# Isothermal Community College

www.isothermal.edu

# GENERAL CATALOG 2007 - 2009



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**VOLUME XXVI** June, 2007

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# WELCOME TO ISOTHERMAL

Welcome, and thank you for choosing Isothermal Community College as you seek to improve the quality of your life through learning. Since 1964, thousands of individuals have taken the opportunity that you now pursue. The College continues to evolve, so you attend a different institution than many of your predecessors. By the same token, we are confident that you will have a positive experience that will assist you toward your personal goals.

Isothermal Community College has made a commitment to becoming a learning-centered institution. This carefully considered change builds upon the institutional values that are at the core of the College while propelling us forward to meet the unique needs of students. Simultaneously, we pledge to meet the needs of our business and industrial community, the need for a life-long education, and the cultural needs of our service region. We refer you to our mission, values, and vision statements, which appear later in this document so that you may gain further insight into the means through which we approach this formidable task.

As you come to know our institution, we are confident you will find a collection of individuals who are committed to excellence in all that we do as we eliminate barriers for student learning. You will also note that, while we commit the resources of this institution to student success, we place the responsibility for learning on our students and ask them to recognize that the goals they seek are often accompanied by the struggle and discomfort that is a part of personal growth. We genuinely believe that this environment is one in which students can flourish and learn the most valuable lesson of higher education, which is to be self-directed in their learning. In this way, students can continue to adapt to the breadth of changes that face them in the future.

The faculty and staff of Isothermal Community College welcome you to a challenging, learning experience and look forward to the opportunity for providing academic and personal support services that will help you reach your personal goals.

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#### ISOTHERMAL COMMUNITY COLLEGE

# 2007-2009 Academic Calendar

# Fall Semester 2007 (80 Days)

August 13 Monday Convocation - All Faculty & Staff August 14 Tuesday Professional Development Wednesday-Thursday Last Chance Registration-Fall Semester August 15-16 First Day of Classes, Schedule Adjustments Friday August 17

August 20 Monday **Schedule Adjustments** September 3 Labor Day Holiday Monday

Fall Break - Faculty, Students October 12-15 Friday, Monday

Academic Advising Day (No Classes) October 16 Tuesday

October 30 Tuesday **Grub Day** 

Last day to drop with "W" November 16 Friday

November 21-23 Wednesday, Thursday, Friday Faculty, Student Thanksgiving Break

Wednesday College closes at 1:00 pm November 21

Thursday, Friday, Monday Final Examinations December 13,14,17 Tuesday (11:00 a.m.) Faculty Checkout/Grade Rolls December 18

Winter Break

December 19-lan.2

December 20 Thursday College Closes at 1:00 pm

# Spring Semester 2008 (80 Days)

January 2 Wednesday Faculty & Staff Work Day January 3-4 Thursday-Friday Last Chance Registration-Spring Semester Monday First Day of Classes, Schedule Adjustments January 7 Schedule Adjustments January 8 Tuesday Martin Luther King Holiday January 21 Monday Professional Development (No Classes) February 12 Tuesday March 21-24 Friday & Monday Spring Holidays - Staff, Faculty, Students Spring Break - Faculty, Students (4 days) TBA TBA April 2 Wednesday Academic Advising Day (No Classes) April 11 Friday Last day to drop with "W" Thursday Sport's Day April 17 May 6-8 Tuesday, Wednesday, Thursday **Final Examinations** May 9 Friday (11:00 a.m.) Faculty Checkout/Grade Rolls Tuesday (7:30 p.m.) Graduation (Curriculum) May 13

Graduation (Adult High School & GED) Wednesday (7:30 p.m.) May 14

#### Summer Semester 2008 (50 Days)

May 15 Thursday Registration - Summer Semester First Day of Classes, Schedule Adjustments May 16 Friday July 4 Friday Independence Day Holiday Last day to drop with "W" July 11 Friday **Final Examinations** Friday July 25 Monday Faculty Checkout/Grade Rolls July 28 Tuesday-Monday Semester Break – Faculty, Students July 29-August 11

#### ISOTHERMAL COMMUNITY COLLEGE

# 2007-2009 Academic Calendar

# Fall Semester 2008 (80 Days)

August 12 Tuesday Convocation - All Faculty & Staff
August 13 Wednesday Professional Development

August 14-15 Thursday-Friday Last Chance Registration-Fall Semester

August 20 Monday Faculty & Staff Workday

August 21 Tuesday First Day of Classes, Schedule Adjustments

August 22WednesdaySchedule AdjustmentsSeptember 1MondayLabor Day Holiday

October 10 Friday Fall Break - Faculty, Students

October 14 Tuesday Academic Advising Day (No Classes)

October 28 Tuesday Grub Day

November 21 Friday Last day to drop with "W"

November 26-28 Wednesday, Thursday, Friday Faculty, Student Thanksgiving Break

November 26 Wednesday College closes at 1:00 pm December 12,15,16 Friday, Monday, Tuesday Final Examinations

December 17 Wednesday (11:00 a.m.) Faculty Checkout/Grade Rolls

December 18-Jan.1 Winter Break

December 22 Monday College Closes at 1:00 pm

#### Spring Semester 2009 (80 Days)

January 2 Friday Faculty & Staff Work Day

January 5-6 Monday-Tuesday Last chance Registration–Spring Semester
January 7 Wednesday First Day of Classes, Schedule Adjustments

January 8ThursdaySchedule AdjustmentsJanuary 19MondayMartin Luther King Holiday

February 12 Thursday Professional Development (No Classes)
March 18 Wednesday Academic Advising Day (No Classes)

April 2 Thursday Sport's Day

April 3 Friday Last day to drop with "W"

April 10 & 13 Friday & Monday Spring Holidays Staff, Faculty, Students
TBA Spring Break - Faculty, Students (4 days)

May 7, 8, 11 Thursday, Friday, Monday Final Examinations

May 12 Tuesday (11:00 a.m.) Faculty Checkout/Grade Rolls

May 13 Wednesday Faculty-Student Break

May 14 Thursday (7:30 p.m.) Graduation (Adult High School & GED)

May 15 Friday (7:30 p.m.) Graduation (Curriculum)

#### Summer Semester 2009(50 Days)

May 18 Monday Registration - Summer Semester

May 19 Tuesday First Day of Classes, Schedule Adjustments

July 4FridayIndependence Day HolidayJuly 24FridayLast day to drop with "W"July 28TuesdayFinal Examinations

July 29Wednesday (11:00 a.m.)Faculty Checkout/Grade RollsJuly 30-August 12Thursday-WednesdaySemester Break-Faculty, Students

# ISOTHERMAL COMMUNITY COLLEGE BOARD OF TRUSTEES

# APPOINTED BY RUTHERFORD COUNTY BOARD OF EDUCATION

Mr. Grady Franklin—Mooresboro, NC Mrs. Pat Morgan—Rutherfordton, NC Mr. J. Gordon Scott, III—Bostic, NC Mr. James T. Tanner—Rutherfordton, NC

# APPOINTED BY RUTHERFORD COUNTY COMMISSIONERS

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current, SGA President

# RUTHERFORD COUNTY BOARD OF COMMISSIONERS

Mr. Chivous Bradley Ms. Margaret Helton Mr. Charles Hill Mr. Paul McIntosh Mr. Brent Washburn

# POLK COUNTY BOARD OF COMMISSIONERS

Mr. Harry Denton Mr. Tommy Melton Mr. Ted Owens Mr. Tom Pack Mr. Warren Watson

#### **ADMINISTRATIVE OFFICES**

Office of the President	TRATIVE OTTICES
	D. I.I.
	President
Mike Gavin	Public Information Officer
Thad Harrill	Director of Customized Training & Development and
	Assistant to the President for Development
John W. Quinley	Director of Assessment, Planning, and Research
Glenda Scrugos	Secretary to the President
Russall Wicker	
Russell Wickel	Director of Ferforming Airs and Comerence Center
Fred L Fason	President Emeritus
ried J. Lason	resident Linentus
Office of the Vice President of Academic and Stude	ent Affairs
	Vice President of Academic and Student Affairs
Kathy Ackerman	
noction onen	Dean of Continuing Education
Vim Cold	Doop of Pusiness Sciences
NIII U0IU	Dean of Business Sciences Director of Developmental Education and Academic Support
Donna Harrison	Director of Developmental Education and Academic Support
	Dean of Student Affairs
Jeff Boyle	Director of Financial Aid
Ginger Hutcherson	
Maggie Killoran	Director of Enrollment Management
Kelly Metcalf	Registrar
Johnny Smith	Director of Career Čenter
Pat Wall	Financial Aid Counselor
Sugar Vaughan	
Susan vaugnan	Director of information services and Technology
Office of the Vice President of Administrative Servi	CES
	Vice President of Administrative Services
Diele Edwards	
Cindu AA- and	
Cindy Moore	Human Resources Manager
Amy Penson	Controller
Office of the Director of the Polk County Campus	
Cindu Damasu	Director of Bally County Commen
	Director of Polk County Campus
Anna Gibbs	

#### INTRODUCTION

# Historical Sketch

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. Their 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 September 5, 1964, Rutherford County citizens voted by a margin of more than16 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 October 1, 1964, by the State Board of Education. The first meeting of the Board of Trustees was held on November 17, and on November 23 the Board approved the name "Isothermal Community College." Fred J. Eason was chosen by the Board as the College's first president on December 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 County citizens and businesses for the purchase of land for the Spindale campus.

Until the new campus was ready, the vocational-technical, college transfer (begun in September 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 boosted 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 August 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 January 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 L. 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 houses drafting, broadcasting, advertising/graphic design and electronics engineering. The Center is also the home of public radio station WNCW, established in 1989. A second major building program resulted in The Foundation: A Center for Learning and the Arts. This 61,216 square foot facility opened in November of 1999 with a gala celebration performance by the North Carolina Symphony Orchestra. The Foundation houses conference center facilities, a 1,400 seat auditorium, and continuing education facilities with a range of services from literacy instruction to customized business and industry training.

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.

#### MISSION STATEMENT

#### Mission

Isothermal Community College exists to improve life through learning.

#### Values

In improving life through learning, we embrace the following values:

- · a commitment to excellence
- · nurturing an organizational climate of integrity, care and respect for individuals
- · innovation, evaluation and informed change
- · elimination of barriers to learning
- · self-directed learning and critical thinking
- the preservation and perpetuation of our diverse cultural heritage
- · serving as a catalyst for positive community growth

#### Vision Statement

To transform Isothermal Community College into a preeminent center recognized nationally for excellence in learning and services.

# **Vision Description**

- · Learning outcomes will be monitored and documented for student credentials
- · Learning facilitators will remove barriers and guide learners as they connect with resources, experts, and learning experiences
- · Options for learners will accommodate varying needs and abilities and will provide choices in support services and a variety of delivery methods any time, any place
- · All employees will be involved in ongoing professional development in support of the College mission

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, socio-economic 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.

Please direct inquiries regarding college admission information to:

Admissions Office Isothermal Community College 286 ICC Loop Road, P.O. Box 804 Spindale, North Carolina 28160-0804 Telephone: 828-286-3636 ext 288

#### 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
- · 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.

Beginning with the 1999-2000 fiscal year, a new system of accountability based on 12 performance measures has been implemented and will become the cornerstone of public accountability. Isothermal Community College is committed to using this new system to continuously improve the quality of programs offered.

In 2005, Isothermal met 11 of the 12 performance measures and 6 of the 6 required measures as shown on the following chart.

Performance Measure	State Performance Standard	Isothermal CSF Data	Standard Met
Progress of Basic Skills Students <sup>1</sup>	75%	88%	Yes
Performance of College Transfer Students <sup>1</sup>	Equivalent to Native UNC Sophomores and Juniors (85.9%)	81%	Yes
Passing Rates on Licensure/ Certification Exams for First-time Test Takers <sup>1</sup>	80% Aggregate 70% Individual	83% Aggregate 0 exam < 70%	Yes
Passing Rates in Developmental Courses	70%	69%	No
Success Rate of Developmental Students in Subsequent College-level Courses	No statistically significant difference between developmental and non-developmental students	Developmental Students 88% Non-developmental students 89%	Yes
Program Enrollment	Three-year average of 10 students per program	0 programs <10	Yes
Student Satisfaction of Completers and Non-completers <sup>2</sup>	90%	97%	Yes
Goal Completion of Completers <sup>1</sup>	95%	99%	Yes
Curriculum Student Retention and Graduation	60%	65%	Yes
Employer Satisfaction with Graduates	85%	94%	Yes
Employment of Graduates <sup>1</sup>	95%	100%	Yes
Client satisfaction with Customized Training	90%	100%	Yes

 $<sup>\</sup>boldsymbol{1}$  One of the five required performance-funding measures

Data Source: 2006 NCCCS Critical Success Factors Report

#### Office Hours

The administrative offices of the College are open Monday through Friday from 8:00 a.m. to 4:30 p.m.

# **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 Director of Enrollment Management to provide general information and a tour of the campus when requested, or you may arrange a tour by writing or calling the Director of Enrollment Management. When writing, please specify the time and the number of persons in your party.

<sup>2</sup> Sixth measure selected by the college

#### **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) 286-3636 ext. 202

# **Sexual Harassment Policy**

Isothermal Community College is committed to providing and promoting an atmosphere in which employees realize their maximum potential in the workplace and students can engage fully in the learning process. Accordingly, sexual harassment by and of both employees and students is prohibited by this policy.

Sexual harassment is defined as deliberate, unsolicited, unwelcomed verbal and/or physical conduct of a sexual nature or with sexual implications. The definition does not include personal compliments welcomed by the recipient or relationships which are freely entered into by both parties.

