<b>Required Core Courses - 20 Credit Hours</b>			
	ELC 112 DC/AC Electricity	3	6	5
	ELC 113 Basic Wiring I	2	6	4
	ELC 117 Motors and Controls	2	6	4
	ELC 128 Introduction to PLC	2	3	3
	ELN 229 Industrial Electronics	3	3	4
<b>III.</b>	<b>Other Major Required Courses - 35 Credit Hours</b>			
	CIS 110 Introduction to Computers	2	2	3
	ELC 114 Basic Wiring II	2	6	4
	ELC 115 Industrial Wiring	2	6	4
	ELC 118 National Electrical Code	1	2	2
	ELC 119 NEC Calculations	1	2	2
	ELN 133 Digital Electronics	3	3	4
	ELC 135 Electrical Machines I	2	2	3
	ELC 228 PLC Applications	2	6	4
	ELC 229 Applications Project	1	3	2
	ELN 231 Industrial Controls	2	3	3
	<b>Technical Elective: (select a course from the following)</b>			2
	AIR 120 HVACR Maintenance			
	AIR 160 Refrigerant Certification			
	DFT 111 Technical Drafting I			
	DFT 111A Technical Drafting I Lab			
	DFT 115 Architectural Drafting			
	DFT 151 CAD I			
	ELC 127 Software for Technicians			
	ELC 132 Electrical Drawings			
	HYD 110 Hydraulics/Pneumatics I			
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>69</b>

## Electrical/Electronics Technology - Diploma (D 35 22 0)

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 6 Credit Hours</b>			
	ENG 101 Applied Communications I	3	0	3
	MAT 101 Applied Mathematics I	2	2	3
<b>II.</b>	<b>Required Core Courses - 13 Credit Hours</b>			
	ELC 112 DC/AC Electricity	3	6	5
	ELC 113 Basic Wiring I	2	6	4
	ELC 117 Motors and Controls	2	6	4
<b>III.</b>	<b>Other Major Required Courses - 21 Credit Hours</b>			
	CIS 110 Introduction to Computers	2	2	3
	ELC 114 Basic Wiring II	2	6	4
	ELC 115 Industrial Wiring	2	6	4
	ELC 118 National Electrical Code	1	2	2
	ELC 119 NEC Calculations	1	2	2
	ELC 135 Electrical Machines I	2	2	3
	ELN 231 Industrial Controls	2	3	3
<b>Total Required Hours</b>				<u>40</u>

## Electrical/Electronics Technology - Certificate

		Class Hours	Lab Hours	Credit Hours
<b>Electrical Wiring Certificate - 17 Credit Hours (C 35 22 0 01)</b>				
	ELC 112 DC/AC Electricity	3	6	5
	ELC 113 Basic Wiring I	2	6	4
	ELC 114 Basic Wiring II	2	6	4
	ELC 115 Industrial Wiring	2	6	4
<b>Industrial Controls Certificate - 15 Credit Hours (C 35 22 0 02)</b>				
	ELC 112 DC/AC Electricity	3	6	5
	ELC 117 Motors and Controls	2	6	4
	ELC 128 Introduction to PLC	2	3	3
	ELN 231 Industrial Controls	2	3	3

## Electronics Engineering Technology - Degree (A 40 20 0)

### Curriculum Description

The Electronics Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial computer controls, manufacturing systems, communication systems, and power electronic systems.

A broad-based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, instrumentation technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 15 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	ENG 114 Professional Research and Reporting OR	3	0	3
	ENG 113 Literature-Based Research			
	MAT 161 College Algebra	3	0	3

		Class Hours	Lab Hours	Credit Hours
	Humanities Elective	3	0	3
	Social Science Elective	3	0	3
<b>II.</b>	<b>Required Core Courses - 4 Credit Hour</b>			
	ELN 133 Digital Electronics	3	3	4
<b>III.</b>	<b>Required Subject Courses - 13 Credit Hours</b>			
	ELC 131 DC/AC Circuit Analysis	4	3	5
	ELN 131 Semiconductor Applications	3	3	4
	ELN 232 Intro to Microprocessors	3	3	4
<b>IV.</b>	<b>Other Major Required Courses - 21 Credit Hours</b>			
	CIS 110 Introduction to Computers	2	2	3
	ELC 112 DC/AC Electricity	3	6	5
	ELN 152 Fabrication Techniques	1	3	2
	MAT 162 College Trigonometry	3	0	3
	PHY 131 Physics Mechanics	3	2	4
	PHY 132 Physics Elec & Magnetism	3	2	4
	<b>Options: Select at least 19 credit hours from the following courses:</b>			
	CET 111 Computer Upgrade/Repair I	2	3	3
	CET 161 Procedural Programming	2	3	3
	CET 172 Internet Technologies	2	3	3
	CSC 134 C++ Programming	2	3	3
	CSC 139 Visual BASIC Programming	2	3	3
	ELC 128 Introduction to PLC	2	3	3
	ELC 228 PLC Applications	2	6	4
	ELN 132 Linear IC Applications	3	3	4
	ELN 231 Industrial Controls	2	3	3
	ELN 233 Microprocessor Systems	3	3	4
	ELN 249 Digital Communications	2	3	3
<b>V.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>73</b>

### Electronics Engineering Technology – Diploma (D 40 20 0)

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements – 6 Credit Hours</b>			
	ENG 101 Applied Communications I OR	3	0	3
	ENG 111 Expository Writing (3-0-3)			
	MAT 101 Applied Mathematics I OR	2	2	3
	MAT 115 Mathematical Models (2-2-3)			
<b>II.</b>	<b>Required Major Courses - 4 Credit Hours</b>			
	ELN 133 Digital Electronics	3	3	4
<b>III.</b>	<b>Required Subject Courses – 9 Credit Hours</b>			
	ELC 131 DC/AC Circuit Analysis	4	3	5
	ELN 131 Semiconductor Applications	3	3	4

			Class Hours	Lab Hours	Credit Hours
<b>IV. Other Major Courses – 20 Credit Hours</b>					
CET 172	Internet Technologies		2	3	3
CIS 110	Intro to Computers		2	2	3
ELC 112	DC/AC Electricity		3	6	5
ELC 128	Intro to PLC		2	3	3
ELN 152	Fabrication Techniques		1	3	2
ELN 232	Introduction to Microprocessors		3	3	4
<b>Total Required Hours</b>					<b>39</b>

### Electronics Engineering Technology – Certificate

			Class Hours	Lab Hours	Credit Hours
<b>Electronics Engineering Technology - 16 Credit Hours (C 40 20-0)</b>					
ELC 112	DC/AC Electricity		3	6	5
ELC 131	DC/AC Circuit Analysis		4	3	5
ELN 131	Semiconductor Applications		3	3	4
ELN 152	Fabrication Techniques		1	3	2

### Entrepreneurship - Degree (A25490)

#### Curriculum Description

The Entrepreneurship curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth as self-employed business owners.

Course work includes developing a student's ability to make informed decisions as future business owners. Courses include entrepreneurial concepts learned in innovation and creativity, business funding, and marketing. Additional course work includes computers and economics.

Through these skills, students will have a sound education base in entrepreneurship for lifelong learning. Graduates are prepared to be self-employed and open their own businesses.

			Class Hours	Lab Hours	Credit Hours
<b>I. General Education Requirements - 15 Credit Hours</b>					
ENG 111	Expository Writing		3	0	3
	Humanities elective		3	0	3
COM 231	Public Speaking		3	0	3
MAT 151	Statistics I				
	<b>OR</b>				
MAT 115	Mathematical Models		2	2	3
	Social Behavior Elective		3	0	3
<b>II. Required Core Courses - 29 Credit Hours</b>					
ACC 120	Prin of Financial Acct		3	2	4
BUS 110	Introduction to Business		3	0	3
ETR 220	Innovation and Creativity		3	0	3
ETR 230	Entrepreneur Marketing		3	0	3
ETR 240	Funding for Entrepreneurs		3	0	3
BUS 139	Entrepreneurship I		3	0	3
BUS 280	REAL Small Business		4	0	4
CIS 110	Introduction to Computers		2	2	3
ECO 251	Prin of Microeconomics		3	0	3

		Class Hours	Lab Hours	Credit Hours
<b>III. Other Major Required Courses – 28 Credit Hours</b>				
ACC 121	Prin of Managerial Acct	3	2	4
BUS 115	Business Law I	3	0	3
BUS 137	Principles of Management	3	0	3
BUS 230	Small Business Management	3	0	3
BUS 260	Business Communication	3	0	3
CTS 130	Spreadsheet	2	2	3
ETR 270	Entrepreneurship Issues	3	0	3
WEB 140	Web Development Tools	2	2	3
Elective (choose 3 credit hours)				
	ACC 129	Individual Income Taxes		
	ACC 180	Practices in Bookkeeping		
	BUS 153	Human Resource Management		
	BUS 253	Leadership and Mgt. Skills		
	BUS 255	Organizational Behavior in Business		
	MKT 120	Principles of Marketing		
	MKT 123	Fundamentals of Selling		
	MKT 220	Advertising & Sales Promotion		
	CTS 115	Information Systems Business Concepts		
	CTS 125	Presentation Graphics		
<b>IV. Other Required Hours - 2 Credit Hour</b>				
ACA 115	Success and Study Skills	0	2	1
COE 110	World of Work	1	0	1
<b>Total Required Hours</b>				<b>74</b>

### Entrepreneurship Certificate

		Class Hours	Lab Hours	Credit Hours
<b>Entrepreneurship - 16 Credit Hours (C 25 49 0)</b>				
ACC 120	Principles of Financial Accounting	3	2	4
BUS 139	Entrepreneurship I	3	0	3
BUS 230	Small Business Management	3	0	3
BUS 253	Leadership and Management Skills	3	0	3
ETR 220	Innovation and Creativity	3	0	3

### General Occupational Technology - Degree (A 55 28 0)

#### Curriculum Description

The General Occupational Technology curriculum provides individuals with an opportunity to upgrade their skills and to earn an associate degree by taking courses suited for their occupational interests and/or needs.

The curriculum content will be individualized for students according to their occupational interests and needs. A program of study for each student will be selected from associate degree-level courses offered by the College.

Graduates will become more effective workers, better qualified for advancements within their field of employment, and become qualified for a wide range of entry-level employment opportunities.

		Class Hours	Lab Hours	Credit Hours
<b>I. General Education Requirements - 15 Credit Hours</b>				
ENG 111	Expository Writing	3	0	3
ENG 112	Argument Based Research	3	0	3
	OR			
ENG 113	Literature-Based Research			
	OR			
ENG 114	Professional Research & reporting			
COM 231	Public Speaking	3	0	3
MAT 115	Mathematical Models	2	2	3
	Humanities Elective	3	0	3



			<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>II.</b>	<b>Required Core Courses - 19 Credit Hours</b>				
	BIO 111	General Biology I	3	3	4
	CIS 110	Introduction to Computers	2	2	3
	MAT 161	College Algebra	3	0	3
	PSY 150	General Psychology	3	0	3
	PSY 241	Developmental Psychology	3	0	3
	SOC 210	Introduction to Sociology	3	0	3
<b>III.</b>	<b>Other Major Required Courses - Select 37 Credit Hours from the following courses</b>				
	BIO 155	Nutrition	3	0	3
	BIO 163	Basic Anatomy and Physiology	4	2	5
	BIO 165	Anatomy and Physiology I	3	3	4
	BIO 166	Anatomy and Physiology II	3	3	4
	BIO 168	Anatomy and Physiology I	3	3	4
	BIO 169	Anatomy and Physiology II	3	3	4
	BIO 175	General Microbiology	2	2	3
	CHEM 131	Introduction to Chemistry	3	0	3
	CHEM 131A	Introduction to Chemistry Laboratory	0	3	1
	CTS 130	Spreadsheet	2	2	3
	HEA 110	Personal Health/Wellness	3	0	3
	HEA 112	First Aid & CPR	1	2	2
	HEA 120	Community Health	3	0	3
	INS 101	Life/Accident/Health Ins	4	0	4
	INS 105	Risk Management	3	0	3
	ISC 110	Workplace Safety	1	0	1
	ISC 112	Industrial Safety	2	0	2
	ISC 121	Envir Health & Safety	3	0	3
	MED 121	Medical Terminology I	3	0	3
	MED 122	Medical Terminology II	3	0	3
	NUR 118	Nutrition/Diet Therapy	2	0	2
	OST 136	Word Processing	2	2	3
	OST 148	Med Coding Billing & Insu	3	0	3
	OST 149	Med Legal Issues	3	0	3
	PSY 110	Life Span Development	3	0	3
	PSY 281	Abnormal Psychology	3	0	3
	SOC 213	Sociology of the Family	3	0	3
	SOC 220	Social Problems	3	0	3
	SPA 111	Elementary Spanish I	2	0	3
	SPA 181	Spanish Lab I	0	2	1
	SPA 120	Spanish for the Workplace	3	0	3
	WEB 110	Internet/Web Fundamentals	2	3	3
<b>IV.</b>	<b>Other Major Hours - 1 Credit Hour</b>				
	ACA 115	Success & Study Skills	0	2	1
<b>Total Required Hours</b>					<b>72</b>

### General Occupational Technology - Diploma (D 55 28 0)

			<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>I.</b>	<b>General Education Requirements - 9 Credit Hours</b>				
	ENG 111	Expository Writing	3	0	3
	ENG 113	Literature-Based Research	3	0	3
	COM 231	Public Speaking	3	0	3
<b>II.</b>	<b>Required Core Courses - 13 Credit Hours</b>				
	BIO 111	General Biology I	3	3	4
	CIS 110	Introduction to Computers	2	2	3
	PSY 150	General Psychology	3	0	3
	SOC 210	Introduction to Sociology	3	0	3
<b>III.</b>	<b>Other Major Required Courses - select 15 Credit Hours from the following courses</b>				
	BIO 155	Nutrition	3	0	3
	BIO 163	Basic Anatomy and Physiology	4	2	5
	BIO 165	Anatomy and Physiology I	3	3	4

		Class Hours	Lab Hours	Credit Hours
BIO 166	Anatomy and Physiology II	3	3	4
BIO 175	General Microbiology	2	2	3
CHM 131	Introduction to Chemistry	3	0	3
CHM 131A	Introduction to Chemistry Lab	0	3	1
MAT 115	Mathematical Models	2	2	3
MAT 161	College Algebra	3	0	3
PSY 241	Developmental Psychology	3	0	3
	Humanities Elective	3	0	3
<b>III.</b>	<b>Other Major Hours - 1 Credit Hour</b>			
ACA 115	Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>38</b>

### Healthcare Business Informatics (A25510)

#### Curriculum Description

The Healthcare Business Informatics curriculum prepares individuals for employment as specialists in installation, data management, data archiving/retrieval, system design and support, and computer training for medical information systems.

Students learn about the field through multidisciplinary coursework including the study of terminology relating to informatics, systems analysis, networking technology, computer/network security, data warehousing, archiving and retrieval of information, and healthcare computer infrastructure support.

Graduates should qualify for employment as database/data warehouse analysts, technical support professionals, informatics technology professionals, systems analysts, networking and security technicians, and computer maintenance professionals in the healthcare field.

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 15 Credit Hours</b>			
ENG 111	Expository Writing	3	0	3
COM 231	Public Speaking	3	0	3
	HUM Elective	3	0	3
ECO 252	Principles of Macroeconomics	3	0	3
MAT 115	Mathematical Models	2	2	3
	OR			
MAT 161	College Algebra	3	0	3
<b>II.</b>	<b>Required Core Courses - 45 Credit Hours</b>			
CIS 115	Intro to Prog & Logic	2	2	3
CIS 120	Hardware/Software Support	2	3	3
HBI 110	Issues and Trends in HBI	3	0	3
HBI 113	Survey of Med Insurance	3	0	3
HBI 250	Data Mgmt and Utilization	2	2	3
HBI 289	HBI Project	1	4	3
CIS 110	Introduction to Computers	2	2	3
NOS 110	Operating System Concepts	2	3	3
NFT 125	Networking Basics	1	4	3
DBA 110	Database Concepts	2	3	3
MED 121	Medical Terminology I	3	0	3
MED 122	Medical Terminology II	3	0	3
OST 149	Medical Legal Issues	3	0	3
BUS 110	Introduction to Business	3	0	3
SEC 110	Security Concepts	3	0	3
<b>III.</b>	<b>Other Major Required Courses - 10 Credit Hours</b>			
NOS 130	Windows Single User	2	2	3
ACC 120	Principles of Financial Accounting	3	2	4
CTS 285	Systems Analysis & Design	3	0	3

			Class Hours	Lab Hours	Credit Hours
<b>III. Other Major Hours - 2 Credit Hour</b>					
	ACA 115	Success & Study Skills	0	2	1
	COE 110	World of Work	1	0	1
<b>Total Required Hours</b>					<b>72</b>

### Healthcare Management Technology (A25200)

#### Curriculum Description

The Healthcare Management Technology curriculum is designed to prepare students for employment in healthcare business and financial operations. Students will gain a comprehensive understanding of the application of management principles to the healthcare environment.

The curriculum places emphasis on planning, organizing, directing, and controlling tasks related to healthcare organizational objectives including the legal and ethical environment. Emphasis is placed on the development of effective communication, managerial, and supervisory skills.

Graduates may find employment in healthcare settings including hospitals, medical offices, clinics, long-term care facilities, and insurance companies. Graduates are eligible to sit for various certification exams upon completion of the degree with a combination of a minimum of two years administrative experience. Eligible certifications include, but are not limited to, the Professional Association of Healthcare Office Managers (PAHCOM), the Healthcare Financial Management Association (HFMA), the Certified Patient Account Manager (CPAM) and the Certified Manager of Patient Accounts (CMPA) examinations.

			Class Hours	Lab Hours	Credit Hours
<b>I. General Education Requirements - 18 Credit Hours</b>					
	ENG 111	Expository Writing	3	0	3
	ENG 114	Professional Research and Reporting	3	0	3
	COM 231	Public Speaking	3	0	3
		HUM Elective	3	0	3
	ECO 252	Principles of Macroeconomics	3	0	3
	MAT 115	Mathematical Models	2	2	3
		OR			
	MAT 161	College Algebra	3	0	3
<b>II. Required Core Courses - 30 Credit Hours</b>					
	ACC 120	Principles of Financial Accounting	3	2	4
	ACC 131	Principles of Managerial Accounting	3	2	4
	HMT 110	Intro to Healthcare Management	3	0	3
	HMT 210	Medical Insurance	3	0	3
	HMT 211	Long-Term Care Administration	3	0	3
	HMT 220	Healthcare Financial Management	4	0	4
	MED 121	Medical Terminology I	3	0	3
	MED 122	Medical Terminology II	3	0	3
	OST 149	Medical Legal Issues	3	0	3
<b>III. Other Major Required Courses - 20 Credit Hours</b>					
	CTS 110	Introduction to Computers	2	2	3
	CTS 130	Spreadsheet	2	2	3
	BUS 153	Human Resource Management	3	0	3
	BUS 137	Principles of Management	3	0	3
	MKT 120	Principles of Marketing	3	0	3
	ISMT 225	Practice Management Simulation	2	2	3
	Electives: (select one from the list below)				2
	BUS 260	DBA 110			
	OST 131	OST 286			
	WEB 140				
<b>III. Other Major Hours - 2 Credit Hour</b>					
	ACA 115	Success & Study Skills	0	2	1
	COE 110	World of Work	1	0	1
<b>Total Required Hours</b>					<b>70</b>

## Industrial Systems Technology - Degree (A 50 24 0)

### Curriculum Description

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.

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 15 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	ENG 114 Professional Research & Reporting OR	3	0	3
	ENG 113 Literature-Based Research			
	MAT 115 Mathematical Models	2	2	3
	Humanities Elective	3	0	3
	Social Science Elective	3	0	3
<b>II.</b>	<b>Required Core Courses - 4 Credit Hours</b>			
	MNT 110 Intro to Maintenance Procedures	1	3	2
	WLD 112 Basic Welding Processes	1	3	2
<b>III.</b>	<b>Required Subject Courses - 16 Credit Hours</b>			
	BPR 111 Blueprint Reading	1	2	2
	ELC 112 DC/AC Electricity	3	6	5
	HYD 110 Hydraulics/Pneumatics I	2	3	3
	ISC 121 Environmental Health & Safety	3	0	3
	MEC 111 Machine Processes I	1	4	3
<b>IV.</b>	<b>Other Major Required Courses - 36-38 Credit Hours</b>			
	AHR 120 HVACR Maintenance	1	3	2
	AHR 150 HVAC Controls	2	2	3
	AHR 160 Refrigerant Certification	1	0	1
	CIS 110 Introduction to Computers	2	2	3
	FLC 111 Intro to Electricity	2	2	3
	ELC 115 Industrial Wiring	2	6	4
	ELC 138 Intro to PLC	2	3	3
	ELC 132 Electrical Drawings	1	3	2
	MAC 114 Intro to Metrology	2	0	2
	MEC 112 Machine Processes II	2	3	3
	MEC 181 Intro to CIM	2	0	2
	PLC 111 Introduction to Basic Plumbing	1	3	2
	WLD 121 GMAW (Mag) FCAW/Plate	2	6	4
	Major Technical Elective: Select one of the following			2 - 4
	MNT 150 Basic Building Maintenance (1-3-2)			
	MNT 220 Rigging & Moving (1-3-2)			
	PFT 111 Piping and Valves (3-3-4)			
	PLU 211 Commercial/Ind Plumbing (2-2-3)			
	WLD 117 Industrial SMAW (1-4-3)			
	WOL 110 Basic Construction Skills (2-3-3)			
<b>V.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<u>72-74</u>

## Industrial Systems Technology – Certificates

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>Industrial Systems Technology – 18 Credit Hours (C 50 24 0 01)</b>				
AIR 120	HVACR Maintenance	1	3	2
BPR 111	Blueprint Reading	1	2	2
ELC 115	Industrial Wiring	2	6	4
ELC 128	Intro to PLC	2	3	3
HYD 110	Hydraulics/Pneumatics I	2	3	3
PLU 111	Introduction to Basic Plumbing	1	3	2
WLD 112	Basic Welding Processes	1	3	2
<b>Industrial Systems – Piping Technology – 12 Credit Hours (C 50 24 0 02)</b>				
PFT 111	Piping and Valves	3	3	4
WLD 112	Basic Welding Processes	1	3	2
WLD 117	Industrial SMAW	1	4	3
WOL 110	Basic Construction Skills	2	3	3

## Information Systems Security - Degree (A 25270)

### Curriculum Description

Information Systems Security covers a broad expanse of technology concepts. This curriculum provides individuals with the skills required to implement effective and comprehensive information security controls.

Course work includes networking technologies, operating systems administration, information policy, intrusion detection, security administration, and industry best practices to protect data communications.

Graduates should be prepared for employment as security administrators. Additionally, they will acquire the skills that allow them to pursue security certifications.

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>I. General Education Requirements - 15 Credit Hours</b>				
ECO 252	Principles of Economics	3	0	3
ENG 111	Expository Writing	3	0	3
	Humanities Elective	3	0	3
COM 231	Public Speaking	3	0	3
MAT 115	Mathematical Models	3	0	3
<b>II. Required Core Courses - 45 Credit Hours</b>				
BUS 110	Introduction to Business	3	0	3
CIS 110	Introduction to Computers	2	2	3
CIS 115	Introduction to Logic	2	3	3
DBA 110	Database Concepts	2	3	3
NET 125	Networking Basics	1	4	3
NET 126	Routing and Switching I	1	4	3
NOS 110	Operating Systems Concepts	2	3	3
NOS 130	Windows Single User	2	2	3
NOS 230	Windows Admin I	2	2	3
SEC 110	Security Concepts	3	0	3
SEC 150	Secure Communications	2	2	3
SEC 160	Secure Admin I	2	2	3
SEC 210	Intrusion Detection	2	2	3
SEC 220	Defense-in-depth	2	2	3
SEC 289	Security Capstone Project	1	4	3
<b>III. Other Major Required Courses - 13 credit hours</b>				
CSC 154	C++ Programming	2	3	3
CTS 285	Systems Analysis & Design	3	0	3
COE 110	World of Work	1	0	1

		Class Hours	Lab Hours	Credit Hours
<b>Electives Hours: Choose a minimum of 6 credit hours</b>				
CSC 139	Visual Basic Programming			
CSC 234	Advanced C— Programming			
NET 225	Advanced Routing and Switching			
NET 226	Advanced Routing and Switching II			
NOS 120	Linux Admin I			
NOS 220	Linux Admin II			
WEB 140	Web Development Tools			
WEB 210	Web Design			
<b>IV. Other Required Hours - 1 Credit Hour</b>				
ACA 115	Success & Study Skills	0	2	1
<b>Total Required hours</b>				<b>74</b>

### Manufacturing Technology - Degree (A 50 32 0)

#### Curriculum Description

The Manufacturing Technology curriculum provides an introduction to the principles and practices of manufacturing in today's global marketplace. The student will be exposed to valuable high-tech concepts applicable in a variety of industries such as plastics, metals, furniture, textiles, and electronics.

Students will gain real-world knowledge in manufacturing management practices, manufacturing materials and processes, research and development, and quality assurance. Course work will include machining processes, CAD/CAM, CNC principles, and other computerized production techniques.

Graduates should qualify for employment as a manufacturing technician, quality assurance technician, CAD/CAM technician, team leader, or research and development technician. The student will be able to advance in the workplace and develop with new technologies.

		Class Hours	Lab Hours	Credit Hours
<b>I. General Education Requirements - 15 Credit Hours</b>				
ENG 111	Expository Writing	3	0	3
ENG 114	Professional Research & Reporting	3	0	3
	OR			
ENG 113	Literature-Based Research			
MAT 115	Mathematical Models	3	2	3
	Humanities Elective	3	0	3
	Social Science Elective	3	0	3
<b>II. Required Subject Courses - 13 Credit Hours</b>				
ISC 121	Environmental Health and Safety	3	0	3
ISC 132	Manufacturing Quality Control	2	3	3
MEC 180	Engineering Materials	2	3	3
DFT 111	Technical Drafting I	1	3	2
MAC 114	Intro to Metrology	2	0	2
<b>III. Other Major Required Courses - 45 or 47 Credit Hours</b>				
CIS 110	Introduction to Computers	2	2	3
DFT 111A	Technical Drafting I Lab	0	3	1
MAC 121	Introduction to CNC	2	0	2
MEC 231	Computer Aided Manufacturing I	1	4	3
	Major Electives			2 or 3
	EGR 110	Intro to Engineering Tech (1-2-2)		
	MEC 172	Introduction to Metallurgy (2-2-3)		
	PLA 110	Introduction to Plastics (2-0-2)		
	PLA 120	Injection Molding (2-3-3)		
	PLA 162	Plastics Manuf Processes (2-3-3)		
	WLD 145	Thermoplastics Welding (1-3-2)		

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>Choose one of the following Tracks:</b>				
<b>Track A (Manufacturing Technology)</b>				
DFT 112	Technical Drafting II	1	3	2
DFT 112A	Technical Drafting II Lab	0	3	1
DFT 151	CAD I	2	3	3
DFT 152	CAD II	2	3	3
ELC 111	Introduction to Electricity	2	2	3
ELC 128	Introduction to PLC	2	3	3
HYD 110	Hydraulics/Pneumatics I	2	3	3
MEC 111	Machine Processes I	1	4	3
MEC 112	Machine Processes II	2	3	3
MEC 181	Introduction to CIM	2	0	2
MEC 232	Computer Aided Manufacturing II	1	4	3
MEC 236	Regional Manufacturing	1	4	3
WLD 112	Basic Welding Processes	1	3	2
<b>Track B (Manufacturing Technology – Machining)</b>				
BPR 111	Blueprint Reading	1	2	2
DFT 121	Intro to GD&T	1	2	2
DFT 152	CAD II	2	3	3
DFT 231	Jig and Fixture	1	2	2
MAC 111	Machining Technology I	2	12	6
MAC 112	Machining Technology II	2	12	6
MAC 113	Machining Technology III	2	12	6
MAC 122	CNC Turning	1	3	2
MAC 124	CNC Milling	1	3	2
MAC 222	Advanced CNC Turning	1	3	2
MAC 224	Advanced CNC Milling	1	3	2
<b>IV. Other Required Hours - 1 Credit Hour</b>				
ACA 115	Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>74 - 76</b>

### Manufacturing Technology – Certificate

#### CNC Programming – 18 Credit Hours (C 50 32 0)

DFT 151	CAD I	2	3	3
MAC 121	Introduction to CNC	2	0	2
MAC 122	CNC Turning	1	3	2
MAC 124	CNC Milling	1	3	2
MEC 111	Machine Processes I	1	4	3
MEC 231	Comp-Aided Manufacturing I	1	4	3
MEC 232	Comp-Aided Manufacturing II	1	4	3

### Mechanical Drafting Technology - Degree (A 50 34 0)

#### Curriculum Description

The Mechanical Drafting Technology curriculum prepares technicians to produce drawings of mechanical parts, components of mechanical systems, and mechanisms. CAD and the importance of technically correct drawings and designs based on current standards are emphasized.

Course work includes mechanical drafting, CAD, and proper drawing documentation. Concepts such as machine shop processes, basic materials, and physical sciences as they relate to the design process are also included. The use of proper dimensioning and tolerance techniques is stressed.

Graduates should qualify for employment in mechanical areas such as manufacturing, fabrication, research and development, and service industries.

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 15 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	ENG 114 Professional Research & Reporting OR	3	0	3
	ENG 113 Literature-Based Research			
	MAT 115 Mathematical Models OR	2	2	3
	MAT 161 College Algebra			
	Humanities Elective	3	0	3
	Social Science Elective	3	0	3
<b>II.</b>	<b>Required Core Courses - 10 Credit Hours</b>			
	DFT 111 Technical Drafting I	1	3	2
	DFT 112 Technical Drafting II	1	3	2
	DFT 151 CAD I	2	3	3
	DFT 152 CAD II	2	3	3
<b>III.</b>	<b>Required Subject Courses - 3 Credit Hours</b>			
	MEC 111 Machine Processes I	1	4	3
<b>IV.</b>	<b>Other Major Required Courses - 44 Credit Hours</b>			
	CIS 110 Introduction to Computers	2	2	3
	DDF 211 Design Process I	1	6	4
	DDF 221 Design Drafting Project	0	4	2
	DFT 111A Technical Drafting I Lab	0	3	1
	DFT 112A Technical Drafting II Lab	0	3	1
	DFT 115 Architectural Drafting	1	2	2
	DFT 121 Intro to Geometric Dimensioning and Tolerancing	1	2	2
	DFT 153 CAD III	2	3	3
	DFT 154 Intro Solid Modeling	2	3	3
	DFT 231 Jig & Fixture Design	1	2	2
	DFT 254 Intern Solid Model Render	2	3	3
	Technical Elective (choose one):			2
	DFT 161 Pattern Design & Layout			
	MEC 181 Introduction to CIM			
	MNT 222 Industrial Sys Schematics			
	EGR 110 Introduction to Engineering Technology	1	2	2
	HYD 110 Hydraulics/Pneumatics I	2	3	3
	ISC 132 Mfg. Quality Control	2	3	3
	MAC 121 Introduction to CNC	2	0	2
	MEC 180 Engineering Materials	2	3	3
	MEC 231 Computer Aided Manufacturing I	1	4	3
<b>V.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>73</b>

### Mechanical Drafting Technology - Diploma (D 50 34 0)

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Courses - 6 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	MAT 115 Mathematical Models	2	2	3
<b>II.</b>	<b>Required Core Courses - 10 Credit Hours</b>			
	DFT 111 Technical Drafting I	1	3	2
	DFT 112 Technical Drafting II	1	3	2
	DFT 151 CAD I	2	3	3
	DFT 152 CAD II	2	3	3



		Class Hours	Lab Hours	Credit Hours
<b>III.</b>	<b>Required Subject Courses - 3 Credit Hours</b>			
	MEC 111 Machine Processes I	1	4	3
<b>IV.</b>	<b>Other Major Required Courses - 24 Credit Hours</b>			
	DDF 211 Design Process I	1	6	4
	DFT 111A Technical Drafting I Lab	0	3	1
	DFT 112A Technical Drafting II Lab	0	3	1
	DFT 115 Architectural Drafting	1	3	2
	DFT 121 Intro to Geometric Dimensioning and Tolerancing	1	2	2
	DFT 153 CAD III	2	3	3
	DFT 154 Intro Solid Modeling	2	3	3
	<b>Technical Elective (Choose one):</b>			2
	DFT 161 Pattern Design & Layout			
	MEC 181 Introduction to CIM			
	MNT 222 Industrial Sys Schematics			
	ISC 132 Mfg. Quality Control	2	3	3
	MEC 180 Engineering Materials	2	3	3
	<b>Total Required Hours</b>			<b>43</b>

### Mechanical Drafting Technology - Certificate

#### Mechanical Drafting Technology - 15 Credit Hours (C 50 34 0)

DFT 111	Technical Drafting I	1	3	2
DFT 111A	Technical Drafting I Lab	0	3	1
DFT 112	Technical Drafting II	1	3	2
DFT 112A	Technical Drafting II Lab	0	3	1
DFT 151	CAD I	2	3	3
DFT 152	CAD II	2	3	3
MEC 111	Machine Processes I	1	4	3

### Mechanical Engineering Technology - Degree (A 40 32 0)

#### Curriculum Description

The Mechanical Engineering Technology curriculum prepares graduates for employment as technicians in the diversified mechanical and manufacturing engineering fields. Mechanical Engineering technicians assist in design, development, testing, process design and improvement, and troubleshooting and repair of engineered systems. Emphasis is placed on the integration of theory and hands-on application of engineering principles.

In addition to course work in engineering graphics, engineering fundamentals, materials and manufacturing processes, mathematics, and physics, students will study computer applications, critical thinking, planning and problem solving, and oral and written communications.

Graduates of the curriculum will find employment opportunities in the manufacturing or service sectors of engineering technology. Engineering technicians may obtain professional certification by application to organizations such as ASQC, SME, and NICET.