Isothermal Community College, as part of its continuing Affirmative Action efforts, endorses the following:

- 1. It is illegal and against the policies of Isothermal Community College for any employee to sexually harass another employee by (a) making unwelcomed sexual advances or requests for sexual favors or other verbal or physical conduct of a sexual nature a condition of an employee's continued employment or b) making submissions to or rejections of such conduct the basis for employment decisions affecting the employee or (c) creating an intimidating, hostile, or offensive working environment by such conduct.
- 2. It is against the policies of Isothermal Community College for any employee to sexually harass a student by (a) making unwelcomed sexual advances or requests for sexual favors or other verbal or physical conduct of a sexual nature a condition of a student's grade, progress, or recommendation or (b) creating an intimidating, hostile, or offensive learning environment by such conduct.
- 3. It is against the policies of Isothermal Community College for any student to sexually harass another student or college employee by (a) making unwelcomed sexual advances or by (b) creating an intimidating, hostile, or offensive environment by such conduct.

Sexual harassment shall be deemed a form of discrimination based on sex as prohibited by Section 703 of Title VII of the Civil Rights Act, and North Carolina General Statute 126-16 (in the case of employees) and Title IX of the Education Amendments Act of 1972 (in the case of students).

Employees of Isothermal Community College wishing to discuss a possible sexual harassment incident should contact the Vice President of Administrative Services.

Isothermal Community College students, faculty or staff who have a complaint or grievance regarding sexual harassment should contact the Dean of Student Affairs.

### 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 <a href="www.FoundationShows.org">www.FoundationShows.org</a> 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.

#### POLK COUNTY CAMPUS

The Polk County Campus 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 nursing assistants. 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 periodically. News releases describing various courses and special events are placed in local newspapers.

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

The Polk County Campus is fortunate to have dedicated volunteers actively participating in the Polk County Campus I.C.C. 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 Campus are Monday through Thursday, 8:00 a.m. to 9:30 p.m., Friday from 8:00 a.m. to 4:30 p.m., and other prearranged times including weekends. Additional information may be obtained by visiting the campus or calling 828-894-3092.

Polk County Campus 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 Campus.

#### **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, Certified Nursing Assistant, Emergency Medical Technician (EMT), Firefighter Certification, and a wide range of special interest classes.

#### Adult High School Diploma Program

Isothermal Community College in cooperation with the Polk County Schools has developed an Adult High School Diploma Program which provides an adult the opportunity to complete high school. There are no fees for these classes.

Requirements for an adult high school diploma include:

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

Each student in the program arranges his own study schedule and proceeds at his own individual pace.

#### **Adult Basic Education**

Adult Basic Education is a program designed to improve skills in reading, writing and math. These skills are related to practical situations that adults deal with in everyday life. The Adult Basic Education instructors work closely with the Polk County Literacy Council which provides tutors for students desiring one-on-one instruction.

Day and evening classes are available. There is no charge for these classes.

Upon completion of the Adult Basic Education program, a student may enroll in the Adult High School Diploma or GED program. High School completion programs are held at the same times and places as the Adult Basic Education classes.

# 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 on the Polk Campus to study and complete their practice tests. There is a charge of \$7.50 for the GED test.

A student must be a resident of North Carolina to take the actual GED test in North Carolina.

#### English as a Second Language (ESL)

The Polk County Campus 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.

#### **ADMISSIONS**

(see www.isothermal.edu/admissions formoreinformation)

# ADMISSION REQUIREMENTS AND PROCEDURES

Isothermal Community College operates an "Open Door" admission policy. Most applicants are required to have a high school diploma or its equivalent. To inquire about which programs do not require a high school diploma or its equivalent, please call Admissions, ext. 251. The following are specific requirements for degree, diploma, and certificate programs:

- 1. Complete an application for admission. (paper or online at 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, and 500 or higher in critical reading or verbal. ACT scores must be 21 or higher in English and 20 or higher in math. SAT and ACT scores should be no more than five years old. SAT and ACT scores may waive developmental courses. However, placement testing is required for placement in higher level college classes. 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 Career Center or on the webpage, www.isothermal.edu/career/Health.Sciences.Advising.htm.

**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 transcripts (high school and college) of all education 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 fulltime, 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 = \$4,650. (\$2,650 for tuition, \$500 for books/supplies, and \$1,500 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 SAT Scores (500 or higher for verbal and 500 or higher for 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 Mike Davis at 828-286-3636 ext.275 or mdavis@isothermal.edu. 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 must also submit:

- · Copy of the "notice of action" sent to you from DHS regarding your application for residency or a copy of your valid green card
- Copy of valid passport
- ·\*Completed North Carolina residency application (please contact Admissions at x. 251 to have one sent to you)
- \*Further documents will be required 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 828-286-3636 ext. 288.
- \* 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 Alien** – For students who do not have a valid visa for being in the USA but still wish to come to college tuition rates will be out-of-state. In addition to the general admission requirements noted above, you must also submit:

- "Official" TOEFL scores (500 or above for the paper test or 173 or above for the computerized test) OR "Official" SAT Scores (500 or higher for verbal and 500 or higher for math).
- · Face-to-face meeting with the Director of Enrollment Management. Contact # 828-286-3636 ext. 288.

Other – If you feel you are qualified to attend college for a reason not outlined above, please contact the Director of Enrollment Management at 828-286-3636 ext. 288 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, etc., 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 828-286-3636 ext. 288.

# 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 with 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.

#### 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 Affairs.

#### 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 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 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.

### Rutherford Early College High School (REaCH):

REaCH is an innovative high school on the campus of Isothermal. Student 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 will graduate with both their high school diploma and their associate's degree.

# **DUAL/CONCURRENT ENROLLMENT OF HIGH SCHOOL STUDENTS**

#### **Contact Person**

The contact for Dual/Concurrent Students is Alice McCluney, the College-High School Liaison. Alice's number is 828-286-3636 ext. 473.

#### Steps for Enrolling as a Dual/Concurrent Student

# Step # 1

Fill out an application to ICC. This can be done either online at <a href="www.isothermal.edu">www.isothermal.edu</a> or by handing in or mailing a paper copy to the Admissions Office in the Student Center at ICC. The mailing address is: ICC, PO Box 804, Spindale, NC 28160. <a href="Peleses submit">Please</a> submit your application to ICC 24 to 48 hours prior to registration of classes.

<u>What is a Prerequisite?</u> - A prerequisite is something that is pre-required before you will be allowed into a course (see the course descriptions in the back of the ICC Catalog to determine if prerequisites apply).

If the classes that you are interested in <a href="have English or math prerequisites">have English or math prerequisites</a>, you must take our placement test (called ASSET or COMPASS). For information on the ASSET test, read STEP # 2. If the classes you are interested in <a href="have no prerequisites">have no prerequisites</a>, move immediately to STEP # 3.

#### STEP # 2 – PLACEMENT TEST OR WAIVER

To be scheduled for the ASSET test your application must first be in our computer system (which can only happen if you have submitted one to Admissions and allowed for a 24 to 48 hour processing time). If you have submitted an application, you can call Alice McCluney at 828-286-3636 ext. 473 to schedule a time to take the test.

It is possible to be waived from our placement test. For ICC to determine if you are eligible for a waiver, the ACT or SAT scores below must be provided to ICC in an official form (in sealed envelope from issuing institution). ACT and/or SAT scores can be submitted on an official high-school transcript.

# Waiver from English portion of ASSET

SAT Verbal – 500 or higher ACT English – 21 or higher

ASSET or COMPASS scores no more than 3 years old placing you into college-level English

or

Previous college-level English course with appropriate grades (must be evaluated by ICC)

# Waiver for Math portion of ASSET

SAT Math – 500 or higher ACT Math – 20 or higher

ASSET or COMPASS scores no more than 3 years old placing you into college-level math

or

previous college-level math course with appropriate grades (must be evaluated by ICC)

#### STEP # 3 – DUAL/CONCURRENT ENROLLMENT FORM SIGNED

You must bring your concurrent enrollment form (complete with course selection and high school official signature) to the College-High School Liaison contact (Alice McCluney) at Isothermal Community College. Alice must also sign that form before you will be allowed to register for classes. If you are coming to take the placement test, you can get it signed that same day. Otherwise, you can either make an appointment or call in advance to ensure that someone is available to sign your form.

# STEP # 4 – REGISTRATION INTO CLASSES

After you have submitted an application, any documentation required by ICC, done your placement test (if applicable), <u>and</u> gotten your Dual/Concurrent Enrollment form signed by the College-High School Liaison Contact, Alice will assist you in getting registered for your class(es).

#### **DEVELOPMENTAL 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 developmental courses in the areas of English, reading or mathematics as a result of any one of the following conditions:

- 1. A scaled score below the cut-off scores established by the College on any of the ASSET or COMPASS placement tests (Writing Skills, Reading Skills, Numerical Skills, Elementary, Intermediate, or College Algebra).
- 2. Referral by a faculty member to developmental 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 College. Students scoring below a minimum score in any one of the three areas must meet with the appropriate Student Affairs personnel to discuss their options.

Students should be encouraged to enroll in required developmental courses during the first semester of their enrollment because of reading and writing requirements in 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 developmental courses to advance into college curriculum courses. Developmental 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 developmental courses, students may enroll in the regular sequence of English and mathematics courses. Because credits for developmental courses are used as institutional credits only, they cannot be counted toward graduation. Developmental 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 Developmental Education and Academic Support.

#### **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 his 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 2007 or later. Students enrolled prior to the fall of 2007 must confer with their advisor and the Office of Student Affairs 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 his 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 ADDING 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 Affairs 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.

# **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 Affairs 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 Affairs and printed in the Student Handbook.

#### 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. Transcript(s) 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 Affairs. The program change form must be submitted to the Admissions Office.

#### 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.
- 3. Submit the Drop/Add form to have recorded in the computer.

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 Affairs may approve a drop after the deadline.

#### Withdrawal From College

All Official Withdrawals Must:

- 1. Be made through the Advisor before the final exam period begins.
- 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".

#### Withdrawal Date

The official withdrawal date will be the date the withdrawal form is submitted.

#### 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#.

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 readmission 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 Affairs Office.

### **TUITION AND FEES**

Isothermal 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**

A student activity fee is charged fall and spring semesters. There is no student activity fee for summer semester. The proceeds from this fee are budgeted in support of activities that benefit students.

#### **Student Identification Cards**

Student Identification Cards are issued to students who pay the student activity fee. Students who lose the Student Identification 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, s/he 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 at 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. Isothermal 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 gout 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 <u>A Manual to Assist the Public Higher Educations institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes</u>, available in the Student Affairs 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.
- I. 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**

Residents 65 years of age and older as of the first day of classes can be exempted from the payment of curriculum tuition and extension registration fees in accordance with Chapter 981 of the 1977 Session Laws.

# **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.
- (3) Refund will be mailed to student by the Business Office.

#### **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 Affairs, Supplemental Instruction, and Academic Advisors.

# Potential Consequences related to ongoing academic alert

There will be times when student 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 Affairs 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 timeframe. After observing the suspension period, the student must seek approval from the Dean of Student Affairs 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.

#### **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.

#### **Examinations**

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

# **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:

Incomplete

#### **Grade Significance Grade Points** Excellence Α 4 per semester hour В 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 0 per semester hour W Withdrawn

0 per semester hour

Y	No Credit—Audit	0 per semester hour
S	Satisfactory	0 per semester hour
U	Unsatisfactory	0 per semester hour
Р	*Progress	0 per semester hour
CE	Credit By Examination	0 per semester hour
DE	Diagnostic Examination	0 per semester hour
NS	No Šhow	0 per semester hour
CR	Transfer Credit	0 per semester hour
R	Repeat	0 per semester hour

An asterisk (\*) beside a letter grade indicates developmental course work, institutional credits only.

A percent (%) beside a letter grade indicates student was granted an academic fresh start, does not count in GPA calculation.

A number (#) beside a "W" grade indicates student was administratively dropped, does not count in GPA calculation.

### **Grade Reports**

Final grade reports are furnished to the student by mail at the close of Fall, Spring, and Summer terms.

# **Progress Policy**

\*The "P" (PROGRESS) grade allows a student in a developmental education course, who has attended regularly and made satisfactory progress, to continue the course in a subsequent semester until all the course requirements are met. The student must register for the course in the subsequent semester. The hours credit and hours attempted will not be given until the course is completed. The grade of "P" may be assigned only the first semester the student enrolls in a developmental course. Exceptions to continue the "P" into a third semester must have the written permission of the instructor and the Director of Development Education.

# **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. Grade appeals must be made within the first four weeks of the succeeding semester. The Dean/Director will refer the appeal to the Vice President for Academic and Student Affairs. A change of grade will not be made except as a result of the Vice President's decision. The decision of the Vice President of Academic and Student Affairs is final in all cases involving grade appeals.

#### **Incomplete Policy**

A grade of "I" is assigned when the course work is incomplete. Unless the instructor has established an earlier timeline 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.

#### **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 Affairs. 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 Affairs. 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 only receive benefits for repeated courses if the prior grade is an "F".

# 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 Affairs 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 "D" may be considered for transfer in sequence courses or special cases. In all cases the cumulative grade point average on all courses accepted must be at least 2.0 ("C" equivalent). 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 with 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 <u>College Credit Recommendations</u> and <u>The Guide To Evaluation of Educational Experiences in The Armed Services</u>. 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 Developmental 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.)

#### **CLEP Exam:**

A student can also receive course credit through the College Level Examination Program. These exams were designed for persons who have gained knowledge through experiential learning or personal study and have not yet received college credit for their learning. The student must make arrangements to take the exam and have the score sent to the Registrar (contact the Career Center in Student Affairs for test applications and information on testing centers). Credits will be given only for subject examinations, not for the general examinations, and then only according to the following chart: (Note: some transfer institutions may not accept CLEP Credit since it is not honored by the Comprehensive Articulation Agreement.)