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 15 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	ENG 114 Professional Research & Reporting OR	3	0	3
	ENG 113 Literature-Based Research			
	MAT 161 College Algebra	3	0	3
	Humanities Elective	3	0	3
	Social Science Elective	3	0	3

		Class Hours	Lab Hours	Credit Hours
<b>II.</b>	<b>Required Subject Courses - 19 Credit Hours</b>			
	DFT 131 CAD I	2	3	3
	HYD 110 Hydraulics/Pneumatics I	2	3	3
	MAC 114 Intro to Metrology	2	0	2
	MEC 111 Machine Processes I	1	4	3
	MEC 250 Studies & Strength of Material	4	3	5
	<b>Choose one of the following Tracks:</b>			
	<b>Track A (Mechanical Engineering)</b>			
	ISC 121 Environmental Health and Safety	3	0	3
	<b>Track B (Mechatronics)</b>			
	ISC 132 Manufacturing Quality Control	2	3	3
	<b>Track C (Mechanical Drafting)</b>			
	ISC 132 Manufacturing Quality Control	2	3	3
<b>III.</b>	<b>Other Major Required Courses - 40 Credit Hours</b>			
	CIS 110 Intro to Computers	2	2	3
	PHY 151 Physics Mechanics	3	2	4
	<b>Choose one of the following Tracks:</b>			
	<b>Track A (Mechanical Engineering)</b>			
	DFT 111 Technical Drafting I	1	3	2
	DFT 111A Technical Drafting I Lab	0	3	1
	EGR 110 Intro to Engineering Tech.	1	2	2
	ISC 132 Mfg Quality Control	2	3	3
	MAC 121 Introduction to CNC	2	0	2
	MA1 162 College Trigonometry	3	0	3
	MFC 128 CNC Machining Processes	2	4	4
	MFC 180 Engineering Materials	2	3	3
	MFC 231 Comp-Aided Manufacturing I	1	4	3
	MFC 256 Regional Manufacturing	1	4	3
	MFC 270 Machine Design	3	3	4
	MFC 271 Machine Design Project	0	3	1
	<b>Elective (choose from the following)</b>			2
	DFT 121 Intro to GD&T (1-2-2)			
	MEC 181 Introduction to CIM (2-0-2)			
	PLA 110 Introduction to Plastics (2-0-2)			
	<b>Track B (Mechatronics)</b>			
	CET 161 Procedural Programming	2	3	3
	EGR 285 Design Project	0	4	2
	ELC 112 DC/AC Electricity	3	6	5
	ELC 117 Motors and Controls	2	6	4
	ELC 128 Intro to PLCs	2	3	3
	ELC 238 PLC Applications	2	6	4
	ELN 131 Semiconductor Applications	3	3	4
	ELN 133 Digital Electronics	3	3	4
	PHY 132 Physics Electricity/Magnetism	3	2	4
	<b>Track C (Mechanical Drafting)</b>			
	DDF 211 Design Process I	1	6	4
	DDF 221 Design Drafting Project	0	4	2
	DFT 111 Technical Drafting I	1	3	2
	DFT 111A Technical Drafting I Lab	0	3	1
	DFT 112 Technical Drafting II	1	3	2
	DFT 112A Technical Drafting II Lab	0	3	1
	DFT 121 Intro to GD&T	1	2	2
	DFT 152 CAD II	2	3	3
	DFT 154 Intro to Solid Modeling	2	3	3
	DFT 254 Intermediate Solid Modeling	2	3	3
	EGR 110 Intro to Engineering Tech.	1	2	2
	MAC 121 Introduction to CNC	2	0	2
	MFC 180 Engineering Materials	2	3	3
	MFC 231 Comp-Aided Manufacturing I	1	4	3
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
	<b>Total Required Hours</b>			<b>75</b>

## Mechanical Engineering Technology – Certificate

		Class Hours	Lab Hours	Credit Hours
<b>Mechanical Engineering Technology – 18 Credit Hours (C 40 32 0)</b>				
DFT 151	CAD I	2	3	3
HYD 110	Hydraulics/Pneumatics I	2	3	3
ISC 132	Mfg Quality Control	2	3	3
MEC 111	Machine Processes I	1	4	3
MFC 231	Comp-Aided Manufacturing I	1	4	3
MEC 180	Engineering Materials	2	3	3

## Medical Office Administration - Degree (A 25 31 0)

### Curriculum Description

This curriculum prepares individuals for employment in medical and other health-care related offices.

Course work will include medical terminology; information systems; office management; medical coding, billing and insurance; legal and ethical issues; and formatting and word processing. Students will learn administrative and support functions and develop skills applicable in medical environments.

Employment opportunities are available in medical and dental offices, hospitals, insurance companies, laboratories, medical supply companies, and other health-care related organizations.

		Class Hours	Lab Hours	Credit Hours
<b>I. General Education Requirements - 15 Credit Hours</b>				
MAT 115	Mathematical Models	2	2	3
ENG 111	Expository Writing	3	0	3
ECO 252	Prin of Macroeconomics	3	0	3
COM 231	Public Speaking	3	0	3
	Humanities Elective	3	0	3
<b>II. Required Core Courses - 24 Credit Hours</b>				
CIS 110	Introduction to Computers	2	2	3
OST 134	Text Entry & Formatting	2	2	3
OST 164	Text Editing Applications	3	0	3
OST 289	Administrative Office Management	2	2	3
MED 121	Medical Terminology I	3	0	3
MED 122	Medical Terminology II	3	0	3
OST 148	Med Coding Billing & Insur	3	0	3
OST 149	Med Legal Issues	3	0	3
<b>III. Other Major Required Courses - 31/32 Credit Hours</b>				
ACC 120	Prin of Financial Acct	3	2	4
BUS 121	Business Math	2	2	3
BUS 260	Business Communication	3	0	3
OST 131	Keyboarding	1	2	2
OST 184	Records Management	2	2	3
OST 241	Med Ofc Transcription I	1	2	2
OST 243	Medical Office Simulation	2	2	3
OST 286	Professional Development	3	0	3
<b>IV. Additional Major Required Courses - Select Track A or B</b>				
<b>Track A</b>				
CIS 130	Spreadsheet	2	2	3
DBA 110	Database Concepts	2	3	3
OST 136	Word Processing	2	2	3

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>	
<b>Track B</b>					
	OST 247	Procedure Coding	1	2	2
	OST 248	Diagnostic Coding	1	2	2
	OST 249	CPC Certification	3	2	4
<b>V.</b>	<b>Other Required Hours - 2 Credit Hours</b>				
	ACA 115	Success & Study Skills	0	2	1
	COT 110	World of Work	1	0	1
<b>Total Required Hours</b>					<b>72/73</b>

### Medical Office Administration - Diploma (D 25 31 0)

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>	
<b>I.</b>	<b>General Education Requirements - 6 Credit Hours</b>				
	MAT 115	Mathematical Models	2	2	3
	ENG 111	Expository Writing	3	0	3
<b>II.</b>	<b>Core Courses - 24 Credit Hours</b>				
	CIS 110	Introduction to Computers	2	2	3
	OST 134	Text Entry & Formatting	2	2	3
	MED 121	Medical Terminology I	3	0	3
	MED 122	Medical Terminology II	3	0	3
	OST 148	Med Coding Billing & Insu	3	0	3
	OST 149	Med Legal Issues	3	0	3
	OST 164	Text Editing Applications	3	0	3
	OST 289	Administrative Office Management	2	2	3
<b>III.</b>	<b>Other Major Required Courses - 15 Credit Hours</b>				
	ACC 120	Prin of Financial Acct	3	2	4
	BUS 121	Business Math	2	2	3
	OST 131	Keyboarding	1	2	2
	OST 184	Records Management	2	2	3
	OST 286	Professional Development	3	0	3
<b>IV.</b>	<b>Other Required Hours - 2 Credit Hours</b>				
	ACA 115	Success & Study Skills	0	2	1
	COT 110	World of Work	1	0	1
<b>Total Required Hours</b>					<b>47</b>

### Medical Office Administration - Certificate

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>	
<b>Medical Office Administration - 17 Credit Hours (C 25 31 0 01)</b>					
	CIS 110	Introduction to Computers	2	2	3
	OST 131	Keyboarding	1	2	2
	MED 121	Medical Terminology I	3	0	3
	MED 122	Medical Terminology II	3	0	3
	OST 148	Med Coding Billing & Insu	3	0	3
	OST 286	Professional Development	3	0	3

## Medical Office Administration - Coding Certificate

		Class Hours	Lab Hours	Credit Hours
<b>Coding - 17 Credit Hours (C 25 31 0 02)</b>				
MED 121	Medical Terminology I	3	0	3
OST 148	Medical Coding, Billing and Insurance	3	0	3
MED 122	Medical Terminology II	3	0	3
OST 247	Procedure Coding	1	2	2
OST 248	Diagnostic Coding	1	2	2
OST 249	CPC Certification	3	2	4

## Medical Office Administration – Medical Transcription Certificate

		Class Hours	Lab Hours	Credit Hours
<b>Medical Transcription - 16 Credit Hours (C 25 31 0 03)</b>				
OST 131	Keyboarding	1	2	2
OST 136	Word Processing	2	2	3
OST 164	Text Editing Applications	3	0	3
OST 241	Medical Office Transcription I	1	2	2
MED 121	Medical Terminology I	3	0	3
MED 122	Medical Terminology II	3	0	3

## Networking Technology - Degree (A 25 34 0)

### Curriculum Description

The Networking Technology curriculum prepares individuals for employment supporting network infrastructure environments. Students will learn how to use technologies to provide reliable transmission and delivery of data, voice, image, and video communications in business, industry, and education.

Course work includes design, installation, configuration, and management of network infrastructure technologies and network operating systems. Emphasis is placed on the implementation and management of network software and the implementation and management of hardware such as switches and routers.

Graduates may find employment in entry-level jobs as local area network managers, network operators, network analysts, and network technicians. Graduates may also be qualified to take certification examinations for various network industry certifications, depending on their local program.

		Class Hours	Lab Hours	Credit Hours
<b>I. General Education Courses - 15 Credit Hours</b>				
General Education Requirements - 15 Credit Hours				
ECO 252	Prin of Macroeconomics	3	0	3
ENG 111	Expository Writing	3	0	3
	Humanities Elective	3	0	3
COM 231	Public Speaking	3	0	3
MAT 115	Mathematical Models	2	2	3
	OR			
MAT 161	College Algebra			
<b>II. Required Core Courses - 45 Credit Hours</b>				
BUS 110	Introduction to Business	3	0	3
CIS 110	Introduction to Computers	2	2	3
CIS 115	Intro to Prog & Logic	2	3	3
CTS 120	Hardware/Software Support	2	3	3
DBA 110	Database Concepts	2	3	3

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>	
	NET 125	Networking Basics	1	4	3
	NET 126	Routing Basics	1	4	3
	NET 225	Routing and Switching I	1	4	3
	NET 226	Routing and Switching II	1	4	3
	NET 289	Networking Project	1	4	3
	NOS 110	Operating System Concepts	2	3	3
	NOS 120	Linux/UNIX Single User	2	2	3
	NOS 130	Windows Single User	2	2	3
	NOS 220	Linux/Unix Admin I	2	2	3
	SEC 110	Security Concepts	3	0	3
<b>III.</b>	<b>Other Major Required Courses - 13 Credit Hours</b>				
	COE 110	World of Work	1	0	1
	CTS 285	Systems Analysis and Design	3	0	3
	CTS 155	Tech Support Functions	2	2	3
	CSC 134	C++ Programming	2	3	3
	NOS 230	Windows Admin I	2	2	3
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>				
	ACA 115	Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>74</b>	

### Networking Technology - Certificate

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>	
<b>Networking Technology - 18 Credit Hours (C 25 34 0)</b>					
	NET 125	Networking Basics	1	4	3
	NET 126	Routing Basics	1	4	3
	NET 225	Routing & Switching I	1	4	3
	NET 226	Routing & Switching II	1	4	3
	SEC 110	Security Concepts	3	0	3
	NOS 110	Operating Systems Concepts	2	3	3

### Occupational Education Associate - Degree (A 55 32 0)

#### Curriculum Description

The Occupational Education Associate curriculum is designed for individuals skilled and experienced in a trade or technical specialty who would like to receive an associate degree in preparation for teaching or other purposes.

Course work is designed to supplement previous education, training, and/or experience the individual has already attained.

Graduates of the program may find employment as instructors in the field of occupational education.

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>	
<b>I.</b>	<b>General Education Requirements - 19 Credit Hours</b>				
	ENG 111	Expository Writing	3	0	3
	ENG 113	Literature - Based Research	3	0	3
		OR			
	ENG 114	Professional Research & Reporting			
	MAT 115	Mathematical Models	2	2	3
	PSY 150	General Psychology	3	0	3
		Humanities Elective	3	0	3
		Natural Science Elective (Choose one):			4
	BIO 111	General Biology I			
	CHM 151	General Chemistry I			

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>II.</b>	<b>Required Core Courses - 21 Credit Hours</b>			
	EDU 175 Introduction to Trade & Ind Ed	3	0	3
	EDU 176 Occupational Analysis and Course Dev	3	0	3
	EDU 177 Instructional Methods	2	2	3
	EDU 179 Vocational Student Organizations	3	0	3
	EDU 271 Educational Technology	2	2	3
	EDU 281 Instruc Strat/Read and Writ	2	2	3
	ISC 121 Environmental Health & Safety	3	0	3
<b>III.</b>	<b>Other Major Required Courses - 34 Credit Hours</b>			
	EDU 161 Intro to Exceptional Child	3	0	3
	EDU 178 Facilities Organization & Planning	2	2	3
	EDU 275 Effective Teacher Training	2	0	2
	CIS 110 Introduction to Computers	2	2	3
	<b>Specialty Area</b>			25
	1. Through work experience or informal course work			
	2. Through formal training in field			
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>75</b>

### Occupational Education Associate - Diploma (D 55 32 0)

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>I.</b>	<b>General Education - 6 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	PSY 150 General Psychology	3	0	3
<b>II.</b>	<b>Required Core Courses - 21 Credit Hours</b>			
	EDU 175 Introduction to Trade & Ind Ed	3	0	3
	EDU 176 Occupational Analysis and Course Dev	3	0	3
	EDU 177 Instructional Methods	2	2	3
	EDU 179 Vocational Student Organizations	3	0	3
	EDU 271 Educational Technology	2	2	3
	EDU 281 Instruc Strat/Read and Writ	2	2	3
	ISC 121 Environmental Health & Safety	3	0	3
<b>III.</b>	<b>Other Major Required Courses - 8 Credit Hours</b>			
	EDU 178 Facilities Organization & Planning	2	2	3
	EDU 275 Effective Teacher Training	2	0	2
	CIS 110 Introduction to Computers	2	2	3
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>36</b>

### Occupational Education Associate - Certificate

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>Occupational Education Associate - 18 Credit Hours (C 55 32 0)</b>				
	EDU 175 Introduction to Trade & Ind Ed	3	0	3
	EDU 177 Instructional Methods	2	2	3
	EDU 179 Vocational Student Organizations	3	0	3
	EDU 271 Educational Technology	2	2	3
	EDU 281 Instruc Strat/Read and Writ	2	2	3
	ISC 121 Environmental Health & Safety	3	0	3

## Office Administration - Degree (A 25 37 0)

### Curriculum Description

The Office Administration curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.

Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on non-technical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle management.

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 15 Credit Hours</b>			
	ECO 252 Prin of Macroeconomics	3	0	3
	ENG 111 Expository Writing	3	0	3
	COM 231 Public Speaking	3	0	3
	MAT 115 Mathematical Models	2	2	3
	Humanities Elective	3	0	3
<b>II.</b>	<b>Required Core Courses - 15 Credit Hours</b>			
	CIS 110 Introduction to Computers	2	2	3
	OST 134 Text Entry and Formatting	2	2	3
	OST 164 Text Editing Applications	3	0	3
	OST 184 Records Management	2	2	3
	OST 289 Administrative Office Management	2	2	3
<b>III.</b>	<b>Other Major Required Courses - 40 Credit Hours</b>			
	ACC 120 Prin of Financial Acct	3	2	4
	BUS 115 Business Law I	3	0	3
	BUS 121 Business Math	2	2	3
	BUS 260 Business Communication	3	0	3
	CTS 130 Spreadsheet	2	2	3
	DBA 110 Database Concepts	2	3	3
	CIS 165 Desktop Publishing I	2	2	3
	CTS 125 Presentation Graphics	2	2	3
	COE 110 World of Work	1	0	1
	OST 131 Keyboarding	1	2	2
	OST 136 Word Processing	2	2	3
	OST 286 Professional Development	3	0	3
	WEB 110 Internet/Web Fundamentals	2	2	3
	Elective (choose one of the following courses)			3
	ACC 121 Principles of Managerial Accounting			
	ACC 129 Individual Income Taxes			
	CIS 115 Introduction to Programming & Logic			
	ECO 251 Principles of Microeconomics			
	MKT 120 Principles of Marketing			
	MED 121 Medical Terminology I			
	WEB 140 Web Development Tools			
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>71</b>



### Office Administration - Diploma (D 25 37 0)

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education - 6 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	MAP 115 Mathematical Models	2	2	3
<b>II.</b>	<b>Required Core Courses - 15 Credit Hours</b>			
	CIS 110 Introduction to Computers	2	2	3
	OST 134 Text Entry and Formatting	2	2	3
	OST 164 Text Editing Applications	3	0	3
	OST 184 Records Management	2	2	3
	OST 289 Administrative Office Management	2	2	3
<b>III.</b>	<b>Other Major Required Courses - 22 Credit Hours</b>			
	ACC 120 Prin of Financial Acct	3	2	4
	BUS 121 Business Math	2	2	3
	CTS 125 Presentation Graphics	2	2	3
	COE 110 World of Work	1	0	1
	OST 131 Keyboarding	1	2	2
	OST 136 Word Processing	2	2	3
	OST 286 Professional Development	3	0	3
	WEB 110 Internet-Web Fundamentals	2	2	3
<b>IV.</b>	<b>Other Required Hours - 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>44</b>

### Office Administration - Certificate

		Class Hours	Lab Hours	Credit Hours
<b>Office Administration - 18 Credit Hours (C 25 37 0)</b>				
	CIS 110 Introduction to Computers	2	2	3
	OST 131 Keyboarding	1	2	2
	OST 134 Text Entry and Formatting	2	2	3
	OST 136 Word Processing	2	2	3
	OST 184 Records Management	2	2	3
	OST 286 Professional Development	3	0	3
	ACA 115 Success & Study Skills	0	2	1

### Paralegal Technology - Degree (A 25 38 0)

#### Curriculum Description

The Paralegal Technology curriculum prepares individuals to work under the supervision of attorneys by performing routine legal tasks and assisting with substantive legal work. A paralegal/legal assistant may not practice law, give legal advice, or represent clients in a court of law.

Coursework includes substantive and procedural legal knowledge in the areas of civil litigation, legal research and writing, real estate, family law, wills, estates, trusts, and commercial law. Required courses also include subjects such as English, mathematics, and computer utilization.

Graduates are trained to assist attorneys in probate work, investigations, public records search, drafting and filing legal documents, research, and office management. Employment opportunities are available in private law firms, governmental agencies, banks, insurance agencies, and other business organizations.

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Courses - 18 credit hours</b>			
	*ENG 111 Expository Writing	3	0	3
	*ENG 112 Argument-Based Research	3	0	3
	*ENG 114 Prof. Research and Reporting	3	0	3

		Class Hours	Lab Hours	Credit Hours
	*Hum/Fine Arts Elective	3	0	3
(MAT 140	Survey of Mathematics	3	0	3
	*Social/Behavioral Science elective	3	0	3
<b>II.</b>	<b>Major Core Courses - 48 credit hours</b>			
+LEX 110	Intro. To Paralegal Study	2	0	2
+LEX 120	Legal Research/Writing I	2	2	3
-LEX 130	Civil Injuries	2	0	2
+LEX 140	Civil Litigation I	3	0	3
-LEX 150	Commercial Law	2	2	3
-LEX 210	Real Property I	2	0	2
-LEX 240	Family Law	2	0	2
-LEX 250	Wills, Estates, and Trusts	2	2	3
<b>III.</b>	<b>Other Major Hours</b>			
*ACC 120	Prin of Financial Acct	3	2	4
*CIS 110	Introduction to Computers	2	2	3
*OST 136	Word Processing	2	2	3
-LEX 121	Legal Research & Writing I	2	2	3
+LEX 141	Civil Litigation II	3	2	3
-LEX 160	Criminal Law & Procedure	2	2	3
+LEX 211	Real Property II	1	4	3
-LEX 270	Law Office Mgt./Tech.	1	2	2
+LEX 280	Ethics and Professionalism	2	0	2
	Select 2 hours from the following:			
+LEX 170	Administrative Law	2	0	2
+LEX 220	Corporate Law	2	0	2
+LEX 360	Bankruptcy & Collections	2	0	2
+LEX 292	Selected Topics in Para. Tech.	1	2	2
<b>Total Required Hours</b>				<b>66</b>
	* = Conducted at Isothermal Community College			+ = Conducted at Western Piedmont Community College

## Sustainability Technologies – Degree (A-40-37-0)

### Curriculum Description

The Sustainability Technologies curriculum is designed to prepare individuals for employment in environmental, construction, alternative energy, manufacturing, or related industries, where key emphasis is placed on energy production and waste reduction along with sustainable technologies.

Course work may include alternative energy, environmental engineering technology, sustainable manufacturing, and green building technology. Additional topics may include sustainability, energy management, waste reduction, renewable energy, site assessment, and environmental responsibility.

Graduates should qualify for positions within the alternative energy, construction, environmental, and/or manufacturing industries. Employment opportunities exist in both the government and private industry sectors where graduates may function as manufacturing technicians, sustainability consultants, environmental technicians, or green building supervisors.

		Class Hours	Lab Hours	Credit Hours
<b>1.</b>	<b>General Education Requirements - 23 Credit Hours</b>			
ENG 111	Expository Writing	3	0	3
ENG 113	Literature-Based Research (3 - 0 - 3)			
	OR			
ENG 114	Professional Research & Reporting	3	0	3
MAT 161	College Algebra	3	0	3
PHY 131	Physics – Mechanics	3	2	4
PHY 132	Physics – Elec & Magnetism	3	2	4
	Humanities Elective	3	0	3
	Social Science Elective	3	0	3

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>II.</b>	<b>Required Core Courses – 12 Credit Hours</b>			
	BIO 140 Environmental Biology	3	0	3
	SST 110 Intro to Sustainability	3	0	3
	SST 120 Energy Use Analysis	2	2	3
	SST 210 Issues in Sustainability	3	0	3
<b>III.</b>	<b>Required Subject Courses – 12 Credit Hours</b>			
	ARC 111 Intro to Arch Technology	1	6	3
	CMT 210 Prof Construction Supervision	3	0	3
	SST 140 Green Building Concepts	1	3	2
	SRV 110 Surveying I	2	6	4
<b>IV.</b>	<b>Other Major Required Courses – 26 Credit Hours</b>			
	ALT 220 Photovoltaic Sys Tech	2	3	3
	BIO 140A Environmental Biology Lab	0	3	1
	CIS 110 Introduction to Computers	2	2	3
	DFT 111 Technical Drafting I	1	3	2
	DFT 111A Technical Drafting II Lab	0	3	1
	ELC 112 DC/AC Electricity	3	6	5
	JSC 121 Envir Health & Safety	3	0	3
	MEC 180 Engineering Materials	2	3	3
	MEC 230 Statics & Strength of Mat'ls	4	3	5
<b>V.</b>	<b>Other Required Hours – 1 Credit Hour</b>			
	ACA 115 Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<b>74</b>

### Sustainability Technologies – Diploma (D 40 37 0)

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>I.</b>	<b>General Education Courses – 10 Credit Hours</b>			
	ENG 111 Expository Writing	3	0	3
	MAT 161 College Algebra	3	0	3
	PHY 131 Physics – Mechanics	3	2	4
<b>II.</b>	<b>Required Courses – 12 Credit Hours</b>			
	BIO 140 Environmental Biology	3	0	3
	SST 110 Intro to Sustainability	3	0	3
	SST 120 Energy Use Analysis	2	2	3
	SST 210 Issues in Sustainability	3	0	3
<b>III.</b>	<b>Other Major Hours – 17 Credit Hours</b>			
	ALT 220 Photovoltaic Sys Tech	2	3	3
	ARC 111 Intro to Arch Technology	1	6	3
	BIO 140A Environmental Biology Lab	0	3	1
	ELC 112 DC/AC Electricity	3	6	5
	MEC 180 Engineering Materials	2	3	3
	SST 140 Green Building Concepts	1	3	2
<b>Total Required Hours</b>				<b>39</b>

### Sustainability Technologies – Certificate

		<u>Class Hours</u>	<u>Lab Hours</u>	<u>Credit Hours</u>
<b>Sustainability Technologies - 13 Credit Hours (C 40 37 0)</b>				
	ARC 111 Intro to Arch Technology	1	6	3
	BIO 140 Environmental Biology	3	0	3
	BIO 140A Environmental Biology Lab	0	3	1
	SST 110 Intro to Sustainability	3	0	3
	SST 210 Issues in Sustainability	3	0	3

## Web Technologies - Degree (A 25 29 0)

### Curriculum Description

The Web Technologies curriculum prepares graduates for careers in the information technology arena using computers and distributed computing to disseminate and collect information via the web.

Course work in this program covers the terminology and use of computers, network devices, networks, servers, databases, applications, programming languages, as well as web applications, site development and design. Studies will provide opportunity for students to learn related industry standards.

Graduates should qualify for career opportunities as designers, administrators, or developers in the areas of web application, websites, web services, and related areas of distributed computing.

			Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 15 Credit Hours</b>				
	ECO 252	Principles of Macroeconomics	3	0	3
	ENG 111	Expository Writing	3	0	3
		Humanities Elective	3	0	3
	COM 231	Public Speaking	3	0	3
	MAT 115	Mathematical Models	2	2	3
		OR			
	MAT 161	College Algebra (3-0-3)			
<b>II.</b>	<b>Required Core Courses - 36 Credit hours</b>				
	BUS 110	Introduction to Business	3	0	3
	CIS 115	Intro to Programming and Logic	2	3	3
	DBA 110	Database Concepts	2	3	3
	NET 125	Networking Basics	1	4	3
	WEB 110	Internet/Web Fundamentals	2	2	3
	WEB 115	Web Markup and Scripting	3	2	3
	WEB 125	Mobile Web Design	2	2	3
	WEB 140	Web Development Tools	2	2	3
	WEB 182	PHP Programming	2	2	3
	WEB 210	Web Design	2	2	3
	WEB 225	Content Management Systems	2	2	3
	WEB 250	Database Driven Websites	2	2	3
<b>III.</b>	<b>Other Major Required Courses - 20 Credit Hours</b>				
	SEC 110	Security Concepts	3	0	3
	CTS 289	Systems Support Project	1	4	3
	CTS 285	Systems Analysis & Design	3	0	3
	GRD 151	Computer Design Basics	1	4	3
	NOS 110	Operating System Concepts	2	1	3
	*Elective (see attached list)				5/6
<b>IV.</b>	<b>Other Required Hours - 2 Credit Hour</b>				
	ACA 115	Success & Study Skills	0	2	1
	COE 110	World of Work	1	0	1
	*Electives: (choose a minimum of 5/6 credit hours)				
	BUS 250	Small Business Mgmt			
	CSC 134	C++ Programming			
	CSC 139	Visual Basic programming			
	CIS 110	Introduction to Computers			
	GRD 152	Computer Design Technology I			
			GRD 281	Design of Advertising	
			NET 126	Routing Basics	
			NOS 120	Linux/UNIX Admin I	
			NOS 130	Windows Single User	
<b>Total Required Hours</b>					<b>73</b>

## Web Technologies – Certificate

		Class Hours	Lab Hours	Credit Hours
<b>Web Technologies - 15 Credit Hours (C 25 29 0)</b>				
NET 125	Networking Basics	1	4	3
SEC 110	Security Concepts	3	0	3
WEB 115	Web Markup and Scripting	2	2	3
WEB 140	Web Development Tools	2	2	3
WEB 210	Web Design	2	2	3

## Welding Technology - Degree (A 50 42 0)

### Curriculum Description

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical application.

Successful graduates of the Welding Technology curriculum may be employed as entry-level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

		Class Hours	Lab Hours	Credit Hours
<b>I. General Education Requirements - 15 Credit Hours</b>				
ENG 111	Expository Writing	3	0	3
ENG 113	Literature - Based Research	3	0	3
OR				
ENG 114	Professional Research & Reporting			
MAT 115	Mathematical Models	2	2	3
	Humanities Elective	3	0	3
	Social Science Elective	3	0	3
<b>II. Required Core Courses - 18 Credit Hours</b>				
WLD 110	Cutting Processes	1	3	2
WLD 115	SMAW (stick) Plate	2	4	5
WLD 121	GMAW (MIG) FCAW/Plate	2	6	4
WLD 131	GTAW (TIG) Plate	2	6	4
WLD 141	Symbols and Specifications	2	2	3
<b>III. Other Major Required Courses - 35 Credit Hours</b>				
BPR 111	Blueprint Reading	1	2	2
BPR 121	Blueprint Reading: Mechanical	1	2	2
CIS 110	Introduction to Computers	2	2	3
WLD 116	SMAW (Stick) Plate/Pipe	1	4	4
WLD 122	GMAW (MIG) Plate/Pipe	1	6	3
WLD 132	GTAW (TIG) Plate/Pipe	1	6	3
WLD 143	Welding Metallurgy	1	2	2
WLD 151	Fabrication I	2	6	4
WLD 215	SMAW (Stick) Pipe	1	4	4
WLD 261	Certification Practices	1	3	2
WLD 262	Inspection and Testing	2	2	3
WOL 110	Basic Construction Skills	2	3	3
<b>IV. Other Required Hours - 1 Credit Hour</b>				
ACA 115	Success & Study Skills	0	2	1
<b>Total Required Hours</b>				<u>69</u>

## Welding Technology - Diploma (D 50 42 0)

		Class Hours	Lab Hours	Credit Hours
<b>I.</b>	<b>General Education Requirements - 6 Credit Hours</b>			
	ENG 101 Applied Communications I	3	0	3
	MAT 101 Applied Mathematics I	2	2	3
<b>II.</b>	<b>Required Core Courses - 18 Credit Hours</b>			
	WLD 110 Cutting Processes	1	3	2
	WLD 115 SMAW (stick) Plate	2	9	5
	WLD 121 GMAW (MIG) FCAW Plate	2	6	4
	WLD 131 GTAW (TIG) Plate	2	6	4
	WLD 141 Symbols and Specifications	2	2	3
<b>III.</b>	<b>Other Major Required Courses - 21 Credit Hours</b>			
	BPR 111 Blueprint Reading	1	2	2
	BPR 121 Blueprint Reading: Mechanical	1	2	2
	WLD 116 SMAW (Stick) Plate/Pipe	1	9	4
	WLD 122 GMAW (MIG) Plate/Pipe	1	6	3
	WLD 132 GTAW (TIG) Plate/Pipe	1	6	3
	WLD 151 Fabrication I	2	6	4
	WOL 110 Basic Construction Skills	2	3	3
<b>Total Required Hours</b>				<b>45</b>

## Welding Technology - Certificate

		Class Hours	Lab Hours	Credit Hours
<b>Welding Technology - 15 Credit Hours (C 50 42 0)</b>				
	WLD 110 Cutting Processes	1	3	2
	WLD 115 SMAW (stick) Plate	2	9	5
	WLD 121 GMAW (MIG) FCAW Plate	2	6	4
	WLD 131 GTAW (TIG) Plate	2	6	4

## COURSE DESCRIPTIONS

The courses listed on the following pages represent the current curriculum offerings in Arts and Sciences, Business Sciences, and Applied Sciences and Technology.

1. The courses are listed in alphabetical order by a 3-letter subject (example - BUS for business; ANT for anthropology).
2. The courses are assigned a 3-digit number (example ACA 115)
3. Any course number less than 100 will not earn credit hours toward graduation.
4. The course title follows the number (example - ACA 115 Success & Study Skills)
5. The number of contact and credit hours follow the title (example ACA 115 Success & Study Skills 0 2 1). The first number represents the number of lecture hours per week; the second represents the number of lab, shop, clinical, or practicum hours per week; the last represents the number of credit hours assigned to the course.

### ACADEMIC RELATED

(Lecture Lab/Shop Credit)

#### **ACA 115 Success & Study Skills**

0 2 1

Prerequisites: None

Corequisites: None

This course provides an orientation to the campus resources and academic skills necessary to achieve educational objectives. Emphasis is placed on an exploration of facilities and services, study skills, library skills, self-assessment, wellness, goal-setting, and critical thinking. Upon completion, students should be able to manage their learning experiences to successfully meet educational goals.

#### **ACA 122 College Transfer Success**

1 0 1

Prerequisites: None

Corequisites: None

This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college culture, career exploration, gathering information on senior institutions, strategic planning, critical thinking, and communications skills for a successful academic transition. Upon completion, students should be able to develop an academic plan to transition successfully to senior institutions. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a prerequisite and/or elective course requirement.*

### ACCOUNTING

#### **ACC 120 Principles of Financial Accounting**

3 2 4

Prerequisites: None

Corequisites: None

This course introduces business decision-making accounting information systems. Emphasis is placed on analyzing, summarizing, reporting, and interpreting financial information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making and address ethical considerations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a prerequisite and/or elective course requirement.*

#### **ACC 121 Principles of Managerial Accounting**

3 2 4

Prerequisites: ACC 120

Corequisites: None

This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, reporting and decision-making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a prerequisite and/or elective course requirement.*

#### **ACC 129 Individual Income Taxes**

2 2 3

Prerequisites: None

Corequisites: None

This course introduces the relevant laws governing individual income taxation. Topics include tax law, electronic research and methodologies, and the use of technology for preparation of individual tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various individual tax forms.

#### **ACC 180 Practices in Bookkeeping**

3 0 3

Prerequisites: ACC 120

Corequisites: None

This course provides advanced instruction in bookkeeping and record-keeping functions. Emphasis is placed on mastering adjusting entries, correction of errors, depreciation, payroll, and inventory. Upon completion, students should be able to conduct all key bookkeeping functions for small business.

### AIR CONDITIONING, HEATING AND REFRIGERATION

#### **AHR 120 HVACR Maintenance**

1 3 2

Prerequisites: None

Corequisites: None

This course introduces the basic principles of industrial air conditioning and heating systems. Emphasis is placed on preventive maintenance procedures for heating and cooling equipment and related components. Upon completion, students should be able to perform routine preventive maintenance tasks, maintain records, and assist in routine equipment repairs.

#### **AHR 130 HVAC Controls**

2 2 3

Prerequisites: AHR 111 or ELC 111

Corequisites: None

This course covers the types of controls found in residential and commercial comfort systems. Topics include electrical and electronic controls, control schematics and diagrams, test instruments, and analysis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.

#### **AHR 151 HVAC Duct Systems 1**

1 3 2

Prerequisites: None

Corequisites: None

This course introduces the techniques used to lay out and fabricate duct work commonly found in HVAC systems. Emphasis is placed on the skills required to fabricate duct work. Upon completion, students should be able to lay out and fabricate simple duct work.

#### **AHR 160 Refrigerant Certification**

1 0 1  
Prerequisites: None  
Corequisites: None

This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.

### AHR 210 Residential Building Code

1 2 2  
Prerequisites: None  
Corequisites: None

This course covers the residential building codes that are applicable to the design and installation of HVAC systems. Topics include current residential codes as applied to HVAC design, service, and installation. Upon completion, students should be able to demonstrate the correct usage of residential building codes that apply to specific areas of the HVAC trade.

### AHR 211 Residential System Design

2 2 3  
Prerequisites: None  
Corequisites: None

This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychometrics, equipment selection, duct system selection, and system design. Upon completion, students should be able to design a basic residential heating and cooling system.

## ALTERNATIVE ENERGY TECHNOLOGY

### ALT 220 Photovoltaic System Technologies

2 3 3  
Prerequisites: None  
Corequisites: None

This course introduces the concepts, tools, techniques, and materials needed to understand systems that convert solar energy into electricity with photovoltaic (pv) technologies. Topics include site analysis for system integration, building codes, and advances in photovoltaic technology. Upon completion, students should be able to demonstrate an understanding of the principles of photovoltaic technology and current applications.

## ANTHROPOLOGY

### ANT 210 General Anthropology

3 0 3  
Prerequisites: None  
Corequisites: None

This course introduces the physical, archaeological, linguistic, and ethnological fields of anthropology. Topics include human origins, genetic variations, archaeology, linguistics, primatology, and contemporary cultures. Upon completion, students should be able to demonstrate an understanding of the four major fields of anthropology. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

### ANT 220 Cultural Anthropology

3 0 3  
Prerequisites: None  
Corequisites: None

This course introduces the nature of human culture. Emphasis is placed on cultural theory, methods of fieldwork, and cross-cultural comparisons in the areas of ethnology, language, and the cultural past. Upon completion, students should be able to demonstrate an understanding of basic cultural processes and how cultural data are collected and analyzed. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

## ARCHITECTURE

### ARC 111 Introduction to Architectural Technology

1 6 3  
Prerequisites: None  
Corequisites: None

This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales, and sketching. Topics include orthographic, axonometric, and oblique drawing techniques using architectural plans, elevations, sections, and details; reprographic techniques, and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards.

## ART

### ART 111 Art Appreciation

3 0 3  
Prerequisites: RED 090, ENG 090 or satisfactory placement test scores (I.)

Corequisites: None  
This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

### ART 118 Art by Women

3 0 3  
Prerequisites: None  
Corequisites: None

This course provides an analytical study of the works of representative female artists. Emphasis is placed on the historical and cultural contexts, themes, and aesthetic features of individual works. Upon completion, students should be able to interpret, analyze, and discuss selected works. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

### ART 121 Two-Dimensional Design

0 6 3  
Prerequisites: None  
Corequisites: None

This course introduces the elements and principles of design as applied to two-dimensional art. Emphasis is placed on the structural elements, the principles of visual organization, and the theories of color mixing and interaction. Upon completion, students should be able to understand and use critical and analytical approaches as they apply to two-dimensional visual art. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

### ART 131 Drawing I

0 6 3  
Prerequisites: None  
Corequisites: None

This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*



**ART 132 Drawing II**

0 6 3  
 Prerequisites: ART 131  
 Corequisites: None

This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able to demonstrate increased competence in the expressive use of graphic forms and techniques. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**ART 140 Basic Painting**

0 4 2  
 Prerequisites: None  
 Corequisites: None

This course introduces the mechanics of painting. Emphasis is placed on the exploration of painting media through fundamental techniques. Upon completion, students should be able to demonstrate a basic understanding and application of painting. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**ART 240 Painting I**

0 6 3  
 Prerequisites: None  
 Corequisites: None

This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**ART 241 Painting II**

0 6 3  
 Prerequisites: ART 240  
 Corequisites: None

This course provides a continuing investigation of the materials, processes, and techniques of painting. Emphasis is placed on the exploration of expressive content using a variety of creative processes. Upon completion, students should be able to demonstrate competence in the expanded use of form and variety. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**ASTRONOMY****AST 111 Descriptive Astronomy**

3 0 3  
 Prerequisites: None  
 Corequisites: AST 111A

This course introduces an overall view of modern astronomy. Topics include an overview of the solar system, the sun, stars, galaxies, and the larger universe. Upon completion, students should be able to demonstrate an understanding of the universe around them. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**AST 111A Descriptive Astronomy Lab**

0 2 1  
 Prerequisites: None  
 Corequisites: AST 111

This course is a laboratory to accompany AST 111. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 111 and which provide practical experience. Upon completion, students should be able to demonstrate an understanding of the universe around them. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**AST 151 General Astronomy I**

3 0 3  
 Prerequisites: MAT 070 (L)  
 Corequisites: 151A

This course introduces the science of modern astronomy with a concentration on the solar system. Emphasis is placed on the history and physics of astronomy and an introduction to the solar system, including the planets, comets, and asteroids. Upon completion, students should be able to demonstrate a general understanding of the solar system. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**AST 151A General Astronomy I Lab**

0 2 1  
 Prerequisites: None  
 Corequisites: AST 151

This course is a laboratory to accompany AST 151. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 151 and which provide practical experience. Upon completion, students should be able to demonstrate a general understanding of the solar system. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**AST 152 General Astronomy II**

3 0 3  
 Prerequisites: AST 151/151A  
 Corequisites: AST 152A

This course is a continuation of AST 151 with primary emphasis beyond the solar system. Topics include the sun, stars, galaxies, and the larger universe, including cosmology. Upon completion, students should be able to demonstrate a working knowledge of astronomy. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**AST 152A General Astronomy II Lab**

0 2 1  
 Prerequisites: AST 151/151A  
 Corequisites: AST 152

This course is a laboratory to accompany AST 152. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 152 and which provide practical experience. Upon completion, students should be able to demonstrate a working knowledge of astronomy. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**AST 251 Observational Astronomy**

1 3 2

Prerequisites: AST 111 or AST 152

Corequisites: None

This course covers the operation of the telescope and related observatory equipment. Emphasis is placed on the use of the telescope and related observatory equipment, including techniques of data collection, measurements, and data analysis. Upon completion, students should be able to set up a telescope and use the coordinate system to locate objects, collect data, and make measurements with the telescope. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**AUTOMOTIVE BODY REPAIR****AUB 111 Painting & Refinishing I**

2 6 4

Prerequisites: None

Corequisites: None

This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state, and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques, and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing following accepted industry standards.

**AUB 112 Painting & Refinishing II**

2 6 4

Prerequisites: AUB 111

Corequisites: None

This course covers advanced painting techniques and technologies with an emphasis on identifying problems encountered by the refinishing technician. Topics include materials application, color matching, correction of refinishing problems, and other related topics. Upon completion, students should be able to perform spot, panel, and overall refinishing repairs and identify and correct refinish problems.

**AUB 114 Special Finishes**

1 2 2

Prerequisites: AUB 111

Corequisites: None

This course introduces multistage finishes, custom painting, and protective coatings. Topics include base coats, advanced intermediate coats, clear coats, and other related topics. Upon completion, students should be able to identify and apply specialized finishes based on accepted industry standards.

**AUB 121 Non-Structural Damage I**

1 4 3

Prerequisites: None

Corequisites: None

This course introduces safety, tools, and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage, and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/replacing of body panels to accepted standards.

**AUB 122 Non-Structural Damage II**

2 6 4

Prerequisites: None

Corequisites: None

This course covers safety, tools, and advanced body repair. Topics include shop safety, damage analysis, tools and equipment, advanced repair techniques, materials selection, materials usage, movable glass, and other related topics. Upon completion, students should be able to identify and repair or replace direct and indirect damage to accepted standards including movable glass and hardware.

**AUB 131 Structural Damage I**

2 4 4

Prerequisites: None

Corequisites: None

This course introduces safety, equipment, structural damage analysis, and damage repairs. Topics include shop safety, design and construction, structural analysis and measurement, equipment, structural glass, repair techniques, and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle which has received light/moderate structural damage.

**AUB 132 Structural Damage II**

2 6 4

Prerequisites: AUB 131

Corequisites: None

This course provides an in-depth study of structural damage analysis and repairs to vehicles that have received moderate to heavy structural damage. Topics include shop safety, structural analysis and measurement, equipment, structural glass, advanced repair techniques, structural component replacement and alignment, and other related topics. Upon completion, students should be able to analyze and perform repairs according to industry standards.

**AUB 134 Autobody MIG Welding**

1 4 3

Prerequisites: None

Corequisites: None

This course covers the terms and procedures for welding the various metals found in today's autobody repair industry with an emphasis on personal and environmental safety. Topics include safety and precautionary measures, setup operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, and other related topics. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standards.

**AUB 136 Plastics & Adhesives**

1 4 3

Prerequisites: None

Corequisites: None

This course covers safety, plastic and adhesive identification, and the various repair methods of automotive plastic components. Topics include safety, identification, preparation, material selection, and the various repair procedures including refinishing. Upon completion, students should be able to identify, remove, repair, and/or replace automotive plastic components in accordance with industry standards.

**AUB 141 Mechanical & Electrical Components I**

2 2 3

Prerequisites: None

Corequisites: None

This course covers the basic principles of automotive mechanical and electrical components. Topics include personal and environmental safety and suspension and steering, electrical, brake, heating and air-conditioning, cooling, drive train, and restraint systems. Upon completion, students should be able to identify system components and perform basic system diagnostic checks and/or repairs according to industry standards.

**AUB 150 Automotive Detailing**

1 3 2

Prerequisites: None

Corequisites: None

This course covers the methods and procedures used in automotive detailing facilities. Topics include safety, engine, interior and trunk compartment detailing, buffing-polishing exterior surfaces, and cleaning and reconditioning exterior trim, fabrics, and surfaces. Upon completion, students should be able to improve the overall appearance of a vehicle.

**AUR 160 Body Shop Operations**

1 0 1  
 Prerequisites: None  
 Corequisites: None

This course introduces the day-to-day operations of an auto body repair facility. Topics include work habits and ethics, customer relations, equipment types, material's cost and control, policies and procedures, shop safety and liabilities, and other related topics. Upon completion, students should be able to understand the general operating policies and procedures associated with an auto body repair facility.

**AIB 162 Autobody Estimating**

1 2 2  
 Prerequisites: None  
 Corequisites: None

This course provides a comprehensive study of autobody estimating. Topics include collision damage analysis, industry regulations, flat-rate and estimated time, and collision estimating manuals. Upon completion, students should be able to prepare and interpret a damage report.

**BANKING AND FINANCE****BAF 110 Principles of Banking**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course covers the fundamentals of bank functions in a descriptive fashion. Topics include banks and the monetary system, the relationship of banks to depositors, the payment functions, bank loans and accounting, regulations, and examinations. Upon completion, students should be able to demonstrate an understanding of the business of banking from a broad perspective.

**BAF 131 Fundamentals of Bank Lending**

3 0 3  
 Prerequisites: ACC 130  
 Corequisites: None

This course introduces the basic knowledge and skills needed to be an effective lender. Topics include the functions of the loan interview and credit investigation, the "C's" of credit, elements of loan documentation, and warning signs of problem loans. Upon completion, students should be able to demonstrate an understanding of the credit functions and regulatory issues affecting this key banking function. *This course is a unique concentration requirement of the Banking and Finance concentration in the Business Administration program.*

**BAF 141 Law & Banking: Principles**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course provides an overview of the legal aspects of banking and the legal framework within which banks function. Topics include the court system, consumer protection, tangible and intangible property ownership, and the legalities and regulations of bank transactions. Upon completion, students should be able to discuss the non-technical aspects of the legal system and how these affect the bank's organization and operation. *This course is a unique concentration requirement of the Banking and Finance concentration in the Business Administration program.*

**BAF 222 Money and Banking**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course provides a fundamental treatment of how money and banks function in the US and world economies. Topics include the roles of money in the US economy, the functions of the Federal Reserve Board, and the workings of monetary and fiscal policies. Upon completion, students should be able to explain how the monetary economy functions, how banks are creators of money, and the impact of the Federal Reserve. *This course is a unique concentration requirement of the Banking and Finance concentration in the Business Administration program.*

**BIOLOGY****BIO 110 Principles of Biology**

3 3 4  
 Prerequisites: None  
 Corequisites: None

This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, taxonomy, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life. *Under the Comprehensive Articulation Agreement, this course satisfies the general education Natural Science requirement for the AS and AAS degrees. It does not satisfy the general education Natural Science requirement for the BS degree.*

**BIO 111 General Biology I**

3 3 4  
 Prerequisites: RED 090, ENG 090 or satisfactory placement test scores (1)

Corequisites: None  
 This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**BIO 112 General Biology II**

3 3 4  
 Prerequisites: BIO 111  
 Corequisites: None

This course is a continuation of BIO 111. Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**BIO 120 Introductory Botany**

3 3 4  
 Prerequisites: BIO 111  
 Corequisites: None

This course provides an introduction to the classification, relationships, structure, and function of plants. Topics include reproduction and development of seed and non-seed plants, levels of organization, form and function of systems, and a survey of major taxa. Upon completion, students should be able to demonstrate comprehension of plant form and function, including selected taxa of both seed and non-seed plants. *This course is an idea for all Associate degree programs.*

**BIO 140 Environmental Biology**

3 0 3  
 Prerequisites: None  
 Corequisites: BIO 140A

This course introduces environmental processes and the influence of human activities upon them. Topics include ecological concepts, population growth, natural resources, and a focus on current environmental problems from scientific, social, political, and economic perspectives. Upon completion, students should be able to demonstrate an understanding of environmental interrelationships and of contemporary environmental issues. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**BIO 140A Environmental Biology Lab****0 3****Prerequisites:** None**Corequisites:** BIO 140

This course provides a laboratory component to complement BIO 140. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental interrelationships and of contemporary environmental issues. *This course is intended for all associate degree programs. This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**BIO 155 Nutrition****3 0****Prerequisites:** None**Corequisites:** None

This course covers the biochemistry of foods and nutrients with consideration of the physiological effects of specialized diets for specific biological needs. Topics include cultural, religious, and economic factors that influence a person's acceptance of food as well as nutrient requirements of the various life stages. Upon completion, students should be able to identify the functions and sources of nutrients, the mechanisms of digestion, and the nutritional requirements of all age groups. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a prerequisite and or elective course requirement.*

**BIO 163 Basic Anatomy and Physiology****4 2****Prerequisites:** Reading 90 or satisfactory placement test scores in reading (I.)**Corequisites:** None

This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships. *This course is designed for certificate and diploma programs. This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a prerequisite and or elective course requirement.*

**BIO 168 Anatomy and Physiology I****3 3****Prerequisites:** RFD 090 (I.)**Corequisites:** None

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, and nervous systems and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their relationships. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a prerequisite and or elective course requirement.*

**BIO 169 Anatomy and Physiology II****3 3****Prerequisites:** BIO 168**Corequisites:** None

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a prerequisite and or elective course requirement.*

**BIO 175 General Microbiology****2 2****Prerequisites:** BIO 110, BIO 111, BIO 163, BIO 165, or BIO 168**Corequisites:** None

This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques. *This course is intended for ADN degree programs.*

**BIO 275 Microbiology****3 3****Prerequisites:** BIO 110, 111, BIO 112, BIO 163, BIO 165, or BIO 168**Corequisites:** None

This course covers principles of microbiology and the impact these organisms have on man, the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods, and identification of microorganisms. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a prerequisite and or elective course requirement.*

**BLUEPRINT READING****BPR 111 Blueprint Reading****1 2****Prerequisites:** None**Corequisites:** None

This course introduces the basic principles of blueprint reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic blueprints and visualize the features of a part.

**BPR 121 Blueprint Reading: Mechanical****1 2****Prerequisites:** BPR 111 or MAC 131**Corequisites:** None

This course covers the interpretation of intermediate blueprints. Topics include tolerancing, auxiliary views, sectional views, and assembly drawings. Upon completion, students should be able to read and interpret a mechanical working drawing.

**BPR 130 Blueprint Reading: Construction****1 2****Prerequisites:** None**Corequisites:** None

This course covers the interpretation of blueprints and specifications that are associated with the construction trades. Emphasis is placed on interpretation of details for foundations, floor plans, elevations, and schedules. Upon completion, students should be able to read and interpret a set of construction blueprints.

**BROADCAST PRODUCTION****BPT 110 Introduction to Broadcasting****3 0****Prerequisites:** None**Corequisites:** None

This course introduces the field of broadcasting and other electronic media. Emphasis is placed on the history, development, and current status of radio, television, and related industries. Upon completion, students should be able to demonstrate knowledge of regulations, organizational structure, revenue sources, historical development, and on-going operation of broadcasting and related industries.

**BPT 111 Broadcast Law & Ethics**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course covers judicial, legislative, and administrative policies pertinent to the ethical and legal operation of broadcast and other electronic media organizations. Emphasis is placed on legal and ethical issues including First Amendment protection, FCC regulations, copyright, and libel laws. Upon completion, students should be able to demonstrate an understanding of the historical significance and modern-day application of important broadcast laws and policies.

**BPT 112 Broadcast Writing**

3 2 4  
 Prerequisites: None  
 Corequisites: None

This course introduces proper copy and script writing techniques and formats for radio, television, and other electronic media. Emphasis is placed on creating effective scripts for programs and promotional materials, including commercial and public radio service announcements for a specific target audience. Upon completion, students should be able to understand and write copy and scripts according to standard industry formats.

**BPT 113 Broadcast Sales**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course covers sales principles applicable to radio, television, cable, and other electronic media. Emphasis is placed on prospecting and servicing accounts, developing clients, and preparing sales presentations. Upon completion, students should be able to create a sales presentation based upon standard ratings reports, prospect for new customers, and understand account management.

**BPT 115 Public Relations**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course introduces the art and science of analyzing trends, predicting their consequences, counseling organizations, and implementing actions to serve organizational and public interests. Emphasis is placed on identifying public needs, conducting and analyzing research, writing and communicating identification, maintaining media relations, and creating an organizational crisis plan. Upon completion, students should be able to summarize public relations history, conduct research, develop press releases, create printed material, and formulate a crisis plan.

**BPT 121 Broadcast Speech I**

2 3 3  
 Prerequisites: None  
 Corequisites: None

This course covers basic preparation and performance of on-air talents' speaking quality. Emphasis is placed on developing a pleasant and efficient voice with techniques applied to taped news, features, commercial copy, and announcing. Upon completion, students should be able to show improvement and aptitude in proper articulation, pronunciation, rate of delivery, pitch, breathing techniques, inflection, projection, and phrasing.

**BPT 122 Broadcast Speech II**

2 3 3  
 Prerequisites: BPT 121  
 Corequisites: None

This course covers basic and advanced preparation and performance of on-air speech. Emphasis is placed on enhancing a pleasant, effective voice with techniques applied to impromptu speaking, radio plays, and taped presentations. Upon completion, students should be able to employ proper articulation, pronunciation, rate of delivery, phrasing, and other voice techniques in a professional manner.

**BPT 131 Audio/Radio Production I**

2 6 4  
 Prerequisites: None  
 Corequisites: None

This course covers the creation, development, production, and presentation of audio programming elements for broadcast and/or other electronic media applications. Emphasis is placed on the proper operation of professional audio equipment and the study of basic physical behavior and perceptual effects of sound. Upon completion, students should be able to correctly operate audio recording and playback equipment and demonstrate an understanding of the basic components of sound.

**BPT 132 Audio/Radio Production II**

2 6 4  
 Prerequisites: BPT 131  
 Corequisites: None

This course covers the use of advanced audio production techniques in broadcast and/or other electronic media applications. Topics include basic audio signal processing equipment and analog and digital professional audio recording and playback equipment. Upon completion, students should be able to optimize the use of professional audio equipment in the production of effective audio programming.

**BPT 135 Radio Performance I**

0 6 2  
 Prerequisites: None  
 Corequisites: None

This course provides an opportunity to operate the college radio station as an announcer/board operator. Emphasis is placed on operating control-room equipment, logging transmitter readings, EBS tests, reading news, and broadcasting free of interruptions. Upon completion, students should be able to prepare music, public service announcements, and promos for timely broadcast, introduce songs/programs smoothly, and follow FCC rules.

**BPT 136 Radio Performance II**

0 6 2  
 Prerequisites: BPT 135  
 Corequisites: None

This course provides an opportunity to operate the college radio station as an announcer/board operator. Emphasis is placed on operating control-room equipment, logging transmitter readings, EBS tests, reading news, and broadcasting free of interruptions. Upon completion, students should be able to prepare music, public service announcements, and promos for timely broadcast, introduce songs/programs smoothly, and follow FCC rules.

**BPT 137 Radio Performance III**

0 6 2  
 Prerequisites: BPT 136  
 Corequisites: None

This course provides an opportunity to operate the college radio station as an announcer/board operator. Emphasis is placed on operating control-room equipment, logging transmitter readings, EBS tests, reading news, and broadcasting free of interruptions. Upon completion, students should be able to prepare music, public service announcements, and promos for timely broadcast, introduce songs/programs smoothly, and follow FCC rules.

**BPT 138 Radio Performance IV**

0 6 2  
 Prerequisites: BPT 137  
 Corequisites: None

This course provides an opportunity to operate the college radio station as an announcer/board operator. Emphasis is placed on operating control-room equipment, logging transmitter readings, EBS tests, reading news, and broadcasting free of interruptions. Upon completion, students should be able to prepare music, public service announcements, and promos for timely broadcast, introduce songs/programs smoothly, and follow FCC rules.

**BPT 139 Radio Performance V**  
 0 6 2  
 Prerequisites: BPT 138  
 Corequisites: None  
 This course provides an opportunity to operate the college radio station as an announcer/board operator. Emphasis is placed on operating control-room equipment, logging transmitter readings, EBS tests, reading news, and broadcasting free of interruptions. Upon completion, students should be able to prepare music, public service announcements, and promos for timely broadcast, introduce songs/programs smoothly, and follow FCC rules.

**BPT 140 Introduction to TV Systems**  
 2 0 2  
 Prerequisites: None  
 Corequisites: None  
 This course introduces technical systems that allow production, transmission, and reception of television and other video media. Emphasis is placed on identifying components and equipment, describing their function within the video chain, and troubleshooting problems within the signal flow. Upon completion, students should be able to demonstrate an understanding of components and equipment in the video chain and provide basic preventive maintenance on equipment.

**BPT 210 Broadcast Management**  
 3 0 3  
 Prerequisites: None  
 Corequisites: None  
 This course covers management duties within the fields of broadcasting and other electronic media. Emphasis is placed on the management of broadcast stations and cable systems, including financial, personnel, news, sales, and promotion management. Upon completion, students should be able to demonstrate knowledge of successful station operation, including key management concepts and strategies.

**BPT 215 Broadcast Programming**  
 3 0 3  
 Prerequisites: None  
 Corequisites: None  
 This course covers programming methods, research, and resources needed to provide programs for radio, television, cable, and satellite target audiences. Topics include market research and analysis; local, network, and public station programming and program sources, and scheduling procedures for electronic media. Upon completion, students should be able to develop a programming format or schedule.

**BPT 220 Broadcast Marketing**  
 3 0 3  
 Prerequisites: None  
 Corequisites: None  
 This course introduces broadcast marketing, including cultivating an audience, building an identity, and servicing customers. Topics include the use of effective promotional tools, marketing research, rating analysis, and the development of a unified marketing plan. Upon completion, students should be able to develop a broadcast marketing plan.

**BPT 231 Video/TV Production I**  
 2 6 4  
 Prerequisites: None  
 Corequisites: None  
 This course covers the language of film/video, shot composition, set design, lighting, production planning, scripting, editing, and operation of video and television production equipment. Emphasis is placed on mastering the body of knowledge and techniques followed in producing all facets of video and television production. Upon completion, students should be able to produce basic video and television productions in a team environment.

**BPT 232 Video/TV Production II**  
 2 6 4  
 Prerequisites: BPT 231  
 Corequisites: None  
 This course covers advanced video and television production. Emphasis is placed on field production, post-production, digital video effects, graphics, and multi-camera productions. Upon completion, students should be able to create productions that optimize the use of studio, field, and post-production equipment.

**BPT 235 TV Performance I**  
 0 6 2  
 Prerequisites: None  
 Corequisites: None  
 This course provides hands-on experience in the operation of television studios and/or stations. Emphasis is placed on the application of skills through direct participation in the production or distribution of television programs. Upon completion, students should be able to demonstrate competence in performing key station and/or studio duties.

**BPT 236 TV Performance II**  
 0 6 2  
 Prerequisites: BPT 235  
 Corequisites: None  
 This course provides hands-on experience in the operation of television studios and/or stations. Emphasis is placed on the application of skills through direct participation in the production or distribution of television programs. Upon completion, students should be able to demonstrate competence in performing key station and/or studio duties.

**BPT 237 TV Performance III**  
 0 6 2  
 Prerequisites: BPT 236  
 Corequisites: None  
 This course provides hands-on experience in the operation of television studios and/or stations. Emphasis is placed on the application of skills through direct participation in the production or distribution of television programs. Upon completion, students should be able to demonstrate competence in performing key station and/or studio duties.

**BPT 238 TV Performance IV**  
 0 6 2  
 Prerequisites: BPT 237  
 Corequisites: None  
 This course provides hands-on experience in the operation of television studios and/or stations. Emphasis is placed on the application of skills through direct participation in the production or distribution of television programs. Upon completion, students should be able to demonstrate competence in performing key station and/or studio duties.

**BPT 239 TV Performance V**  
 0 6 2  
 Prerequisites: BPT 238  
 Corequisites: None  
 This course provides hands-on experience in the operation of television studios and/or stations. Emphasis is placed on the application of skills through direct participation in the production or distribution of television programs. Upon completion, students should be able to demonstrate competence in performing key station and/or studio duties.

**BPT 241 Broadcast Journalism I**  
 3 2 4  
 Prerequisites: None  
 Corequisites: None  
 This course introduces broadcast journalism, including the gathering, writing, delivery, editing, and production of news stories and reports. Emphasis is placed on proper news writing skills, including the creation of good leads and complete stories in the production of radio voices and reports. Upon completion, students should be able to write broadcast news scripts and produce radio news reports and newscasts.

**BPT 242 Broadcast Journalism II**  
 3 2 4  
 Prerequisites: BPT 241  
 Corequisites: None  
 This course provides an opportunity to gather, write, edit, and produce broadcast news reports. Emphasis is placed on producing professional broadcast news reports, including script writing, gathering, and editing. Upon completion, students should be able to produce and receive professional broadcast news stories.

**BPT 250 Institutional Video**  
 2 3 3  
 Prerequisites: None  
 Corequisites: None  
 This course covers development and production of non-broadcast video productions for clients. Emphasis is placed on satisfying client objectives, including interviewing, research, site surveying, script review, photography, and post-production. Upon completion, students should be able to plan, write, shoot, and edit an institutional video designed to meet a client's objectives.

**BPT 255 Computer-Based Production**  
 2 3 3  
 Prerequisites: CIS 110 or CIS 111  
 Corequisites: None  
 This course covers digital systems used for video, audio, and multimedia production. Emphasis is placed on computer-based tools integrating digital production with analog broadcast-related production. Upon completion, students should be able to understand and operate basic tools for video graphics, video capture, multimedial authoring, sound capture, and digital audio production.

**BPT 260 Multi-Track Recording**  
 2 2 3  
 Prerequisites: BPT 132  
 Corequisites: None  
 This course covers the application of audio production techniques in a multi-track recording setting. Emphasis is placed on proper use of control room equipment and mix-down of multiple sound sources on both analog and digital recorders. Upon completion, students should be able to produce creative music or supplemental works using sound engineering techniques.

## **BUSINESS**

**BUS 110 Introduction to Business**  
 3 0 3  
 Prerequisites: None  
 Corequisites: None  
 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 for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and as a elective course requirement.*

**BUS 115 Business Law I**  
 3 0 3  
 Prerequisites: None  
 Corequisites: None  
 This course introduces the ethics and legal framework of business. Emphasis is placed on contracts, negotiable instruments, Uniform Commercial Code, and the working of the court systems. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and as a elective course requirement.*

**BUS 121 Business Math**  
 2 2 3  
 Prerequisites: MAT 060 (L.)  
 Corequisites: None  
 This course covers fundamental mathematical operations and their application to business problems. Topics include payroll, pricing, interest and discount, commission, taxes, and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts to business.

**BUS 137 Principles of Management**  
 3 0 3  
 Prerequisites: None  
 Corequisites: None  
 This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and as a elective course requirement.*

**BUS 139 Entrepreneurship I**  
 3 0 3  
 Prerequisites: None  
 Corequisites: None  
 This course provides an introduction to the principles of entrepreneurship. Topics include self-analysis of entrepreneurship readiness, the role of entrepreneur in economic development, legal problems, organizational structure, sources of financing, budgeting, and cash flow. Upon completion, students should have an understanding of the entrepreneurial process and issues faced by entrepreneurs.

**BUS 153 Human Resource Management**  
 3 0 3  
 Prerequisites: None  
 Corequisites: None  
 This course introduces the functions of personnel/human resource management within an organization. Topics include equal opportunity and the legal environment, recruitment and selection, performance appraisal, employee development, compensation planning, and employee relations. Upon completion, students should be able to anticipate and resolve human resource concerns.

**BUS 225 Business Finance**  
 2 2 3  
 Prerequisites: ACC 120  
 Corequisites: None  
 This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management.

**BUS 230 Small Business Management**  
 3 0 3  
 Prerequisites: None  
 Corequisites: None  
 This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan.



**BUS 253 Leadership and Management Skills**  
**3 0 3**  
 Prerequisites: None  
 Corequisites: None  
 This course includes a study of the qualities, behaviors, and personal styles exhibited by leaders. Emphasis is placed on coaching, counseling, team building, and employee involvement. Upon completion, students should be able to identify and exhibit the behaviors needed for organizational effectiveness.

**BUS 255 Organizational Behavior in Business**  
**3 0 3**  
 Prerequisites: None  
 Corequisites: None  
 This course covers the impact of different management practices and leadership styles on worker satisfaction and morale, organizational effectiveness, productivity, and profitability. Topics include a discussion of formal and informal organizations, group dynamics, motivation, and managing conflict and change. Upon completion, students should be able to analyze different types of interpersonal situations and determine an appropriate course of action.

**BUS 260 Business Communication**  
**3 0 3**  
 Prerequisites: ENG 111; OSJ 131 or CIS 110 (1)  
 Corequisites: None  
 This course is designed to develop skills in writing business communications. Emphasis is placed on business reports, correspondence, and professional presentations. Upon completion, students should be able to communicate effectively in the work place.

**BUS 280 REAL Small Business**  
**4 0 4**  
 Prerequisites: None  
 Corequisites: None  
 This course introduces hands-on techniques and procedures for planning and opening a small business, including the personal qualities needed for entrepreneurship. Emphasis is placed on market research, finance, time management, and day-to-day activities of owning/operating a small business. Upon completion, student should be able to write and implement a viable business plan and seek funding.

## **CABINETMAKING**

**CAB 110 Shop Operations**  
**3 3 4**  
 Prerequisites: None  
 Corequisites: None  
 This course covers establishing and maintaining a custom cabinet shop. Topics include financing, equipment acquisition, maintenance, inventory techniques, OSHA requirements, shop organization, and safety and delivery systems. Upon completion, students should be able to organize and maintain a custom cabinet business.

**CAB 111 Cabinetmaking I**  
**4 9 7**  
 Prerequisites: None  
 Corequisites: None  
 This course introduces wood technology, materials, purchasing, estimating, design considerations, and cabinet construction. Topics include wood identification and use, hand tools, safe machine operation, glue and clamping, abrasives, wood joinery, kitchen and bath layout, finishing, and finishing techniques. Upon completion, students should be able to select and process materials, make sound production decisions, and design, lay out, construct, and install cabinets.

**CAB 112 Cabinetmaking II**  
**5 12 9**  
 Prerequisites: CAB 111  
 Corequisites: None  
 This course uses previously learned skills in the design and construction of furniture, European cabinetry, and special cabinet requirements. Topics include furniture repair, wood carving, inlaying, veneering, and millwork products. Upon completion, students should be able to design and construct a piece of furniture, repair defects, and understand the foundation of the MDS system.

**CAB 113 Cabinetmaking III**  
**4 6 6**  
 Prerequisites: CAB 112  
 Corequisites: None  
 This course provides an opportunity to construct a cabinetmaking project. Emphasis is placed on following construction plans, quality construction, and efficient use of time and materials. Upon completion, students should be able to plan and construct an item of furniture and/or set of cabinets.

## **CARPENTRY**

**CAR 110 Introduction to Carpentry**  
**2 0 2**  
 Prerequisites: None  
 Corequisites: None  
 This course introduces the student to the carpentry trade. Topics include duties of a carpenter, hand and power tools, building materials, construction methods, and safety. Upon completion, students should be able to identify hand and power tools, common building materials, and basic construction methods.

**CAR 111 Carpentry I**  
**3 15 8**  
 Prerequisites: None  
 Corequisites: None  
 This course introduces the theory and construction methods associated with the building industry, including framing, materials, tools, and equipment. Topics include safety, hand/power tool use, site preparation, measurement and layout, footings and foundations, construction framing, and other related topics. Upon completion, students should be able to safely lay out and perform basic framing skills with supervision.

**CAR 112 Carpentry II**  
**3 15 8**  
 Prerequisites: CAR 111  
 Corequisites: None  
 This course covers the advanced theory and construction methods associated with the building industry including framing and exterior finishes. Topics include safety, hand/power tool use, measurement and layout, construction framing, exterior trim and finish, and other related topics. Upon completion, students should be able to safely frame and apply exterior finishes to a residential building with supervision.

**CAR 113 Carpentry III**  
**3 9 6**  
 Prerequisites: CAR 111  
 Corequisites: None  
 This course covers interior trim and finishes. Topics include safety, hand/power tool use, measurement and layout, specialty framing, interior trim and finishes, cabinetry, and other related topics. Upon completion, students should be able to safely install various interior trim and finishes in a residential building with supervision.



**CAR 114 Residential Building Codes**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course covers building codes and the requirements of state and local construction regulations. Emphasis is placed on the minimum requirements of the North Carolina building codes related to residential structures. Upon completion, students should be able to determine if a structure is in compliance with North Carolina building codes.

**CAR 115 Residential Planning/Estimating**

3 0 3  
 Prerequisites: BPR 130  
 Corequisites: None

This course covers project planning, management, and estimating for residential or light commercial buildings. Topics include planning and scheduling, interpretation of working drawings and specifications, estimating practices, and other related topics. Upon completion, students should be able to perform quantity take-offs and cost estimates.

**CAR 116 Metal Framing**

1 3 2  
 Prerequisites: None  
 Corequisites: None

This course covers basic metal framing associated with residential and light construction. Topics include methods and procedures for framing floor, wall, and roof sections and other related topics. Upon completion, students should be able to properly install various metal framing components.

**CAR 150 Concrete Construction**

2 9 5  
 Prerequisites: None  
 Corequisites: None

This course covers methods of erecting forms and placing concrete. Topics include safety, hand/power tool use, blueprints, rigging, form construction, reinforcement, and placement. Upon completion students should be able to demonstrate skills in concrete construction procedures and processes with supervision.

**COMPUTER ENGINEERING TECHNOLOGY****CET 111 Computer Upgrade/Repair I**

2 3 3  
 Prerequisites: None  
 Co-requisites: None

This course covers repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include CPU/memory bus identification, disk subsystems, hardware/software installation/configuration, common device drivers, data recovery, system maintenance, and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications.

**CET 161 Procedural Programming**

2 3 3  
 Prerequisites: None  
 Co-requisites: None

This course introduces procedural computer programming for engineering applications. Emphasis is placed on event-driven programming methods, including creating and manipulating data, sequencing, iteration, and blocking of code. Upon completion, students should be able to design, code, test and debug at a beginning level.

**CET 172 Internet Technologies**

2 3 3  
 Prerequisites: None  
 Corequisites: None

The goal of this course is to provide an introduction to Internet technologies and prepare students to pass vendor independent internet technology certification exams. Topics cover using different Internet protocols, programming on the Internet, the OSI model, the Internet infrastructure, security, and e-commerce. Upon completion, students should be prepared to take vendor independent Internet technology certification exams.

**CET 211 Computer Upgrade/Repair II**

2 3 3  
 Prerequisites: None  
 Co-requisites: None

This course covers concepts of repair service, and upgrade of computers and peripherals in preparation for industry certification. Topics may include resolving resource conflicts and system bus specifications, configuration and troubleshooting peripherals, operating system configuration and optimization, and other related topics. Upon completion, students should be able to identify and resolve system conflicts and optimize system performance.

**CHEMISTRY****CHM 131 Introduction to Chemistry**

3 0 3  
 Prerequisites: MAT 070 or satisfactory placement test scores (L)

Corequisites: CHM 131A

This course introduces the fundamental concepts of inorganic chemistry. Topics include measurement, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas laws, solutions, and acids and bases. Upon completion, students should be able to demonstrate a basic understanding of chemistry as it applies to other fields. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**CHM 131A Introduction to Chemistry Laboratory**

0 3 1  
 Prerequisites: MAT 070 or satisfactory placement test scores (L)

Corequisites: CHM 131

This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**CHM 132 Organic and Biochemistry**

3 3 4  
 Prerequisites: CHM 131 & 131A or CHM 151  
 Corequisites: None

This course provides a survey of major functional classes of compounds in organic and biochemistry. Topics include structure, properties, and reactions of the major organic and biological molecules and basic principles of metabolism. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts needed to pursue studies in related professional fields. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**CHM 151**      **General Chemistry I**  
**3**      **3**      **4**  
**Prerequisites:**    **MAT 80 or satisfactory placement**  
test scores (**L**)

**Corequisites:**    None  
This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

**CHM 152**      **General Chemistry II**  
**3**      **3**      **4**  
**Prerequisites:**    **CHM 151**  
**Corequisites:**    None

This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibria, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complexions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**CHM 251**      **Organic Chemistry I**  
**3**      **3**      **4**  
**Prerequisites:**    **CHM 152**  
**Corequisites:**    None

This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers; further topics include isomerization, stereochemistry, and spectroscopy. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of covered organic topics as needed in CHM 252. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general and/or elective course requirement.*

**CHM 252**      **Organic Chemistry II**  
**3**      **3**      **4**  
**Prerequisites:**    **CHM 251**  
**Corequisites:**    None

This course provides continuation of the systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines and heterocycles; multi-step syntheses will be emphasized. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general and/or elective course requirement.*

**CHM 261**      **Quantitative Analysis**  
**2**      **6**      **4**  
**Prerequisites:**    **CHM 152**  
**Corequisites:**    None

This course introduces classical methods of chemical analysis with an emphasis on laboratory techniques. Topics include statistical data treatment, stoichiometric and equilibrium calculations, and titrimetric, gravimetric, acid-base, oxidation-reduction, and complexometric methods. Upon completion, students should be able to perform classical quantitative analytical procedures. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general and/or elective course requirement.*

**CHM 271**      **Biochemical Principles**  
**3**      **0**      **3**  
**Prerequisites:**    **CHM 252**  
**Corequisites:**    **CHM 271A**

The course covers fundamental principles of biochemistry. Topics include structures, properties, reactions, and mechanisms of biomacromolecules including amino acids, peptides, proteins, carbohydrates and nucleic acids, enzyme metabolic pathways, and biochemical genetics. Upon completion, students should be able to demonstrate an understanding of fundamental biochemical processes. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general and/or elective course requirement.*

**CHM 271A**      **Biochemical Principles Laboratory**  
**0**      **3**      **1**  
**Prerequisites:**    **CHM 252**  
**Corequisites:**    **CHM 271**

This course is a laboratory for CHM 271. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 271. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 271. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general and/or elective course requirement.*

## **INFORMATION SYSTEMS**

**CIS 110 Introduction to Computers**  
**2**      **2**      **3**  
**Prerequisites:**    None  
**Corequisites:**    None

This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.*

**CIS 115 Introduction to Programming & Logic**  
**2**      **3**      **3**  
**Prerequisites:**    **Take One Set:**  
Set 1: MAT-069\* and MAT-070;  
Set 2: MAT-069\* and MAT-080;  
Set 3: MAT-069\* and MAT-090;  
Set 4: MAT-095; Set 5: MAT-120;  
Set 6: MAT-121; Set 7: MAT-161;  
Set 8: MAT-171; Set 9: MAT-175

**Corequisites:**    None  
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 for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.*

**CIS 165 Desktop Publishing I**

2 2 3  
 Prerequisites: OST 136 or proficiency in word processing  
 Corequisites: None

This course provides an introduction to desktop publishing software capabilities. Emphasis is placed on efficient use of a page layout software package to create, design, and print publications; hardware, software compatibility, and integration of specialized peripherals. Upon completion, students should be able to prepare publications given design specifications.