# **CLEP CHART**

Exam	Minimum Score For Awarding Credit	ICC Course(s) Comparable	Semester Hours
Financial Accounting	50	ACC 120	4
American Government	50	POL 120	3
History of U.S. I	50	HIS 131	3
History of U.S. II	50	HIS 132	3
American Literature	50	ENG 231, 232	6
Biology, General	50	BIO 111, 112,	8
Calculus	50	MAT 271, 272	8
Chemistry	50	CHM 151, 152,	8
College Algebra	50	MAT 161	2
College French Level I	50	FRE 111, 112	8
Pre-Calculus	50	MAT 175	4
College Spanish level I	50	SPA 111, 112	8
*Level II	50	SPA 211, 212	8
Information Systems			
and Computer Applications	50	CIS 110	3
English Literature	50	ENG 241,242	6
Freshman College Composition	50	ENG 111, 113/114	6
Principles of Marketing	50	MKT 120	3
Principles of Management	50	BUS 137	3
Principles of Microeconomics	50	ECO 251	3
Introduction to Psychology	50	PSY 150	3
Introduction to Sociology	50	SOC 210	3
Western Civilization I	50	HIS 111	3
Western Civilization II	50	HIS 112	3

<sup>\*</sup>If Level II of a Foreign Language is taken without Level I, then credit for both levels, (i.e., 16 semester hours) will be awarded if the necessary minimum score is attained.

# Advanced Placement (AP) Examination

To be in compliance with the Comprehensive Articulation Agreement between the North Carolina Community College System and the University of North Carolina System, the following guidelines will apply regarding Advanced Placement credit:

If a student has taken AP courses in high school and the respective exam with a grade of (3) or higher on the exam, then the student can receive college credit for that score. For two semesters of credit in sequence courses, a student must make a score of 4 or 5. A score of 3 for courses such as these will receive one semester of credit. For example, a score of 4 or 5 on a biology AP exam will be awarded credit for BIO 111 and 112 (8 semester hours); for a score of 3 on the same exam, a student will receive credit for BIO 111 (4 semester hours).

Note: Regarding AP Calculus, the following placement guidelines will apply at Isothermal:

- A score of 3 or better on Calculus A-B will earn credit for MAT271 only (4hrs.)
- A score of 3 on Calculus B-C will earn credit for MAT272 only (4hrs.)
- A score of 4 or 5 on Calculus B-C will earn credit for both MAt 271 and 273 (8hrs.)

# 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. 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

# Dean's List

Dean's List is designed to recognize all students whose academic performance is outstanding. In order to qualify for the Dean's List, 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. Developmental Education hours do not count toward hours earned for the Dean's List.

#### Director's List

The Director's List recognizes the academic performance of students who have enrolled in Developmental Education. In order to qualify for the Director's List, a student must carry at least twelve (12) semester hours including one or more developmental courses. The student must also maintain a 3.25 grade point average for the semester.

# Special Achiever's List

The Special Achiever's List recognizes part-time students who maintain a cumulative GPA of 3.25 as they make progress toward the achievement of an associate's degree. These students will be recognized when they have accumulated 15, 30, and 45 curriculum credit hours.

#### **GRADUATION**

# Requirements

In order to qualify for a degree, diploma, or certificate in their 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 their program of study, and
- 4) Submit an application for graduation.

The student is responsible for monitoring his/her 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(s) 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 Affairs 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 expected to participate in graduation exercises.

# **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.

#### **Graduation Orders**

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

# **HONORS**

#### **Awards Day**

Awards Day is an annual assembly held to recognize students whose scholarship, leadership, citizenship and service have been meritorious. Appropriate certificates, trophies, or plaques and letters of citation are presented to the winners.

#### Who's Who Among Students in American Junior Colleges

Annually, a directory recognizing outstanding campus leaders from over 500 junior colleges in the 50 states and the District of Columbia is published in Tuscaloosa, Alabama. Only second-year college students are eligible for nomination. Nominees are selected each year by a faculty committee within each department of the College. The number of nominees is determined by the national office and is based on current enrollment. The selection is based on above average academic standing, service to the community, leadership in extracurricular activities and future potential. The winners submit biographical information which is included in the Directory and also receive certificates suitable for framing during a recognition ceremony during the spring.

# Semester Outstanding Student Award

In order to recognize students who display excellence, the Outstanding Student Award is presented each semester in the following categories: full-time students in Business Sciences, Arts and Sciences, Applied Sciences and Technology (degree and diploma), Developmental Education, and Academic Support, and full-time or part-time students in the adult high school program. Students are selected by the faculty and staff in each area. Recognition certificates are presented in the fifteenth week of the semester.

# **Annual Outstanding Student Award**

Each year in the spring, students who display overall excellence are chosen from the Applied Sciences and Technology, Arts and Sciences, and Business Sciences program areas for recognition as Annual Outstanding Students. Four students in each of the academic areas are selected by the faculty and staff in each area. Recipients are recognized at graduation with the presentation of a plaque or at the annual awards day ceremony.

# STUDENT SUPPORT SERVICES STUDENT AFFAIRS

#### **Mission Statement**

The mission of the Student Affairs department is to support the learning college environment through the provision of services and programs that are inviting, people centered, accessible, and designed to facilitate student development and learning.

#### The Student Center

The hub of student activity is the Student Center which is designed to stimulate social interaction as well as relaxation. Located in the Student Affairs building the Center offers a lounge, student conference room, television area, and dining area where food service is available. The Bookstore and the Workforce Investment Act office are also located in this area.

# ACA 115: Student Success and Study Skills

The orientation process is further extended for associate degree seeking students who are required to take 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 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, motivation, wellness, anger management, goal setting, career exploration, note taking, reading methods, study techniques, critical thinking, interpersonal skills, personality types, 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.

#### Career Center/Counseling

Career Center services include 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 career center.

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 services play an important role for staff and faculty on campus through Student Affairs services and the TALC Campus Life Committee and as a source of educational materials for the entire campus. Students may also access the Career Center website for information and helpful links available at www.isothermal.edu/career.

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 Services**

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
- 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 Services**

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

ICC implemented the ASSET testing program in the fall of 1990. 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 ASSET placement test prior to admission to ICC. ASSET measures a student's present skill levels in Writing, Reading, Basic Mathematics, and Algebra and provides valuable assistance in initial course placement.

In the summer of 2000, the College adopted COMPASS as a supplemental placement testing program. Also developed by ACT, COMPASS is an un-timed computerized placement testing program. It tests students in the same areas as does ASSET and provides information for class placement.

#### lob Placement

Computer stations with Internet access are available in the Career Center for job search and career assistance. In addition, instructors in each program area assist students as requested.

# **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 Affairs. 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. A member of the Student Affairs staff is assigned the responsibility of coordinating all student activities and serves 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 student organizations.

The S.G.A. President is the chief executive of the Student Government Association which includes program area 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.

The following clubs and activities are chartered or otherwise recognized on the campus:

Art and Computer Design Club (ACDC)

Afro-American Club

Chess Club

Cosmetology - Day

Cosmetology - Evening

Foothills Nursing Consortium Student Nurses' Association

International Association of Administrative Professionals (IAAP)

**Intramural Sports** 

Isothermal Education Society

Math Club

Phi Beta Lambda (PBL)

Phi Theta Kappa (PTK)

Twin Phoenix Karate Club

Anuran (Poetry Magazine)

Students Against Meth (SAM)
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 a photography contest drawing on the talents of Isothermal and the communities it serves. Primary focus of The Anuran is student and community work.

The purpose of THE MENTOR is to provide a forum for faculty and staff. This annual publication features articles on pedagogy, personal essays, poetry, fiction and art work by employees of the College.

All these publications of Isothermal Community College must abide by state and federal laws governing proper journalistic behavior as well as local college regulations.

The College's responsibilities to these publications include the following:

- 1. To provide fiscal support necessary for materials, supplies, equipment, and printing.
- 2. To provide an appropriate work space.
- 3. To make arrangements for responsible, qualified faculty/professional sponsors to oversee student work.

# **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 GI Bill

Chapter 31 - Vocational Rehabilitation

Chapter 35 - Survivors' & Dependents Educational Assistance

Chapter 1606 - Montgomery GI 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:

- Must 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
- Must complete the Application Process at Isothermal

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 Veterans
  Office.
- · 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 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/career/veteransaffairs.

#### STUDENT FINANCIAL AID

Isothermal Community College offers a variety of financial assistance for students who, without such help, would be unable to pursue their educational goals. Financial aid awards may come in one or more of the following forms: grants, scholarships, or part-time employment. 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 <u>supplementary</u> to the efforts of the family.

# How to Apply for Financial Aid

- 1. Complete all the requirements for admission to the College.
- 2. Complete the Free Application for Federal Student Aid (FAFSA). This form can be completed using a paper application or on the web at <a href="https://www.fafsa.ed.gov">www.fafsa.ed.gov</a>. This form should be completed <a href="https://www.fafsa.ed.gov">annually</a>.
- 3. Submit a completed Isothermal Community College Financial Aid Data Sheet.
- 4. In some cases a signed copy of student/spouse/parent federal tax returns, 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.

A paper FAFSA may be obtained from the Financial Aid Office at Isothermal Community College or in high school guidance offices. An online version of the FAFSA can be accessed at <a href="www.fafsa.ed.gov">www.fafsa.ed.gov</a>. 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 optimally 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. In order to be considered for the North Carolina Student Incentive Grant or the North Carolina Community College Grant, the FAFSA must be submitted prior to March 15<sup>th</sup> preceding fall enrollment. 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 or other contact information 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 via Congress. This grant is designed to assist low-income families and does not have to be repaid.\*

# 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 <a href="www.studentaid.ed.gov">www.studentaid.ed.gov</a> or by obtaining a copy of The Student Guide from the Financial Aid Office.

# North Carolina Student Incentive Grant (NCSIG)

This program is offered by the North Carolina State Educational Assistance Authority through the College Foundation, Inc. and is available to students who are U.S. citizens and are residents of North Carolina for tuition purposes. The student must have completed the FAFSA prior to March 15<sup>th</sup> preceding the fall semester to be considered for this grant. This grant is awarded during the fall and spring semesters to eligible students who have enrolled in at least 12 credit hours during each semester and have met the college's Satisfactory Academic Progress requirements. Annual award amounts are contingent on funding levels approved by the North Carolina General Assembly. An additional application is not required.

#### 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 for tuition purposes. The student must have completed 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. No additional application is required.

#### Prospective Teacher Scholarship/Loan (PTSL)

This is a state funded program designed for students who are seeking to enter the teaching profession or who are seeking teacher certification. To qualify for this program the student must be a legal resident of North Carolina and be attending a North Carolina college or university with an approved education program or enroll in a college transfer program at a community college within the North Carolina system. For more detailed information on eligibility requirements, applications, and application deadlines students should visit <a href="http://www.dpi.state.nc.us/scholarships">http://www.dpi.state.nc.us/scholarships</a>.

# Teacher Assistant Scholarship Loan: Two-Year Degree (TASL)

This program provides funding for students to attend a North Carolina community college to receive an early childhood associate degree. It is available to students who are legal residents of North Carolina. For more detailed information on eligibility requirements, applications, and application deadlines students should visit <a href="http://www.dpi.state.nc.us/scholar-ships">http://www.dpi.state.nc.us/scholar-ships</a>.

# Nurse Scholars Program: Undergraduate Program (NSP)

This program was created by the North Carolina General Assembly to address the shortage of trained nurses practicing in North Carolina. It is administered by the North Carolina State Education Assistance Authority (NCSEAA). It is a competitive, merit-based scholarship/loan program available to students who have chosen to enter the nursing profession. Students wishing to apply for this scholarship must be U.S. citizens and North Carolina residents for tuition purposes. They must also be planning on entering a nursing program at one of the North Carolina colleges. Twelve months of service as a full-time nurse cancels one year of NSP loan obligation. Applications can be obtained from the Financial Aid Office or by writing NCSEAA, P.O. Box 14223, Research Triangle Park, NC 27709-4223 or by calling (919) 549-8614.

# Nurse Education Scholarship/Loan Program (NESLP)

This program is available to North Carolina residents who are enrolled in a nurse education program and plan to obtain full-time employment as a nurse in the state of North Carolina. For each six months of employment as a nurse, a portion of recipient's loan obligation will be cancelled. Award amount will vary dependent upon fund availability and the number of NESLP applicants. Applications can be obtained from the Financial Aid Office starting in November of each year.

#### Student Emergency Loan Fund

The Student Government Association (SGA) has established a loan fund to assist students having a minor financial crisis by providing monies that will enable them to continue their education. A minor financial crisis generally is defined as needing money for a power bill, an unpaid medical bill, or a car repair. The maximum amount available through this fund is \$200 and the check is normally made out directly to creditor, not the student. An application can be obtained from the Career Center. Supporting documentation is required and all emergency loans must be repaid.

# **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 information regarding eligibility requirements and application deadlines.

Andrew Major Scholarship Dr. J. F., Sr. and Ola H. Whisnant 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 JD Cooley Scholarship Julia Goforth Memorial Scholarship Kate Moore Scholarship Lou Anne Perkins Nelson Scholarship Lovelace Nursing Scholarship Mable E. and James B. Doggett Memorial Music Scholarship Monroe and Ada Moore McDonald Scholarship Norris Ruppe Sunday School Class Scholarship Pi Conclave of Kappa Kappa lota Scholarship Pinkie H. and T. D. Carson Scholarship Polly Hemphill Memorial Business Sciences Scholarship

Putnam Scholarship Robert R. Spratt Memorial Scholarship State Employees Credit Union Foundation Scholarship W. H. "Shorty" McDonald Scholarship Wachovia 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 <a href="https://www.fastweb.com">www.fastweb.com</a>. Information on other searches can be obtained from the Financial Aid Office.

#### Lee L. Powers Scholarship Fund

The Lee L. Powers Scholarship Fund 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 Fund has allowed Isothermal Community College to create two scholarships, the Lee L. Powers Service Scholarship and Lee L. Powers Merit Scholarship.

# Lee L. Powers Service Scholarship

The Lee L. Powers Service Scholarship was established to ensure total funding of tuition for all eligible students. Once tuition demands are met and if additional revenues are available, a stipend may be allotted 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.

#### 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.

Individuals interested in applying for the Lee L. Powers Service Scholarship and/or the Lee L. Powers Merit Scholarship must complete the Free Application for Federal Student Aid (FAFSA). This application is available in the Financial Aid Office or online at www.fafsa.ed.gov. Contact the Financial Aid office regarding scholarship 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. The North Carolina Student Incentive Grant and the North Carolina Community College Grant 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 probation. The student will be notified of his/her probationary 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 probationary semester, he/she will be placed on financial aid suspension until he/she earns the minimum required cumulative grade point average. The student is not eligible for aid while on suspension.

\*Credit hours attempted will be cumulative and will include all hours 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 law requires 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.\* Example: If a program requires 65 semester credit hours to complete, then a student may receive financial aid for 97.5 (65 x 150%) semester hours attempted.

Once the student has attempted 150% of the credit hours allowed in his/her program 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 <u>cumulative</u> and will include all hours for which the student was enrolled at the end of the census 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.

# **Progression Rate**

Any student who has not earned 67% of the cumulative credit hours attempted at the end of each semester will be notified of his/her probationary status in writing and may receive federal financial aid for one more semester of enrollment, consecutive or otherwise. If the student does not earn the minimum required cumulative hours during the probationary semester, he/ she will be placed on financial aid suspension and all federal student aid will be terminated. The student will remain on financial aid suspension until he/she earns the minimum required cumulative credit hours.

Both the qualitative and quantitative standards are cumulative and include all periods of enrollment at Isothermal, 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 Developmental Coursework**

Students who have been accepted into a degree program and are required to take developmental coursework as determined by placement testing, may receive financial aid up until they have <u>attempted</u> a total of 30 developmental semester hours. All developmental semester hours attempted will be counted towards the 30 hour maximum limit regardless of the grade received. Developmental 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 less any attempted hours in a previous program for which the student did not receive a diploma or degree.

# 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 encouraged.
- 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.

# Policy on Return on Title IV Funds

Federal financial aid is awarded to a student under the assumption that the student will attend school 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 school 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, Stafford Loans, PLUS 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 school 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 school 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 originally 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 school may automatically use all or a portion of the student's post-withdrawal disbursement for tuition, fees, and room and board charges. For all other school charges, the school needs the student's permission to use the post-withdrawal disbursement. If the student does not give permission, which some schools 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 school 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 school must return this amount even if it didn't keep this amount of your FSA program funds. If the school 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 school may have. Therefore, the student may still owe funds to the school to cover unpaid institutional charges. The school may also charge the student for any FSA program funds that the school was required to return. If the student does not know what the school's refund policy is, they may ask for a copy. The school can also provide you with the requirements and procedures for officially withdrawing from school.

#### 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 828-287-0262 or 828-286-3636 ext. 315.

# **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.

# **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. Monday through Friday and Tuesday 5:30 p.m. to 7:30 p.m. The bookstore also operates extended hours during Last Chance Registration and the first and second week of classes.

#### INFORMATION SERVICES AND TECHNOLOGY

# **Library** (www.isothermal.edu/library)

The mission of the library is to provide resources, services, and facilities that enhance and promote the teaching and learning process and that complement the resources of other libraries in the region. The library contains materials in print and non-print formats in the general collection and supports a local history collection and special collections in the Career Center and in the Small Business Center. The library provides access to the Internet and to a variety of online catalogs and databases through wired and wireless networks. Public computers in the lobby and in the library's instructional lab offer students ready access to electronic tools and resources and to information literacy training. Library services for Polk County Campus students are provided through formal agreement with Polk County Public Library.

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. Through the library website, students in traditional and online courses will find helpful information such as research tips, examples of documentation styles, shortcuts to NCLIVE databases, links to general and course-specific Internet sites, and access to the library handbook. An online Information Literacy tutorial may be used by faculty or students to review and reinforce concepts covered in library instruction. The library maintains a collection of professional development resources in support of the Learning College environment through library reserves and electronically on the college website.

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.cmclibraries.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

### **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, the College website (www.isothermal.edu), wireless and wired networks, and the workstations necessary to access online information.

#### **Distance Learning Services** (www.isothermal.edu/onlcourse.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	The instructor and students meet face-to-face, according to designated dates, times, and location; the Internet is not used to deliver instruction. [Note: May include online research components or other online resources. However, instruction is not delivered via Internet as in a 'traditional' course.]
Internet or Online	IN	100% of instruction is delivered through the Internet. [Note: May include a required face-to-face orientation or proctored exams.]
InformationHighway/ Two-way Video	IH	50 - 100% of instruction is delivered by two- or more way video.
Web-supported or Web-assisted	WB	Primary instructional delivery is via traditional face-to-face method with a requirement that students have Internet access as a component of instructional delivery. [Example: A class that meets on a regular schedule, but students are required to access instructional material, submit assignments, and/or interact with the instructor and other students via the Internet.]
Hybrid	HY	Primary instructional delivery is online with a requirement that students also meet in traditional face-to-face sessions as determined appropriate by the college. [Example: An online course with a requirement that students attend one or more face-to-face labs.]

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.
- A *web-supported* or w*eb-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 personal conduct of the college student is subject to the moral and legal restraints found in any law-abiding community. The conduct of a student, both in and out of school, will be measured on an adult standard. 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 Affairs Office and printed in the Student Handbook.

#### 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 Vice President so that the College can respond appropriately to their health needs. Students are urged to share information with the appropriate Dean 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. Included in making decisions in individual cases which restrict access to enrollment or employment shall be the college president, the college attorney, the department head or Dean, the individual's personal physician, the local health director (or designee), and if necessary, another physician with expertise in managing communicable disease cases.
- 7. 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.

#### Dress

One of the purposes of college experience is to afford a student the opportunity to practice effective personal grooming. Appropriate dress is encouraged and required. While the College aims to honor the individuality of each student, it reserves the prerogative to announce and implement regulations concerning dress.

### **Drug & Alcohol Policy**

The possession and/or use of any non-prescribed controlled substance is not permitted on the campus of Isothermal Community College. The consumption of alcohol or the possession of an open container which contains alcoholic beverages is prohibited on the campus 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 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 or termination of employment and referral for prosecution. A full description of the Drug and Alcohol Policy is available in the appendix of the Student Handbook and on the College website: www.isothermal.edu/Drug.Alcohol.Policy.pdf.

#### **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. 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://sbi.jus.state.nc.us.

#### **Student Rights**

It is the duty of the president to exercise full authority in the regulation of student affairs 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 and fair hearing, the presumption of innocence until found guilty, the right to know the evidence and to face witnesses testifying against him/her and the right to such advice and assistance in his/her own defense as may be allowable under the regulations of the College. In those instances where denial of any of these rights is alleged, it shall be the duty of the president to review the procedures of the disciplinary hearing. A complete policy of Student Rights, Responsibilities and Judicial Procedures is available for review in the Student Affairs Office.

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 AFFAIRS 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 1, 2, 3, 4, and 5 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.

#### New and Expanding Industry Training

New and Expanding Industry Training is a special training program to help new and/or expanding industries creating 12 or more new productive jobs to meet immediate manpower needs. New and Expanding Industry Training uses individualized need assessments and consultations to design customized training for a new workforce.

#### **Focused Industrial Training**

Focused Industrial Training uses individualized needs assessments and consultants to design and implement targeted customized training for established organizations who need to upgrade employee skills needed for technological or process advance.

#### North Carolina Manufacturing Certificate Program

North Carolina Manufacturing Certificate Program is a certification program designed to raise the skill levels of employees in North Carolina. It serves the needs of both experienced workers at different stages of careers as well as students embarking on their initial course of study.

#### **In-Plant Training Program**

The In-Plant Training Program assists with developing an on-the-job training program that meets industry needs and assists with the delivery of training. Training is directly related to improving job skills.

#### **Small Business Center**

If you are considering a new business venture, an expansion of your current business, or need help in developing a business plan, Isothermal Community College's Small Business Center can work for you. Generally designed for the company with fewer than 100 employees, the Small Business Center provides additional training, one-on-one counseling, access to a state-wide network of business experts or the professional contacts and information needed by the small business. Our resource center also provides the latest literature and audiovisual material on operating a small business.

#### CONTINUING EDUCATION

www.isothermal.edu/conedu

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 6 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. Fees for other courses range from \$7 up.

#### **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 continue: 1.) 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
- 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.

Building Contractor's Code Law Enforcement
CPR Nursing Assistant
Emergency Medical Services Teacher Renewal Credit

Fire Fighting Team Building
First Aid Truck Driver Training

#### Lifelong Learning

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

Cake DecoratingCraftsLanguage & CulturePotteryCeramicsCreative WritingMusicQuiltingComputers SkillsDanceNotary PublicSign 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 - ESOL

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:

assessment of individual assets and limitations

development of a positive self-concept

development of employability skills

development of communication skills

development of problem-solving skills

\* 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, nursing centers, and vocational workshops. There is no registration fee.

#### Adult High School

The adult high school programs, Adult High School Diploma (AHSD) and the General Educational Development (GED), provide self-paced, individualized instruction to adults. Guidelines for the AHSD 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. Both programs are offered in Rutherford and Polk County.

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 include:

- 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 verions 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 (286-3636 ext. 218). GED Testing accommodations may be available to examinees with documented disabilities. Contact the Chief Examiner (286-3636 ext. 266) 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. Mornings, afternoons, and evenings classes are available. There is no registration fee. There is a charge of \$7.50 for the GED test.

#### **Professional Truck Driver Training**

#### 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>
ARTS AND SCIENCES	
Associate of Arts	A 10 10 0
Associate of Science	A 10 40 0
BUSINESS TECHNOLOGIES	
Business Administration	A 25 12 0
Banking and Finance	A 25 12 A
Customer Service	A 25 12 B
Marketing and Retailing	A 25 12 F
Computer Programming Computer Information Technology	A 25 13 0 A 25 26 0
Information Systems Security	A 25 27 0
Medical Office Administration	A 25 31 0
Networking Technology	A 25 34 0
Office Systems Technology	A 25 36 0
Web Technologies	A 25 29 0
COMMERCIAL & ARTISTIC PRODUCTION TECHNOLOGIES	
Advertising and Graphic Design	A 30 10 0
Broadcasting and Production Technology	A 30 12 0
CONSTRUCTION TECHNOLOGIES	
Building Construction Technology	A 35 14 0
Electrical/Electronics Technology	A 35 22 0
ENGINEERING TECHNOLOGIES	
Computer Engineering Technology	A 40 16 0
Electronics Engineering Technology	A 40 20 0
Mechanical Engineering Technology	A 40 32 0
HEALTH SCIENCES	
Associate Degree Nursing	A 45 12 0
INDUSTRIAL TECHNOLOGIES	
Industrial Systems Technology	A 50 24 0
Manufacturing Technology	A 50 32 0
Composites Concentration	A 50 32 D
Plastics Concentration  Mechanical Drafting Technology	A 50 32 A A 50 34 0
Welding Technology	A 50 42 0
PUBLIC SERVICE TECHNOLOGIES	
Cosmetology	A 55 14 0
Criminal Justice Technology	A 55 18 0
Early Childhood Education	A 55 22 0
Teacher Associate Concentration	A 55 22 B
General Occupational Technology	A 55 28 0
Occupational Education Associate	A 55 32 0

## **DIPLOMA PROGRAMS**

<u>Program</u>	<u>Code</u>
BUSINESS TECHNOLOGIES  Business Administration Customer Service Medical Office Administration Office Systems Technology	D 25 12 0 D 25 12 B D 25 31 0 D 25 36 0
COMMERCIAL & ARTISTIC PRODUCTION TECHNOLOGIES Broadcasting and Production Technology	D 30 12 0
CONSTRUCTION TECHNOLOGIES  Building Construction Technology Electrical/Electronics Technology	D 35 14 0 D 35 22 0
ENGINEERING TECHNOLOGIES  Computer Engineering Technology	D 40 16 0
HEALTH SCIENCES Practical Nursing Surgical Technology	D 45 66 0 D 45 74 0
INDUSTRIAL TECHNOLOGIES  Machining Technology  Mechanical Drafting Technology  Plastics Concentration  Welding Technology	D 50 30 0 D 50 34 0 D 50 32 A D 50 42 0
PUBLIC SERVICE TECHNOLOGIES  Cosmetology Criminal Justice Technology Early Childhood Education General Occupational Technology Occupational Education Associate	D 55 14 0 D 55 18 0 D 55 22 0 D 55 28 0 D 55 32 0
TRANSPORTATION SYSTEMS TECHNOLOGIES Autobody Repair	D 60 10 0

## **CERTIFICATE PROGRAMS**

<u>Program</u>	<u>Code</u>
BUSINESS TECHNOLOGIES  Business Administration Computer Information Technology Customer Service Medical Office Administration Networking Technology Office Systems Technology	C 25 12 0 C 25 26 0 C 25 12 B C 25 31 0 C 25 34 0 C 25 36 0
COMMERCIAL & ARTISTIC PRODUCTION TECHNOLOGIES  Broadcasting and Production Technology  Basic Audio Production	C 30 12 0
CONSTRUCTION TECHNOLOGIES  Building Construction Technology  Basic Carpentry  Advanced Carpentry  Basic Plumbing  Electrical/Electronics Technology  Industrial Controls  Electrical Wiring	C 35 14 0 C 35 14 01 C 35 14 02 C 35 22 0 C 35 22 1
ENGINEERING TECHNOLOGIES  Computer Engineering Technology  Computer Upgrade/Repair	C 40 16 0
HEALTH SCIENCES Licensed Practical Nurse Refresher	C 45 39 0
INDUSTRIAL TECHNOLOGIES  Machining Technology  Machining  CNC  Mechanical Drafting Technology  Plastics Concentration  Plastics Welding  Welding Technology	C 50 30 0 C 50 30 1 C 50 34 0 C 50 32 A01 C 50 32 A02 C 50 42 0
PUBLIC SERVICE TECHNOLOGIES  Basic Law Enforcement Training Cosmetology Instructor Criminal Justice Technology Early Childhood Education Esthetics Instructor Esthetics Technology Infant/Toddler Care Manicuring Instructor Manicuring/Nail Technology Occupational Education Associate	C 55 12 0 C 55 16 0 C 55 18 0 C 55 22 0 C 55 27 0 C 55 23 0 C 55 29 0 C 55 38 0 C 55 40 0 C 55 32 0
TRANSPORTATION SYSTEMS TECHNOLOGIES  Autobody Repair  Basic Autobody  Advanced Autobody	C 60 10 0 C 60 10 1

#### 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.

#### **Biotechnology (A20100)**

Biotechnology is a 1+1 collaborative agreement program between Asheville-Buncombe Technical Community College and Isothermal Community College. For more information, please see the dean of Arts and Sciences.