**CRIMINAL JUSTICE****CJC 100 Basic Law Enforcement Training**

9 30 19  
 Prerequisites: None  
 Corequisites: None

This course covers the basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics are divided into general units of study: legal, patrol duties, law enforcement communications, investigations, practical application and sheriff-specific. Upon successful completion, the student will be able to demonstrate competence in the topics and areas required for the state comprehensive certification examination. *This is a certificate-level course.*

**CJC 111 Introduction to Criminal Justice**

3 0 3  
 Prerequisites: None  
 Corequisites: None

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 for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

**CJC 112 Criminology**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation, statistical analysis of criminal behavior, past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.

**CJC 113 Juvenile Justice**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system; treatment and prevention programs; special areas and laws unique to juveniles; and other related topics. Upon completion, students should be able to identify; discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies; processing/detention of juveniles; and case disposition.

**CJC 120 Interviews/Interrogations**

1 2 2  
 Prerequisites: None  
 Corequisites: None

This course covers basic and special techniques employed in criminal justice interviews and interrogations. Emphasis is placed on the interview/interrogation process, including interpretation of verbal and physical behavior and legal perspectives. Upon completion, students should be able to conduct interviews/interrogations in a legal, efficient, and professional manner and obtain the truth from suspects, witnesses, and victims.

**CJC 121 Law Enforcement Operations**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

**CJC 122 Community Policing**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course covers the historical, philosophical, and practical dimensions of community policing. Emphasis is placed on the empowerment of police and the community to find solutions to problems by forming partnerships. Upon completion, students should be able to define community policing, describe how community policing strategies solve problems, and compare community policing to traditional policing.

**CJC 131 Criminal Law**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.

**CJC 132 Court Procedure & Evidence**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.

**CJC 141 Corrections**

3 0 3  
 Prerequisites: None  
 Corequisites: None

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. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

**CJC 212 Ethics & Community Relations**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems, social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.

**CJC 214**      **Victimology**

**3**    **0**    **3**  
 Prerequisites: None  
 Corequisites: None

This course introduces the study of victims. Emphasis is placed on roles, characteristics of victims, victim interaction with the criminal justice system and society, current victim assistance programs, and other related topics. Upon completion, students should be able to discuss and identify victims, the uniqueness of victims' roles, and current victim assistance programs.

**CJC 215**      **Organization & Administration**

**3**    **0**    **3**  
 Prerequisites: None  
 Corequisites: None

This course introduces the components and functions of organization and administration as it applies to the agencies of the criminal justice system. Topics include operations/functions of organizations, recruiting, training, and retention of personnel; funding and budgeting, communications, span of control and discretion, and other related topics. Upon completion, students should be able to identify and discuss the basic components and functions of a criminal justice organization and its administrative operations.

**CJC 221**      **Investigative Principles**

**3**    **2**    **4**  
 Prerequisites: None  
 Corequisites: None

This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.

**CJC 222**      **Criminalistics**

**3**    **0**    **3**  
 Prerequisites: None  
 Corequisites: None

This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.

**CJC 223**      **Organized Crime**

**3**    **0**    **3**  
 Prerequisites: None  
 Corequisites: None

This course introduces the evolution of traditional and non-traditional organized crime and its effect on society and the criminal justice system. Topics include identifying individuals and groups involved in organized crime, areas of criminal activity, legal and political responses to organized crime, and other related topics. Upon completion, students should be able to identify the groups and activities involved in organized crime and the responses of the criminal justice system.

**CJC 225**      **Crisis Intervention**

**3**    **0**    **3**  
 Prerequisites: None  
 Corequisites: None

This course introduces critical incident intervention and management techniques as they apply to operational criminal justice practitioners. Emphasis is placed on the victim/offender situation as well as job-related high stress, dangerous, or problem-solving citizen contacts. Upon completion, students should be able to provide insightful analysis of emotional, violent, drug-induced, and other critical and/or stressful incidents that require brief analysis and/or resolution.

**CJC 231**      **Constitutional Law**

**3**    **0**    **3**  
 Prerequisites: None  
 Corequisites: None

The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.

**CJC 232**      **Civil Liability**

**3**    **0**    **3**  
 Prerequisites: None  
 Corequisites: None

This course covers liability issues for the criminal justice professional. Topics include civil rights violations, tort liability, employment issues, and other related topics. Upon completion, students should be able to explain civil trial procedures and discuss contemporary liability issues.

**CONSTRUCTION MANAGEMENT****CMT 210**      **Professional Construction Supervision**

**3**    **0**    **3**  
 Prerequisites: None  
 Corequisites: None

This course introduces the student to the fundamentals of effective supervision emphasizing professionalism through knowledge and applied skills. Topics include safety, planning and scheduling, contracts, problem-solving, communications, conflict resolution, recruitment, employment laws and regulations, leadership, motivation, teamwork, discipline, setting objectives, and training. Upon completion, the student should be able to demonstrate the basic skills necessary to be successful as a supervisor in the construction industry.

**COOPERATIVE EDUCATION****COE 110**      **World of Work**

**1**    **0**    **1**  
 Prerequisites: None  
 Corequisites: None

This course covers basic knowledge necessary for gaining and maintaining employment. Topics include job-search skills, work ethic, meeting employer expectations, workplace safety, and human relations. Upon completion, students should be able to successfully make the transition from school to work.

**COE 111**      **Coop Work Experience I**

**0**    **10**    **1**  
 Prerequisites: None  
 Corequisites: None

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

**COE 115**      **Work Experience Seminar I**

**1**    **0**    **1**  
 Prerequisites: None  
 Corequisites: COE 111, COE 112, COE 113, or COE 114

Theories, techniques, and methods observed in the work settings will be discussed. Students will integrate ideas related to course work and practical situations. *This course is designed to coordinate the classroom and industry experience. The practical correlating with the seminar must be taken the same term.*

**COE 121 Co-op Work Experience II**

0 10 1

Prerequisites: None

Corequisites: None

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

**COMMUNICATION****COM 231 Public Speaking**

3 0 3

Prerequisites: None

Corequisites: None

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/arts.*

**COSMETOLOGY****COS 111 Cosmetology Concepts I**

4 0 4

Prerequisites: None

Corequisites: COS 112

This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.

**COS 112 Salon I**

0 24 8

Prerequisites: None

Corequisites: COS 111

This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.

**COS 113 Cosmetology Concepts II**

4 0 4

Prerequisites: None

Corequisites: COS 114

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

**COS 114 Salon II**

0 24 8

Prerequisites: None

Corequisites: COS 113

This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

**COS 115 Cosmetology Concepts III**

4 0 4

Prerequisites: None

Corequisites: COS 116

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, salon management, salesmanship, skin care, electricity/light therapy, wigs, thermal hair styling, lash and brow tinting, superfluous hair removal, and other related topics. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

**COS 116 Salon III**

0 12 4

Prerequisites: None

Corequisites: COS 115

This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

**COS 117 Cosmetology Concepts IV**

2 0 2

Prerequisites: None

Corequisites: COS 118

This course covers advanced cosmetology concepts. Topics include chemistry and hair structure, advanced cutting and design, and an overview of all cosmetology concepts in preparation for the licensing examination. Upon completion, students should be able to demonstrate an understanding of these cosmetology concepts and meet program completion requirements.

**COS 118 Salon IV**

0 21 7

Prerequisites: None

Corequisites: COS 117

This course provides advanced experience in a simulated salon setting. Emphasis is placed on efficient and competent delivery of all salon services in preparation for the licensing examination and employment. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination and meet entry-level employment requirements.

**COS 119 Esthetics Concepts I**

2 0 2

Prerequisites: None

Corequisites: None

This course covers the concepts of esthetics. Topics include orientation, anatomy, physiology, hygiene, sterilization, first aid, chemistry, basic dermatology, and professional ethics. Upon completion, students should be able to demonstrate an understanding of the concepts of esthetics and meet course requirements.

**COS 120 Esthetics Salon I**

0 18 6

Prerequisites: None

Corequisites: None

This course covers the techniques of esthetics in a comprehensive experience in a simulated salon setting. Topics include client consultation, facials, body treatments, hair removal, make-up application, and color analysis. Upon completion, students should be able to safely and competently demonstrate esthetic services on clients in a salon setting.

**COS 121      Manicure/Nail Technology I**  
 4      6      6  
**Prerequisites:**      None  
**Corequisites:**      None  
 This course covers techniques of nail technology, hand and arm massage, and recognition of nail diseases and disorders. Topics include OSHA/safety, sanitation, bacteriology, product knowledge, salesmanship, manicures, artificial applications, pedicures, massage, and other related topics. Upon completion, students should be able to safely and competently perform nail care, including manicures, pedicures, massage, decorating, and artificial applications in a salon setting.

**COS 125      Esthetics Concepts II**  
 2      0      2  
**Prerequisites:**      None  
**Corequisites:**      None  
 This course covers more comprehensive esthetics concepts. Topics include nutrition, business management, makeup, and color analysis. Upon completion students should be able to demonstrate an understanding of the advanced esthetics concepts and meet course requirements.

**COS 126      Esthetics Salon II**  
 0      18      6  
**Prerequisites:**      None  
**Corequisites:**      None  
 This course provides experience in a simulated esthetics setting. Topics include machine facials, aromatherapy, massage therapy, electricity, and apparatus. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology licensing examination for Estheticians.

**COS 222      Manicure/Nail Technology II**  
 4      6      6  
**Prerequisites:**      COS 121  
**Corequisites:**      None  
 This course covers advanced techniques of nail technology and hand and arm massage. Topics include OSHA/safety, product knowledge, customer service, salesmanship, artificial applications, nail art, and other related topics. Upon completion, students should be able to demonstrate competence necessary for the licensing examination, including advanced nail care, artificial enhancements, and decorations.

**COS 223      Contemporary Hair Coloring**  
 1      3      2  
**Prerequisites:**      COS 111 and COS 112  
**Corequisites:**      None  
 This course covers basic color concepts, hair coloring problems, and application techniques. Topics include color theory, terminology, contemporary techniques, product knowledge, and other related topics. Upon completion, students should be able to identify a client's color needs and safely and competently perform color applications and correct problems.

**COS 224      Trichology and Chemistry**  
 1      3      2  
**Prerequisites:**      None  
**Corequisites:**      None  
 This course is a study of hair and the interaction of applied chemicals. Emphasis is placed on pH actions and the reactions and effects of chemical ingredients. Upon completion, students should be able to demonstrate an understanding of chemical terminology, pH testing, and chemical reactions on hair.

**COS 225      Advanced Contemporary Hair Coloring**  
 1      3      2  
**Prerequisites:**      COS 223  
**Corequisites:**      None  
 This course covers advanced techniques in coloring applications and problem solving situations. Topics include removing unwanted color, replacing pigment and re-coloring, removing coating, covering gray and white hair, avoiding color fading, and poor tint results. Upon completion, students should be able to apply problem-solving techniques in hair coloring situations.

**COS 240      Contemporary Design**  
 1      3      2  
**Prerequisites:**      COS 111 and COS 112  
**Corequisites:**      None  
 This course covers methods and techniques for contemporary designs. Emphasis is placed on contemporary designs and other related topics. Upon completion, students should be able to demonstrate and apply techniques associated with contemporary design.

**COS 250      Computerized Salon Ops**  
 1      0      1  
**Prerequisites:**      None  
**Corequisites:**      None  
 This course introduces computer and salon software. Emphasis is placed on various computer and salon software applications. Upon completion, students should be able to utilize computer skills and software applications in the salon setting.

**COS 251      Manicure Instructor Concepts**  
 8      0      8  
**Prerequisites:**      None  
**Corequisites:**      None  
 This course introduces manicuring instructional concepts. Topics include orientation, theories of education, unit planning, daily lesson planning, laboratory management, student assessment, record keeping, and other related topics. Upon completion, students should be able to identify theories of education, develop lesson plans, demonstrate supervisory techniques, and assess student classroom performance.

**COS 252      Manicure Instructor Practicum**  
 0      15      5  
**Prerequisites:**      None  
**Corequisites:**      COS 251  
 This course covers supervisory and instructional skills for teaching manicuring students in a laboratory setting. Topics include demonstrations of services, supervision, student assessment, and other related topics. Upon completion, students should be able to demonstrate competence in the areas covered by the Manicuring Instructor Licensing Examination and meet program completion requirements.

**COS 253      Esthetics Instructor Concepts I**  
 6      15      11  
**Prerequisites:**      None  
**Corequisites:**      None  
 This course introduces esthetic instructional concepts and skills. Topics include orientation, theories of education, unit planning, daily lesson plans, laboratory management, student assessment in a laboratory setting. Upon completion, students should be able to demonstrate esthetic services and instruct and objectively assess student performance in a classroom setting.

**COS 254 Esthetics Instructor Concepts II**

6 15 11

Prerequisites: None

Corequisites: None

This course covers advanced esthetic instructional concepts and skills. Topics include practical demonstrations, lesson planning, lecture techniques, development and administration of assessment tools, record keeping and other related topics. Upon completion, students should be able to demonstrate competencies in the areas covered by the Esthetics Instructor Licensing Examination and meet program requirements.

**COS 271 Instructor Concepts I**

5 0 5

Prerequisites: None

Corequisites: COS 272

This course introduces the basic cosmetology instructional concepts. Topics include orientation, theories of education, unit planning, daily lesson planning, laboratory management, student assessment, record keeping, and other related topics. Upon completion, students should be able to identify theories of education, develop lesson plans, demonstrate supervisory techniques, and assess student performance in a classroom setting.

**COS 272 Instructor Practicum I**

0 21 7

Prerequisites: None

Corequisites: COS 271

This course covers supervisory and instructional skills for teaching entry-level cosmetology students in a laboratory setting. Topics include demonstrations of services, supervision, and entry-level student assessment. Upon completion, students should be able to demonstrate salon services and instruct and objectively assess the entry-level student.

**COS 273 Instructor Concepts II**

5 0 5

Prerequisites: COS 271 and COS 272

Corequisites: COS 274

This course covers advanced cosmetology instructional concepts. Topics include practical demonstrations, lesson planning, lecture techniques, development and administration of assessment tools, record keeping, and other related topics. Upon completion, students should be able to develop lesson plans, demonstrate supervision techniques, assess student performance in a classroom setting, and keep accurate records.

**COS 274 Instructor Practicum II**

0 21 7

Prerequisites: COS 271 and COS 272

Corequisites: COS 273

This course is designed to develop supervisory and instructional skills for teaching advanced cosmetology students in a laboratory setting. Topics include practical demonstrations, supervision, and advanced student assessment. Upon completion, students should be able to demonstrate competence in the areas covered by the Instructor Licensing Examination and meet program completion requirements.

**COMPUTER SCIENCE****CSC 134 C++ Programming**

2 3 3

Prerequisites: CIS 115 or ELN 232 &amp; MAT 070 (L)

Corequisites: None

This course introduces computer programming using the C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**CSC 139 Visual BASIC Programming**

2 3 3

Prerequisites: CIS 115 or ELN 232 &amp; MAT 070 (L)

Corequisites: None

This course introduces event-driven computer programming using the Visual BASIC programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, forms, sequential files, and other related topics. Upon completion, students should be able to design, code, test, and debug Visual BASIC language programs. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**CSC 234 Advanced C++ Programming**

2 3 3

Prerequisites: CSC 134

Corequisites: None

This course is a continuation of CSC 134 using C++ with structured programming principles. Emphasis is placed on advanced array tables, file management/processing techniques, data structures, subprograms, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

**CSC 239 Advanced Visual BASIC Programming**

2 3 3

Prerequisites: CSC 139

Corequisites: None

This course is a continuation of CSC 139 using the Visual BASIC programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.

**CSC 289 Programming Capstone Project**

1 4 3

Prerequisites: CIS 285

Corequisites: None

This course provides an opportunity to complete a significant programming project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, testing, presentation, and implementation. Upon completion, students should be able to complete a project from the definition phase through implementation.

**CONSTRUCTION****CST 131 OSHA/Safety/Certification**

2 2 3

Prerequisites: None

Corequisites: None

This course covers the concepts of work site safety. Topics include OSHA regulations, tool safety, and certifications which relate to the construction industry. Upon completion, students should be able to identify and maintain a safe working environment based on OSHA regulations and maintain proper records and certifications.

**CST 211 Construction Surveying**

2 3 3

Prerequisites: MAT 115, MAT 120, MAT 121, MAT 161, MAT 171 or MAT 175

Corequisites: None

This course covers field surveying applications for residential and commercial construction. Topics include building layout and leveling, linear measurement and turning angles, plumbing vertical members, and topographic and utilities surveys. Upon completion, students should be able to properly and accurately use surveying equipment to lay out residential and commercial buildings.



**CST 221 Statics/Structures**  
 3 3 4  
**Prerequisites:** MAT 115, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 and ARC 112 or CAR 112 or CST 112

**Corequisites:** None  
 This course covers the principles of statics and strength of materials as applied to structural building components. Topics include forces on columns, beams, girders, and footings and connection points when timber, steel, and concrete members are used. Upon completion, students should be able to accurately analyze load conditions present in structural members.

**CST 241 Planning/Estimating I**  
 2 2 3  
**Prerequisites:** HPR 130 or MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175

**Corequisites:** None  
 This course covers the procedures involved in planning and estimating a residential structure. Topics include labor and equipment with emphasis placed on quantity take-off of materials necessary to construct a residential structure. Upon completion, students should be able to accurately complete a take-off of materials and equipment needs and plan the labor to construct a residential structure.

**CST 242 Planning/Estimating II**  
 3 2 4  
**Prerequisites:** CST 241  
**Corequisites:** None  
 This course covers planning and estimating practices which are applicable to commercial construction. Emphasis is placed on planning and developing take-offs of materials, labor, and equipment in accordance with industry formats. Upon completion, students should be able to accurately complete take-offs and planning time lines necessary to complete a commercial structure.

**CST 244 Sustainable Building Design**  
 2 3 3  
**Prerequisites:** None  
**Corequisites:** None  
 This course is designed to increase student knowledge about integrating sustainable design principles and green building technologies into mainstream residential construction practices. Emphasis is placed on reducing negative environmental impact and improving building performance, indoor air quality and the comfort of a building's occupants. Upon completion, students should be able to identify principles of green building, environmental efficiency and conservation of natural resources in relation to basic construction practices.

**CST 251 Electrical Wiring Systems**  
 2 2 3  
**Prerequisites:** None  
**Corequisites:** None  
 This course introduces residential and commercial electrical wiring systems. Topics include safety, care and use of tools and materials, use of NEC, circuit planning, overcurrent protection, and installation of conduits, cables, and conductors. Upon completion, students should be able to correctly identify tools, materials, and procedures for electrical installation.

## COMPUTER INFORMATION TECHNOLOGY

**CTS 115 Information Systems Business Concept**  
 3 0 3  
**Prerequisites:** None  
**Corequisites:** None

This course introduces the role of IT in managing business processes and the need for business process and IT alignment. Emphasis is placed on industry need for understanding business challenges and developing managing information systems to contribute to the decision making process based on these challenges. Upon completion, students should be able to demonstrate knowledge of the "hybrid business manager" and the potential offered by new technology and systems. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

**CTS 120 Hardware/Software Support**  
 2 3 3  
**Prerequisites:** CIS 110  
**Corequisites:** None

This course covers the basic hardware of a personal computer, including installation, operations and interactions with software. Topics include component identification, memory-system, peripheral installation and configuration, preventive maintenance, hardware diagnostics/repair, installation and optimization of system software, commercial programs, system configuration, and device drivers. Upon completion, students should be able to select appropriate computer equipment and software, upgrade/maintain existing equipment and software, and troubleshoot/repair non-functioning personal computers.

**CTS 125 Presentation Graphics**  
 2 2 3  
**Prerequisites:** CIS 110  
**Corequisites:** None

This course provides hands-on experience with a graphics presentation package. Topics include terminology, effective chart usage, design and layout, integrating hardware components, and enhancing presentations with text, graphics, audio and video. Upon completion, students should be able to design and demonstrate an effective presentation.

**CTS 130 Spreadsheet**  
 2 2 3  
**Prerequisites:** CIS 110 or CIS 111 or OST 137  
**Corequisites:** None

This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts.

**CTS 155 Technical Support Functions**  
 2 2 3  
**Prerequisites:** None  
**Corequisites:** None

This course introduces a variety of diagnostic and instructional tools that are used to evaluate the performance of technical support technologies. Emphasis is placed on technical support management techniques and support technologies. Upon completion, students should be able to determine the best technologies to support and solve actual technical support problems.

**CTS 285 Systems Analysis & Design**  
 3 0 3  
**Prerequisites:** CIS 115  
**Corequisites:** None

This course introduces established and evolving methodologies for the analysis, design, and development of an information system. Emphasis is placed on system characteristics, managing projects, prototyping, CASE/COM tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.



**CTS 289 System Support Project**

1 4 3  
 Prerequisites: CTS 285  
 Corequisites: None

This course provides an opportunity to complete a significant support project with minimal instructor assistance. Emphasis is placed on written and oral communication skills, project definition, documentation, installation, testing, presentation, and user training. Upon completion, students should be able to complete a project from the definition phase through implementation.

**DATABASE MANAGEMENT****DBA 110 Database Concepts**

2 3 3  
 Prerequisites: None  
 Corequisites: None

This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.

**DESIGN DRAFTING****DDF 211 Design Process I**

1 6 4  
 Prerequisites: None  
 Corequisites: None

This course emphasizes design processes for finished products. Topics include data collection from manuals and handbooks, efficient use of materials, design sketching, specifications, and vendor selection. Upon completion, students should be able to research and plan the design process for a finished product.

**DDF 221 Design Drafting Project**

0 4 2  
 Prerequisites: DFT 111, DFT 112, and DFT 151  
 Corequisites: None

This course incorporates ideas from concept to final design. Topics include reverse engineering, design for manufacturability, and mock-up construction. Upon completion, students should be able to generate working drawings and models based on physical design parameters.

**DRAFTING****DFT 111 Technical Drafting I**

1 3 2  
 Prerequisites: None  
 Corequisites: DFT 111A (Local)

This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorial drawings, sections, and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices.

**DFT 111A Technical Drafting I Lab**

0 3 1  
 Prerequisites: None  
 Corequisites: DFT 111

This course provides a laboratory setting to enhance basic drafting skills. Emphasis is placed on practical experiences that enhance the topics presented in DFT 111. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in DFT 111.

**DFT 112 Technical Drafting II**

1 3 2  
 Prerequisites: DFT 111  
 Corequisites: DFT 112A (Local)

This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and sub-assembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings.

**DFT 112A Technical Drafting II Lab**

0 3 1  
 Prerequisites: DFT 111:111A (Local)  
 Corequisites: DFT 112

This course provides a laboratory setting to enhance advanced drafting skills. Emphasis is placed on practical experiences that enhance the topics presented in DFT 112. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in DFT 112.

**DFT 115 Architectural Drafting**

1 2 2  
 Prerequisites: None  
 Corequisites: None

This course introduces basic drafting practices used in residential and light commercial design. Topics include floor plans, foundations, details, electrical components, elevations, and dimensioning practice. Upon completion, students should be able to complete a set of working drawings for a simple structure.

**DFT 121 Introduction to Geometric Dimensioning & Tolerancing**

1 2 2  
 Prerequisites: None  
 Corequisites: None

This course introduces basic geometric dimensioning and tolerancing principles. Topics include symbols, annotation, theory, and applications. Upon completion, students should be able to interpret and apply basic geometric dimensioning and tolerancing principles to drawings.

**DFT 151 CAD I**

2 3 3  
 Prerequisites: None  
 Corequisites: None

This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.

**DFT 152 CAD II**

2 3 3  
 Prerequisites: None  
 Corequisites: None

This course introduces extended CAD applications. Emphasis is placed upon intermediate applications of CAD skills. Upon completion, students should be able to use extended CAD applications to generate and manage drawings.

**DFT 153 CAD III**

2 3 3  
 Prerequisites: None  
 Corequisites: None

This course introduces advanced CAD applications. Emphasis is placed upon advanced applications of CAD skills. Upon completion, students should be able to use advanced CAD applications to generate and manage data.

**DFT 154 Introduction Solid Modeling**

2 3 3

Prerequisites: None

Corequisites: None

This course is an introduction to basic three-dimensional solid modeling and design software. Topics include basic design, creation, editing, rendering and analysis of solid models and creation of multiview drawings. Upon completion, students should be able to use design techniques to create, edit, render and generate a multiview drawing.

**DFT 161 Pattern Design and Layout**

1 2 2

Prerequisites: None

Corequisites: None

This course covers the layout of sheet metal and pipe fittings. Topics include the development of patterns and templates for metalworking industries. Upon completion, students should be able to develop, sketch, produce, and angle layouts.

**DFT 231 Jig and Fixture Design**

1 2 2

Prerequisites: None

Corequisites: None

This course introduces the study of jigs and fixtures. Topics include different types, components, and uses of jigs and fixtures. Upon completion, students should be able to analyze, design, and complete a set of working drawings for a jig or fixture.

**DFT 254 Intermediate Solid Modeling/Rendering**

2 3 3

Prerequisites: DFT 154

Corequisites: None

This course presents a continuation of basic three-dimensional solid modeling and design software. Topics include advanced study of parametric design, creation, editing, rendering and analysis of solid model assemblies, and multiview drawing generation. Upon completion, students should be able to use parametric design techniques to create and analyze the engineering design properties of a model assembly.

**DRAMA****DRA 122 Oral Interpretation**

3 0 3

Prerequisites: None

Corequisites: None

This course introduces the dramatic study of literature through performance. Emphasis is placed on analysis and performance of poetry, drama, and prose fiction. Upon completion, students should be able to embody and discuss critically the speakers inherent in literature. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/ fine arts.*

**ECONOMICS****ECO 251 Principles of Microeconomics**

3 0 3

Prerequisites: MAT 070 (L.)

Corequisites: None

This course introduces economic analysis of individuals, business, and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

**ECO 252 Principles of Macroeconomics**

3 0 3

Prerequisites: MAT 060 (L.)

Corequisites: None

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought, aggregate supply and demand, economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

**EDUCATION****EDU 118 Principles and Practices of Instructional Assistant**

3 0 3

Prerequisites: (ENG 080 and RED 080) or ENG 085

Corequisites: None

This course covers the instructional assistant's role in the educational system. Topics include history of education, professional responsibilities and ethics, cultural diversity, communication skills, and identification of the optimal learning environment. Upon completion, students should be able to describe the supporting role of the instructional assistant, demonstrate positive communication skills, and discuss educational philosophy.

**EDU 119 Introduction to Early Childhood Education**

4 0 4

Prerequisites: None

Corequisites: None

This course covers the foundations of the education profession, the diverse educational settings for young children, professionalism and planning developmentally appropriate programs for all children. Topics include historical foundations, program types, career options, professionalism and creating inclusive environments and curriculum responsive to the needs of all children and families. Upon completion, students should be able to design career plans and develop schedules, environments and activity plans appropriate for all children.

**EDU 131 Child, Family, and Community**

3 0 3

Prerequisites: (ENG 080 and RED 080) or ENG 085

Corequisites: None

This course covers the development of partnerships between culturally and linguistically diverse families, children, schools and communities. Emphasis is placed on developing skills and identifying benefits for establishing, supporting, and maintaining respectful, collaborative relationships between diverse families, programs/schools, and community agencies/resources. Upon completion, students should be able to explain appropriate relationships between families, educators, and professionals that enhance development and educational experiences of all children.

**EDU 144 Child Development I**

3 0 3

Prerequisites: (ENG 080 and RED 080) or ENG 085

Corequisites: None

This course includes the theories of child development, needs, milestones, and factors that influence development, from conception through approximately 36 months. Emphasis is placed on developmental sequences in physical-motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development. *This course has been approved for transfer under the Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**EDU 145 Child Development II**  
**3 0 3**  
 Prerequisites: (ENG 080 and RED 080) or ENG 085  
 Corequisites: None  
 This course includes the theories of child development, needs, milestones, and factors that influence development, from preschool through middle childhood. Emphasis is placed on developmental sequences in physical/motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development. *This course has been approved for transfer under the Comprehensive Articulation Agreement as a general and/or elective course requirement.*

**EDU 146 Child Guidance**  
**3 0 3**  
 Prerequisites: (ENG 080 and RED 080) or ENG 085  
 Corequisites: None  
 This course introduces principles and practical techniques including the design of learning environments for providing developmentally appropriate guidance for all children, including those at risk. Emphasis is placed on observation skills, cultural influences, underlying causes of behavior, appropriate expectations, development of self-control and the role of communication and guidance. Upon completion, students should be able to demonstrate direct/indirect strategies for preventing problem behaviors, teaching appropriate/acceptable behaviors, negotiation, setting limits and recognizing at-risk behaviors. *This course has been approved for transfer under the Comprehensive Articulation Agreement as a general and/or elective course requirement.*

**EDU 151 Creative Activities**  
**3 0 3**  
 Prerequisites: (ENG 080 and RED 080) or ENG 085  
 Corequisites: None  
 This course covers planning, creation and adaptation of developmentally supportive learning environments with attention to curriculum, selections, teaching practices and learning materials. Emphasis is placed on creating and adapting integrated, meaningful, challenging and engaging developmentally supportive learning experiences in art, music, movement and dramatics for all children. Upon completion, students should be able to create, adapt, implement and evaluate developmentally supportive learning materials, experiences and environments.

**EDU 153 Health, Safety and Nutrition**  
**3 0 3**  
 Prerequisites: (ENG 080 and RED 080) or ENG 085  
 Corequisites: None  
 This course covers promoting and maintaining the health and well-being of all children. Topics include health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, recognition and reporting of abuse and neglect and state regulations. Upon completion, students should be able to demonstrate knowledge of health, safety, and nutritional needs, safe learning environments, and adhere to state regulations.

**EDU 154 Social, Emotional and Behavioral Development**  
**3 0 3**  
 Prerequisites: (ENG 080 and RED 080) or ENG 085 and (EDU 144 and EDU 145) or (PSY 244 and PSY 245)  
 Corequisites: None  
 This course covers the emotional/social development of children and the causes, expressions, prevention and management of challenging behaviors in all children. Emphasis is placed on caregiver/family/child relationships, positive emotional/social environments, developmental concerns, risk factors, and intervention strategies. Upon completion, students should be able to identify factors influencing emotional/social development, utilizing screening measures, and designing positive behavioral supports.

**EDU 161 Introduction to Exceptional Children**  
**3 0 3**  
 Prerequisites: (ENG 080 and RED 080) or ENG 085  
 Corequisites: None  
 This course covers children with exceptionalities as life-long learners within the context of the community, school and family. Emphasis is placed on inclusion, legal, social/political, environmental, and cultural issues relating to the teaching of children with exceptionalities. Upon completion, students should be able to demonstrate knowledge of identification processes, inclusive techniques, and professional practices and attitudes.

**EDU 163 Classroom Management & Instruction**  
**3 0 3**  
 Prerequisites: (ENG 080 and RED 080) or ENG 085  
 Corequisites: None  
 This course covers management and instructional techniques with school-age populations. Topics include classroom management and organization, teaching strategies, individual student differences and learning styles, and developmentally appropriate classroom guidance techniques. Upon completion, students should be able to utilize developmentally appropriate behavior management and instructional strategies that enhance the teaching/learning process and promote students' academic success.

**EDU 175 Introduction to Trade and Industrial Education**  
**3 0 3**  
 Prerequisites: (ENG 080 and RED 080) or ENG 085  
 Corequisites: None  
 This course introduces the philosophy, scope, and objectives of industrial education. Topics include the development of industrial education, employment opportunities, current events, current practices, and emerging trends. Upon completion, students should be able to describe the history, identify current practices, and describe current trends in industrial education.

**EDU 176 Occupational Analysis and Course Development**  
**3 0 3**  
 Prerequisites: (ENG 080 and RED 080) or ENG 085  
 Corequisites: None  
 This course covers the principles and techniques of analyzing occupations to select suitable competencies and teaching methods for learning activities. Topics include occupational analysis, instructional methods, competency identification, and curriculum writing. Upon completion, students should be able to identify competencies, organize instructional materials, and select appropriate instructional methods.

**EDU 177 Instructional Methods**  
**2 2 3**  
 Prerequisites: (ENG 080 and RED 080) or ENG 085  
 Corequisites: None  
 This course covers instructional methods in technical education with emphasis on competency-based instruction. Topics include writing objectives, instructional methods, and determining learning styles. Upon completion, students should be able to select and demonstrate the use of a variety of instructional methods.

**EDU 178 Facilities, Organization and Planning**  
**2 2 3**  
 Prerequisites: (ENG 080 and RED 080) or ENG 085  
 Corequisites: None  
 This course is a study of the problems related to educational facilities planning, layout, and management. Emphasis is placed on applying basic principles to actual projects relating to specific occupational areas. Upon completion, students should be able to lay out an educational facility for an occupational area and develop a plan for the facilities.

**EDU 179 Vocational Student Organization**  
**3 0 3**  
**Prerequisites:** (ENG 080 and RED 080) or ENG 085  
**Corequisites:** None  
 This course covers planning and organizing vocational youth clubs by understanding the structure and operating procedures to use club activities for personal and professional growth. Topics include self-assessment to set goals, club structure, election and installation of officers, club activities, function of committees, running meetings, contest preparation, and leadership skills. Upon completion students should be able to set personal goals, outline club structure, elect and install officers.

**EDU 184 Early Childhood Introduction Practicum**  
**1 3 2**  
**Prerequisites:** (ENG 080 and RED 080) or ENG 085 and EDU 119  
**Corequisites:** None  
 This course introduces students to early childhood settings and applying skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on observing children and assisting in the implementation of developmentally appropriate activities/environments for all children, and modeling reflective/professional practices. Upon completion, students should be able to demonstrate developmentally appropriate interactions with children and ethical/professional behaviors as indicated by assignments and onsite faculty visits.

**EDU 185 Cognitive and Language Act**  
**3 0 3**  
**Prerequisites:** (ENG 080 and RED 080) or ENG 085  
**Corequisites:** None  
 This course covers methods of developing cognitive and language-communication skills in children. Emphasis is placed on planning the basic components of language and cognitive processes in developing curriculum activities. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate developmentally appropriate curriculum activities.

**EDU 214 Early Childhood Intermediate Practicum**  
**1 9 4**  
**Prerequisites:** (ENG 090 and RED 090) or ENG 095 and EDU 119, (EDU 144 or PSY 244), EDU 146, EDU 184 (Local)  
**Corequisites:** None  
 This course is designed to allow students to apply skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on observing children and assisting with the implementation of developmentally appropriate activities and environments for all children; modeling reflective and professional practices. Upon completion, students should be able to demonstrate developmentally appropriate plans/assessments, appropriate guidance techniques and ethical/professional behaviors as indicated by assignments and onsite faculty visits.

**EDU 216 Introduction to Education**  
**3 2 4**  
**Prerequisites:** RED 090 and ENG 090 or ENG 095  
**Corequisites:** None  
 This course introduces the American educational system and the teaching profession. Topics include historical and philosophical foundations of education, contemporary educational trends and issues, curriculum development, and observation and participation in public school classrooms. Upon completion, students should be able to relate classroom observations to the roles of teachers and schools and the process of teacher education. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement. This course is also available through the Virtual Learning Community.*

**EDU 221 Children with Exceptional**  
**3 0 3**  
**Prerequisites:** (ENG 090 and RED 090) or ENG 095 and (EDU 144 and EDU 145) or (PSY 244 and PSY 245)  
**Corequisites:** None  
 This course introduces children with exceptionalities, their families, support services, inclusive/diverse settings, and educational/family plans based on the foundations of child development. Emphasis is placed on the characteristics of exceptionalities, observation and assessment of children, strategies for adapting the learning environment, and identification of community resources. Upon completion, students should be able to recognize diverse abilities, describe the referral process, and depict collaboration with families/professionals to plan, implement, and promote best practice. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

**EDU 223 Specific Learning Disability**  
**3 0 3**  
**Prerequisites:** (ENG 090 and RED 090) or ENG 095 and (EDU 144 and EDU 145) or (PSY 244 and PSY 245)  
**Corequisites:** None  
 This course provides a comprehensive study of characteristics, alternative assessments, teaching strategies, placement options, inclusion, and family intervention for children with specific learning disabilities. Topics include causes, assessment instruments, learning strategies, and collaborative inclusion methods for children with specific learning disabilities. Upon completion, students should be able to assist in identifying, assessing, and providing educational interventions for children with specific learning disabilities and their families.

**EDU 234 Infants, Toddlers, and Twos**  
**3 0 3**  
**Prerequisites:** (ENG 090 and RED 090) or ENG 095 and EDU 119  
**Corequisites:** None  
 This course covers the unique needs and rapid changes that occur in the first three years of life and the inter-related factors that influence development. Emphasis is placed on recognizing and supporting developmental milestones through purposeful strategies, responsive care routines and identifying elements of quality, inclusive early care and education. Upon completion, students should be able to demonstrate respectful relationships that provide a foundation for healthy infant/toddler/two's development, plan/select activities/materials, and partner with diverse families.

**EDU 247 Sensory and Physical Disability**  
**3 0 3**  
**Prerequisites:** (ENG 090 and RED 090) or ENG 095 and (EDU 144 and EDU 145) or (PSY 244 and PSY 245)  
**Corequisites:** None  
 This course covers characteristics, intervention strategies, assistive technologies, and inclusive practices for children with sensory and physical disabilities. Topics include inclusive placement options, utilization of support services, other health impairments and family involvement for children with sensory and physical disabilities. Upon completion, students should be able to identify and utilize intervention strategies and service delivery options for those specific disabilities.

**EDU 248 Developmental Delays**  
 3 0 3  
 Prerequisites: (ENG 090 and RED 090) or ENG 095 and (EDU 144 and EDU 145) or (PSY 244 and PSY 245)  
 Corequisites: None  
 This course covers the causes and assessment of developmental delays and individualized instruction and curriculum for children with developmental delays. Emphasis is placed on definition, characteristics, assessment, educational strategies, inclusion, family involvement, and services for children with developmental delays. Upon completion, students should be able to identify, assess, and plan educational intervention strategies for children with developmental delays and their families.

**EDU 252 Math and Science Activities**  
 3 0 3  
 Prerequisites: (ENG 090 and RED 090) or ENG 095  
 Corequisites: None  
 This course introduces discovery experiences in math and science. Topics include concepts, facts, phenomena, and skills in each area. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate developmentally appropriate curriculum materials.

**EDU 254 Music and Movement for Child**  
 1 2 2  
 Prerequisites: (ENG 090 and RED 090) or ENG 095  
 Corequisites: None  
 This course covers the use of music and creative movement for children. Topics include a general survey of the basic elements of music and planning, designing, and implementing music and movement experiences for creative learning. Upon completion, students should be able to use voice and various musical instruments to provide musical and movement activities for children.

**EDU 259 Curriculum Planning**  
 3 0 3  
 Prerequisites: (ENG 090 and RED 090) or ENG 095 and EDU 119  
 Corequisites: None  
 This course is designed to focus on curriculum planning for three to five year olds. Topics include philosophy, curriculum models, indoor and outdoor environments, scheduling, authentic assessment, and planning developmentally appropriate experiences. Upon completion, students should be able to evaluate children's development, critique curriculum, plan for individual and group needs, and assess and create quality environments.

**EDU 261 Early Childhood Administration I**  
 3 0 3  
 Prerequisites: (ENG 090 & RED 090) or ENG 095  
 Corequisites: EDU 119  
 This course introduces principles of basic programming and staffing, budgeting/financial management and marketing, and rules and regulations of diverse early childhood programs. Topics include program structure and philosophy, standards of NC child care programs, finance, funding resources, and staff and organizational management. Upon completion, students should be able to develop components of program/personnel handbooks, a program budget, and demonstrate knowledge of fundamental marketing strategies and NC standards.

**EDU 262 Early Childhood Administration II**  
 3 0 3  
 Prerequisites: (ENG 090 & RED 090) or ENG 095 and EDU 261  
 Corequisites: EDU 119  
 This course focuses on advocacy/leadership, public relations/community outreach and program quality evaluation for diverse early childhood programs. Topics include program evaluation/accreditation, involvement in early childhood professional organizations, leadership/mentoring, family, volunteer and community involvement and early childhood advocacy. Upon completion, students should be able to define and evaluate all components of early childhood programs, develop strategies for advocacy and integrate community into programs.

**EDU 271 Educational Technology**  
 2 2 3  
 Prerequisites: (ENG 090 and RED 090) or ENG 095  
 Corequisites: None  
 This course introduces the use of technology to enhance teaching and learning in all educational settings. Topics include technology concepts, instructional strategies, materials and adaptive technology for children with exceptionalities, facilitation of assessment/evaluation, and ethical issues surrounding the use of technology. Upon completion, students should be able to apply technology-enhanced instructional strategies, use a variety of technology resources and demonstrate appropriate technology skills in educational environments.

**EDU 275 Effective Teaching Training**  
 2 0 2  
 Prerequisites: (ENG 090 and RED 090) or ENG 095  
 Corequisites: None  
 This course provides specialized training using an experiential-based approach to learning. Topics include instructional preparation and presentation, student interaction, time management, learning expectations, evaluation, and curriculum principles and planning. Upon completion, students should be able to prepare and present a six-step lesson plan and demonstrate ways to improve students' time-on-task.

**EDU 280 Language and Literacy Experience**  
 3 0 3  
 Prerequisites: (ENG 090 and RED 090) or ENG 095  
 Corequisites: None  
 This course is designed to expand students' understanding of children's language and literacy development and provides strategies for enhancing language/literacy experiences in an enriched environment. Topics include selection of diverse literature and interactive media, the integration of literacy concepts throughout the curriculum, appropriate observations/assessments and inclusive practices. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate and diverse language/literacy experiences.

**EDU 281 Instructor Strategies: Reading and Writing**  
 2 2 3  
 Prerequisites: (ENG 090 and RED 090) or ENG 095  
 Corequisites: None  
 This course covers concepts, resources, and methods for teaching reading and writing to elementary through middle-grade children. Topics include the importance of literacy, learning styles, skills assessment, various reading and writing approaches and instructional strategies. Upon completion, students should be able to assess, plan, implement and evaluate school-age literacy experiences as related to the North Carolina Standard Course of Study. This course is also available through the Virtual Learning Community (VLC).

**EDU 284**      **Early Childhood Capstone Practicum**  
**1**      **9**      **4**  
**Prerequisites:** (ENG 090 and RED 090) or ENG 095 and EDU 119, (EDU 144 or PSY 244), (EDU 145 or PSY 245), EDU 146, EDU 151, EDU 184 (Local), EDU 214 (Local)

**Corequisites:** None  
 This course is designed to allow students to apply skills in a three-star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on designing, implementing and evaluating developmentally appropriate activities and environments for all children; supporting/involving families; and modeling reflective and professional practices. Upon completion, students should be able to demonstrate developmentally appropriate plans/assessments, appropriate guidance techniques and ethical/professional behaviors as indicated by assignments and onsite faculty visits. This course is required in the student's last semester (Local).

**EDU 285**      **Internship Experience-School Age**  
**1**      **9**      **4**  
**Prerequisites:** (ENG 090 and RED 090) or ENG 095 and (EDU 144 or PSY 244), (EDU 145 or PSY 245), (EDU 118 or EDU 216), and EDU 163

**Corequisites:** None  
 This course is designed to allow students to apply skills in a quality public or private school environment. Emphasis is placed on designing, implementing and evaluating developmentally appropriate activities and environments for all children; supporting/involving families; and modeling reflective and professional practices. Upon completion, students should be able to demonstrate developmentally appropriate lesson plans/assessments, appropriate guidance techniques, ethical/professional behaviors as indicated by assignments and onsite faculty visits.

**EDU 289**      **Advanced Issues/School Age**  
**2**      **0**      **2**  
**Prerequisites:** (ENG 090 and RED 090) or ENG 095  
**Corequisites:** None

This course covers advanced topics and issues that relate to school-age programs. Emphasis is placed on current advocacy issues, emerging technology, professional growth, ethics, and organizations for providers' teachers working with school-age populations. Upon completion, students should be able to list, discuss, and explain advanced current topics and issues surrounding school-aged populations.

## **ENGINEERING**

**EGR 110**      **Introduction to Engineering Technology**  
**1**      **2**      **2**  
**Prerequisites:** None  
**Corequisites:** None

This course introduces general topics relevant to engineering technology. Topics include career assessment, professional ethics, critical thinking and problem solving, usage of college resources for study and research, and using tools for engineering computations. Upon completion, students should be able to choose a career option in engineering technology and utilize college resources to meet their educational goals.

**EGR 285**      **Design Project**  
**0**      **4**      **2**  
**Prerequisites:** None  
**Corequisites:** None

This course provides the opportunity to design an instructor-approved project using previously acquired skills. Emphasis is placed on selection, proposal, design, testing, and documentation of the approved project. Upon completion, students should be able to present and demonstrate projects.

## **ELECTRICAL**

**ELC 111**      **Introduction to Electricity**  
**2**      **2**      **3**  
**Prerequisites:** None  
**Corequisites:** None

This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronic majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance), components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.

**ELC 112**      **DC/AC Electricity**  
**3**      **6**      **5**  
**Prerequisites:** None  
**Co-requisites:** None

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.

**ELC 113**      **Basic Wiring I**  
**2**      **6**      **4**  
**Prerequisites:** None  
**Corequisites:** None

This course introduces the care, usage of tools and materials used in electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical blueprint reading; planning, layout, and installation of electrical distribution equipment; lighting; overcurrent protection, conduits, branch circuits, and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

**ELC 114**      **Basic Wiring II**  
**2**      **6**      **4**  
**Prerequisites:** ELC 113 (Local)  
**Co-requisites:** None

This course provides instruction in the application of electrical tools, materials, and test equipment associated with electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduct associated with electrical installations.

**ELC 115**      **Industrial Wiring**  
**2**      **6**      **4**  
**Prerequisites:** None  
**Corequisites:** None

This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.

**ELC 117**      **Motors and Controls**  
**2**      **6**      **4**  
**Prerequisites:** None  
**Corequisites:** None

This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.

**ELC 118 National Electrical Code**  
 1 2 2  
 Prerequisites: None  
 Corequisites: None  
 This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.

**ELC 119 NEC Calculations**  
 1 2 2  
 Prerequisites: ELC 118 (Local)  
 Corequisites: None  
 This course covers branch circuit, feeder, and service calculations. Emphasis is placed on sections of the National Electrical Code related to calculations. Upon completion, students should be able to use appropriate code sections to size wire, conduit, and overcurrent devices for branch circuits, feeders, and service.

**ELC 127 Software for Technicians**  
 1 3 2  
 Prerequisites: ELC 111, ELC 112, or ELC 131 (Local)  
 Co-requisites: None  
 This course introduces computer software which can be used to solve electrical/electronics problems. Topics include electrical/electronics calculations and applications. Upon completion, students should be able to utilize a personal computer for electrical/electronics-related applications.

**ELC 128 Introduction to Programmable Logic Controller (PLC)**  
 2 3 3  
 Prerequisites: None  
 Corequisites: None  
 This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to install PLCs and create sample programs.

**ELC 131 DC/AC Circuit Analysis**  
 4 3 5  
 Prerequisites: ELC 112 (Local)  
 Co-requisites: None  
 This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.

**ELC 132 Electrical Drawings**  
 1 3 2  
 Prerequisites: None  
 Corequisites: None  
 This course introduces the technical documentation that is typically found or used in the industrial environment. Topics include interpretation of service manuals, freehand sketching of lines, orthographic views and dimensions, and blueprint reading. Upon completion, students should be able to interpret technical documents and blueprints and use basic drafting skills to prepare usable field drawings.

**ELC 135 Electrical Machines**  
 2 2 3  
 Prerequisites: ELC 112 (Local)  
 Corequisites: None  
 This course covers magnetic circuits, transformers, DC/AC machines, and the three-phase circuit fundamentals including power factor. Topics include magnetic terms and calculations, transformer calculations based on primary or secondary equivalent circuits, and regulation and efficiency calculations. Upon completion, students should be able to perform regulation and efficiency calculations for DC/AC machine circuits.

**ELC 228 Programmable Logic Controller (PLC) Applications**  
 2 6 4  
 Prerequisites: ELC 128 (Local)  
 Co-requisites: None  
 This course covers programming and applications of programmable logic controllers. Emphasis is placed on programming techniques, networking, specialty I/O modules, and system troubleshooting. Upon completion, students should be able to specify, implement, and maintain complex PLC controlled systems.

**ELC 229 Applications Project**  
 1 3 2  
 Prerequisites: None  
 Corequisites: None  
 This course provides an individual and/or integrated team approach to a practical project as approved by the instructor. Topics include project selection and planning, implementation and testing, and a final presentation. Upon completion, students should be able to plan and implement an applications-oriented project.

## **ELECTRONICS**

**ELN 131 Semiconductor Applications**  
 3 3 4  
 Prerequisites: ELC 112 (Local)  
 Co-requisites: None  
 This course introduces the characteristics and applications of semiconductor devices and circuits. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and troubleshoot discrete component circuits using appropriate techniques and test equipment.

**ELN 132 Linear IC Applications**  
 3 3 4  
 Prerequisites: ELN 131 (Local)  
 Co-requisites: None  
 This course introduces the characteristics and applications of linear integrated circuits. Topics include op-amp circuits, waveform generators, active filters, IC voltage regulators, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot linear integrated circuits using appropriate techniques and test equipment.

**ELN 133 Digital Electronics**  
 3 3 4  
 Prerequisites: None  
 Corequisites: None  
 This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, A/D-D/A conversion, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.



**ELN 152 Fabrication Techniques**

1 3 2

Prerequisites: None

Corequisites: None

This course covers the fabrication methods required to create a prototype product from the initial circuit design. Topics include CAD, layout, sheet metal working, component selection, PC board layout and construction, reverse engineering, soldering, and other related topics. Upon completion, students should be able to design and construct an electronic product with all its associated documentation.

**ELN 229 Industrial Electronics**

3 3 4

Prerequisites: ELC 112 (Local)

Corequisites: None

This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices. Upon completion, students should be able to install and/or troubleshoot these devices for proper operation in an industrial electronic circuit.

**ELN 231 Industrial Controls**

2 3 3

Prerequisites: None

Corequisites: None

This course introduces the fundamental concepts of control of rotating machinery and associated peripheral devices. Topics include rotating machine theory, ladder logic, electromechanical and solid state relays, motor controls, pilot devices, three-phase power systems, and other related topics. Upon completion, students should be able to interpret schematics and demonstrate an understanding of electromechanical and electronic control of rotating machinery.

**ELN 232 Introduction to Microprocessors**

3 3 4

Prerequisites: None

Corequisites: None

This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include low-level language programming, bus architecture, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment.

**ELN 233 Microprocessor Systems**

3 3 4

Prerequisites: ELN 232 (Local)

Corequisites: None

This course covers the application and design of microprocessor control systems. Topics include control and interfacing of systems using AD/DA, serial-parallel I/O, communication protocols, and other related applications. Upon completion, students should be able to design, construct, program, verify, analyze, and troubleshoot fundamental microprocessor interface and control circuits using related equipment.

**ELN 249 Digital Communication**

2 3 3

Prerequisites: None (Local Prerequisites: CET 172 or ELN 237)

Corequisites: None

This course covers the core processes and applications associated with digital communication technology. Topics include the characteristics of RF circuits, modulation, transmitters and receivers, electromagnetic transmission, antennas, and related applications. Upon completion, students should be able to demonstrate knowledge of the concepts associated with digital communication systems.

**ENGLISH**

Initial student placement in Academic Development courses is based on the Academic Development Placement Policy on page 17. Students should begin Academic Development course work at the appropriate level indicated by placement test scores.

**ENG 080 Writing Foundations**

3 2 4\*

Prerequisites: Placement score

Corequisites: None

This course introduces the writing process and stresses effective sentences. Emphasis is placed on applying the conventions of written English, reflecting standard usage and mechanics to structuring a variety of sentences. Upon completion, students should be able to write correct sentences and a unified, coherent paragraph. *This course does not satisfy the developmental reading and writing prerequisites for ENG 111 or ENG 114.*

**ENG 085 Reading & Writing Foundations**

5 0 5\*

Prerequisites: Placement score

Corequisites: None

This course uses whole language to develop proficiency in reading and writing for college. Emphasis is placed on applying analytical and critical reading skills to a variety of texts and on introducing the writing process. Upon completion, students should be able to recognize and use various patterns of text organization and compose effective paragraphs. *This course integrates ENG 080 and REW 080 and satisfies the developmental reading prerequisites for REW 091 and ENG 99. This course does not satisfy the developmental prerequisites for ENG 111.*

**ENG 090 Composition Strategies**

3 0 3\*

Prerequisites: ENG 080, ENG 085, or placement test scores

Corequisites: ENG 090A

This course provides practice in the writing process and stresses effective paragraphs. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay. *This course satisfies the developmental writing prerequisites for ENG 111.*

**ENG 090A Composition Strategies Lab**

0 2 1\*

Prerequisites: ENG 080, ENG 085, or placement test scores

Corequisites: ENG 090

This writing lab is designed to practice the skills introduced in ENG 090. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay.

**ENG 095 Reading and Composition Strategies**

5 0 5\*

Prerequisites: ASSET placement score 36 to 40 in both reading &amp; writing skills or COMPASS placement score 47-69 in reading and 61-80 in writing skills

Corequisites: None

This course uses whole language to strengthen proficiency in reading and writing for college. Emphasis is placed on applying critical reading skills to narrative and expository texts and on using the writing process. Upon completion, students should be able to comprehend, analyze, and evaluate college texts and to compose essays in preparation for college writing. *This course integrates ENG 090 and REW 090. This course satisfies the developmental reading and writing prerequisites for ENG 111.*

\*These credits are institutional credits only and cannot be used for graduation. They are used for determining hour load for payment, eligibility for financial aid, or classification as a full-time student.



**ENG 101 Applied Communications I**  
**3 0 3**  
 Prerequisites: None  
 Corequisites: None  
 This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation, and spelling. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace. *This is a dual-level course.*

**ENG 111 Expository Writing**  
**3 0 3**  
 Prerequisites: ENG 090 and RED 090 or ENG 095; or satisfactory placement test scores  
 Corequisites: None  
 This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in English composition.*

**ENG 112 Argument-Based Research**  
**3 0 3**  
 Prerequisites: ENG 111  
 Corequisites: None  
 This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on analyzing data and incorporating research findings into disinterested argumentative essays and research projects. Upon completion, students should be able to summarize, paraphrase, interpret, and synthesize information from primary and secondary sources using standard research format and style. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition. This course is also available through the Virtual Learning Community (VLC).*

**ENG 113 Literature-Based Research**  
**3 0 3**  
 Prerequisites: ENG 111  
 Corequisites: None  
 This course, the second in a series of two, expands the concepts developed in ENG 111 by focusing on writing that involves literature-based research and documentation. Emphasis is placed on critical reading and thinking and the analysis and interpretation of prose, poetry, and drama; plot, characterization, theme, cultural context, etc. Upon completion, students should be able to construct mechanically sound, documented essays and research papers that analyze and respond to literary works. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in English composition.*

**ENG 114 Professional Research and Reporting**  
**3 0 3**  
 Prerequisites: ENG 111  
 Corequisites: None  
 This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in English composition.*

**ENG 125 Creative Writing I**  
**3 0 3**  
 Prerequisites: ENG 111  
 Corequisites: None  
 This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing, fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general and/or elective course requirement.*

**ENG 126 Creative Writing II**  
**3 0 3**  
 Prerequisites: ENG 125  
 Corequisites: None  
 This course is designed as a workshop approach for advancing imaginative and literary skills. Emphasis is placed on the discussion of style, techniques, and challenges for first publications. Upon completion, students should be able to submit a piece of their writing for publication. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general and/or elective course requirement.*

**ENG 131 Introduction to Literature**  
**3 0 3**  
 Prerequisites: ENG 111  
 Corequisites: ENG 112, ENG 113, or ENG 114  
 This course introduces the principal genres of literature. Emphasis is placed on literary terminology, devices, structure, and interpretation. Upon completion, students should be able to analyze and respond to literature. *This course has been approved to satisfy the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities, fine arts.*

**ENG 231 American Literature I**  
**3 0 3**  
 Prerequisites: ENG 112, ENG 113, or ENG 114  
 Corequisites: None  
 This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities, fine arts.*

**ENG 232 American Literature II**  
**3 0 3**  
 Prerequisites: ENG 112, ENG 113, or ENG 114  
 Corequisites: None  
 This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities, fine arts.*

**ENG 233 Major American Writers**  
**3 0 3**  
 Prerequisites: ENG 112, ENG 113, or ENG 114  
 Corequisites: None  
 This course provides an intensive study of the works of several major American authors. Emphasis is placed on American history, culture, and the literary merits. Upon completion, students should be able to interpret, analyze, and evaluate the works studied. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities, fine arts.*

**ENG 235 Survey of Film as Literature****3 0 3****Prerequisites:** ENG 112**Corequisites:** None

This course provides a study of the medium of film with a focus on the historical impact and the various literary genres of movies. Emphasis is placed on an appreciation of film as a form of literature which demonstrates various elements of fiction (character, setting, theme, etc.). Upon completion, students should be able to analyze film critically in various literary contexts. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities, fine arts.*

**ENG 241 British Literature I****3 0 3****Prerequisites:** ENG 112, ENG 113, or ENG 114**Corequisites:** None

This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities, fine arts.*

**ENG 242 British Literature II****3 0 3****Prerequisites:** ENG 112, ENG 113, or ENG 114**Corequisites:** None

This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities, fine arts.*

**ENG 261 World Literature I****3 0 3****Prerequisites:** ENG 112, ENG 113, or ENG 114**Corequisites:** None

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from their literary beginnings through the seventeenth century. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities, fine arts.*

**ENG 262 World Literature II****3 0 3****Prerequisites:** ENG 112, ENG 113, or ENG 114**Corequisites:** None

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from the eighteenth century to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities, fine arts.*

**ENG 271 Contemporary Literature****3 0 3****Prerequisites:** ENG 112, ENG 113, or ENG 114**Corequisites:** None

This course includes a study of contemporary literature. Emphasis is placed on literary and cultural trends of selected texts. Upon completion, students should be able to interpret, analyze, and respond to the literature. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities, fine arts.*

**ENG 272 Southern Literature****3 0 3****Prerequisites:** ENG 112, ENG 113, or ENG 114**Corequisites:** None

This course provides an analytical study of the works of several Southern authors. Emphasis is placed on the historical and cultural contexts, themes, aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities, fine arts.*

**ENG 274 Literature by Women****3 0 3****Prerequisites:** ENG 112, ENG 113, or ENG 114**Corequisites:** None

This course provides an analytical study of the works of several women authors. Emphasis is placed on the historical and cultural contexts, themes and aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities, fine arts.*

**ENTREPRENEURSHIP****ETR 220 Innovation and Creativity****3 0 3****Prerequisites:** None**Corequisites:** None

This course provides a study of developing and enhancing individual and organizational creativity and innovation. Topics include that innovation needs to be applied to products, services, and processes to increase competitive advantages and add value to businesses. Upon completion, students should be able to apply innovation and creativity principles in the work place.

**ETR 230 Entrepreneur Marketing****3 0 3****Prerequisites:** None**Corequisites:** None

This course covers the techniques to correctly research and define the target market to increase sales for start-up businesses or to expand current businesses. Topics include how to target market and meet customers' needs with a limited budget in the early stages of the life of a start-up business. Upon completion, students should be able to demonstrate an understanding of how to correctly target market for a start-up business with limited resources.

**ETB 240 Funding for Entrepreneurs**

3 0 3  
 Prerequisites: ACC 120  
 Corequisites: None

This course provides a focus on the financial issues and needs confronting entrepreneurs attempting to grow their businesses by attracting startup and growth capital. Topics include sources of funding including: angel investors, venture capital, IPO's, private placement, banks, suppliers, buyers, partners, and the government. Upon completion, students should be able to demonstrate an understanding of how to effectively finance a business venture.

**ETB 270 Entrepreneurship Issues**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course introduces current and emerging entrepreneurship issues and opportunities. Topics include franchising, import-export, small business taxes, legal structures, negotiations, contract management, and time management. Upon completion, students should be able to apply a variety of analytical and decision-making requirements to start a new business.

**FILM AND VIDEO PRODUCTION****FVP 227 Multimedia Production**

2 3 3  
 Prerequisites: None  
 Corequisites: None

This course covers technical terms used in the multimedia industry and introduces skills related to digital manipulation of audio and video materials. Emphasis is placed on technical terms used in multimedia work and integration of sound, video, graphics, and text into a single production. Upon completion, students should be able to define technical terms in multimedia work and work with a variety of computer hardware and software.

**GEOLOGY****GEL 111 Introductory Geology**

3 2 4  
 Prerequisites: None  
 Corequisites: None

This course introduces basic landforms and geological processes. Topics include rocks, minerals, volcanoes, fluvial processes, geological history, plate tectonics, glaciers, and coastal dynamics. Upon completion, students should be able to describe basic geological processes that shape the earth. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**GEL 113 Historical Geology**

3 2 4  
 Prerequisites: GEL 111  
 Corequisites: None

This course covers the geological history of the earth and its life forms. Emphasis is placed on the study of rock strata, fossil groups, and geological time. Upon completion, students should be able to identify major fossil groups and associated rock strata and approximate ages of geological formations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**GEOGRAPHY****GEO 111 World Regional Geography**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course introduces the regional concept which emphasizes the spatial association of people and their environment. Emphasis is placed on the physical, cultural, and economic systems that interact to produce the distinct regions of the earth. Upon completion, students should be able to describe variations in physical and cultural features of a region and demonstrate an understanding of their functional relationships. This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.

**GEO 112 Cultural Geography**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course is designed to explore the diversity of human cultures and to describe their shared characteristics. Emphasis is placed on the characteristics, distribution, and complexity of earth's cultural patterns. Upon completion, students should be able to demonstrate an understanding of the differences and similarities in human cultural groups. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.*

**GEO 113 Economic Geography**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course covers the patterns and networks of economic interdependence and how they affect human populations. Emphasis is placed on the economic aspects of the production and distribution of goods and services and their impact on the quality of human life. Upon completion, students should be able to describe different economic systems and demonstrate an understanding of the variables that influence economic development. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.*

**GEO 130 General Physical Geography**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course introduces both the basic physical components that help shape the earth and the study of minerals, rocks, and evolution of landforms. Emphasis is placed on the geographic grid, cartography, weather, climate, mineral composition, fluvial processes, and erosion and deposition. Upon completion, students should be able to identify these components and processes and explain how they interact. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.*

**GEO 131 Physical Geography I**

3 2 4  
 Prerequisites: None  
 Corequisites: None

This course introduces the basic physical components that help shape the earth. Emphasis is placed on the geographic grid, cartography, weather, climate, biogeography, and soils. Upon completion, students should be able to identify these components and explain how they interact. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

## GRAPHIC ARTS

### **GRA 110 Graphic Arts Orientation**

2 0 2  
Prerequisites: None  
Corequisites: None

This course covers the history, development, and commercial applications of the major printing processes. Topics include offset lithography, screen printing, intaglio, relief printing, and emerging technologies. Upon completion, students should be able to demonstrate an understanding of the major characteristics, advantages, and disadvantages of each process.

### **GRA 121 Graphic Arts I**

2 4 4  
Prerequisites: None  
Corequisites: None

This course introduces terminology, tools and materials, procedures, and equipment used in graphic arts production. Topics include copy preparation and pre-press production relative to printing. Upon completion, students should be able to demonstrate an understanding of graphic arts production.

## GRAPHIC DESIGN

### **GRD 110 Typography I**

2 2 3  
Prerequisites: None  
Corequisites: None

This course introduces the history and mechanics of type and its application to layout and design. Topics include typographic fundamentals, anatomy, measurements, composition, identification, and terminology. Upon completion, students should be able to demonstrate proficiency in deep application, analysis, specification, and creation of typographic elements.

### **GRD 111 Typography II**

2 2 3  
Prerequisites: GRD 110  
Corequisites: None

This course is a continuation of GRD 110. Emphasis is placed on solving challenging typographic problems. Upon completion, students should be able to understand and demonstrate advanced typographic applications.

### **GRD 131 Illustration I**

1 3 2  
Prerequisites: ART 131 or DES 125 or GRD 121  
Corequisites: None

This course introduces the application of rendering techniques to create illustrations. Emphasis is placed on controlling various media, methods, surfaces, design problems, and the appropriate media selection process. Upon completion, students should be able to produce quality illustrations from conception through finished artwork.

### **GRD 132 Illustration II**

1 3 2  
Prerequisites: GRD 131  
Corequisites: None

This course is a continuation of GRD 131. Topics include editorial, product, fashion, and advertising illustrations. Upon completion, students should be able to demonstrate increased proficiency in creating quality illustrations from conceptualization through finished artwork.

### **GRD 133 Illustration III**

1 3 2  
Prerequisites: GRD 132  
Corequisites: None

This course is designed to strengthen visual techniques and conceptual approaches to illustration. Emphasis is placed on advanced rendering techniques, requirements, and limitations. Upon completion, students should be able to create comprehensive illustrations that meet client/premier requirements.

### **GRD 141 Graphic Design I**

2 4 4  
Prerequisites: None  
Corequisites: None

This course introduces the conceptualization process used in visual problem solving. Emphasis is placed on learning the principles of design and on the manipulation and organization of elements. Upon completion, students should be able to apply design principles and visual elements to projects.

### **GRD 142 Graphic Design II**

2 4 4  
Prerequisites: DES 135 or GRD 141 or ART 121  
Corequisites: None

This course covers the application of visual elements and design principles in advertising and graphic design. Topics include creation of various designs, such as logos, advertisements, posters, artwork advertising, and publication design. Upon completion, students should be able to effectively apply design principles and visual elements to projects.

### **GRD 151 Computer Design Basics**

1 4 3  
Prerequisites: None  
Corequisites: None

This course covers designing and drawing with various types of software applications for advertising and graphic design. Emphasis is placed on creative and imaginative use of space, shapes, value, texture, color, and typography to provide effective solutions to advertising and graphic design problems. Upon completion, students should be able to use the computer as a creative tool.

### **GRD 152 Computer Design Technology I**

1 4 3  
Prerequisites: GRD 151  
Corequisites: None

This course covers complex design problems utilizing various design and drawing software applications. Topics include the expressive use of typography, image, and organization to communicate a message. Upon completion, students should be able to use appropriate computer software to professionally present their work.

### **GRD 153 Computer Design Technology II**

1 4 3  
Prerequisites: GRD 152  
Corequisites: None

This course covers advanced theories and practices in the field of computer design. Emphasis is placed on advanced use of color palettes, layers, and paths. Upon completion, students should be able to creatively produce designs and articulate their rationale.

### **GRD 160 Photo Fundamentals I**

1 4 3  
Prerequisites: None  
Corequisites: None

This course introduces basic camera operations, roll film processing, and photographic print production. Topics include contrast, depth-of-field, subject composition, enlarger operation, and density control. Upon completion, students should be able to produce photographic prints with acceptable density values and quality.

### **GRD 161 Photo Fundamentals II**

1 4 3  
Prerequisites: GRD 160  
Corequisites: None

This course is a continuation of GRD 160. Topics include conversions, toning, color, specialized equipment, lighting, processing, and other methods and materials. Upon completion, students should be able to demonstrate proficiency in producing photographic prints.

**GRD 162 Photography Portfolio**

1 4 3

Prerequisites: GRD 161

Corequisites: None

This course provides an opportunity to develop a portfolio through research and review of previous photographic works. Topics include visual communication skills and presentation of works. Upon completion, students should be able to prepare and present a portfolio of their photographic works.

**GRD 210 Airbrush I**

1 2 2

Prerequisites: None

Corequisites: None

This course covers the mechanics of airbrushing. Topics include care and maintenance of equipment, spraying techniques and surfaces, and selection of materials. Upon completion, students should be able to produce work demonstrating competent use of an airbrush.

**GRD 241 Graphic Design III**

2 4 4

Prerequisites: DES 136 or GRD 142

Corequisites: None

This course is an advanced exploration of various techniques and media for advertising and graphic design. Emphasis is placed on advanced concepts and solutions to complex and challenging graphic design problems. Upon completion, students should be able to demonstrate competence and professionalism in visual problem solving.

**GRD 242 Graphic Design IV**

2 4 4

Prerequisites: GRD 241

Corequisites: None

This course is a continuation of GRD 241. Emphasis is placed on using advanced media techniques, concepts, strategies, and professionalism in all aspects of design. Upon completion, students should be able to conceptualize, create, and produce designs for reproduction.

**GRD 263 Illustrative Imaging**

1 4 3

Prerequisites: GRD 151 or GRA 151

Corequisites: None

This course covers the creative manipulation of images utilizing digital techniques of masking, layering, airbrushing, and painting. Topics include the aesthetic analysis of visual imagery as well as the legibilities of manipulating images. Upon completion, students should be able to utilize software applications to creatively manipulate and illustratively build digital images which accomplish design objectives.

**GRD 280 Portfolio Design**

2 4 4

Prerequisites: GRD 142 and GRD 152 or GRA 152

Corequisites: None

This course covers the organization and presentation of a design advertising or graphic art portfolio and appropriate related materials. Emphasis is placed on development and evaluation of the portfolio, design and production of a resumé and self-promotional materials, and interview techniques. Upon completion, students should be able to prepare and professionally present an effective portfolio and related self-promotional materials.

**GRD 281 Design of Advertising**

2 0 2

Prerequisites: None

Corequisites: None

This course explores the origins, roles, scope, forms, and development of advertising. Emphasis is placed on advertising development from idea through production and the interrelationship of marketing to types of advertising, media, and organizational structure. Upon completion, students should be able to demonstrate an understanding of the complexities and relationships involved in advertising design.