#### 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 should:

- 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.

#### DEVELOPMENTAL EDUCATION AND ACADEMIC SUPPORT

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

Each student's strengths and weaknesses are diagnosed in the areas of English, reading, and mathematics. Students participate in stimulating self-paced, teacher-assisted instruction, as well as lecture and discussion. Computer-assisted instruction is also available. The instructor prescribes individual programs to assist students in improving those skills which would afford them the greatest degree of satisfaction, competency, and success.

Both day and evening classes are available to full- and part-time students.

#### A. Academic Support Courses:

ENG 080	Writing Foundations
ENG 085	Reading and Writing Foundations
ENG 090	Composition Strategies
ENG 095	Reading & Comp. Strategies
MAT 060	Essential Mathematics
*MAT 070	Introductory Algebra
RED 080	Introduction to College Reading
RED 090	Improved College Reading
* This course is	offered in traditional lecture format.

#### B. Other Support Services Available:

Supplemental Instruction and Smarthinking Computer Assisted Learning

#### 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 64 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 AA or AS degree before transferring. See advisors in Arts and Sciences for additional information.

#### Transferability of courses:

A comprehensive Articulation Agreement 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.

Students who transfer to private colleges 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 Affairs.

### GRADUATION COURSE REQUIREMENTS ASSOCIATE OF ARTS (A.A.) (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

44 nours general education core		Minimum
Subject Composition/Communication	<u>Course (s)</u> ENG 111, 113	Credit Hours 6
Literature	Two courses from: ENG 231, 232,241, 242, 261, 262	6
Humanities/Fine Arts	Two courses with two different prefixes from: ART 111, ENG 272, HUM 160, HUM 211, HUM 120, HUM 130, HUM 220, MUS 110, 112, 113, 114 PHI 215, PHI 240, REL 110, 211, 212	6
History	*Either: HIS 111, 112 or HIS 131,132	6
Social/Behavioral Science	Two courses with two different prefixes from: ECO 251, 252,GEO 111, 112, POL 120, PSY 150, SOC 210, 213, 220	6
Mathematics	Two courses from the following: MAT 151, 161, 162, 171, 172, 175, 263, 271, 272 (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 151, 152, BIO 111, 112,GEL 111, 113, CHM 131, 132 CHM 151, 152,PHY 151, 152, 251, 252	8
Other Requirements: Orientation	**ACA 115	1
Physical Education	PED 111 and one PED activity course	2
Computer Requirement	CIS 110 or higher level course	3
Electives	(Choose from approved list of <u>Transferable</u> courses)	15

Total Hours:

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

64-65\*\*

<sup>\*\*</sup>ACA115 is an institutional requirement not included in the 64 hour state requirement.

#### A.A. Degree Pre-Major Programs

Associate of Arts pre-major articulation agreements and program guidelines designed for transfer into baccalaureate programs within the North Carolina University System are available in the fields listed below through Arts and Sciences advisors:

<u>Major</u>	<u>Code</u>
Business Administration	A1010B
Business Education and Marketing	A1010C
Criminal Justice	A1010D
ElementaryEducation	A1010R
Middle Grades, Special Education	A1010S
English	A1010E
English Education	A1010F
Health Education	A1010G
History	A1010H
Nursing	A1010I
Physical Education	A1010J
Political Science	A1010K
Psychology	A1010L
Social Science Secondary Education	A1010M
Sociology	A1010N
Social Work	A1010Q

Guidelines for the above programs are designed to meet the requirements of the Comprehensive Articulation Agreement as well as Isothermal's institutional requirements. If discrepancies exist, see the Arts and Sciences Dean for explanation or resolution.

#### GRADUATION COURSE REQUIREMENTS ASSOCIATE OF SCIENCE (A.S.) (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

Subject Composition/Communication	<u>Course (s)</u> ENG 111, 113	Minimum Credit Hours 6
Literature	One courses from: ENG 231, 232, 241, 242, 261, 262	3
Humanities/Fine Arts	Two courses with two different prefixes from: ART 111, ENG 272, HUM 160, HUM 120, HUM 130, HUM 211, HUM 220, MUS 110, 112, 113, 114 PHI 215, 240, REL 211, 212, 110,	6
History	One courses from: HIS 111,112, or HIS 131, 132	3
Social/Behavioral Science	Two courses with two different Prefixes from: ECO 251, 252, GEO 111, 113, POL 120, PSY 150, SOC 210, 213, 220	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,	
	CHM 151, 152, PHY 151, 152, 251, 252	8
Other Requirements: Orientation	**ACA 115	1
Physical Education	PED 111 and one PED activity course	2
***Additional hours in upper level math and scient	ence	14-16
Electives		2 -4
Total Hours:		64-65

NOTE: Computer competency is a must for A.S. degree students; CIS 110 or a higher level computer course is recommended. \*HIS 111 & 112 are preferred by most universities.

#### A.S. DEGREE PRE-MAJOR PROGRAMS

Associate of Science pre-major articulation agreements and program guidelines designed for transfer into baccalaureate programs within the North Carolina University System are available in the programs listed below through Arts and Sciences advisors:

<u>Major</u>	<u>Code</u>
Biology and Biology Education	A10400A
Chemistry and Chemistry Education	A10400B
Engineering	A10400D
Mathematics	A10400E
Mathematics Educations	A10400F

Program guidelines for the above programs are designed to meet the requirements of the Comprehensive Articulation Agreement as well as Isothermal's institutional requirements. If discrepancies exist, see the Arts and Sciences Dean for explanation or resolution.

<sup>\*\*</sup>ACA115 is an institutional requirement not included in the 64 hour state requirement.

<sup>\*\*\*</sup>Pending up-coming changes in the Administrative Code for the NCCCS, the Humanities and Fine Arts requirement and the Social/Behavioral Science requirement will each become 9 semester hours rather than 12. The remaining six hours will be used for additional higher level math and science courses.

#### **HEALTH SCIENCES**

# Associate Degree Nursing Non-Integrated - Degree (A 45 12 0)

#### **Curriculum Description**

The Associate Degree Nursing curriculum provides individuals with the knowledge and skills necessary to provide nursing care to clients and groups of clients throughout the lifespan in a variety of settings.

Courses will include content related to the nurse's role as provider of nursing care, as manager of care, as member of the discipline of nursing, and as a member of the interdisciplinary team.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN) which is required for practice as a Registered Nurse. Employment opportunities include hospitals, long term care facilities, clinics, physicians' offices, industry, and community agencies.

			Class <u>Hours</u>	Lab <u>Hours</u>	Clin. <u>Hours</u>	Credit <u>Hours</u>
I.	General Educa	ation Requirements - 26 Credit Hours				
	BIO 165	Anatomy & Physiology I	3	3	0	4
	BIO 166	Anatomy & Physiology II	3	3	0	4
	BIO 175	General Microbiology	2 3	2	0	3
	ENG 111	Expository Writing	3	0	0	3
	ENG 113	Literature Based Research	3	0	0	4 3 3 3 3 3
		Humanities Elective	3	0	0	3
	PSY 150	General Psychology	3	0	0	3
	PSY 241	Developmental Psychology	3	0	0	3
II.	Required Core	Courses - 37 Credit Hours				
	NUR 115	Fundamentals of Nursing	2	3	6	5
	NUR 125	Maternal-Child Nursing	2 5	3	6	8
	NUR 135	Adult Nursing I	5	3	9	9
	NUR 185	Mental Health Nursing	3	0	6	5
	NUR 235	Adult Nursing II	4	3	15	10
III.	Other Major R	equired Courses - 12 Credit Hours				
	NUR 117	Pharmacology	1	3	0	2
	NUR 133	Nursing Assessment	2	3	0	2 3 2 2 3
	NUR 233	Leadership in Nursing	2 2 2 3	0	0	2
	NUR 244	Issues and Trends	2	0	0	2
	BIO 155	Nutrition	3	0	0	3
		OR				
	NUR 189	Nursing Transition	(1)	(3)	(0)	(2)
IV.	Other Require	d Hours - 1 Credit Hour				
	ACA 115	Success & Study Skills	0	2	0	1
Total Required Hours 76					<del>76</del>	

e: Eligibility for graduation requires either BIO 155 or NUR 189

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

#### **Curriculum Description**

Note:

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	Lab	Clin.	Credit
			<b>Hours</b>	<b>Hours</b>	<b>Hours</b>	<b>Hours</b>
NUR 107	LPN Refresher		9	0	9	12
		49				

# 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 Liaison Council's Certification Examination for Surgical Technologists. Employment opportunities include labor/delivery/emergency departments, inpatient/outpatient surgery centers, dialysis units/facilities, physicians' offices, and central supply processing units.

			Class	Lab	Clin.	Credit
			<u>Hours</u>	<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
I.	General Educa	tion Requirements – 6 Credit Hours				
	ENG 111	Expository Writing	3	0	0	3
	MAT 101	Applied Mathematics I	2	2	0	3
II.	Required Core	Courses – 33 Credit Hours				
	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
III.	Other Major R	equired Courses – 8 Credit Hours				
	BIO 163	Basic Anatomy and Physiology	4	2	0	5
	BIO 175	General Microbiology	2	2	0	3
Total F	Required Hours					<u></u> 47
	•					

#### 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**

**Total Required Hours** 

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.

General Education Requirements - 15 Credit Hours				Class <u>Hour</u> s	Lab <u>Hours</u>	Credit <u>Hours</u>
ENG 114	I.	ENG 111	Expository Writing Literature - Based Research			
GRD 110			Professional Research & Reporting Mathematical Models Humanities Elective	3	0	3 3 3
ART 131	II.	GRD 110	Typography I	2 2		
GRA 110	III.	ART 131 GRD 131 GRD 141 GRD 142 GRD 151 GRD 152 GRD 241	Drawing I Illustration I Graphic Design I Graphic Design II Computer Design Basics Computer Design Tech I Graphic Design III	1 2 2 1 1 2	3 4 4 4 4 4	2 4 4 3 3 4
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 121 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  V. Other Required Hours - 1 Credit Hour	IV.	GRA 110 GRD 111 GRD 132 GRD 153 GRD 160 GRD 161 GRD 242	Graphic Arts Orientation Typography II Illustration II Computer Design Tech II Photo Fundamentals I Photo Fundamentals II Graphic Design IV	2 1 1 1 1 2	2 3 4 4 4 4	
		ART 132 ART 140 BUS 230 COE 111 COE 121 GRA 121 GRD 133 GRD 162 GRD 210 GRD 263 WEB 110 WEB 120	urs To Be Selected From The Following:  Drawing II  Basic Painting  Small Business Management  Co-op Work Experience I  Co-op Work Experience II  Graphic Arts I  Illustration III  Photography Portfolio  Airbrush I  Illustrative Imaging Internet/Web Fundamentals Intro Internet Multimedia			5
	V.			0	2	1

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## Autobody Repair - Diploma (D 60 10 0)

#### **Curriculum Description**

The Autobody Repair curriculum provides training in the use of equipment and materials of the autobody repair trade. The student studies the construction of the automobile body and techniques of autobody repairing, rebuilding, and refinishing.

The course work includes autobody fundamentals, industry overview, and safety. Students will perform hands-on repairs in the areas of non-structural and structural repairs, MIG welding, plastics and adhesives, refinishing, and other related areas.

Graduates of the curriculum should qualify for entry-level employment opportunities in the automotive body and refinishing industry. Graduates may find employment with franchised independent garages, or they may become self-employed.

			Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.		ation Requirements - 6 Credit Hours	_		_
	ENG 101	Applied Communications I	3	0	3
	MAT 101	Applied Mathematics I	2	2	3
II.	Required Core	e Courses - 31 Credit Hours			
	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	3 4 3 3 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
III.	Other Major R	Required Courses - 11 Credit Hours			
	AUB 141	Mech & Elec Components I	2	2	3
	AUB 150	Automotive Detailing	1	2 3	
	AUB 160	Body Shop Operations	1	0	2 1 2 3
	AUB 162	Autobody Estimating	1	2 2	2
	CIS 110	Introduction to Computers	2	2	3
		OR			
	BUS 230	Small Business Management			
Total Required Hours					48

# Autobody Repair - Certificate

Basic Autobody - 14	Credit Hours (C 60 10 0)	Class <u>Hours</u>	Lab <u>Hour</u> s	Credit <u>Hours</u>
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
Advanced Autobody	- 12 Credit Hours (C 60 10 1)			
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

# Basic Law Enforcement Training - Certificate (C 55 12 0)

#### **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.

		<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
CJC 100	Basic Law Enforcement Training	9	30	19
<b>Total Required Hours</b>				<del>1</del> 9

# 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 <u>Hours</u>	Lab <u>Hours</u>	Co-Op <u>Hours</u>	Credit <u>Hours</u>
I.	General Educa	ation Requirements - 15 Credit Hours				
	ENG 111	Expository Writing	3	0	0	3
	ENG 113	Literature - Based Research OR	3	0	0	3
	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
II.		e Courses - 13 Credit Hours				
	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
III.		Required Courses - 34 Credit Hours				
	Select A or B (A)					
	BPT 135	Radio Performance I	0	6	0	2
	BPT 136	Radio Performance II	0	6	0	2 2
	BPT 137	Radio Performance III	0	6	0	2
	(B)					
	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

			Class Hours	Lab Hours	Co-Op <u>Hours</u>	Credit Hours
Additi	onal Major Req	uired Courses				
	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 3	0	0	2
	BPT 210 Broadcast Management  BPT 215 Broadcast Programming			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: Sele	ect 12 credit hours from the following courses:				
	BPT 115	Public Relations	3	0	0	3
	BPT 121	Broadcast Speech I		3	0	3
		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 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
IV.		d Hours - 1 Credit Hour				
	ACA 115	Success & Study Skills	0	2	0	1
Total Required Hours 75					<del>75</del>	

# Broadcasting and Production Technology - Diploma (D 30 12 0)

			Class Hours	Lab Hours	Co-Op <u>Hours</u>	Credit Hours
I.	General Educa	ation Requirements - 6 Credit Hours	110415	110015	110415	110415
	ENG 111	Expository Writing	3	0	0	3
		Social Science Elective	3	0	0	3
II.	Major Require	ed Courses - 40 Credit Hours				
	BPŤ 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
	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
	COE 111	Co-op Work Experience I	0	0	10	1
	CIS 110	Introduction to Computers	2	2	0	3
Total	Required Hours					46

# Broadcasting and Production Technology - Certificate (C 30 12 0)

Basic Audio P	roduction - 18 Credit Hours	Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
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 260	Multi-Track Recording	2	2	3
BPT 135	Radio Performance I	0	6	2
BPT 136	Radio Performance II	0	6	2

# 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 labs/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 like 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 <u>Hours</u>		Credit <u>Hours</u>
I.		ation Requirements – 15 Credit Hours			
	ENG 111	Expository Writing	3	0	3
	ENG 113	Literature-Based Research OR	3	0	3
	ENG 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
II.		Courses – 15 Credit Hours			
	BPR 130	Blueprint Reading/Const	1	2	2
	CST 131	OSHA/Safety/Certification	2	2	3
	CST 211	Construction Surveying	2	3	3
	CST 221	Statics/Structures	3	3	4
	CST 241	Planning/Estimating I	2	2	3
III.		ect Courses – 8 Credit Hours			
	CAR 111	Carpentry I	3	15	8
IV.		Courses – 37 Credit Hours			
	CAR 114	Residential Bldg Codes	3	0	3
	CIS 110	Introduction to Computers	2	2	3
	CST 231	Soils & Site Work	3	2	4
	BUS 230	Small Business Management	3	0	3
	MAS 140	Intro to Masonry	1	2	2
	PLU 111	Intro to Basic Plumbing	1	3	2
	ELC 111	Intro to Electricity	2	2	3

				Class	Lab	Credit
				<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
		Technical Ele	ectives (Select from the following)			17
		AHR 151	HVAC Duct Systems I			
		AHR 210	Residential Building Code			
		AHR 211	Residential System Design			
		CAR 110	Intro to Carpentry			
		CAR 112	Carpentry II			
		CAR 113	Carpentry III			
		CAR 115	Residential Planning and Estimating			
		CST 242	Planning/Estimating II			
		PLU 130	Plumbing Systems			
V.	Other Require	ed Hours – 1 Cr	redit Hour			
	ACA 115	Success & Stud	dy Skills	0	2	1
Total	Required Hours	•				<del></del>

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

			Class <u>Hours</u>	Lab ( <u>Hours</u>	Credit <u>Hours</u>
I.	General Educa	ation Requirements – 6 Credit Hours			
	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			
II.	Major Require	d Courses – 8 Credit Hours			
	BPŔ 130	Blueprint Reading/Const	1	2	2
	CST 131	OSHA/Safety/Certification	2	2	3
	CST 241	Planning/Estimating I	2	2 2	3
III.	Required Subj	ect Courses – 8 Credit Hours			
	CAR 111	Carpentry I	3	15	8
IV.	Other Major C	Courses – 24 Credit Hours			
	CAR 114	Residential Bldg Codes	3	0	3
	CST 231	Soils & Site Work	3	2	4
	BUS 230	Small Business Management	3	0	3
	CAR 112	Carpentry II	3	15	8
	CAR 113	Carpentry III	3	9	6
V.	Other Require	d Hours – 1 Credit Hour			
	ACA 115	Success & Study Skills	0	2	1
Total	Required Hours				<del></del> 47

# **Building Construction Technology – Certificate**

		•	Class Lab Cre		
			Hours Hours		
Basic Carpentry – 1	6 Credit Hours (C 35 14 0)				
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
Advanced Cornent	14 Crodit Hours (C 25 14 01)				
	y – 14 Credit Hours (C 35 14 01)		2	2	2
CST 131	OSHA/Safety/Certification		2	2	3
BUS 230	Small Business Management		3	0	3
CAR 112	Carpentry II		3	15	8
Basic Plumbing – 13	3 Credit Hours (C 35 14 02)				
BPR 130	Blueprint Reading/Const		1	2	2
CST 241	Planning/Estimating I		2	2	3
PLU 111	Intro to Basic Plumbing		1	3	2
PLU 130	Plumbing Systems		3	9	6

# 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	Lab	Credit
			<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
I.	General Educ	cation Requirements - 15 Credit Hours			
	ECO 252	Prin of Macroeconomics	3	0	3
	ENG 111	Expository Writing	3	0	3
		Humanities elective	3	0	3
	ENG 115	Oral Communication	3	0	3
	MAT 115	Mathematical Models	2	2	3
II.	Required Cor	re Courses - 19 Credit Hours			
	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

			27/20 6 15 11	Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
III.			s – 37/38 Credit Hours	2	2	4
	ACC 121	Prin of Manageri		3	2	4
	ACC 129	Individual Incom	ne Taxes	2	2	3
	BUS 116	Business Law II		3	0	3
	BUS 121	Business Math		2	2	3
	BUS 153	Human Resource		3	0	3
	BUS 225	Business Finance		2	2	3
	BUS 253	Leadership and A		3	0	3
	BUS 255	Org. Behavior in		3	0	3
	BUS 260	Business Commu	ınication	3	0	3
	CTS 130	Spreadsheet		2	2	3
	MKT 220	Advertising & Sa	les Promotion	3	0	3
	COE 110	World of Work		1	0	1
		Elective (choose				
		ACC 180	Practices in Bookeeping	3	0	3
		BAF 110	Principles of Banking	3	0	3
		BUS 230	Small Business Management	3	0	3
		CIS 165	Desktop Publishing I	2	2	3
		CTS 125	Presentation Graphics	2	2	3
		DBA 110	Database Concepts	2	3	3
		OST 131	Keyboarding	1	2	2
		OST 136	Word Processing	1	2	2
IV.	Other Require	ed Hours - 1 Cre	dit Hour			
		ess and Study Skill		0	2	1
Total R	Total Required Hours				7	3/74

# Business Administration- Diploma (D 25 12 0)

			Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Edu	cation - 9 Credit Hours			
	ECO 252	Prin of Macroeconomics	3	0	3
	ENG 111	Expository Writing	3 3 2	0	3 3 3
	MAT 115	Mathematical Models	2	2	3
II.	Required Co	re Courses - 13 Credit Hours			
	ACC 120	Prin of Financial Acct	3	2	4
	BUS 115	Business Law I	3 3 3	0	4 3 3 3
	BUS 137	Principles of Management	3	0	3
	MKT 120	Principles of Marketing	3	0	3
III.	Other Major	Required Courses – 22/ 23 Credit Hours			
	ACC 121	Prin of Managerial Acct	3	2	4
	BUS 121	Business Math	3 2 2 3 2 2	2 2 2 0 2 2	3 3 3 3 3
	BUS 225	Business Finance	2	2	3
	BUS 255	Org Behavior in Business	3	0	3
	CIS 110	Introduction to Computers	2	2	3
	CTS 130	Spreadsheet	2		
	COE 110	World of Work	1	0	1
		Elective (choose one)			
		OST 131 Keyboarding	1	2	2
		BUS 116 Business Law II	3	0	2 3 3 3
		ECO 251 Microeconomics	3	0	3
		MKT 220 Advertising and Sales Prom.	3	0	3
IV.	Other Requi	red Hours - 1 Credit Hour			
	ACA 115	Success and Study Skills	0	2	1
Total I	Required Hou	rs			45/46

## Business Administration – Certificate (C 25 12 0)

				Class	Lab	Credit
				<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
CIS 110	Introduction	to Computers		2	2	3
ACA 115	Success and	Study Skills		0	2	1
	Choose four	of the following				
	(include at I	east one BUS and one MKT prefix):				
	BUS 137	Principles of Management		3	0	3
	BUS 153	Human Resource Management		3	0	3
	BUS 253	Leadership and Mgmt Skills		3	0	3
	MKT 120	Principles of Marketing		3	0	3
	MKT 220	Advertising and Sales Promotion		3	0	3
	OST 131	Keyboarding		1	2	2
Total Required Hours					15/16	

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

#### **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	Lab	Credit
			<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
I.	General Educa	tion Requirements - 15 Credit Hours			
	ECO 252	Prin of Macroeconomics	3	0	3
	ENG 111	Expository Writing	3	0	3
		Humanities elective	3	0	3
	ENG 115	Oral Communication	3	0	3
	MAT 115	Mathematical Models	2	2	3
II.	Required Core	Courses - 19 Credit Hours			
	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
	ECO 251	Prin of Microeconomics	3	0	3
	MKT 120	Principles of Marketing	3	0	3
III.	Required Conc	rentration Courses - 12 Credit Hours			
	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	Lab	Credit
				<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
IV.	Other Major R	equired Courses	s – 25/26 Credit Hours			
	ACC 121	Prin of Manage	rial Acct	3	2	4
	ACC 129	Individual Inco	me Taxes	2	2	3
	CTS 130	Spreadsheet		2	2	3
	COE 110	World of Work		1	0	1
	BUS 121	<b>Business Math</b>		2	2	3
	BUS 225	Business Finance	ce	2	2	3
	BUS 255	Org Behavior ir	n Business	3	0	3
	BUS 260	<b>Business Comm</b>	nunication	3	0	3
		Elective (Choos	e 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	1	2	2
V.	Other Require	d Hours - 1 Cre	dit Hour			
	ACA 115	Success and Stu		0	2	1
Total F	Required Hours					72/73

#### Business Administration Degree – (A 25 12 B) Customer Service Concentration

# **Curriculum Description**

Customer Service is a concentration under the curriculum title of Business Administration. This curriculum provides a broad foundation of communication and interpersonal skills designed to prepare the individual for customer contact roles within a business organization.

Emphasized are concepts in retailing, credit and collections, resolving customer complaints, service follow-up, consumer law, and consumer behavior. Concepts include communicating effectively, using interpersonal skills, establishing credit worthiness, analyzing common accounting financial and credit documents, and operating a computer.

Employment opportunities include customer services representative, customer services manager, consumer relations, credit analyst, credit card specialist, credit and collection specialist, retail sales, accounts control analyst, administrative assistant, authorizations analyst, and telephone sales representative in both service- and production-oriented businesses.

			Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Educa	tion Requirements - 15 Credit Hours			
	ECO 252	Principles of Macroeconomics	3	0	3
	ENG 111	Expository Writing	3	0	3
		Humanities elective	3	0	3
	ENG 115	Oral Communication	3	0	3
	MAT 115	Mathematical Models	2	2	3
II.	Required Core	Courses – 19 Credit Hours			
	ACC 120	Principles of Financial Accounting	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
	ECO 251	Principles of Microeconomics	3	0	3
	CIS 110	Introduction to Computers	2	2	3

				Class	Lab	Credit
				<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
III.	Required Con-	centration Courses—15 Credit Hours				
	MKT 222	Credit Procedures		3	0	3
	CSV 110	Introduction to Customer Service		3	0	3
	CSV 210	Advanced Customer Service		3	0	3 3 3 3
	CSV 220	Consumer Credit		3	0	3
	CSV 221	Letters of Credit		3	0	3
IV.	Other Major R	Required Courses – 23/24 Credit Hours				
	BUS 121	Business Math		2	2	3
	BUS 153	Human Resource Management		2 3	0	3 3 3
	BUS 260	Business Communication		3	0	3
		Elective (see attached list)				2/3
	CTS 130	Spreadsheet		2	2	3
	MKT 220	Advertising & Sales Promotion		3	0	
	OST 131	Keyboarding		1	2	3 2 1
	COE 110	World of Work		1	0	1
	OST 286	Professional Development		3	0	3
IV.	Other Require	ed Hours – 1 Credit Hours				
	ACA 115	Success & Study Skills		0	2	1
Total I	Required Hours					<del>7</del> 3/74
	Elective List		Credit Hours			

Elective List		Credit Hour
ACC 180	Practices in Bookkeeping	(3)
BAF 110	Principles of Banking	(3)
BUS 230	Small Business Management	(3)
BUS 253	Leadership and Management Skills	(3)
CIS 165	Desktop Publishing I	(3)
CTS 125	Presentation Graphics	(3)
OST 136	Word Processing	(2)
SPA 111	lementary Spanish I	(3)