**HEALTH****HEA 110 Personal Health/Wellness**

3 0 3

Prerequisites: None

Corequisites: None

This course provides an introduction to basic personal health and wellness. Emphasis is placed on current health issues such as nutrition, mental health, and fitness. Upon completion, students should be able to demonstrate an understanding of the factors necessary to the maintenance of health and wellness. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

**HEA 112 First Aid and CPR**

1 2 2

Prerequisites: None

Corequisites: None

This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

**HEA 120 Community Health**

3 0 3

Prerequisites: None

Corequisites: None

This course provides information about contemporary community health and school hygiene issues. Topics include health education and current information about health trends. Upon completion, students should be able to recognize and devise strategies to prevent today's community health problems. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

**HEALTHCARE BUSINESS INFORMATICS****HBI 110 Issues and Trends in HBI**

3 0 3

Prerequisites: None

Co-requisites: None

This course is a survey of current and emerging technology applications and data standards in the healthcare industry. Topics include the history, implementation, use, management, and impact of information technology in healthcare settings. Upon completion, students should have an understanding of the current trends and issues in healthcare informatics.

**HBI 113 Survey of Med Insurance**

3 0 3

Prerequisites: None

Co-requisites: None

This course is a survey of the healthcare insurance system. Emphasis is placed on the foundation necessary for understanding the healthcare delivery system, terminology and practices of healthcare insurance, and provider reimbursement. Upon completion, students should have an understanding of healthcare insurance and how outcomes are addressed through healthcare informatics.

**HBI 250 Data Mgmt and Utilization**  
**2 2 3**  
 Prerequisites: DBA 110, or DBA 120, or DBA 210  
 Co-requisites: None

This course covers the management and usage of data in healthcare settings according to current practices in healthcare informatics. Topics include data warehousing, data integrity, data security, data mining, and report generation in healthcare settings. Upon completion, students should be able to demonstrate an understanding of using healthcare data to support reporting and decision making in healthcare settings.

**HBI 289 HBI Project**  
**1 4 3**  
 Prerequisites: HBI 250  
 Co-requisites: None

This course provides an opportunity to complete a significant healthcare business informatics project with minimal instructor assistance. Emphasis is placed on written and oral communication skills, project definition, documentation, installation, testing, presentation, and user training. Upon completion, students should be able to complete a healthcare informatics project from the definition phase through implementation.

## **HEALTHCARE MANAGEMENT**

**HMT 110 Intro to Healthcare Mgt**  
**3 0 3**  
 Prerequisites: None  
 Co-requisites: None

This course introduces the functions, practices, organizational structures, and professional issues in healthcare management. Emphasis is placed on planning, controlling, directing, and communicating within health and human services organizations. Upon completion, students should be able to apply the concepts of management within a healthcare service environment.

**HMT 210 Medical Insurance**  
**3 0 3**  
 Prerequisites: MFD 122 or OST 142  
 Co-requisites: None

This course introduces the concepts of medical insurance. Topics include types and characteristics of third-party payers, coding concepts, payment systems, and manual/electronic claims form preparation. Upon completion, students should be able to process third-party claims forms.

**HMT 211 Long-Term Care Admin**  
**3 0 3**  
 Prerequisites: HMT 110  
 Co-requisites: None

This course introduces the administration of long-term care facilities and services. Emphasis is placed on assessing home care, home health care, hospice, skilled nursing facilities, and other long-term care services. Upon completion, students should be able to administer state and national standards and regulations as they apply to long-term care.

**HMT 220 Healthcare Financial Mgmt**  
**4 0 4**  
 Prerequisites: HMT 110 and ACC 121  
 Co-requisites: None

This course covers the methods and techniques utilized in the financial management of healthcare programs. Topics include cost determination, pricing of services, financial statement analysis, forecasting projections, third-party billing, reimbursement, Medicare, Medicaid, and budgeting. Upon completion, students should be able to interpret and apply the principles of financial management in a healthcare environment.

**HMT 225 Practice Mgmt. Simulation**  
**2 2 3**  
 Prerequisites: HMT 210  
 Co-requisites: HMT 220

This course introduces medical systems used to process and analyze information in the automated office. Emphasis is placed on daily processing of patient services, management reporting used to monitor productivity, and interactive database reporting and analysis. Upon completion, students should be able to process daily services, generate and interpret management reports and utilize key indicators for monitoring practice productivity.

## **HISTORY**

**HIS 111 World Civilizations I**  
**3 0 3**  
 Prerequisites: RED 090 or satisfactory placement test scores (L)

**Corequisites: None**  
 This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

**HIS 112 World Civilizations II**  
**3 0 3**  
 Prerequisites: RED 090 or satisfactory placement test scores (L)

**Corequisites: None**  
 This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

**HIS 131 American History I**  
**3 0 3**  
 Prerequisites: RED 090 or satisfactory placement test scores (L)

**Corequisites: None**  
 This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

**HIS 132 American History II**  
**3 0 3**  
 Prerequisites: RED 090 or satisfactory placement test scores  
**Corequisites: None**

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

**HIS 213**      **Modern Europe to 1815**  
**3**      **0**      **3**  
**Prerequisites:**    RED 090 (L.)  
**Corequisites:**      None  
 This course traces the cultural, political, economic, social, religious, and intellectual history of Europe from the end of the Middle Ages to 1815. Topics include the Renaissance, the Reformation, religious wars, absolutism, colonialism, the Scientific Revolution, the Enlightenment, the French Revolution, and Napoleon. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early modern Europe. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

**HIS 214**      **Modern Europe Since 1815**  
**3**      **0**      **3**  
**Prerequisites:**    RED 090 (L.)  
**Corequisites:**      None  
 This course traces the history of Europe from 1815 to the present. Topics include the Congress of Vienna, the Revolutionary era, liberalism, socialism, imperialism, nationalism, World Wars I and II, and the Cold War. Upon completion, students should be able to analyze significant intellectual, political, socioeconomic, and cultural developments in modern Europe since 1815. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

**HIS 226**      **The Civil War**  
**3**      **0**      **3**  
**Prerequisites:**    RED 090 (L.)  
**Corequisites:**      None  
 This course examines the social, political, economic, and ideological forces that led to the Civil War and Reconstruction. Topics include regional conflicts and sectionalism, dissolution of the Union, military campaigns, and the War's socioeconomic impact, aftermath, and consequences. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the United States during the era of the Civil War. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

**HIS 228**      **History of the South**  
**3**      **0**      **3**  
**Prerequisites:**    RED 090 (L.)  
**Corequisites:**      None  
 This course covers the origin and development of the South as a distinct region of the United States. Emphasis is placed on Southern identity and its bases in cultural, social, economic, and political developments during the 19th and 20th centuries. Upon completion, students should be able to identify and analyze the major cultural, social, economic, and political developments in the South. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

**HIS 236**      **North Carolina History**  
**3**      **0**      **3**  
**Prerequisites:**    RED 090 or satisfactory placement test scores (L.)  
**Corequisites:**      None  
 This course examines the social, political, economic, and ideological forces that led to the Civil War and Reconstruction. Topics include regional conflicts and sectionalism, dissolution of the Union, military campaigns, and the War's socioeconomic impact, aftermath, and consequences. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the United States during the era of the Civil War. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

**HIS 262**      **Middle East History**  
**3**      **0**      **3**  
**Prerequisites:**    RED 090 or satisfactory placement test scores (L.)  
**Corequisites:**      None  
 This course surveys the history of the Middle East from the development of civilization in Mesopotamia to the present. Emphasis is placed on social, political, economic, religious, and government structures in the Middle East. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the Middle East. *This course has been approved to satisfy the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.*

## **HUMANITIES**

**HUM 115**      **Critical Thinking**  
**3**      **0**      **3**  
**Prerequisites:**    ENG 095 or RED 090 and LING 090  
**Corequisites:**      None  
 This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on evaluating information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities fine arts. This course may meet the SACS humanities requirement for AAS degree programs.*

**HUM 120**      **Cultural Studies**  
**3**      **0**      **3**  
**Prerequisites:**    None  
**Corequisites:**      None  
 This course introduces the distinctive features of a particular culture. Topics include art, history, music, literature, politics, philosophy, and religion. Upon completion, students should be able to appreciate the unique character of the study culture. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities fine arts.*

**HUM 122**      **Southern Culture**  
**3**      **0**      **3**  
**Prerequisites:**    None  
**Corequisites:**      None  
 This course explores the major qualities that make the South a distinct region. Topics include music, politics, literature, art, religion, race relations, and the role of social class in historical and contemporary contexts. Upon completion, students should be able to identify the characteristics that distinguish Southern culture. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities fine arts. This course is also available through the Virtual Learning Community (VLC).*

**HUM 130**      **Myth In Human Culture**  
**3**      **0**      **3**  
**Prerequisites:**    None  
**Corequisites:**      None  
 This course provides an in-depth study of myths and legends. Topics included the varied sources of myths and their influence on the individual and society within diverse cultural contexts. Upon completion, students should be able to demonstrate a general familiarity with myths and a broad-based understanding of the influence of myths and legends on modern culture. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities fine arts.*



**HUM 160 Introduction to Film****2 0 3**

Prerequisites: None

Corequisites: None

This course introduces the fundamental elements of film artistry and production. Topics include film styles, history, and production techniques, as well as the social values reflected in film art. Upon completion, students should be able to critically analyze the elements covered in relation to selected films. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities fine arts.*

**HUM 170 The Holocaust****3 0 3**

Prerequisites: None

Corequisites: None

This course provides a survey of the destruction of European Jewry by the Nazis during World War II. Topics include the anti-Semitic ideology, bureaucratic structures, and varying conditions of European occupation and domination under the Third Reich. Upon completion, students should be able to demonstrate an understanding of the historical, social, religious, political, and economic factors which cumulatively resulted in the Holocaust. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general and/or elective course requirement.*

**HUM 211 Humanities I****3 0 3**

Prerequisites: ENG 111

Corequisites: None

This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind's answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from ancient through early modern times. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities fine arts.*

**HUM 212 Humanities II****3 0 3**

Prerequisites: ENG 111

Corequisites: None

This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind's answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from early modern times to the present. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities fine arts.*

**HUM 220 Human Values and Meaning****3 0 3**

Prerequisites: ENG 111

Corequisites: None

This course presents some major dimensions of human experience as reflected in art, music, literature, philosophy, and history. Topics include the search for identity, the quest for knowledge, the need for love, the individual and society, and the meaning of life. Upon completion, students should be able to recognize interdisciplinary connections and distinguish between open and closed questions and between narrative and scientific models of understanding. *This course is intended for all Associate degree programs. This course may satisfy the SLO 3/4 Humanities requirement.*

**HYDRAULICS****HYD 110 Hydraulics/Pneumatics I****2 3 3**

Prerequisites: None

Corequisites: None

This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.

**INDUSTRIAL SCIENCE****ISC 110 Workplace Safety****1 0 1**

Prerequisites: None

Corequisites: None

This course introduces the basic concepts of workplace safety. Topics include fire, ladders, falling, lock-out/tag-out, personal protective devices, and other workplace safety issues related to OSHA compliance. Upon completion, students should be able to demonstrate an understanding of the components of a safe workplace.

**ISC 121 Environmental Health and Safety****3 0 3**

Prerequisites: None

Corequisites: None

This course covers workplace environmental health and safety concepts. Emphasis is placed on managing the implementation and enforcement of environmental health and safety regulations and on preventing accidents, injuries, and illnesses. Upon completion, students should be able to demonstrate an understanding of basic concepts of environmental health and safety.

**ISC 132 Manufacturer Quality Control****2 3 3**

Prerequisites: None

Corequisites: None

This course introduces quality concepts and techniques used in industry. Topics include elementary statistics and probability, process control, process capability, and quality improvement tools. Upon completion, students should be able to demonstrate an understanding of the concepts and principles of quality and apply them to the work environment.

**JOURNALISM****JOU 110 Introduction to Journalism****3 0 3**

Prerequisites: None

Corequisites: None

This course presents a study of journalistic news, feature, and sports writing. Emphasis is placed on basic news writing techniques and on related legal and ethical aspects. Upon completion, students should be able to gather, write, and edit news, feature, and sports articles.

**JOU 111 Publication Workshop I****1 3 2**

Prerequisites: JOU 110

Corequisites: None

This course introduces the basic techniques of producing a publication. Emphasis is placed on writing, editing, layout, design, and printing. Upon completion, students should be able to demonstrate competence in the various phases of publication production.



**JOU 112**      **Publication Workshop II**  
 1      3      2  
 Prerequisites:    JOM 111  
 Corequisites:    None  
 This course is a continuation of the basic techniques of producing a publication. Emphasis is placed on writing, editing, layout, design, and printing. Upon completion, students should be able to demonstrate competence in the various phases of publication production.

**JOU 120**      **Journalism: Theory and Production**  
 2      2      3  
 Prerequisites:    ENG 111  
 Corequisites:    None  
 This course provides a study of basic journalistic writing and production techniques. Emphasis is placed on interviewing, drafting, editing, layout, design, and printing. Upon completion, students should be able to demonstrate competence in the various phases of writing and producing a publication.

## **MACHINING**

**MAC 111**      **Machining Technology I**  
 2      12      6  
 Prerequisites:    None  
 Corequisites:    None  
 This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

**MAC 112**      **Machining Technology II**  
 2      12      6  
 Prerequisites:    MAC 111 (Local)  
 Corequisites:    None  
 This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling.

**MAC 113**      **Machining Technology III**  
 2      12      6  
 Prerequisites:    MAC 112 (Local)  
 Corequisites:    None  
 This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications.

**MAC 114**      **Introduction to Metrology**  
 2      0      2  
 Prerequisites:    None  
 Corequisites:    None  
 This course introduces the care and use of precision measuring instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion, students should be able to demonstrate the correct use of measuring instruments.

**MAC 121**      **Introduction to Computer Numerical Controls (CNC)**  
 2      0      2  
 Prerequisites:    None  
 Corequisites:    None  
 This course introduces the concepts and capabilities of computer numerical control machine tools. Topics include setup, operation, and basic applications. Upon completion, students should be able to explain operator safety, machine protection, data input, program preparation, and program storage.

**MAC 122**      **CNC Turning**  
 1      3      2  
 Prerequisites:    None  
 Corequisites:    None  
 This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

**MAC 124**      **CNC Milling**  
 1      3      2  
 Prerequisites:    None  
 Corequisites:    None  
 This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

**MAC 151**      **Machining Calculations**  
 1      2      2  
 Prerequisites:    None  
 Corequisites:    None  
 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.

**MAC 222**      **Advanced CNC Turning**  
 1      3      2  
 Prerequisites:    MAC 122 (Local)  
 Corequisites:    None  
 This course covers advanced methods in setup and operation of CNC turning centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC turning centers.

**MAC 224**      **Advanced CNC Milling**  
 1      3      2  
 Prerequisites:    MAC 124 (Local)  
 Corequisites:    None  
 This course covers advanced methods in setup and operation of CNC machining centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC machining centers.

## **MASONRY**

**MAS 140**      **Introduction to Masonry**  
 1      2      2  
 Prerequisites:    None  
 Corequisites:    None  
 This course introduces basic principles and practices of masonry. Topics include standard tools, materials, and practices used in basic masonry and other related topics. Upon completion, students should be able to demonstrate an understanding of masonry and be able to use basic masonry techniques.

## **MATHEMATICS**

Initial student placement in Academic Development courses is based on the Academic Development Placement Policy on page 17. Students should begin Academic Development course work at the appropriate level indicated by placement test scores.

### **MAT 060 Essential Mathematics**

3 2 4\*

Prerequisites: Placement score

Corequisites: None

This course is a comprehensive study of mathematical skills which should provide a strong mathematical foundation to pursue further study. Topics include principles and applications of decimals, fractions, percents, ratio and proportion, order of operations, geometry, measurement, and elements of algebra and statistics. Upon completion, students should be able to perform basic computations and solve relevant, multi-step mathematical problems using technology where appropriate.

### **MAT 070 Introductory Algebra**

3 2 4\*

Prerequisites: MAT 060 or satisfactory placement test score

Corequisites: Placement score

This course establishes a foundation in algebraic concepts and problem solving. Topics include signed numbers, exponents, order of operations, simplifying expressions, solving linear equations and inequalities, graphing, formulas, polynomials, factoring, and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

### **MAT 080 Intermediate Algebra**

3 2 4\*

Prerequisites: MAT 070 or satisfactory placement test score

Corequisites: Placement score

This course continues the study of algebraic concepts with emphasis on applications. Topics include factoring, rational expressions, rational exponents, rational, radical, and quadratic equations, systems of equations, inequalities, graphing, functions, variations, complex numbers, and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

\*These credits are institutional credits only and cannot be used for graduation. They are used for determining hour load for payment, eligibility for financial aid, or classification as a full-time student.

### **MAT 101 Applied Mathematics I**

2 2 3

Prerequisites: MAT 060 or satisfactory placement test scores

Corequisites: None

This course is a comprehensive review of arithmetic with basic algebra designed to meet the needs of certificate and diploma programs. Topics include arithmetic and geometric skills used in measurement, ratio and proportion, exponents and roots, applications of percent, linear equations, formulas, and statistics. Upon completion, students should be able to solve practical problems in their specific areas of study. *This course is intended for certificate and diploma programs.*

### **MAT 102 Applied Mathematics II**

2 2 3

Prerequisites: MAT 101

Corequisites: None

This course introduces the concepts of right triangle trigonometry and geometry with emphasis on applications to problem solving. Topics include the basic definitions and properties of plane and solid geometry, area and volume, and right triangle trigonometry. Upon completion, students should be able to solve applied problems both independently and collaboratively. *This course is intended for certificate and diploma programs.*

### **MAT 115 Mathematical Models**

2 2 3

Prerequisites: MAT 070

Corequisites: None

This course develops the ability to utilize mathematical skills and technology to solve problems at a level found in non-mathematics-intensive programs. Topics include applications to percent, ratio and proportion, formulas, statistics, functional notation, linear functions and their graph, probability, sampling techniques, scatter plots, and modeling.

### **MAT 140 Survey of Mathematics**

3 0 3

Prerequisites: MAT 070

Corequisites: None

This course provides an introduction in a non-technical setting to selected topics in mathematics. Topics may include, but are not limited to, sets, logic, probability, statistics, matrices, mathematical systems, geometry, topology, mathematics of finance, and modeling. Upon completion, students should be able to understand a variety of mathematical applications, think logically, and be able to work collaboratively and independently. *This course has been approved under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement to satisfy the general education mathematics requirement for the AA and AS degrees. It does not satisfy the general education mathematics requirement for the BS degree. This course is also available through the Virtual Learning Community (VLC).*

### **MAT 141 Mathematical Concepts I**

3 0 3

Prerequisites: MAT 080 or MAT 090

Corequisites: MAT 141A

This course is the first of a two-course sequence that develops a deeper understanding and appreciation of the basic concepts of mathematics. Emphasis is placed on sets, logic, number bases, elementary number theory, introductory algebra, measurements including metrics, and problem solving. Upon completion, student should be able to communicate orally and in writing these basic mathematical concepts. *This course has been approved under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement to satisfy the general education mathematics requirement for the AA and AS degrees. It does not satisfy the general education mathematics requirement for the BS degree.*

### **MAT 141A Mathematical Concepts I Lab**

0 2 1

Prerequisites: MAT 080 or MAT 090

Corequisites: MAT 141

This course is a laboratory for MAT 141. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

### **MAT 142 Mathematical Concepts II**

3 0 3

Prerequisites: MAT 141

Corequisites: MAT 142A

This course is the second of a two-course sequence that develops a deeper understanding and appreciation of the basic concepts of mathematics. Emphasis is placed on probability, statistics, functions, introductory geometry, and mathematics of finance. Upon completion, students should be able to communicate orally and in writing these basic mathematical concepts and utilize technology as a mathematical tool. *This course can be used to meet the math requirement for elementary, middle, grades and special education only cannot be substituted for other LEAN programs. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirements in natural sciences/mathematics.*

**MAT 142A Mathematical Concepts II Lab**

0 2  
 Prerequisites: MAT 141  
 Corequisites: MAJ 142

This course is a laboratory for MAT 142. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and or elective course requirement.*

**MAT 151 Statistics I**

3 0  
 Prerequisites: MAT 080, or MAT 140, or 161, or 171, or 175  
 RED 090 (I.)

Corequisites: None

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. Additional topics will include standardization, the central limit theorem, and confidence intervals. 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 for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.*

**MAT 161 College Algebra**

3 0  
 Prerequisites: MAT 080, RED 090 (L.)  
 Corequisites: None

This course provides an integrated technological approach to algebraic topics used in problem solving. Emphasis is placed on equations and inequalities; polynomials; rational, exponential and logarithmic functions; and graphing and data analysis-modeling. Additional topics may include conic sections, sequences and series, and counting techniques. Upon completion, students should be able to choose an appropriate model to fit a data set and use the model for analysis and prediction. *This course has been approved under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement to satisfy the general education mathematics requirement for the AA and AFA degrees. It does not satisfy the general education mathematics requirement for the AS degree.*

**MAT 162 College Trigonometry**

3 0  
 Prerequisites: MAT 161  
 Corequisites: None

This course provides an integrated technological approach to trigonometry and its applications. Topics include trigonometric ratios, right triangles, oblique triangles, trigonometric functions, graphing, vectors, and complex numbers. Upon completion, students should be able to apply the above principles of trigonometry to problem solving and communication. *This course has been approved under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement to satisfy the general education mathematics requirement for the AA and AFA degrees. It does not satisfy the general education mathematics requirement for the AS degree.*

**MAT 171 Precalculus Algebra**

3 0  
 Prerequisites: MAT 080, RED 090 (I.)  
 Corequisites: MAT 171A

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 prediction. *This course is intended for AS degree programs. This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.*

**MAT 171A Precalculus Algebra Lab**

0 2  
 Prerequisites: MAT 080, RED 090 (I.)  
 Corequisites: MAT 171

This course is a laboratory for MAT 171. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively. *This course is intended for AS degree programs. This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and or elective course requirement.*

**MAT 172 Precalculus Trigonometry**

3 0  
 Prerequisites: MAT 171  
 Corequisites: MAT 172A

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, and vectors. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. *This course is intended for AS degree programs. This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.*

**MAT 172A Precalculus Trigonometry Lab**

0 2  
 Prerequisites: MAT 171  
 Corequisites: MAT 172

This course is a laboratory for MAT 172. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively. *This course is intended for AS degree programs. This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and or elective course requirement.*

**MAT 175 Precalculus**

4 0  
 Prerequisites: MAT 080, RED 090 (L.)  
 Corequisites: None

This course provides an intense study of the topics which are fundamental to the study of calculus. Emphasis is placed on functions and their graphs with special attention to polynomial, rational, exponential, logarithmic and trigonometric functions, and analytic trigonometry. Sequences and series may also be discussed. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.*

**MAT 210 Logic**

3 0  
 Prerequisites: MAT 161, MAT 171, MAT 172 or MAT 175  
 Corequisites: None

This course introduces the concept of deductive logic with emphasis on the use of formal logic in analysis. Topics include traditional logic, propositional logic, and determination of validity including truth tables, Venn diagrams, and translational ordinary language discourse. In addition, there will be a focus on an introduction to proof techniques. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and or elective course requirement.*

**MAT 263**      **Brief Calculus**  
 3      0      3  
 Prerequisites:    MAT 161, MAT 171, MAT 172 or MAT 175  
 Corequisites:    MAT 263A

This course introduces concepts of Differentiation and integration and their applications to solving problems; the course is designed for students needing one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics and biological and behavioral sciences. Upon completion, students should be able to demonstrate and understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.*

**MAT 263A**    **Brief Calculus Lab**  
 0      2      1  
 Prerequisites:    MAT 161, MAT 171, MAT 172 or MAT 175  
 Corequisites:    MAT 263

This course is a laboratory for MAT 263. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education elective course in mathematics.*

**MAT 271**      **Calculus I**  
 3      2      4  
 Prerequisites:    MAT 172 or 175 or satisfactory placement  
                          test scores

**Corequisites:**    None  
 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 for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.*

**MAT 272**      **Calculus II**  
 3      2      4  
 Prerequisites:    MAT 271  
 Corequisites:    None

This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to use integration and approximation techniques to solve application problems. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.*

**MAT 273**      **Calculus III**  
 3      2      4  
 Prerequisites:    MAT 272  
 Corequisites:    None

This course covers the calculus of several variables and is third calculus course in a three-course sequence. Topics include functions of several variables, partial derivatives, multiple integrals, solid analytical geometry, vector-valued functions, and line and surface integrals. Also covered will be differential equations of several variables. Upon completion, students should be able to solve problems involving vectors and functions of several variables. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.*

**MAT 280**      **Linear Algebra**  
 3      0      3  
 Prerequisites:    MAT 271  
 Corequisites:    None

This course provides a study of linear algebra topics with emphasis on the development of both abstract concepts and applications. Topics include vectors, systems of equations, matrices, determinants, vector spaces, linear transformations in two or three dimensions, eigenvectors, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate both an understanding of the theoretical concepts and appropriate use of linear algebra models to solve application problems. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a program and/or elective course requirement.*

**MAT 285**      **Differential Equations**  
 3      0      3  
 Prerequisites:    MAT 272  
 Corequisites:    None

This course provides an introduction to ordinary differential equations with an emphasis on applications. Topics include first-order, linear higher-order, and systems of differential equations, numerical methods, series solutions, eigenvalues and eigenvectors, Laplace transforms, and Fourier series. Upon completion, students should be able to use differential equations to model physical phenomena, solve the equations, and use the solutions to analyze the phenomena. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a program and/or elective course requirement.*

## MECHANICAL

**MEC 111**      **Machine Processes I**  
 3      4      3  
 Prerequisites:    None  
 Corequisites:    None

This course introduces shop safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include use and care of tools, safety, measuring tools, and the basic setup and operation of common machine tools. Upon completion, students should be able to manufacture simple parts to specified tolerances.

**MEC 112**      **Machine Processes II**  
 2      3      3  
 Prerequisites:    MEC 111  
 Corequisites:    None

This course covers advanced use of milling machines and lathes. Emphasis is placed on safety and complete setup of milling machines and lathes for manufacture of projects with a specified fit. Upon completion, students should be able to demonstrate proper procedures for manufacture of assembled parts.

**MEC 128**      **CNC Machining Processes**  
 2      4      4  
 Prerequisites:    None  
 Corequisites:    None

This course covers programming, setup, and operations of CNC turning, milling, and other CNC machines. Topics include programming formats, control functions, program editing, and part production and inspection. Upon completion, students should be able to manufacture simple parts using CNC machines.

**MEC 172 Introduction to Metallurgy**  
 2 2 3  
 Prerequisites: None  
 Corequisites: None  
 This course covers the production, properties, testing, classification, microstructure, and heat-treating effects of ferrous and non-ferrous metals. Topics include the iron-carbon phase diagram, TTT diagram, ANSI code, quenching, tempering, and other processes concerning metallurgical transformations. Upon completion, students should be able to understand the iron-carbon phase diagram, TTT diagram, microstructure images, and other phenomena concerning the behavior of metals.

**MEC 180 Engineering Materials**  
 2 3 3  
 Prerequisites: None  
 Corequisites: None  
 This course introduces the physical and mechanical properties of materials. Topics include materials testing, pre and post-manufacturing processes, and material selection of ferrous and non-ferrous metals, plastics, composites, and non-conventional materials. Upon completion, students should be able to utilize basic material property tests and select appropriate materials for applications.

**MEC 181 Introduction to Computer Integrated Manufacturing (CIM)**  
 2 0 2  
 Prerequisites: None  
 Corequisites: None  
 This course introduces the elements of computer-integrated manufacturing (CIM). Topics include statistical process control, computer-aided design and manufacturing, numeric control, and flexible systems. Upon completion, students should be able to explain the major components of computer-integrated manufacturing.

**MEC 231 Computer-Aided Manufacturing I**  
 1 4 3  
 Prerequisites: None  
 Corequisites: None  
 This course introduces computer-aided design/manufacturing (CAD/CAM) applications and concepts. Topics include software, programming, data transfer and verification, and equipment setup. Upon completion, students should be able to produce parts using CAD/CAM applications.

**MEC 232 Computer-Aided Manufacturing II**  
 1 4 3  
 Prerequisites: MEC 231  
 Corequisites: None  
 This course provides an in-depth study of CAM applications and concepts. Emphasis is placed on the manufacturing of complex parts using computer-aided manufacturing software. Upon completion, students should be able to manufacture complex parts using CAM software.

**MEC 236 Regional Manufacturing**  
 1 4 3  
 Prerequisites: None  
 Corequisites: None  
 This course introduces the regional manufacturing facilities. Emphasis is placed on on-site tours and interaction with local/regional manufacturing personnel. Upon completion, students should be able to identify regional manufacturers, their products, basic methods, personnel, and listing standards.

**MEC 250 Statics and Strength of Materials**  
 4 3 5  
 Prerequisites: None  
 Corequisites: None  
 This course covers the concepts and principles of statics and stress analysis. Topics include systems of forces on structures in equilibrium and analysis of stresses and strains on these components. Upon completion, students should be able to analyze forces and the results of stresses and strains on structural components.

**MEC 270 Machine Design**  
 3 3 4  
 Prerequisites: DPT 151 and MEC 180, and MEC 250 or MEC 251 and MEC 252  
 Corequisites: None  
 This course covers the basic principles underlying design and selection of machine elements. Topics include stress analysis, selection of components, power transmission, and other design considerations. Upon completion, students should be able to identify and solve mechanical design problems by applying basic engineering principles.

**MEC 271 Machine Design Project**  
 0 3 1  
 Prerequisites: None  
 Corequisites: MEC 270  
 This course provides an opportunity for involvement in the practical application of machine design by development of a project. Emphasis is placed on the design and engineering processes required to complete an approved project. Upon completion, students should be able to demonstrate the ability to progress from conceptual design to completed project.

## MEDICAL ASSISTING

**MED 121 Medical Terminology I**  
 3 0 3  
 Prerequisites: None  
 Corequisites: None  
 This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatments of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

**MED 122 Medical Terminology II**  
 3 0 3  
 Prerequisites: MED 121  
 Corequisites: None  
 This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatments of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

## MARKETING AND RETAILING

**MKT 120 Principles of Marketing**  
 3 0 3  
 Prerequisites: None  
 Corequisites: None  
 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.

**MKT 122 Visual Merchandising****3 0 3**

Prerequisites: None

Corequisites: None

This course introduces basic layout design and commercial display in retail and service organizations. Topics include an analysis of display as a visual merchandising medium and an examination of the principles and applications of display and design. Upon completion, students should be able to plan, build, and evaluate designs and displays. *This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.*

**MKT 123 Fundamentals of Selling****3 0 3**

Prerequisites: None

Corequisites: None

This course is designed to emphasize the necessity of selling skills in a modern business environment. Emphasis is placed on sales techniques involved in various types of selling situations. Upon completion, students should be able to demonstrate an understanding of the techniques covered.

**MKT 125 Buying and Merchandising****3 0 3**

Prerequisites: None

Corequisites: None

This course includes an analysis of the organization for buying—what, when and how to buy—and the principles of effective inventory and stock control. Topics include organization for buying, analysis of buyers' responsibilities, pricing, inventory control, planning, cost effectiveness, and vendor relationships. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application.

**MKT 220 Advertising and Sales Promotion****3 0 3**

Prerequisites: None

Corequisites: None

This course covers the elements of advertising and sales promotion in the business environment. Topics include advertising and sales promotion appeals, selection of media, use of advertising and sales promotion as a marketing tool, and means of testing effectiveness. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application.

**MKT 222 Credit Procedures****3 0 3**

Prerequisites: None

Corequisites: None

This course covers areas of collection that provide an understanding of the expertise needed to manage collection operations. Topics include principles and practices in the extension of credit, collection procedures, and laws pertaining to credit extension and collection. Upon completion, students should be able to demonstrate an understanding of the concepts covered.

**MKT 223 Customer Service****3 0 3**

Prerequisites: None

Corequisites: None

This course stresses the importance of customer relations in the business world. Emphasis is placed on learning how to respond to complex customer requirements and to efficiently handle stressful situations. Upon completion, students should be able to demonstrate the ability to handle customer relations.

**MKT 225 Marketing Research****3 0 3**

Prerequisites: MKT 120

Corequisites: None

This course provides information for decision making by providing guidance in developing, analyzing, and using data. Emphasis is placed on marketing research as a tool in decision making. Upon completion, students should be able to design and conduct a marketing research project and interpret the results. *This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.*

**MKT 226 Retail Applications****3 0 3**

Prerequisites: None

Corequisites: None

This course is designed to develop occupational competence through participation in case studies, group work, and simulations. Emphasis is placed on all aspects of store ownership and operation, including securing financial backing and a sufficient market share. Upon completion, students should be able to demonstrate an understanding of concepts covered through application. *This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.*

**MAINTENANCE****MNT 110 Introduction to Maintenance Procedures****1 3 2**

Prerequisites: None

Corequisites: None

This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.

**MNT 150 Basic Building Maintenance****1 3 2**

Prerequisites: None

Corequisites: None

This course introduces the basic skills of building maintenance. Topics include basic carpentry and masonry skills including forming, framing, laying block to a line, repairing, and other related topics. Upon completion, students should be able to perform basic carpentry and masonry skills in a maintenance setting.

**MNT 220 Rigging and Moving****1 3 2**

Prerequisites: None

Corequisites: None

This course covers the principles of safe rigging practices for loading, placing, installing, and moving heavy machinery and equipment. Topics include safety, weight and dimensional estimation, positioning of equipment slings, rollers, jacks, levers, dollies, ropes, chains, padding, and other related topics. Upon completion, students should be able to safely relocate and set up equipment using accepted rigging practices.

**MNT 222 Industrial Systems Schematics****1 2 2**

Prerequisites: None

Corequisites: None

This course covers the reading and drawing of schematics and diagrams. Emphasis is placed on water and gas plumbing, hydraulic and pneumatic circuits, electrical circuits, and welding diagrams. Upon completion, students should be able to interpret and construct industrial schematics and diagrams.

## MUSIC

### **MUS 110 Music Appreciation**

3 0 3

**Prerequisites:** RFD 090, ENG 090 or satisfactory placement test scores (L)

**Corequisites:** None

This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities fine arts.*

### **MUS 111 Fundamentals of Music**

3 0 3

**Prerequisites:** None

**Corequisites:** None

This course is an introductory course for students with little or no music background. Emphasis is placed on music notation, rhythmic patterns, scales, key signatures, intervals, and chords. Upon completion, students should be able to demonstrate an understanding of the rudiments of music. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a major and/or elective course requirement.*

### **MUS 112 Introduction to Jazz**

3 0 3

**Prerequisites:** None

**Corequisites:** None

This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities fine arts.*

### **MUS 113 American Music**

3 0 3

**Prerequisites:** None

**Corequisites:** None

This course introduces various musical styles, influences, and composers of the United States from pre-Colonial times to the present. Emphasis is placed on the broad variety of music particular to American culture. Upon completion, students should be able to demonstrate skills in basic listening and understanding of American music. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities fine arts.*

### **MUS 114 Non-Western Music**

3 0 3

**Prerequisites:** None

**Corequisites:** None

This course provides a basic survey of the music of the non-Western world. Emphasis is placed on non-traditional instruments, sources, and performing practices. Upon completion, student should be able to demonstrate skills in basic listening and understanding of the art of non-Western music. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities fine arts.*

### **MUS 121 Music Theory I**

3 2 4

**Prerequisites:** None

**Corequisites:** None

This course provides an in-depth introduction to melody, rhythm, and harmony. Emphasis is placed on fundamental melodic, rhythmic, and harmonic analysis, introduction to part writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

### **MUS 122 Music Theory II**

3 2 4

**Prerequisites:** MUS 121

**Corequisites:** None

This course is a continuation of studies begun in MUS 121. Emphasis is placed on advanced melodic, rhythmic, and harmonic analysis and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

### **MUS 131 Chorus I**

0 2 1

**Prerequisites:** Appropriate vocal proficiency

**Corequisites:** None

This course provides an opportunity to gain experience singing in a chorus. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

### **MUS 132 Chorus II**

0 2 1

**Prerequisites:** MUS 131

**Corequisites:** None

This course provides a continuation of studies begun in MUS 131. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement as a general education course and/or elective course requirement.*

### **MUS 141 Ensemble I**

0 2 1

**Prerequisites:** Audition

**Corequisites:** None

This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. The ensemble courses will feature show choir literature. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*



**MUS 142 Ensemble II**

0 2 1  
 Prerequisites: MUS 141  
 Corequisites: None

This course is a continuation of MUS 141. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**MUS 151V Class Music I**

0 2 1  
 Prerequisites: None  
 Corequisites: None

This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151V is the first of two class voice courses. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**MUS 152V Class Music II**

0 2 1  
 Prerequisites: MUS 151  
 Corequisites: None

This course is a continuation of MUS 151. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152V is a continuation of class voice I. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**MUS 161 Applied Music I**

0 2 1  
 Prerequisites: Audition (L)  
 Corequisites: None

This course provides individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**MUS 162 Applied Music II**

0 2 1  
 Prerequisites: MUS 161  
 Corequisites: None

This course is a continuation of MUS 161. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**MUS 231 Chorus III**

0 2 1  
 Prerequisites: MUS 132  
 Corequisites: None

This course is a continuation of MUS 132. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**MUS 232 Chorus IV**

0 2 1  
 Prerequisites: MUS 231  
 Corequisites: None

This course is a continuation of MUS 231. Emphasis is placed on vocal techniques and the study of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**MUS 241 Ensemble III**

0 2 1  
 Prerequisites: MUS 142  
 Corequisites: None

This course is a continuation of MUS 142. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**MUS 242 Ensemble IV**

0 2 1  
 Prerequisites: MUS 241  
 Corequisites: None

This course is a continuation of MUS 241. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**MUS 261 Applied Music III**

0 2 1  
 Prerequisites: MUS 162  
 Corequisites: None

This course is a continuation of MUS 162. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*



**MUS 262 Applied Music IV**

**0 2 1**  
 Prerequisites: MUS 261  
 Corequisites: None

This course is a continuation of MUS 261. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general and/or elective course requirement.*

**NETWORKING TECHNOLOGY****NET 125 Networking Basics**

**1 4 3**  
 Prerequisites: None  
 Corequisites: None

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.

**NET 126 Routing Basics**

**1 4 3**  
 Prerequisites: NET 125  
 Corequisites: None

This course focuses on initial router configuration, router software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Emphasis will be placed on the fundamentals of router configuration, managing router software, routing protocol, and access lists. Upon completion, students should have an understanding of routers and their role in WANs, router configuration, routing protocols, TCP/IP, troubleshooting, and ACLs.

**NET 225 Routing and Switching I**

**1 4 3**  
 Prerequisites: NET 126  
 Corequisites: None

This course focuses on advanced IP addressing techniques, intermediate routing protocols, command-line interface configuration of switches, Ethernet switching, VLANs, STP, and VTP. Emphasis will be placed on application and demonstration of skills acquired in pre-requisite courses. Upon completion, students should be able to perform tasks related to VLSM, routing protocols, switching concepts and configuration, STP, VLANs, and VTP.

**NET 226 Routing and Switching II**

**1 4 3**  
 Prerequisites: NET 225  
 Corequisites: None

This course introduces WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, and additional case studies. Topics include network congestion problems, TCP/IP transport and network layer protocols, advanced routing and switching configuration, ISDN protocols, PPP encapsulation operations on a router. Upon completion, students should be able to provide solutions to network routing problems, identify ISDN protocols, channels, and function groups, and describe the Spanning Tree protocol.

**NET 289 Networking Project**

**1 4 3**  
 Prerequisites: None  
 Corequisites: NET 226

This course provides an opportunity to complete a significant networking project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete a project from the definition phase through implementation.

**NETWORKING OPERATING SYSTEM****NOS 110 Operating System Concepts**

**2 3 3**  
 Prerequisites: None  
 Corequisites: None

This course introduces students to a broad range of operating system concepts, including installation and maintenance. Emphasis is placed on operating system concepts, management, maintenance, and resources required. Upon completion of this course, students will have an understanding of OS concepts, installation, management, maintenance, using a variety of operating systems.

**NOS 120 Linux/UNIX Single User**

**2 2 3**  
 Prerequisites: NOS 110  
 Corequisites: None

This course develops the necessary skills for students to develop both GUI and command line skills for using and customizing a Linux workstation. Topics include Linux file system and access permissions, GNOME interface, VI editor, X Window System expression pattern matching, I/O redirection, network and printing utilities. Upon completion, students should be able to customize and use Linux systems for command line requirements and desktop productivity roles.

**NOS 130 Windows Single User**

**2 2 3**  
 Prerequisites: NOS 110  
 Corequisites: None

This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration, optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment.

**NOS 220 Linux/UNIX Administration I**

**2 2 3**  
 Prerequisites: NOS 130  
 Corequisites: None

This course introduces the Linux file system, group administration, and system hardware controls. Topics include installation, creation and maintaining file systems, NIS client and DHCP client configuration, NFS, SMB/Samba, Configure X, Gnome, KDE, basic memory, processes, and security. Upon completion, students should be able to perform system administration tasks including installation, configuring and attaching a new Linux workstation to an existing network.

**NOS 230 Windows Administration I**

**2 2 3**  
 Prerequisites: NOS 130  
 Corequisites: None

This course covers the installation and administration of a Windows Server network operating system. Topics include managing and maintaining physical and logical devices, access to resources, the server environment, managing users, computers, and groups, and Managing/Implementing Disaster Recovery. Upon completion, students should be able to manage and maintain a Windows Server environment.

**NURSING****NUR 101 Practical Nursing I**

**7 6 6 11**  
 Prerequisites: Enrollment in the Practical Nursing program  
 Corequisites: None

This course introduces concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, legal/ethical/professional issues, wellness/illness patterns, and basic nursing skills. Upon completion, students should be able to demonstrate beginning understanding of nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span.

**NUR 102: Practical Nursing II**  
**8 0 12 12**  
 Prerequisites: NUR 101 (Local)  
 Corequisites: BIO 168 (Local)  
 This course includes more advanced concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, delegation, cost effectiveness, legal/ethical/professional issues, and wellness/illness patterns. Upon completion, students should be able to begin participating in the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span.

**NUR 103: Practical Nursing III**  
**6 0 12 10**  
 Prerequisites: NUR 101, NUR 102, BIO 168 (Local)  
 Corequisites: BIO 169 (Local)  
 This course focuses on use of nursing related concepts by practical nurses as providers of care/members of discipline in collaboration with health team members. Emphasis is placed on the nursing process, wellness/illness patterns, entry-level issues, accountability, advocacy, professional development, evolving technology, and changing health care delivery systems. Upon completion, students should be able to use the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span.

**NUR 107: LPN Refresher**  
**9 0 9 12**  
 Prerequisite: Previous LPN Licensure  
 Corequisite: None  
 This refresher course is designed to provide an independent didactic review for the previously licensed practical nurse whose license has lapsed. Emphasis is placed on common medical-surgical conditions and nursing interventions, including mental health principles, pharmacological concepts, and safe clinical practice. Upon completion, students will be eligible to apply for reinstatement of licensure.

**NUR 111: Introduction to Health Concepts**  
**4 6 6 8**  
 Prerequisites: Acceptance into the Associate Degree Nursing Program as a generic student  
 Corequisites: BIO 168 (if not already completed)  
 This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including medication administration, assessment, nutrition, ethics, interdisciplinary teams, informatics, evidence-based practice, individual-centered care, and quality improvement. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

**NUR 112: Health-Illness Concepts**  
**3 0 6 5**  
 Prerequisites: NUR 111  
 Corequisites: BIO 169 (if not already completed)  
 This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of acid-base, metabolism, cellular regulation, oxygenation, infection, stress/coping, health-wellness-illness, communication, caring interventions, managing care, safety, quality improvement, and informatics. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

**NUR 113: Family Health Concepts**  
**3 0 6 5**  
 Prerequisites: NUR 114, Psy 241  
 Corequisites: BIO 175  
 This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of oxygenation, sexuality, reproduction, grief/loss, mood/affect, behaviors, development, family, health-wellness-illness, communication, caring interventions, managing care, safety, and advocacy. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

**NUR 114: Holistic Health Concepts**  
**3 0 6 5**  
 Prerequisites: NUR 111  
 Corequisites: None  
 This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, inflammation, sensory perception, stress/coping, mood/affect, cognition, self, violence, health-wellness-illness, professional behaviors, caring interventions, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

**NUR 211: Health Care Concepts**  
**3 0 6 5**  
 Prerequisites: NUR 111  
 Corequisites: None  
 This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, infection, immunity, mobility, comfort, behaviors, health-wellness-illness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

**NUR 212: Health System Concepts**  
**3 0 6 5**  
 Prerequisites: NUR 114, PSY 241  
 Corequisites: BIO 175  
 This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of grief/loss, violence, health-wellness-illness, collaboration, managing care, safety, advocacy, legal issues, policy, healthcare systems, ethics, accountability, and evidence-based practice. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

**NUR 213: Complex Health Concepts**  
**4 3 15 10**  
 Prerequisites: NUR 111, NUR 112, NUR 113, NUR 114, NUR 211, NUR 212  
 Corequisites: None  
 This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, perfusion, mobility, stress/coping, violence, health-wellness-illness, professional behaviors, caring interventions, managing care, healthcare systems, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality, individualized, entry level nursing care.

**NUR 214: Nursing Transition Concepts**  
**3 0 3 4**  
 Prerequisites: Acceptance into the Associate Degree Nursing Program as an advanced placement student  
 Corequisite: NUR 211  
 This course is designed to introduce concepts within the three domains of the individual, healthcare, and nursing as the LPN transitions to the ADN role. Emphasis is placed on the concepts within each domain including evidenced-based practice, quality improvement, communication, safety, interdisciplinary team, clinical decision-making, informatics, assessment, caring, and health-wellness-illness. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

## OPERATIONS MANAGEMENT

### **OMT 112      Materials Management**

3      0      3

Prerequisites:

Corequisites:    None

This course covers the basic principles of materials management. Emphasis is placed on the planning, procurement, movement, and storage of materials. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques related to materials management. *This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.*

### **OMT 260      Issues in Operations Management**

3      0      3

Prerequisites:    ISC 121, ISC 210, OMT 112, and ISC 132 or ISC 221

Corequisites:    None

This course presents a variety of topics that highlight contemporary problems and issues related to operations management. Emphasis is placed on production and operations planning, environmental health and safety, materials management, and quality systems. Upon completion, students should be able to demonstrate the ability to make decisions and resolve problems in an operations management environment. *This course is a unique concentration requirement of the Operations Management concentration of the Business Administration program.*

## OFFICE SYSTEMS TECHNOLOGY

### **OST 131      Keyboarding**

1      2      2

Prerequisites:

Corequisites:    None

This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system.

### **OST 134      Text Entry & Formatting**

2      2      3

Prerequisites:    OST 131 (L)

Corequisites:    None

This course is designed to provide the skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce documents and key typed writings at speeds commensurate with employability.

### **OST 136      Word Processing**

2      2      3

Prerequisites:

Corequisites:    None

This course is designed to introduce word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment.

### **OST 148      Medical Coding Billing and Insurance**

3      0      3

Prerequisites:

Corequisites:    None

This course introduces fundamentals of medical coding, billing, and insurance. Emphasis is placed on the medical billing cycle to include third party payers, coding concepts, and form preparation. Upon completion, students should be able to explain the life cycle of and accurately complete a medical insurance claim.

### **OST 149      Medical Legal Issues**

3      0      3

Prerequisites:

Corequisites:    None

This course introduces the complex legal, moral, and ethical issues involved in providing health-care services. Emphasis is placed on the legal requirements of medical practices, the relationship of physician, patient, and office personnel; professional liabilities, and medical practice liability. Upon completion, students should be able to demonstrate a working knowledge of current medical law and accepted ethical behavior.

### **OST 164      Text Editing Applications**

3      0      3

Prerequisites:

Corequisites:    None

This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text.

### **OST 184      Records Management**

2      2      3

Prerequisites:

Corequisites:    None

This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system.

### **OST 241      Medical Office Transcription I**

1      2      2

Prerequisites:    MED 121, OST 134 or OST 136 and OST 164 (L)

Corequisites:    None

This course introduces machine transcription techniques as applied to medical documents. Emphasis is placed on accurate transcription, proofreading, and use of reference materials as well as vocabulary building. Upon completion, students should be able to prepare accurate and usable transcripts of voice recordings in the covered specialties.

### **OST 243      Medical Office Simulation**

2      2      3

Prerequisites:    OST 148, OST 131 (L)

Corequisites:    None

This course introduces medical systems used to process information in the automated office. Topics include traditional and electronic information resources, storing and retrieving information, and the billing cycle. Upon completion, students should be able to use the computer accurately to schedule, bill, update, and make corrections.

### **OST 247      Procedure Coding**

1      2      2

Prerequisites:    MED 121

Corequisites:    MED 122 (L) (Optional)

This course provides in-depth coverage of procedural coding. Emphasis is placed on CPT and HCPCS coding systems. Upon completion, students should be able to properly code procedures and services performed in a medical facility.

### **OST 248      Diagnostic Coding**

1      2      2

Prerequisites:    MED 121

Corequisites:    MED 122 (L) (Optional)

This course provides an in-depth study of diagnostic coding for the medical office. Emphasis is placed on ICD coding systems. Upon completion, students should be able to properly code diagnoses in a medical facility.

**OST 249 CPC Certification**  
 3 2 4  
 Prerequisites: OST 247 and OST 248  
 Corequisites: None

This course provides instruction that will prepare students to sit for the American Association of Professional Coders (AAPC) CPC Exam. Topics include diagnostic and procedural coding. Upon completion, students should be able to sit for the AAPC CPC Exam.

**OST 286 Professional Development**  
 3 0 3  
 Prerequisites: None  
 Corequisites: None

This course covers the personal competencies and qualities needed to project a professional image in the office. Topics include interpersonal skills, health lifestyles, appearance, attitude, personal and professional growth, multicultural awareness, and professional etiquette. Upon completion, students should be able to demonstrate these attributes in the classroom, office, and society.

**OST 289 Administrative Office Management**  
 2 2 3  
 Prerequisites: OST 134 or OST 136, and OST 164  
 Corequisites: None

This course is designed to be a capstone course for the office professional and provides a working knowledge of modern office procedures. Emphasis is placed on scheduling, telephone procedures, travel arrangements, event planning, office design, and ergonomics. Upon completion, students should be able to adapt in an office environment.

## **PHYSICAL EDUCATION**

**PED 110 Fit and Well for Life**  
 1 2 2  
 Prerequisites: None  
 Corequisites: None

This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and an elective course requirement.*

**PED 111 Physical Fitness I**  
 0 3 1  
 Prerequisites: None  
 Corequisites: None

This course provides an individualized approach to physical fitness utilizing the five major components. Emphasis is placed on the scientific basis for setting up and engaging in personalized physical fitness programs. Upon completion, students should be able to set up and implement an individualized physical fitness program. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and an elective course requirement.*

**PED 113 Aerobics I**  
 0 3 1  
 Prerequisites: None  
 Corequisites: None

This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and an elective course requirement.*

**PED 117 Weight Training 1**  
 0 3 1  
 Prerequisites: None  
 Corequisites: None

This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight training program. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and an elective course requirement.*

**PED 120 Walking for Fitness**  
 0 3 1  
 Prerequisites: None  
 Corequisites: None

This course introduces fitness through walking. Emphasis is placed on stretching, conditioning exercises, proper clothing, fluid needs, and injury prevention. Upon completion, students should be able to participate in a recreational walking program. *This course has been approved to satisfy the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and an elective course requirement.*

**PED 128 Golf-Beginning**  
 0 2 1  
 Prerequisites: None  
 Corequisites: None

This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and an elective course requirement.*

**PED 130 Tennis-Beginning**  
 0 2 1  
 Prerequisites: None  
 Corequisites: None

This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to play recreational tennis. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and an elective course requirement.*

**PED 137 Badminton**  
 0 2 1  
 Prerequisites: None  
 Corequisites: None

This course covers the fundamentals of badminton. Emphasis is placed on the basics of serving, clears, drops, drives, smashes, and the rules and strategies of singles and doubles. Upon completion, students should be able to apply these skills in playing situations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and an elective course requirement.*

**PED 138 Archery**  
 0 2 1  
 Prerequisites: None  
 Corequisites: None

This course introduces basic archery safety and skills. Topics include proper techniques of stance, bracing, drawing, and releasing as well as terminology and scoring. Upon completion, students should be able to participate safely in target archery. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and an elective course requirement.*

**PED 139      Bowtlug-Beginning**

0      2      1  
 Prerequisites: None  
 Corequisites: None

This course introduces the fundamentals of bowling. Emphasis is placed on ball selection, grips, stance, and delivery along with rules and etiquette. Upon completion, students should be able to participate in recreational bowling. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**PED 143      Volleyball-Beginning**

0      2      1  
 Prerequisites: None  
 Corequisites: None

This course covers the fundamentals of volleyball. Emphasis is placed on the basics of serving, passing, setting, spiking, blocking, and the rules and etiquette of volleyball. Upon completion, students should be able to participate in recreational volleyball. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**PED 152      Swimming-Beginning**

0      2      1  
 Prerequisites: None  
 Corequisites: None

This course is designed for non-swimmers and beginners. Emphasis is placed on developing confidence in the water, learning water safety, acquiring skills in floating, and learning elementary strokes. Upon completion, students should be able to demonstrate safety skills and be able to tread water, back float, and use the crawl stroke for 20 yards. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**PED 153      Swimming-Intermediate**

0      2      1  
 Prerequisites: PED 152  
 Corequisites: None

This course is designed for those who have mastered basic swimming skills. Emphasis is placed on refining basic skills and learning new swim strokes. Upon completion, students should be able to demonstrate the four basic strokes, the scissors kick, the underwater swim, and other related skills. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**PED 155      Water Aerobics**

0      3      1  
 Prerequisites: None  
 Corequisites: None

This course introduces rhythmic aerobic activities performed in water. Emphasis is placed on increasing cardiovascular fitness levels, muscular strength, muscular endurance, and flexibility. Upon completion, students should be able to participate in an individually-paced exercise program. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**PED 156      Scuba Diving**

0      2      1  
 Prerequisites: PED 153  
 Corequisites: None

This course provides basic instruction in fundamental skills and safety procedures for scuba diving. Emphasis is placed on the history, theory, and principles of diving, development of diving skills, safety, and care and maintenance of equipment. Upon completion, students should be able to demonstrate skills, knowledge, and techniques of scuba diving in preparation for diver certification. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**PED 160      Canoeing-Basic**

0      2      1  
 Prerequisites: PED 152  
 Corequisites: None

This course provides basic instruction for the beginning canoeist. Emphasis is placed on safe and correct handling of the canoe and rescue skills. Upon completion, students should be able to demonstrate basic canoeing, self-flipping, and self-rescue skills. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**PED 174      Wilderness Pursuits**

0      2      1  
 Prerequisites: None  
 Corequisites: None

This course covers the skills necessary to prepare for and participate in a wilderness trip. Emphasis is placed on planning, preparing, and participating in a wilderness pack trip. Upon completion, students should be able to safely participate in overnight wilderness pack trips. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**PED 219      Disk Golf**

0      2      1  
 Prerequisites: None  
 Corequisites: None

This course introduces the fundamentals of disc golf. Emphasis is placed on basic throwing techniques, putting, distance driving, scoring, and single and doubles play. Upon completion, students should be able to perform the skills required in playing situations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**PED 187      Social Dance-Beginning**

0      2      1  
 Prerequisites: None  
 Corequisites: None

This course introduces the fundamentals of popular social dances. Emphasis is placed on basic social dance techniques, dances, and a brief history of social dance. Upon completion, students should be able to demonstrate specific dance skills and perform some dances. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**PED 230      Shotokan Karate**

0      3      1  
 Prerequisites: None  
 Corequisites: None

This course introduces martial arts using the Shotokan Karate form. Topics include proper conditioning exercises, proper terminology, historical foundations, etiquette, and drills. Upon completion, students should be able to perform skills and techniques related to this form of martial arts. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

**PED 262      Water Safety Instructor**

1      2      2  
 Prerequisites: PED 153  
 Corequisites: None

This course covers the knowledge and skills necessary to teach and certify others in the American Red Cross certification swimming program. Emphasis is placed on teaching basic rescue skills, strengthening swimming strokes, and rescue and safety procedures. Upon completion, students should be able to demonstrate skills, knowledge, and techniques to pass the American Red Cross Water Safety Instructor's certification. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

## PIPE FITTING

### **PFT 111 Piping & Valves**

**3 3 4**  
Prerequisites: None  
Corequisites: None

This course introduces the terminology, uses, types, and components of metallic and non-metallic industrial piping systems. Topics include identification and application of valves and fittings, joining techniques, drawing interpretation, and the safe installation of piping systems. Upon completion, students should be able to select the proper materials and equipment to safely construct basic industrial piping systems in accordance with design drawing.

## PHILOSOPHY

### **PHI 215 Philosophical Issues**

**3 0 3**  
Prerequisites: ENG 111  
Corequisites: None

This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critique the philosophical components of an issue. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.*

### **PHI 220 Western Philosophy I**

**3 0 3**  
Prerequisites: ENG 111  
Corequisites: None

This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critique the philosophical components of an issue. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.*

### **PHI 221 Western Philosophy II**

**3 0 3**  
Prerequisites: ENG 111  
Corequisites: None

This course covers Western intellectual and philosophic thought from post-medievalists through recent thinkers. Emphasis is placed on such figures as Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant, Hegel, Marx, Mill, and representatives of pragmatism, logical positivism, and existentialism. Upon completion, students should be able to trace the development of leading ideas concerning knowledge, reality, science, society, and the limits of reason. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.*

### **PHI 240 Introduction to Ethics**

**3 0 3**  
Prerequisites: ENG 111  
Corequisites: None

This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on utilitarianism, rule-based ethics, existentialism, relativism versus objectivism, and epism. Upon completion, students should be able to apply various ethical theories to individual moral issues such as euthanasia, abortion, crime and punishment, and justice. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.*

## PHYSICS

### **PHY 110 Conceptual Physics**

**3 0 3**  
Prerequisites: MAT 070 (L)  
Corequisites: None

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences. This course is also available through the Virtual Learning Community (VLC).*

### **PHY 110A Conceptual Physics Lab**

**0 2 1**  
Prerequisites: None  
Corequisites: PHY 110

This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

### **PHY 131 Physics-Mechanics**

**3 2 4**  
Prerequisites: MAT 121, MAT 161, MAT 171 or MAT 175  
Corequisites: None

This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

### **PHY 132 Physics-Electricity and Magnetism**

**3 2 4**  
Prerequisites: PHY 131  
Corequisites: None

This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, waves, electricity, magnetism, circuits, transformers, motors, and generators. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

### **PHY 151 College Physics I**

**3 2 4**  
Prerequisites: MAT 161, MAT 172, or MAT 175  
Corequisites: None

This course uses algebra and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**PHY 152 College Physics II**

3 2 4  
 Prerequisites: PHY 151  
 Corequisites: None

This course uses algebra and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**PHY 251 General Physics I**

3 3 4  
 Prerequisites: MAT 271  
 Corequisites: MAT 272

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

**PHY 252 General Physics II**

3 3 4  
 Prerequisites: MAT 272 and PHY 251  
 Corequisites: None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.*

**PLASTICS****PLA 110 Introduction to Plastics**

2 0 2  
 Prerequisites: None  
 Corequisites: None

This course introduces the plastics processing industry, including thermoplastics and thermosets. Emphasis is placed on the description, classification, and properties of common plastics and processes and current trends in the industry. Upon completion, students should be able to describe the differences between thermoplastics and thermosets and recognize the basics of the different plastic processes.

**PLA 120 Injection Molding**

2 3 3  
 Prerequisites: None  
 Corequisites: None

This course provides theory and processing experience with the injection molding process. Topics include machine type, molds, controls, machine-polymer part relationship, molding factors, troubleshooting, and molding problems solutions. Upon completion, students should be able to demonstrate an understanding of machine setup and operation and be able to optimize common injection molding machines.

**PLA 162 Plastics Manufacturing Processes**

2 3 3  
 Prerequisites: None  
 Corequisites: None

This course covers manufacturing processes including machining, sawing, routing, milling, drilling, tapping, turning, thermoforming, molding, extrusion, laminating, reinforcing, expansion, casting, coating, assembly, and finishing. Emphasis is placed on the process and equipment requirements, special operational concerns, setup, operation, tooling, capability limitations, maintenance, and safety. Upon completion, students should be able to select the correct process for the material required and discuss machine operation, setup, tooling, safety, and scrap recycling.

**PLUMBING****PLU 111 Introduction to Basic Plumbing**

1 3 2  
 Prerequisites: None  
 Corequisites: None

This course introduces basic plumbing tools, materials, and fixtures. Topics include standard tools, materials, and fixtures used in basic plumbing systems and other related topics. Upon completion, students should be able to demonstrate an understanding of a basic plumbing system.

**PLU 211 Commercial/Industrial Plumbing**

2 2 3  
 Prerequisites: None  
 Corequisites: None

This course covers the installation of various commercial and industrial piping. Topics include piping in steam, gas, air, fire sprinklers, and other related topics. Upon completion, students should be able to select and install various piping systems for a variety of applications.

**POLITICAL SCIENCE****POL 120 American Government**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course is a study of the origins, development, structure, and functions of American national government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

**POL 130 State & Local Government**

3 0 3  
 Prerequisites: None  
 Corequisites: None

This course includes state and local political institutions and practices in the context of American federalism. Emphasis is placed on procedural and policy differences as well as political issues in state, regional, and local governments of North Carolina. Upon completion, students should be able to identify and discuss various problems associated with intergovernmental politics and their effect on the community and the individual. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premier and/or elective credit equivalent.*



**POL 220 International Relations****3 0 3**

Prerequisites: None

Corequisites: None

This course provides a study of the effects of ideologies, trade, armaments, and alliances on relations among nation-states. Emphasis is placed on regional and global cooperation and conflict, economic development, trade, non-governmental organizations, and international institutions such as the World Court and UN. Upon completion, students should be able to identify and discuss major international relationships, institutions, and problems. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

**PSYCHOLOGY****PSY 110 Life Span Development****3 0 3**

Prerequisites: None

Corequisites: None

This course provides an introduction to the study of human growth and development. Emphasis is placed on the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span and apply this knowledge to their specific field of study.

**PSY 150 General Psychology****3 0 3**

Prerequisites: RED 090, or satisfactory placement test scores (L)

Corequisites: None

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

**PSY 237 Social Psychology****3 0 3**

Prerequisites: PSY 150 or SOC 210

Corequisites: None

This course introduces the study of individual behavior within social contexts. Topics include affiliation, attitude formation and change, conformity, altruism, aggression, attribution, interpersonal attraction, and group behavior. Upon completion, students should be able to demonstrate an understanding of the basic principles of social influences on behavior. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

**PSY 239 Psychology of Personality****3 0 3**

Prerequisites: PSY 150

Corequisites: None

This course covers major personality theories and personality research methods. Topics include psychoanalytic, behavioristic, social learning, cognitive, humanistic, and trait theories including supporting research. Upon completion, students should be able to compare and contrast traditional and contemporary approaches to the understanding of individual differences in human behavior. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

**PSY 241 Developmental Psychology****3 0 3**

Prerequisites: PSY 150

Corequisites: None

This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

**PSY 281 Abnormal Psychology****3 0 3**

Prerequisites: PSY 150

Corequisites: None

This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

**READING**

Initial student placement in Academic Development courses is based on the Academic Development Placement Policy on page 17. Students should begin Academic Development course work at the appropriate level indicated by test scores.

**RED 080 Introduction to College Reading****3 2 4\***

Prerequisites: Placement test scores

Corequisites: None

This course introduces effective reading and inferential thinking skills in preparation for RED 090. Emphasis is placed on vocabulary, comprehension, and reading strategies. Upon completion, students should be able to determine main ideas and supporting details, recognize basic patterns of organization, draw conclusions, and understand vocabulary in context. *This course does not satisfy the developmental reading prerequisite for ENG 111.*

**RED 090 Improved College Reading****3 2 4\***

Prerequisites: RED 080, ENG 085 or satisfactory placement test scores

Corequisites: None

This course is designed to improve reading and critical thinking skills. Topics include vocabulary enhancement; extracting implied meaning; analyzing author's purpose, tone, and style; and drawing conclusions and responding to written material. Upon completion, students should be able to comprehend and analyze college-level reading material. *This course satisfies the developmental reading prerequisite for ENG 111.*

\*These credits are institutional credits only and cannot be used for graduation. They are used for determining hour load for payment, eligibility for financial aid, or classification as a full-time student.



## RELIGION

**REL 110**      **World Religions**  
3      0      3  
Prerequisites:    RED 090, ENG 090 or satisfactory placement test scores (L.)  
Corequisites:    None  
This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/ fine arts.*

**REL 111**      **Eastern Religions**  
3      0      3  
Prerequisites:    RED 090, ENG 090 or satisfactory placement test scores (L.)  
Corequisites:    None  
This course introduces the major Asian religious traditions. Topics include Hinduism, Buddhism, Taoism, Confucianism, and Shinto. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/ fine arts.*

**REL 112**      **Western Religions**  
3      0      3  
Prerequisites:    RED 090, ENG 090 or satisfactory placement test scores (L.)  
Corequisites:    None  
This course introduces the major western religious traditions. Topics include Zoroastrianism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/ fine arts.*

**REL 111**      **Introduction to Old Testament**  
3      0      3  
Prerequisites:    RED 090, ENG 090 or satisfactory placement test scores (L.)  
Corequisites:    None  
This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is placed on the use of literary, historical, archeological, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/ fine arts.*

**REL 212**      **Introduction to New Testament**  
3      0      3  
Prerequisites:    RED 090, ENG 090 or satisfactory placement test scores (L.)  
Corequisites:    None  
This course is a survey of the literature of first-century Christianity with readings from the gospels, Acts, and the Pauline and pastoral letters. Topics include the literary structure, audience, and religious perspective of the writings, as well as the historical and cultural context of the early Christian community. Upon completion, students should be able to use the tools of critical analysis to read and understand New Testament literature. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/ fine arts.*

## INFORMATION SYSTEMS SECURITY

**SEC 110**      **Security Concepts**  
3      0      3  
Prerequisites:    None  
Corequisites:    None  
This course introduces the concepts and issues related to securing information systems and the development of policies to implement information security controls. Topics include the historical view of networking and security, security issues, trends, security resources, and the role of policy, people, and processes in information security. Upon completion, students should be able to identify information security risks, create an information security policy, and identify processes to implement and enforce policy.

**SEC 150**      **Secure Communications**  
2      2      3  
Prerequisites:    SEC 110 and NET 110 or NET 125  
Corequisites:    None  
This course provides an overview of current technologies used to provide secure transport of information across networks. Topics include data integrity through encryption, Virtual Private Networks, SSL, SSH, and IPsec. Upon completion, students should be able to implement secure data transmission technologies.

**SEC 160**      **Secure Administration I**  
2      2      3  
Prerequisites:    SEC 110 and NET 110 or NET 125  
Corequisites:    None  
This course provides an overview of security administration and fundamentals of designing security architectures. Topics include networking technologies, TCP/IP concepts, protocols, network traffic analysis, monitoring, and security best practices. Upon completion, students should be able to identify normal network traffic using network analysis tools and design basic security defenses.

**SEC 210**      **Intrusion Detection**  
2      2      3  
Prerequisites:    SEC 160  
Corequisites:    None  
This course introduces the student to intrusion detection methods in use today. Topics include the types of intrusion detection products, traffic analysis, and planning and placement of intrusion detection solutions. Upon completion, students should be able to plan and implement intrusion detection solution for networks and host based systems.

**SEC 220**      **Defense-In-Depth**  
2      2      3  
Prerequisites:    None  
Corequisites:    SEC 160  
This course introduces students to the concepts of defense in-depth, a security industry best practice. Topics include firewalls, backup systems, redundant systems, disaster recovery, and incident handling. Upon completion, students should be able to plan effective information security defenses, backup systems, and disaster recovery procedures.

**SEC 289**      **Security Capstone Project**  
1      4      3  
Prerequisites:    SEC 220  
Corequisites:    None  
This course provides the student the opportunity to put into practice all the skills learned to this point. Emphasis is placed on security policy, process planning, procedure definition, business continuity, and systems security architecture. Upon completion, students should be able to design and implement comprehensive information security architecture from the planning and design phase through implementation.

## SOCIOLOGY

### **SOC 210 Introduction to Sociology**

**3 0 3**

**Prerequisites:** RED 090 or satisfactory placement test scores (L)

**Corequisites:** None

This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

### **SOC 213 Sociology of the Family**

**3 0 3**

**Prerequisites:** RED 090, or satisfactory placement test scores (L)

**Corequisites:** None

This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

### **SOC 220 Social Problems**

**3 0 3**

**Prerequisites:** RED 090, or satisfactory placement test scores (L)

**Corequisites:** None

This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social behavioral sciences.*

## SPANISH

### **SPA 111 Elementary Spanish I**

**3 0 3**

**Prerequisites:** RED 090, ENG 090 or satisfactory placement test scores (L)

**Corequisites:** SPA 181

This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement general education core requirement in humanities fine arts for AA and AS only. can not be used to satisfy the Humanities requirement for AAS degrees.*

### **SPA 112 Elementary Spanish II**

**3 0 3**

**Prerequisites:** SPA 111

**Corequisites:** SPA 182

This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement general education core requirement in humanities fine arts for AA and AS only. can not be used to satisfy the Humanities requirement for AAS degrees.*

### **SPA 120 Spanish for the Workplace**

**3 0 3**

**Prerequisites:** None

**Corequisites:** None

This course offers applied Spanish for the workplace to facilitate basic communication with people whose native language is Spanish. Emphasis is placed on oral communication and career-specific vocabulary that targets health, business, and/or public service professions. Upon completion, the students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.

### **SPA 181 Spanish Lab I**

**0 2 1**

**Prerequisites:** RED 090, ENG 090 or satisfactory placement test scores (L)

**Corequisites:** SPA 111

This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

### **SPA 182 Spanish Lab II**

**0 2 1**

**Prerequisites:** SPA 181

**Corequisites:** SPA 112

This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate cultural awareness. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.*

### **SPA 211 Intermediate Spanish I**

**3 0 3**

**Prerequisites:** SPA 112

**Corequisites:** SPA 281

This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. *This course has been approved to satisfy the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement general education core requirement in humanities fine arts for AA and AS only. can not be used to satisfy the Humanities requirement for AAS degrees.*

**SPA 212 Intermediate Spanish II**  
 3 0 3  
 Prerequisites: SPA 211  
 Corequisites: SPA 282  
 This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. *This course has been approved to satisfy the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement general education core requirement in humanities for arts for AA and AS only; cannot be used to satisfy the Humanities requirement for AAS degrees.*

**SPA 281 Spanish Lab III**  
 0 2 1  
 Prerequisites: SPA 182  
 Corequisites: SPA 211  
 This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a primary and/or elective course requirement.*

**SPA 282 Spanish Lab IV**  
 0 2 1  
 Prerequisites: SPA 281  
 Corequisites: SPA 212  
 This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a primary and/or elective course requirement.*

## SURVEYING

**SRV 110 Surveying**  
 2 6 4  
 Prerequisites: None  
 Corequisites: MAT 121, MAT 161, MAT 171, or MAT 175  
 This course introduces the theory and practice of plane surveying. Topics include measuring distances and angles, differential and profile leveling, compass applications, topography, and mapping. Upon completion, students should be able to use/operate surveying instruments, demonstrate field note techniques, and apply the theory and practice of plane surveying.

## SUSTAINABILITY TECHNOLOGIES

**SST 110 Introduction to Sustainability**  
 3 0 3  
 Prerequisites: None  
 Corequisites: None  
 This course introduces sustainability issues and individual contributions toward environmental sustainability. Topics include management processes needed to maximize renewable/non-renewable energy resources, economics of sustainability, and reduction of environmental impacts. Upon completion, students should be able to discuss sustainability practices and demonstrate an understanding of their effectiveness and impacts.

**SST 120 Energy Use Analysis**  
 2 2 3  
 Prerequisites: None  
 Corequisites: None  
 This course introduces the principles of analyzing energy use, energy auditing tools and techniques, conservation techniques, and calculating energy savings. Topics include building system control theory, calibrating digital controls, energy loss calculations, and applicable conservation techniques. Upon completion, students should be able to demonstrate an understanding of energy use, audits, and controls in the analysis of energy consumption.

**SST 140 Green Building Concepts**  
 1 3 2  
 Prerequisites: None  
 Corequisites: None  
 This course introduces green building design, LEED® (Leadership in Energy and Environmental Design) and comparable certifications, and their significance in modern building construction. Topics include LEED certification or similar rating systems, energy efficiency, indoor environmental quality, and sustainable building materials. Upon completion, students should be able to incorporate ecological awareness and sustainable principles within the context of design and construction.

**SST 210 Issues in Sustainability**  
 3 0 3  
 Prerequisites: SST 110  
 Corequisites: None  
 This course introduces the long-term impacts and difficulties of applying sustainability concepts in an organization, business, or society. Topics include the application of sustainable technologies and the analysis of affordability, efficiencies, recycling, and small and large-scale design. Upon completion, students should be able to recognize the possible limitations of sustainable technologies and be prepared to reconcile such conflicts.

## SURGICAL TECHNOLOGY

**SUR 110 Introduction to Surgical Technology**  
 3 0 0 3  
 Prerequisites: None  
 Corequisites: SUR 111  
 This course provides a comprehensive study of the operative environment, professional roles, moral/legal/ethical responsibilities, and medical communications used in surgical technology. Topics include historical development, professional behaviors, medical terminology, interdepartmental/peer relationships, operating room environment/safety, pharmacology, anesthesia, incision sites, and physiology of wound healing. Upon completion, students should be able to apply theoretical knowledge of the course topics to the operative environment.

**SUR 111 Perioperative Patient Care**  
 5 6 0 7  
 Prerequisites: None  
 Corequisites: SUR 110  
 This course provides theoretical knowledge for the application of essential operative skills during the perioperative phase. Topics include surgical asepsis, sterilization/disinfection, and perioperative patient care. Upon completion, students should be able to demonstrate the principles and practices of aseptic technique, sterile attire, basic case preparation, and other relevant skills.

**SUR 122 Surgical Procedures I**  
 5 3 0 6  
 Prerequisites: SUR 110 and SUR 111  
 Corequisites: SUR 123 or SLP 101  
 This course provides an introduction to selected basic and intermediate surgical specialties that students are exposed to the first clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students should be able to correlate, integrate, and apply theoretical knowledge of the course topics in the clinical operative environment.

**SUR 123 Surgical Clinical Practice I****0 0 21 7****Prerequisites:** SUR 110 and SUR 111**Corequisites:** SUR 122

This course provides clinical experience with a variety of perioperative assignments to build upon skills learned in SUR 111. Emphasis is placed on the scrub and circulating roles of the surgical technologist including aseptic technique and basic case preparation for selected surgical procedures. Upon completion, students should be able to prepare, assist with, and dismantle basic surgical cases in both the scrub and circulating roles.

**SUR 134 Surgical Procedures II****5 0 0 5****Prerequisites:** SUR 123 or S-ITP 101**Corequisites:** None

This course provides a comprehensive study of intermediate and advanced surgical specialties that students are exposed to in the second clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students should be able to correlate, interpret, and apply theoretical knowledge of the course topics to the clinical operative environment.

**SUR 135 Surgical Clinical Practice II****0 0 12 4****Prerequisites:** SUR 123**Corequisites:** SUR 134 or SUR 137

This course provides clinical experience with a variety of perioperative assignments to build skills required for complex perioperative patient care. Emphasis is placed on greater technical skills, critical thinking, speed, efficiency, and autonomy in the operative setting. Upon completion, students should be able to function in the role of an entry-level surgical technologist.

**SUR 137 Professional Success Preparation****1 0 0 1****Prerequisites:** SUR 123**Corequisites:** SUR 134 and SUR 135

This course provides job-seeking skills and an overview of theoretical knowledge in preparation for certification. Topics include test-taking strategies, resume preparation, and interviewing techniques. Upon completion, students should be able to prepare a resume, demonstrate appropriate interview techniques, and identify strengths and weaknesses in preparation for certification.

**WEB TECHNOLOGIES****WEB 110 Internet/Web Fundamentals****2 2 3****Prerequisites:** None**Corequisites:** None

This course introduces World Wide Web Consortium (W3C) standard markup language and services of the Internet. Topics include creating web pages, search engines, FTP, and other related topics. Upon completion, students should be able to deploy a hand-coded website created with mark-up language, and effectively use and understand the function of search engines.

**WEB 115 Web Markup and Scripting****2 2 3****Prerequisites:** None**Corequisites:** None

This course introduces Worldwide Web Consortium (W3C) standard client-side Internet programming using industry-established practices. Topics include JavaScript, markup elements, stylesheets, validation, accessibility, standards, and browsers. Upon completion, students should be able to develop hand-coded web pages using current markup standards.

**WEB 120 Introduction Internet Multimedia****2 2 3****Prerequisites:** None**Corequisites:** None

This is the first of two courses covering the creation of internet multimedia. Topics include internet multimedia file types, file type conversion, acquisition of digital audio/video, streaming audio/video and graphics animation plug-in programs and other related topics. Upon completion, students should be able to create internet multimedia presentations utilizing a variety of methods and applications.

**WEB 125 Mobile Web Design****2 2 3****Prerequisites:** WEB 110**Corequisites:** None

This course introduces students to web design for mobile devices. Topics include planning an effective mobile Web site, industry standard Mobile Markup Language, CSS3, multimedia, m-commerce, social media, testing and publishing. Upon completion, students should be able to plan, develop, test, and publish Web content designed for mobile devices.

**WEB 140 Web Development Tools****2 2 3****Prerequisites:** None**Corequisites:** None

This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets.

**WEB 182 PHP Programming****2 2 3****Prerequisites:** CIS 115**Corequisites:** None

This course introduces students to the server-side, HTML-embedded scripting language PHP. Emphasis is placed on programming techniques required to create dynamic web pages using PHP scripting language features. Upon completion, students should be able to design, code, test, debug, and create a dynamic web site using the PHP scripting language.

**WEB 210 Web Design****2 2 3****Prerequisites:** None**Corequisites:** None

This course introduces intermediate to advanced web design techniques. Topics include customer expectations, advanced markup language, multimedia technologies, usability and accessibility practices, and techniques for the evaluation of web design. Upon completion, students should be able to employ advanced design techniques to create high impact and highly functional web sites.

**WEB 225 Content Management Sys****2 2 3****Prerequisites:** WEB 110**Corequisites:** None

This course introduces students to Content Management Systems (CMS) designed for the publication of Web content to Web sites. Topics include individual user accounts, administration menus, RSS feeds, customizable layout, flexible account privileges, logging, blogging systems, creating online forums, and modules. Upon completion, students should be able to register and maintain individual user accounts and create a business website and/or an interactive community website.

**WEB 230 Implementing Web Server****2 2 3****Prerequisites:** NET 110 or NET 125**Corequisites:** None

This course covers website and web server architecture. Topics include installation, configuration, administration, and security of web servers, services and sites. Upon completion, students should be able to effectively manage the web services deployment lifecycle according to industry standards.

**WEB 250 Database Driven Websites**

2 2 3  
 Prerequisites: DBA 110  
 Corequisites: None

This course introduces dynamic (database-driven) website development. Topics include the use of basic database CRUD statements (create, read, update and delete) incorporated into web applications, as well as in software architecture principles. Upon completion, students should be able to design and develop database driven web applications according to industry standards.

**WELDING****WLD 110 Cutting Processes**

1 3 2  
 Prerequisites: None  
 Corequisites: None

This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

**WLD 112 Basic Welding Processes**

1 3 2  
 Prerequisites: None  
 Corequisites: None

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 115 SMAW (Stick) Plate**

2 9 5  
 Prerequisites: None  
 Corequisites: None

This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

**WLD 116 SMAW (Stick) Plate/Pipe**

1 9 4  
 Prerequisites: WLD 115  
 Corequisites: None

This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions.

**WLD 117 Industrial SMAW**

1 4 3  
 Prerequisites: None  
 Corequisites: None

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 proscribed electrodes.

**WLD 121 GMAW (MIG) FCAW/Plate**

2 6 4  
 Prerequisites: None  
 Corequisites: None

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

**WLD 122 GMAW (MIG) Plate/Pipe**

1 6 3  
 Prerequisites: WLD 121  
 Corequisites: None

This course is designed to enhance skills with the gas metal arc (MIG) welding process. Emphasis is placed on advancing skills with the GMAW process making groove welds on carbon steel plate and pipe in various positions. Upon completion, students should be able to perform groove welds with prescribed electrodes on various joint geometry.

**WLD 131 GTAW (TIG) Plate**

2 6 4  
 Prerequisites: None  
 Corequisites: None

This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

**WLD 132 GTAW (TIG) Plate/Pipe**

1 6 3  
 Prerequisites: WLD 131  
 Corequisites: None

This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students should be able to perform GTAW welds with proscribed electrodes and filler materials on various joint geometry.

**WLD 141 Symbols and Specifications**

2 2 3  
 Prerequisites: None  
 Corequisites: None

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 143 Welding Metallurgy**

1 2 2  
 Prerequisites: None  
 Corequisites: None

This course introduces the concepts of welding metallurgy. Emphasis is placed on basic metallurgy; effects of welding on various metals, and metal classification and identification. Upon completion, students should be able to understand basic metallurgy, materials designation, and classification systems used in welding.

**WLD 145 Thermoplastic Welding**

1 3 2  
 Prerequisites: None  
 Corequisites: None

This course introduces the thermoplastic welding processes and materials identification. Topics include filler material selection, identification, joint design, and equipment setup with emphasis on bead types and applications. Upon completion, students should be able to perform fillet and groove welds using thermoplastic materials.

**WLD 151**      **Fabrication I**  
2      6      4  
Prerequisites:    WLD 110 (Local) and WLD 115 (Local)  
Corequisites:    None  
This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, cutting, joining techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment.

**WLD 215**      **SMAW (Stick) Pipe**  
1      9      4  
Prerequisites:    WLD 115 or WLD 116  
Corequisites:    None  
This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions.

**WLD 261**      **Certification Practices**  
1      3      2  
Prerequisites:    WLD 115 and WLD 121 and WLD 131  
Corequisites:    None  
This course covers certification requirements for industrial welding processes. Topics include techniques and certification requirements for prequalified joint geometry. Upon completion, students should be able to perform welds on carbon steel plate and/or pipe according to applicable codes.

**WLD 262**      **Inspection and Testing**  
2      2      3  
Prerequisites:    None  
Corequisites:    None  
This course introduces destructive and non-destructive testing methods. Emphasis is placed on safety, types and methods of testing, and the use of testing equipment and materials. Upon completion, students should be able to understand and/or perform a variety of destructive and non-destructive testing processes.

## **WHEELS OF LEARNING**

**WOL 110**      **Basic Construction Skills**  
2      3      3  
Prerequisites:    None  
Corequisites:    None  
This course introduces the student to basic safety, tools, and skills commonly found in the construction related trades. Topics include safety, basic math, blueprints, hand and power tools, and rigging. Upon completion, students should have successfully completed the core curricula as identified by the National Center for Construction Education and Research.

## ADMINISTRATORS AND FACULTY

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ASE Master Technician; DuPont Refinish OEM Certified; Bronze Level PPG Certification



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## Appendix A-General Education Competencies

### GENERAL COMPETENCIES EXPECTED OF ISOTHERMAL GRADUATES

Because we believe an education is more than an accumulation of credits earned through completion of a variety of courses, and because we want graduates of our programs to be successful at whatever their next step may be – either getting a job or transferring to another college – it is essential that they exhibit the general education skills described on the following pages. All of these skills are basic to getting along in the world of work. They are skills employers tell us they want most in people they hire. They are skills necessary to success in daily life. Our expected general education outcomes are as follows:

- Communicate effectively through writing, reading, speaking, and listening, and through demonstration of information literacy
- Analyze problems and make logical conclusions
- Demonstrate positive interpersonal skills through cooperative learning and group interaction
- Demonstrate quantitative competencies
- Demonstrate basic computer skills
- Understand global awareness
- Perform technical skills in a chosen occupation

Criteria for achieving these outcomes were developed by campus-wide assessment teams and have been adopted for use in all curriculum programs throughout the college. On the following pages, we provide these criteria in the form of assessment rubrics. Your instructors will be using these to assess your work.

### WHAT STUDENTS CAN EXPECT OF ISOTHERMAL

In their commitment to learning and to the achievement of a true learning-centered community, Isothermal personnel will:

- Meet student needs by demonstrating professional, friendly, and courteous service in all aspects of student life
- Maintain high professional and academic standards
- Serve as role models in the development of leadership skills
- Respect diversity and treat all students fairly
- Be available to students and help[ful] with student problems
- Communicate clear learning objectives and expected outcomes
- Provide timely feedback in the assessment of learning outcomes
- Stay current in subject matter
- Practice effective teaching/learning strategies that promote critical thinking

### WHAT ISOTHERMAL EXPECTS OF STUDENTS

In their commitment to learning, students will:

- Accept responsibility for learning
- Attend and participate in all classes
- Complete required exercises and assignments as directed
- Develop a time management plan that includes adequate time for study
- Maintain an open-minded attitude toward learning
- Strive to become independent critical thinkers
- Seek help as needed from appropriate sources
- Be respectful and considerate of others
- Assume responsibility for knowing and adhering to all college policies
- Acknowledge that learning how to learn is the ultimate objective of education
- Recognize that struggle and discomfort often precede the rewards that accompany goal completion and success

With this commitment on the part of all concerned, an exciting partnership will grow and thrive, thus creating a community of learners whose mission is to improve life through learning.

# General Education Competencies



## Writing Rubric

Student \_\_\_\_\_

Date \_\_\_\_\_

Course \_\_\_\_\_

Assignment \_\_\_\_\_

	1 <i>low</i>	2	3	4 <i>high</i>	
<b>ACHIEVES THE INTENDED PURPOSE IN THE WRITING TASK</b>					
Demonstrates awareness of purpose and audience					Comments
Fulfills assignment directions					
Adheres to manuscript form					
<b>FULLY AND SPECIFICALLY DEVELOPS IDEAS</b>					
Formulates a focused and defensible thesis					Comments
Includes an effective introduction and conclusion					
Adequately develops the thesis with specific support					
Presents ideas that are clear, insightful, and thought-provoking					
<b>ORGANIZES IDEAS EFFECTIVELY</b>					
Organizes major ideas logically and consistently					Comments
Organizes supporting ideas logically and consistently					
Provides transitions which smoothly link ideas					
Maintains a clear focus					
<b>ADHERES TO RULES IN MECHANICS AND STYLE</b>					
Proofreads to ensure correctness					Comments
Uses correct and varied sentence structure					
Uses standard English					
Uses language which is clear, concise, and appropriate					

**OVERALL COMMENTS:**

# General Education Competencies



## Writing Rubric for Researched Essays

Student \_\_\_\_\_

Date \_\_\_\_\_

Course \_\_\_\_\_

Assignment \_\_\_\_\_

	1 <i>low</i>	2	3	4 <i>high</i>	Comments
<b>ACHIEVES THE INTENDED PURPOSE IN THE WRITING TASK</b>					
Demonstrates awareness of purpose and audience					
Fulfills assignment directions					
Adheres to manuscript form					
<b>FULLY AND SPECIFICALLY DEVELOPS IDEAS</b>					
Formulates a focused and defensible thesis					
Includes an effective introduction and conclusion					
Adequately develops the thesis with specific and accurate support					
Presents ideas that are clear, insightful, and thought provoking					
<b>ORGANIZES IDEAS EFFECTIVELY</b>					
Organizes major ideas logically and consistently					
Organizes supporting ideas logically and consistently					
Provides transitions which smoothly link ideas					
Maintains a clear focus					
<b>ADHERES TO RULES IN MECHANICS AND STYLE</b>					
Proofreads to ensure correctness					
Uses correct and varied sentence structure					
Uses standard English					
Uses language which is clear, concise, and appropriate					
<b>INCORPORATES/DOCUMENTS BORROWED INFORMATION CORRECTLY</b>					
Determines credibility of sources					
Includes research to substantiate major points					
Provides analysis/interpretation of evidence as it relates to thesis					
Incorporates borrowed information correctly					
Documents borrowed information correctly					
Understands and does not commit plagiarism					

**OVERALL COMMENTS:**

# General Education Competencies



## Reading Rubric

Student \_\_\_\_\_

Date \_\_\_\_\_

Course \_\_\_\_\_

Assignment \_\_\_\_\_

	1 <i>low</i>	2	3	4 <i>high</i>	Comments
<b>DEMONSTRATES COMPREHENSION OF TEXT</b>					
Uses terminology correctly					
Recognizes main ideas and supporting details					
Recognizes patterns of organization, transitions, and relationships among ideas					
Summarizes, outlines and/or maps information accurately and thoroughly					
<b>DEMONSTRATES CRITICAL THINKING</b>					
Consistently distinguishes between fact and opinion					
Makes accurate and insightful inferences and predictions solidly based on evidence					
Draws insightful analogies between written material and experience					
Recognizes writer's purpose, bias, tone, point of view, and style					
Shows insightful understanding of implied levels of meaning in connotations and figures of speech					
<b>DEMONSTRATES ABILITY TO EVALUATE TEXT</b>					
Identifies writer's arguments and the most important assumptions and support on which they are based					
Shows awareness of the characteristics of reliable sources and plausible evidence					
When appropriate, demonstrates awareness of elements of literary writing such as plot, character, and effective word choice.					

**OVERALL COMMENTS:**



# General Education Competencies



## Speaking Rubric

Student \_\_\_\_\_

Date \_\_\_\_\_

Course \_\_\_\_\_

Assignment \_\_\_\_\_

Purpose	1 <i>low</i>	2	3	4 <i>high</i>	Comments
<b>INTRODUCTION</b>					
Gains attention and interest					
Introduces topic clearly					
Previews the main points					
Engages the audience					
Establishes credibility					
<b>Body</b>					
Presents main points clearly					
Develops main points fully and specifically					
Organizes main points logically					
Provides transitions which smoothly link ideas					
<b>DELIVERY</b>					
Uses correct and appropriate English					
Maintains eye contact					
Uses voice effectively					
Uses visual aids well					
Uses nonverbal communication effectively: gestures, facial expression, stance, and dress					
<b>CONCLUSION</b>					
Signals ending for the audience					
Summarizes main points and/or offers an action plan					
<b>OVERALL ASSESSMENT</b>					
Engages audience through entire speech					
Adapts speech to audience					
Conforms to time requirements					
Maintains credibility throughout speech					

OVERALL COMMENTS: \_\_\_\_\_

## General Education Competencies



### Listening Self-Evaluation

Student \_\_\_\_\_

Date \_\_\_\_\_

Course \_\_\_\_\_

Assignment \_\_\_\_\_

How often do you indulge in the following listening habits? Check yourself carefully on each one:

Habits	Frequency				Score
	Almost always	Usually	Some- times	Seldom	
Giving in to mental distractions					
Giving in to physical distractions					
Trying to recall everything a speaker says					
Rejecting a topic as uninteresting before hearing the speaker					
Faking paying attention					
Jumping to conclusions about a speaker's meaning					
Deciding a speaker is wrong before hearing everything she or he has to say					
Judging a speaker on personal appearance					
Not paying attention to a speaker's evidence					
Focusing on delivery rather than on what the speaker says					

**Total**

**How to score:**

- For every "Almost always" checked, give yourself a score of 2
- For every "Usually" checked, give yourself a score of 4
- For every "Sometimes" checked, give yourself a score of 6
- For every "Seldom" checked, give yourself a score of 8
- For every "Almost never" checked, give yourself a score of 10

**Total score interpretation:**

Below 70	You need lots of training in listening.
From 71-90	You listen well.
Above 90	You listen exceptionally well.

**COMMENTS:**

Taken from:  
Lucas, Stephen E. *The Art of Public Speaking*, 5<sup>th</sup> ed. Boston, McGraw-Hill, 2007. p. 63

Rev. 4/07  
Global Awareness Rubric Rev. 4/09

# General Education Competencies



## Information Literacy Rubric

Student \_\_\_\_\_

Date \_\_\_\_\_

Course \_\_\_\_\_

Assignment \_\_\_\_\_

	1 <i>low</i>	2	3	4 <i>high</i>	<i>Comments</i>
<b>DETERMINES THE NATURE AND EXTENT OF THE INFORMATION NEEDED</b>					
Establishes the purpose and need for information					
Achieves a manageable focus					
<b>ACCESSES NEEDED INFORMATION EFFECTIVELY AND EFFICIENTLY</b>					
Determines effective search terms (keywords and synonyms)					
Retrieves, records, and manages information from a variety of sources					
Records citation information					
<b>EVALUATES INFORMATION USING ESTABLISHED CRITERIA</b>					
Differentiates between primary and secondary sources					
Evaluates validity, accuracy, authority, timeliness, bias, etc.					
Identifies the main ideas to be extracted from the information					
<b>USES INFORMATION EFFECTIVELY TO ACCOMPLISH A SPECIFIC PURPOSE</b>					
Applies new and prior information to the planning and creation of the paper or project					
Organizes information logically					
<b>ACCESSES AND USES INFORMATION ETHICALLY AND LEGALLY</b>					
Follows laws, institutional policies, and etiquette related to information resources					
Incorporates borrowed information correctly					
Documents borrowed information correctly					
Understands and does not commit plagiarism					

**OVERALL COMMENTS:**

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*Rev. 4/07*  
Global Awareness Rubric Rev. 4/09

# General Education Competencies



## Problem Solving Rubric

Student \_\_\_\_\_

Date \_\_\_\_\_

Course \_\_\_\_\_

Assignment \_\_\_\_\_

	1 <i>low</i>	2	3	4 <i>high</i>	Comments
<b>DEMONSTRATES AN UNDERSTANDING OF PROBLEM ANALYSIS</b>					
Accurately and thoroughly identifies and defines the key elements of the problem					
Clearly and accurately restates the problem					
<b>DEMONSTRATES DATA ACQUISITION</b>					
Clearly identifies and uses appropriate methods of data acquisition					
Accurately selects and uses credible sources of appropriate data					
Collects and identifies relevant facts, concepts, or principles with no apparent errors					
<b>DEMONSTRATES PROPER DATA UTILIZATION</b>					
Gives accurate account of data collected					
Accurately converts all data into usable information					
Uses data to clearly address all elements of the problem					
<b>ARRIVES AT VALID CONCLUSIONS</b>					
Develops a solution that is complete and appears to need no further revision, or revises the solution and addresses all the major difficulties					
Clearly and accurately implements selected solution					

**OVERALL COMMENTS:**

# General Education Competencies



## Interpersonal Skills Rubric Observation Form

Student \_\_\_\_\_

Date \_\_\_\_\_

Course \_\_\_\_\_

Assignment \_\_\_\_\_

NAMES:				
SUPPORTS AND PRAISES				
ENCOURAGES PARTICIPATION				
CHECKS FOR UNDERSTANDING				
KEEPS ON TASK				

### ASSESSMENT GUIDELINES

	1 <i>low</i>	2	3	4 <i>high</i>
<b>SUPPORTS AND PRAISES</b>	Seldom offers positive reinforcement for good ideas or behaviors	Sometimes offers positive reinforcement for good ideas or behaviors	Usually offers positive reinforcement for good ideas or behaviors	Almost always offers positive reinforcement for good ideas or behaviors
<b>ENCOURAGES PARTICIPATION</b>	Seldom asks for any other group member's input	Sometimes asks for input from others	Usually asks for input from others	Almost always makes sure all members contribute to decisions
<b>CHECKS FOR UNDERSTANDING</b>	Seldom makes sure I am understood and understand others	Sometimes makes sure I am understood and understand others	Usually makes sure I am understood and understand others	Almost always makes sure I am understood and understand others
<b>KEEPS ON TASK</b>	Often encourages the group to go off task to social or personal topics	Sometimes lets the group go off task to social or personal topics	Rarely lets the group go off task to social or personal topics	Almost never lets the group go off task to social or personal topics

COMMENTS:

## General Education Competencies



### Quantitative Skills Rubric

Student \_\_\_\_\_ Date \_\_\_\_\_

Course \_\_\_\_\_ Assignment \_\_\_\_\_

LEVEL OUTCOME	1 <i>low</i>	2	3	4 <i>high</i>
<b>DEMONSTRATES BASIC ARITHMETIC SKILLS</b>	Cannot perform basic arithmetic skills	Performs some arithmetic operations correctly but cannot complete the problem	Performs most arithmetic operations correctly with minor mistakes	Performs basic arithmetic operations with 100% accuracy
<b>USES CORRECT PROCESSES AND MODELS TO SOLVE PROBLEMS</b>	Unable to begin the problem	Understands the basics of the problem, but cannot translate information into a format that leads to a solution	Understands the problem, translates information into a solvable format, and solves the problem; May have minor arithmetic or translation errors	Understands the problem, analyzes information, translates into a solvable format, correctly solves the problem and accurately translates the results
<b>USES QUANTITATIVE LANGUAGE IN ORAL AND WRITTEN COMMUNICATION</b>	Cannot use appropriate quantitative language	Appropriately uses quantitative language at a basic level in oral and written communication	Appropriately uses basic and some advanced quantitative language in oral and written communication	Appropriately uses advanced quantitative language in all oral and written work
<b>APPLIES QUANTITATIVE CONCEPTS TO REAL - WORLD SITUATIONS</b>	Unable to begin the problem	Understands basic concepts, and can identify relevant data, but cannot select an appropriate model	Understands the problem, identifies relevant data, selects an appropriate model, but cannot consistently obtain and describe results	Understands the problem, identifies relevant data, and selects an appropriate model; Can obtain and accurately describe results and draw inferences
<b>CREATES AND/OR INTERPRETS GRAPHS, TABLES, AND DIAGRAMS</b>	Cannot provide any information about the graph	Can accurately read and interpret graphs, tables, or diagrams	Can accurately read, interpret, and create graphs, tables, or diagrams	Can accurately read, interpret, and create graphs, tables, or diagrams, and can use them to solve problems or predict change

COMMENTS:

# General Education Competencies



## Computer Skills Rubric

Student \_\_\_\_\_

Date \_\_\_\_\_

Course \_\_\_\_\_

Assignment \_\_\_\_\_

	1 <i>low</i>	2	3	4 <i>high</i>	<i>Comments</i>
<b>DEMONSTRATES AN UNDERSTANDING OF COMPUTER CONCEPTS AND TERMINOLOGY SUFFICIENT TO:</b>					
Purchase a computer:					
Install a computer					
Maintain a computer					
<b>DEMONSTRATES BASIC COMPUTER OPERATING SKILLS SUFFICIENT TO:</b>					
Start and stop a computer					
Start and stop a program					
Use the keyboard and mouse with accuracy					
Demonstrate file and disk management					
<b>PERFORMS COMPUTER APPLICATIONS SUFFICIENT TO UTILIZE:</b>					
Word processing (create and edit documents; store and retrieve documents; print documents)					
Spreadsheet (create and edit documents; store and retrieve documents; print documents)					
Database (create, store, and retrieve a database; add, remove, and edit records; design, save, and use reports; create, save, and use queries; print reports and queries)					
<b>DEMONSTRATES INTERNET SKILLS SUFFICIENT TO:</b>					
Perform research					
Utilize e-mail as a form of communication (establish an address; receive messages; send messages; reply to messages; forward messages; attach files to a message)					

**OVERALL COMMENTS:**

## General Education Competencies



### Global Awareness Rubric

Student \_\_\_\_\_

Date \_\_\_\_\_

Course \_\_\_\_\_

Assignment \_\_\_\_\_

This competency measures global awareness as recognizing the interconnectedness and interdependence of persons, places, and events on earth from a current as well as historical perspective.

IN REGARD TO BASIC TERMS AND CONCEPTS, THE STUDENT	1 Recognizes <i>low</i>	2 Defines	3 Uses	4 Evaluates/ synthesizes <i>high</i>	Comments
Demonstrates knowledge of societal structures of his/her national culture and other cultures					
Demonstrates knowledge of the critical global issues affecting the world today <sup>2</sup>					
Recognizes how cultures have changed over time					
Describes and analyzes the impact of culture and cultural differences on the course of world human events					

OVERALL COMMENTS:

<sup>1</sup> This includes the arts, literature, economics, history, philosophy, politics, religion, and family.

<sup>2</sup> These may include education, environment, health care, human and civil rights, infrastructure, nuclear proliferation, population, poverty, intellectual property rights, terrorism, and ethnic and tribal conflict.



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# WHO TO SEE

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Isothermal Community College main phone number is 828-286-3636.

<b>IF YOU NEED:</b>	<b>GO TO:</b>	<b>LOCATED IN:</b>	<b>CALL:</b>
Academic record	Student Services	Student Center	828-395-1465
Academic advising	Your Advisor or Advising Center		
Non-credit course	Continuing Education	The Foundation	828-395-1532
Books to purchase	Bookstore	Student Center	828-395-1633
Career assistance	Learning Support and Retention	Student Center	828-395-1436
Complaints & Student Conduct	Student Services	Student Center	828-395-1430
Complete High School	Continuing Education	The Foundation	828-395-1631
Counseling	Learning Support and Retention	Student Center	828-395-1660
Courses - registering	Your Advisor		
Courses - schedule adjustments	Departmental Secretary		
Curriculum changes	Admissions Office	Student Center	828-395-1442
Disability Services	Learning Support and Retention	Student Center	828-395-1732
Emergency Assistance	9-11 if you are using campus telephone system and Campus Enforcement 828-289-5850	Student Center	
English As A Second Language	Continuing Education	The Foundation	828-395-1476
Financial aid	Financial Aid Office	Student Center	828-395-4198
Graduation application	Student Services	Student Center	828-395-1465
Graduation information	Your Advisor		
Graduation orders	Bookstore	Student Center	828-395-1580
In-state/out-of-state tuition status	Admissions Office	Student Center	828-395-1442
Lost and found	Student Services Secretary or Receptionist/Switchboard		
Name/address changes	Student Services Office	Student Center	828-395-1442
Organize a student activity	Student Activities Coordinator	Student Center	828-395-4123
Transcripts	Records Office	Student Center	828-395-1465
Tuition, fees, payments	Business Office	Administration	828-395-1298
Supplemental Instruction	Supplemental Instruction Coord.	Lifelong Learning Center	828-395-1463
Withdraw from College	Your Advisor		



# ISOTHERMAL

**Spindale Campus Map**  
 208 ICC Loop Rd., Spindale, NC 28160  
 Telephone: 1-800-228-3838

- Advertising & Graphic Design
- Campus Print Shop
- Customized Training & Dev. Room
- Electrical Technology
- Broadcasting & Production Tech.
- WLOS
- WNCN
- AS Applied Sciences & Technology
- BLST
- Computer Engineering Technology
- Criminal Justice
- Early Childhood
- Electronics Technology
- Fuel Cells, Nursing Curriculum
- Practical Nursing

- AMB-Autobody
- Blue Room
- Business Administration
- Computer Information Technology
- Computer Programming Technology
- COIN-Building Construction Tech.
- Information Systems Technology
- Medical Office Administration
- Networking Technology
- Office Administration
- Red Room
- Web Technology

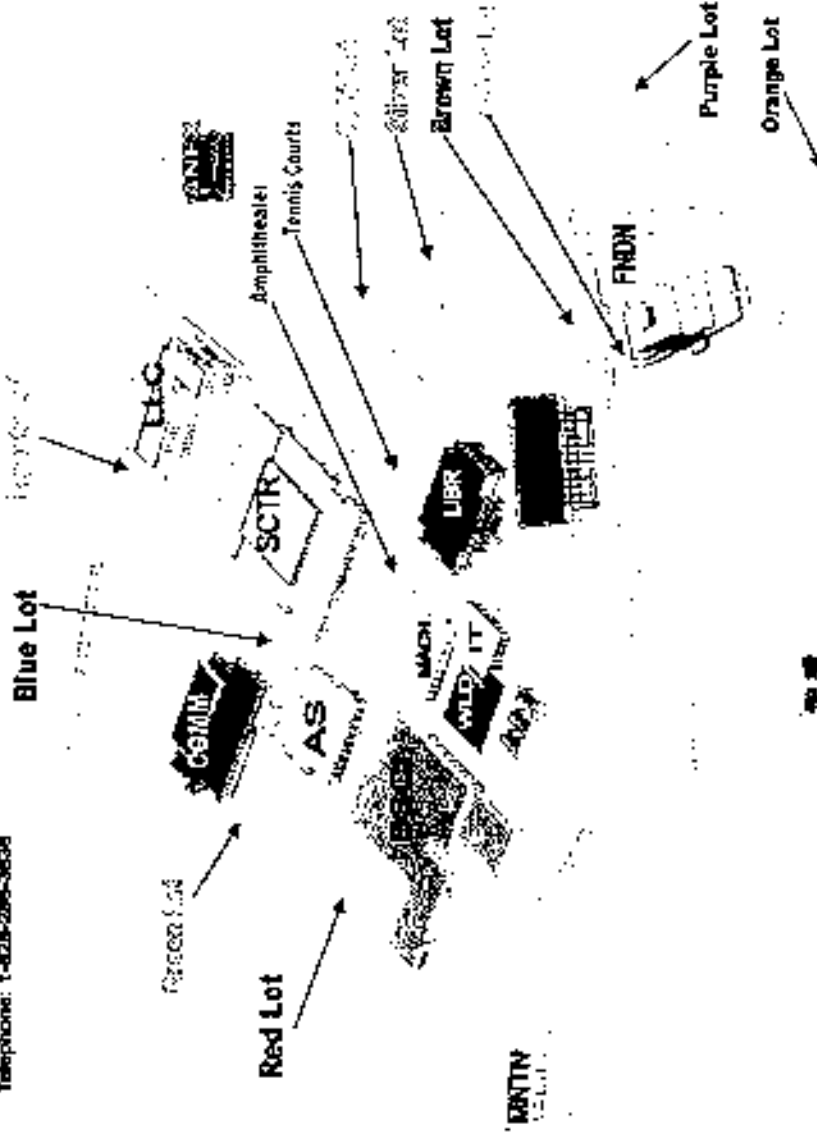
## MNTN-Maintenance

- College Vehicle Repair
- Shipping & Receiving

- Life-Long Learning Center
- Arts & Sciences Faculty
- REACH

English as a Second Language

(White House)



- IT-Information Technology
- IT Department
- Mechanical Drafting Technology

- MACH-Machining Technology
- Manufacturing Technology
- Mechanical Engineering Technology

- Metrology Lab
- Pottery & Ceramics

- SCTR-Student Center
- Admissions Office
- Advising Center
- ASSET/COMPASS Placement Testing
- Campus Bookstore
- Campus Resource Officer
- Career Readiness Certification
- College Cafe
- COIS-Counseling
- Employee Fitness Center
- Financial Aid Office
- Gym & Pool
- Learning Support & Retention
- PEP-Physical Education
- Student Services
- Visitor Information

- Computer Lab
- Library Auditorium
- Old Tryon Room

- Arts and Sciences Faculty
- Assessment, Research, & Planning
- Business Office
- Computer Lab
- Human Resources
- Presidential Office Suite
- Public Information Office
- Web Master
- Working Lab

## FNDN-The Foundation

- Ground Floor
- Basic Math/Adult High School/GED
- Customized Training & Development
- Continuing Education
- Deloitte Dining
- Cafe Truitt Dining
- Small Business Center
- Yellow Admissions
- Student Services
- Box Office
- Performing Arts & Conference Center
- Seminar Rooms A & B
- Stage

**Rutherford Campus**  
286 ICC Loop Road, P.O. Box 804  
Spindale, NC 28160-0804  
828-286-3636

**Polk Center**  
1255 W. Mill Street  
Columbus, NC 28722-9445  
828-894-3092

**[www.isothermal.edu](http://www.isothermal.edu)**

**Improve  
Yourself**