# Business Administration- Diploma (D 25 12 B) Customer Service Concentration

		Class	Lab	Credit
		<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
	ation - 6 Credit Hours			
ENG 111	Expository Writing	3	0	3
ENG 115	Oral Communication	3	0	3
Required Core	e Courses - 19 Credit Hours			
ACC 120	Principles of Financial Accounting	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 252	Principles of Macroeconomics	3	0	3
MKT 120	Principles of Marketing	3	0	3
Required Con-	centration Courses—12 Credit Hours			
CSV 110	Introduction to Customer Service	3	0	3
CSV 210	Advanced Customer Service	3	0	3
CSV 220	Consumer Credit	3	0	3
CSV 221	Letters of Credit	3	0	3
	Required Core ACC 120 BUS 115 BUS 137 CIS 110 ECO 252 MKT 120  Required Core CSV 110 CSV 210 CSV 220	Required Core Courses - 19 Credit Hours  ACC 120 Principles of Financial Accounting BUS 115 Business Law I BUS 137 Principles of Management CIS 110 Introduction to Computers ECO 252 Principles of Macroeconomics MKT 120 Principles of Marketing  Required Concentration Courses—12 Credit Hours CSV 110 Introduction to Customer Service CSV 210 Advanced Customer Service CSV 220 Consumer Credit	HoursGeneral Education - 6 Credit HoursENG 111Expository Writing3ENG 115Oral Communication3Required Core Courses - 19 Credit HoursACC 120Principles of Financial Accounting3BUS 115Business Law I3BUS 137Principles of Management3CIS 110Introduction to Computers2ECO 252Principles of Macroeconomics3MKT 120Principles of Marketing3Required Concentration Courses—12 Credit HoursCSV 110Introduction to Customer Service3CSV 210Advanced Customer Service3CSV 220Consumer Credit3	HoursGeneral Education - 6 Credit HoursENG 111Expository Writing30ENG 115Oral Communication30Required Core Courses - 19 Credit HoursACC 120Principles of Financial Accounting32BUS 115Business Law I30BUS 137Principles of Management30CIS 110Introduction to Computers22ECO 252Principles of Macroeconomics30MKT 120Principles of Marketing30Required Concentration Courses—12 Credit HoursCSV 110Introduction to Customer Service30CSV 210Advanced Customer Service30CSV 220Consumer Credit30

IV.	Other Major I	Required Courses - 9 Credit Hours	Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
IV.	,	•	2	2	2
	BUS 121	Business Math	2	2	3
	COE 110	World of Work	1	0	1
	OST 131	Keyboarding	1	2	2
	OST 286	Professional Development	3	0	3
IV.	Other Require	ed Hours - 1 Credit Hour Success & Study Skills	0	2	1
Total	Required Hours	5			<del></del>

# Business Administration - Certificate (C 25 12 B ) Customer Service Concentration

			Class	Lab	Credit
			<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
	CSV 110	Introduction to Customer Service	3	0	3
	CSV 210	Advanced Customer Service	3	0	3
	CIS 110	Introduction to Computers	2	2	3
	OST 286	Professional Development	3	0	3
	Elective*	·	3	0	3
	*Elective is to l	pe chosen from the list below:			
	CSV 220	Consumer Credit	3	0	3
	CSV 221	Letters of Credit	3	0	3
Total R	Required Hours	6			<del></del>

# Business Administration – Bookkeeping Certificate (C 25 12 0)

		Class	Lab	Credit	
		<u>Hours</u>	<u>Hours</u>	<u>Hours</u>	
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 and Study Skills	0	2	1	
<b>Total Required Hours</b>				<del></del>	

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

#### **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 <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Educa	ation Requireme	ents - 15 Credit Hours			
	ECO 252	Prin of Macroe		3	0	3
	ENG 111	<b>Expository Writ</b>	ting	3	0	3
		Humanities ele		3	0	3
	ENG 115	Oral Communi		3	0	3
	MAT 115	Mathematical N	Models	2	2	3
II.		e Courses - 16 C				
	ACC 120	Prin of Financia	al Acct	3	2	4
	BUS 115	Business Law I		3	0	3
	BUS 137	Principles of M		3	0	3
	CIS 110	Introduction to		2	2	3
	ECO 251	Prin of Microed		3	0	3
	MKT 120	Principles of M	arketing	3	0	3
III.	Required Con-	centration Cour	rses - 15 Hours			
	+MKT 122	Visual Mercha	ndising	3	0	3
	+MKT 123	Fundamentals		3	0	3
	+MKT 220		Sales Promotion	3	0	3
	+MKT 225	Marketing Res		3	0	3
	+MKT 226	Retail Applicat	tions	3	0	3
IV.	Other Major R	Required Course	es – 28/29 Credit Hours			
	ACC 121	Prin of Manage	erial Acct	3	2	4
	BUS 121	Business Math		2	2	3
	BUS 253	Leadership and	l Mgt. Skills	3	0	3
	BUS 255	Org Behavior i	n Business	3	0	3
	BUS 260	Business Comn	nunication	3	0	3
	CTS 130	Spreadsheet		2	2	3
	COE 110	World of Work		1	0	1
	MKT 125	Buying and Me		3	0	3
		Elective (Choos				
		ACC 180	Practices in Bookkeeping	3	0	3
		CTS 125	Presentation Graphics	2	2	3
		OST 131	Keyboarding	1	2	2
		OST 136	Word Processing	1	2	2
V.	Other Require	d Hours - 1 Cre	edit Hour			
	ACA 115	Success and Stu		0	2	1
Total	Required Hours					<del>75/7</del> 6
	-					

<sup>+ =</sup> Conducted at Cleveland Community College

# 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, physics, 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 <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.		tion Requirements – 15 Credit Hours			
	ENG 111	Expository Writing	3	0	3
	ENG 114	Prof Research & Reporting	3	0	3
		OR			
	ENG 113	Literature-Based Research			
	MAT 161	College Algebra	3	0	3
		Humanities Elective	3	0	3
		Social Science Elective	3	0	3
II.		Courses – 7 Credit Hours			
	CET 111	Computer Upgrade/Repair I	2	3	3
	ELN 133	Digital Electronics	3	3	4
III.	Required Subj	ect Courses – 12 Credit Hours			
	ELC 131	DC/AC Circuit Analysis	4	3	5
	ELN 131	Semiconductor Applications	3	3	4
	CSC 134	C++ Programming	2	3	3
		OR			
	CSC 139	Visual BASIC Programming OR			
	CET 160	Object-Oriented Prog Lang			
	OFT 4.64	OR			
	CET 161	Procedural Programming			
IV.		equired Courses – 40 Credit Hours			
	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
	ELN 235	Data Communications Systems	3	3	4
	ELN 237	Local Area Networks	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
V.	Other Require	d Hours – 1 Credit Hour			
	ACA 115	Success & Study Skills	0	2	1
Total F	Required Hours				<del>75</del>
	•				

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

			Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Edu	cation Requirements – 6 Credit Hours			
	ENG 101	Applied Communications I	3	0	3
		OR			
	ENG 111	Expository Writing (3-0-3)			
	MAT 101	Applied Mathematics I	2	2	3
		OR			
	MAT 115	Mathematical Models (2-2-3)			
II.	Required Ma	jor Courses – 7 Credit Hours			
	CET 111	Computer Upgrade/Repair I	2	3	3
	ELN 133	Digital Electronics	3	3	4
III.	Required Sul	oject Courses – 4 Credit Hours			
	ELN 131	Semiconductor Applications	3	3	4
IV.	Other Major	Courses – 25 Credit Hours			
	CET 211	Computer Upgrade/Repair II	2	3	3
	CIS 110	Intro to Computers	2	2	
	ELC 112	DC/AC Electricity	3	6	3 5 2
	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
	ELN 237	Local Area Networks	2	3	3
Tota	l Required Ho	urs			42

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

		Class Hours	Lab Hours	Hours
Computer Upgra	de/Repair – 13 Credit Hours			
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 Programming Degree (A 25 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, programmer/analysts, software developers, computer operators, systems technicians, database specialists, computer specialists, software specialists, or information systems managers.

				Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Educa ECO 252 ENG 111 ENG 115 MAT 115 OR MAT 161	Prin of Macroece Expository Writi Humanities Elect Oral Communic Mathematical M	ing ctive cation Models	3 3 3 3 2	0 0 0 0 2	3 3 3 3
II.	Required Core CIS 110 CIS 115 CSC 134 CSC 138 CSC 234 CSC 238 CTS 115 CTS 285 CSC 289 DBA 110 NET 125 NOS 110 NOS 244 SEC 110	e Courses - 36 C Introduction to Intro to Prog and C++ Programmi RPG Programmi Advanced C++ Advanced RPG Info. Systems Bu Systems Analysi Programming C Database Conce Networking Bas Operating Syste Operating Syste Security Concep	Credit Hours Computers d Logic ing ing Programming Programming usiness Concept is and Design apstone Project epts iics m Concepts m-AS/400	2 2 2 2 2 2 3 3 1 2 1 2 2 3	2 3 3 3 3 3 0 0 4 3 4 3 2 0	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
III.	Other Major R CSC 139 CSC 239 COE 110 DBA 115	Visual Basic Pro Advanced Visua World of Work Database Applic Computer Electi	al Basic Prog. cations	2 2 1 2 2 2 2 2 2 1 2 2 2 2 2 2 2 2 2 2	3 0 2 3 2 2 2 4 2 2 2 2 2	3 3 1 3 3 3 3 3 3 3 3 3 3
IV.	Other Require ACA 115	ed Hour - 1 Crec Success & Study		0	2	1
Total R	equired Hours					<del>7</del> 4

# Computer Information Technology Degree (A 25 26 0)

#### **Curriculum Description**

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

Course work includes computer systems terminology and operations, logic, operating systems, database, data communications/networking, and related business topics. Studies will provide experience for students to implement, support, and customize industry-standard information systems.

Graduates should qualify for a wide variety of computer-related, entry-level positions that provide opportunities for advancement with increasing experience and ongoing training. Duties may include systems maintenance and troubleshooting, support and training, and business applications design and implementation.

			Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Educa	ation Requirements - 15 Credit Hours			
	ECO 252	Prin of Macroeconomics	3	0	3
	ENG 111	Expository Writing	3	0	3
		Humanities Elective	3	0	3
	ENG 115	Oral Communication	3	0	3
	MAT 115	Mathematical Models	2	2	3
		OR			
	MAT 161	College Algebra			
II.		e Courses - 36 Credit Hours			
	CIS 110	Introduction to Computers	2	2	3
	CIS 115	Intro to Prog & Logic	2	3	3
	CTS 115	Info. Systems Business Concepts	3	0	3
	CTS 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
III.		Required Courses - 22 Credit Hours			
	CTS 130	Spreadsheet	2	2	3
	DBA 115	Database Applications	2	2	3
	CTS 155	Tech Support Functions	2	2	3
	CIS 165	Desktop Publishing I	2	2	3 3
	CTS 125	Presentation Graphics	2	2	3
	CTS 135	Integrated Software	2	4	4
	COE 110	World of Work	1	0	1
	OST 136	Word Processing	1	2	2
IV.		ed Hours - 1 Credit Hour			
	ACA 115	Success and Study Skills	0	2	1
Total Required Hours 74					

# Computer Information Technology – Certificate (C 25 26 0)

		Class	Lab	Credit
		<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
CIS 110	Introduction to Computers	2	2	3
NOS 110	Operating System Concepts	2	3	3
NET 125	Networking Basics	1	4	3
DBA 110	Database Concepts	2	3	3
CTS 130	Spreadsheet	2	2	3
CTS 125	Presentation Graphics	2	2	3
Total Required Hours				18

# 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.

	Canaral Educa	stion Doguinos	nta 15 Cradit Haves	Class <u>Hours</u>	Lab <u>Hours</u>	Co-Op <u>Hours</u>	Credit <u>Hours</u>
I.	ENG 111 ENG 113	Expository Writi Literature - Base OR		3	0	0	3 3
	ENG 114 MAT 115	Professional Res Mathematical M Humanities Elec Social Science I	ctive	2 3 3	2 0 0	0 0 0	3 3 3
II.	Required Core COS 111 COS 112 COS 113 COS 114 COS 115 COS 116 COS 117	Courses - 34 C Cosmetology Co Salon I Cosmetology Co Salon II Cosmetology Co Salon III	oncepts II oncepts III	4 0 4 0 4 0 2	0 24 0 24 0 12	0 0 0 0 0 0	4 8 4 8 4 4 2
III.	Other Major R CIS 110 COS 118 COS 223 COS 225	Introduction to Salon IV Contemp Hair O Adv Contemp H	Coloring	2 0 1 1	2 21 3 3	0 0 0 0	3 7 2 2 3

			Class <u>Hours</u>	Lab <u>Hours</u>	Co-Op <u>Hours</u>	Credit <u>Hours</u>
		ect 7 credit hours from the following courses:				
	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
IV.	Other Require	ed Hours – 1 Credit Hour				
	ACA 115	Success & Study Skills	0	2	0	1
Total	Required Hours					74

\*\*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)

			Class	Lab	Со-Ор	Credit
			<u>Hours</u>	<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
I.	General Educa	ation Requirements - 6 Credit Hours				
	ENG 101	Applied Communications I	3	0	0	3
	MAT 101	Applied Mathematics I	2	2	0	3
II.	Required Core	Courses - 32 Credit Hours				
	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
III.	Other Major R	equired Courses - 7 Credit Hours				
	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
Total I	Required Hours					<del></del> 45

# Manicuring/Nail Technology - Certificate (C 55 40 0)

#### **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.

				Co-Op <u>Hours</u>	
Manicure					
COS 121	Manicure/Nail Technology I	4	6	0	6
COS 222	Manicure/Nail Technology II	4	6	0	6
Total Required Hours					<del></del>

# 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.

			_	lass lours	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Ed None	ucation Requirements				
II.	Major Cour Required Co COS 271 COS 272 COS 273 COS 274		5 0 5 0		0 21 0 21	5 7 5 7
Tota	Total Required Hours 24					<del></del>

#### 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.

I.	General Educ None	cation Requirements	Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
II.	Major Course Required Core COS 253 COS 254	e Courses	6 6	15 15	11 11
Total Required Hours				<u></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.

			Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Edu None	cation Requirements			
II.	Major Cours Required Core COS 251 COS 252	e Courses	8 0	0 15	8 5
Total Required Hours					<del>1</del> 3

# 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.

I.	General Educ None	cation Requirements	Class <u>Hour</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
II.	Major Course				
	Core Required Courses				
	COS 119	Esthetics Concepts I	2	0	2
	COS 120	Esthetics Salon İ	0	18	6
	COS 125	Esthetics Concepts II	2	0	2
	COS 126	Esthetics Salon II	0	18	6
Total Required Hours			<del></del>		

# 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.

			Class	Lab	Credit
			<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
I.	General Educa	ation Requirements - 24 Credit Hours			
	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

			Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
II.	Required Core	e Courses - 22 Credit Hours			
	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
	CJC 212	Ethics and Community Relations	3	0	3
	CJC 221	Investigative Principles	3	2	4
	CJC 231	Constitutional Law	3	0	3
III.	Other Major R	Required Courses - 29 Credit Hours			
	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			
IV.	Other Require	d Hours - 1 Credit Hour			
	ACA 115	Success & Study Skills	0	2	1
Total F	Required Hours				<del>76</del>

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

					Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Educ	ation Requireme	ents - 9 Credit Hours				
	ENG 111	Expository W			3	0	3
	PSY 150	General Psyc	hology		3	0	3
	SOC 210	Introduction	to Sociology		3	0	3
II.	Other Majo	r Required Cour	ses - 36 Credit Hours	5			
	CIS 110	Introduction			2	2	3
	CJC 111	Introduction	to Criminal Justice		3	0	
	CJC 112	Criminology			3	0	3 3 3 3
	CJC 113	Juvenile Justi	ce		3	0	3
	CJC 121		nent Operations		3	0	3
	CJC 131		Criminal Law 3				3
	CJC 132	Court Proced	Court Procedure and Evidence 3			0	3
	CJC 141	Corrections			3	0	3 3 3 3
	CJC 212		mmunity Relations		3	0	3
	CJC 215		and Administration		3	0	3
	CJC 231	Constitutiona	l Law		3	0	3
	CJC	Electives:					3
		CJC 232	Civil Liability				
		CJC 214	Victimology				
		CJC 222	Criminalistics				
III.	Other Requ	ired Hours - 1 C	redit Hour				
	ACA 115	Success & Stu	ıdy Skills		0	2	1
Tota	l Required Hou	rs					<del></del> 46

### Criminal Justice Technology - Certificate (C 55 18 0)

			Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
CJC 111 CJC 113 CJC 121 CJC 141 CJC 212 CJC	Juvenile Justic Law Enforcem Corrections	o Criminal Justice e ent Operations mmunity Relations Civil Liability Victimology Criminalistics	3 3 3 3 3	0 0 0 0 0	3 3 3 3 3 3
Total Required Hours					 18

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

### **Curriculum Description**

The Early Childhood Education curriculum prepares individuals to work with children from infancy through middle childhood 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 parents 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 <u>Hours</u>	Lab <u>Hours</u>	Co-Op Hours	Credit Hours
I.	Ceneral Educa	ation Requirements - 15 Credit Hours	<u>1 10u15</u>	<u>1 10u15</u>	<u>1 10u15</u>	<u>1 10u15</u>
1.	ENG 111	Expository Writing	3	0	0	3
	ENG 113	Literature - Based Research	3	0	0	3
	2110 115	OR	3	Ü	O	3
	ENG 114	Professional Research & Reporting				
	MAT 115	Mathematical Models	2	2	0	3
		Humanities Elective	2 3	0	0	3 3 3
		Social Science Elective	3	0	0	3
II.	Required Core	Courses - 22 Credit Hours				
	COE 111	Co-Op Work Experience I	0	0	10	1
	EDU 131	Child, Family, & Community	3	0	0	3
	EDU 153	Health, Safety and Nutrition	3	0	0	3
	EDU 146	Child Guidance	3	0	0	3 3 3 3 3 3
	EDU 151	Creative Activities	3	0	0	3
	EDU 221	Children with Exceptional	3	0	0	3
	EDU 271	Educational Technology	2	2	0	3
	EDU 280	Language & Literacy Experiences	3	0	0	3
III.	Required Subj	ect Courses - 10 Credit Hours				
	EDU 119	Intro to Early Childhood Education	4	0	0	4
	EDU 144	Child Development I	3	0	0	3
	EDU 145	Child Development II	3	0	0	3

			Class	Lab	Co-Op	Credit
			<u>Hours</u>	<b>Hours</b>	<b>Hours</b>	<b>Hours</b>
IV.	Other Major R	Required Courses - 16 Credit Hours				
	CIS 110	Introduction to Computers	2	2	0	3
	COE 121	Co-Op Work Experience II	0	0	10	1
	COE 131	Co-Op Work Experience III	0	0	10	1
	EDU 259	Curriculum Planning	3	0	0	3
	EDU 261	Early Childhood Administration I	3	0	0	3 3 2
	EDU 262	Early Childhood Administration II	3	0	0	3
	HEA 112	First Aid and CPR	1	2	0	2
	Options: Sele	ct 9 credit hours from the following courses:				
	ACC 120	Prin of Financial Acct	3	2	0	4
	ACC 121	Prin of Managerial Acct	3	2	0	4
	BUS 115	Business Law I	3	0	0	3
	BUS 116	Business Law II	3 3 3	0	0	3 3 3
	BUS 153	Human Resources Management	3	0	0	3
	BUS 230	Small Business Management	3	0	0	3
	CTS 130	Spreadsheet	2	2	0	3
	EDU 185	Cognitive and Language Activity	3	0	0	3
	PSY 150	General Psychology	3	0	0	3
	SOC 210	Introduction to Sociology	3	0	0	3
	SOC 213	Sociology of the Family	3	0	0	3
	WEB 110	Internet/Web Fundamentals	2	2	0	3
V.	Other Require	d Hours - 1 Credit Hour				
	ACA 115	Success & Study Skills	0	2	0	1
Total I	Required Hours					73

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

			Class <u>Hours</u>	Lab <u>Hours</u>	Co-Op <u>Hours</u>	
I.	General Educ	ation Requirements - 6 Credit Hours				
	ENG 111	Expository Writing	3	0	0	3
	MAT 115	Mathematical Models	2	2	0	3
II.	Required Core	e Courses - 16 Credit Hours				
	COE 111	Co-Op Work Experience I	0	0	10	1
	EDU 131	Child, Family, and Community	3	0	0	3
	EDU 146	Child Guidance	3	0	0	3
	EDU 151	Creative Activities	3	0	0	3
	EDU 221	Children with Exceptional	3	0	0	3
	EDU 153	Health, Safety and Nutrition	3	0	0	3
III.	Required Sub	ject Courses - 10 Credit Hours				
	EDU 119	Intro to Early Childhood Education	4	0	0	4
	EDU 144	Child Development I	3	0	0	3
	EDU 145	Child Development II	3	0	0	3
IV.	Other Maior I	Required Courses - 14 Credit Hours				
	CIS 110	Introduction to Computers	2	2	0	3
	EDU 259	Curriculum Planning	3	0	0	3
	EDU 261	Early Childhood Administration I	3	0	0	3
	EDU 262	Early Childhood Administration II	3	0	0	3
	HEA 112	First Aid and CPR	1	2	0	2
Total	Required Hours					<del></del>

### Early Childhood Education - Certificate (C 55 22 0)

COE 111	Co-Op Work Experience I	0	0	10	1
EDU 119	Intro to Early Childhood Education	4	0	0	4
EDU 261	Early Childhood Administration I	3	0	0	3
EDU 262	Early Childhood Administration II	3	0	0	3
HEA 112	First Aid and CPR	1	2	0	2
EDU 259	Curriculum Planning	3	0	0	3
Total Required Hours					<del></del>

### Infant/Toddler Care - Certificate (C 55 29 0)

### **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 young children under the supervision of qualified teachers.

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 parents 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 child-hood 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.

		Class	Lab	Credit
		<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
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
<b>Total Required Hours</b>				16

# Early Childhood Education Degree – Teacher Associate Concentration (A 55 22 B)

### **Curriculum Description**

Teacher Associate is a concentration under the curriculum title of Early Childhood Education. This curriculum prepares individuals to work with children from infancy through middle childhood 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 childhood growth and development, physical/nutritional needs of children, care and guidance of children, and communication skills with parents 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 <u>Hours</u>	Lab <u>Hours</u>	Co-Op <u>Hours</u>	
I.	General Educa ENG 111 ENG 113	ation Requirements - 15 Credit Hours Expository Writing Literature - Based Research OR	3 3	0	0	3
	ENG 114 MAT 115	Professional Research & Reporting Mathematical Models Humanities Elective Social Science Elective	2 3 3	2 0 0	0 0 0	3 3 3
II.	Required Core COE 111 EDU 131 EDU 146 EDU 151 EDU 153 EDU 221 EDU 271 EDU 280	Courses - 22 Credit Hours Co-Op Work Experience I Child, Family, & Community Child Guidance Creative Activities Health, Safety and Nutrition Children with Exceptional Educational Technology Language & Literacy Experiences	0 3 3 3 3 3 2 3	0 0 0 0 0 0 0 2	10 0 0 0 0 0 0	1 3 3 3 3 3 3 3 3
III.	Required Subj EDU 119 EDU 144 EDU 145	ect Courses - 10 Credit Hours Intro to Early Childhood Education Child Development I Child Development II	4 3 3	0 0 0	0 0 0	4 3 3
IV.	Required Con- Teacher Associa COE 121 EDU 118 EDU 186 EDU 235 EDU 275 EDU 285	centration Courses - 12 Credit Hours  ate  Co-Op Work Experience II  Teacher Associate Princ. & Prac.  Reading & Writing Methods  School-Age Dev. & Program  Effect Teaching Training  Internship Exp-School Age	0 3 3 2 2 1	0 0 0 0 0	10 0 0 0 0 0	1 3 3 2 2 1
V.	Other Major R CIS 110 COE 131 EDU 259 EDU 261 EDU 262 HEA 112	Required Courses - 15 Credit Hours Introduction to Computers Co-Op Work Experience III Curriculum Planning Early Childhood Administration I Early Childhood Administration II First Aid and CPR	2 0 3 3 3 1	2 0 0 0 0 0	0 10 0 0 0	3 1 3 3 3 2
VI.	Other Require ACA 115	d Hours - 1 Credit Hour Success & Study Skills	0	2	0	1
Total	Required Hours					<del>75</del>

# 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.

Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, 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 <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Educa	ation Requireme	ents - 15 Credit Hours			
	ENG 111	Expository Writ		3	0	3
	ENG 113	Literature - Base		3	0	3
		OR				
	ENG 114	Professional Re	search and Reporting			
	MAT 115	Mathematical N		2	2	3
		Humanities Ele		3	0	3
		Social Science		3	0	3
II.	Required Core	e Courses - 16 C	Credit Hours			
	ELC 112	DC/AC Electric	ity	3	6	5
	ELC 113	Basic Wiring I		2	6	4
	ELC 117	Motors and Co		2	6	4
	ELC 128	Introduction to	PLC	2	3	3
III.	Required Subj	ect Courses - 12	2 Credit Hours			
	ELC 114	Basic Wiring II		2	6	4
	ELN 133	Digital Electron		3	3	4
	ELN 229	Industrial Electr	ronics	3	3	4
IV.	,		es - 25 Credit Hours			
	CIS 110	Introduction to		2	2	3
	ELC 115	Industrial Wirin		2	6	4
	ELC 118	National Electri		1	2	2
	ELC 119	NEC Calculatio		1	2	2
	ELC 135	Electrical Mach		2	2	3
	ELC 228	PLC Application		2	6	4
	ELC 229	Applications Pr		1	3	2
	ELN 231	Industrial Contr		2	3	3
			ive: (select a course from the following)			2
		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			
V.		d Hours - 1 Cre		0	2	1
	ACA 115	Success & Stud	y SKIIIS	0	2	1
Total F	Required Hours					<del>69</del>

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

			Class	Lab	Credit
			<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
I.		ation Requirements - 6 Credit Hours			
	ENG 101	Applied Communications I	3	0	3
	MAT 101	Applied Mathematics I	2	2	3
II.	Required Core	Courses - 13 Credit Hours			
	ELC 112	DC/AC Electricity	3	6	5
	ELC 113	Basic Wiring I	2	6	4
	ELC 117	Motors and Controls	2	6	4
III.	Required Subj	ect Courses - 4 Credit Hours			
	ELC 114	Basic Wiring II	2	6	4
IV.	Other Major R	equired Courses - 17 Credit Hours			
	CIS 110	Introduction to Computers	2	2	3
	ELC 115	Industrial Wiring	2	6	4
	ELC 118	National Electrical Code	1	2	2
	ELC 119	NEC Calculations	1	2	2 2 3
	ELC 135	Electrical Machines I	2	2	3
	ELN 231	Industrial Controls	2	3	3
Total F	Required Hours				40

# Electrical/Electronics Technology - Certificate

		Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
INDUSTRIAL CONT	ROLS CERTIFICATE - 15 Credit Hours (C 35 22 0)			
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
ELECTRICAL WIRING	G CERTIFICATE - 17 Credit Hours (C 35 22 1)			
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

### 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, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

	, ,		Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Education Requirements - 15 Credit Hours				
	ENG 111	Expository Writing	3	0	3
	ENG 114	Professional Research and Reporting	3	0	3
		OR			
	ENG 113	Literature-Based Research			
	MAT 161	College Algebra	3	0	3
		Humanities Elective	3	0	3
		Social Science Elective	3	0	3
II.	Required Core	e Courses – 4 Credit Hour			
	ELN 133	Digital Electronics	3	3	4
III.		ect Courses – 13 Credit Hours			
	ELC 131	DC/AC Circuit Analysis	4	3	5
	ELN 131	Semiconductor Applications	3	3	4
	ELN 232	Intro to Microprocessors	3	3	4
IV.	Other Major R	Required Courses – 21 Credit Hours			
	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
	Options: Sele	ect at least 20 credit hours from the following courses:			
	CĖT 111	Computer Upgrade/Repair I	2	3	3
	CET 160	Object-Oriented Prog Lang	2	3	3
	CET 161	Procedural Programming	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 235	Data Communications Systems	3	3	4
	ELN 237	Local Area Networks	2	3	3
V.	Other Require	ed Hours – 1 Credit Hour			
-	ACA 115	Success & Study Skills	0	2	1
Total	Total Required Hours				<del>7</del> 4

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

### **Curriculum Description**

**Total Required Hours** 

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.

	0 151		Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.		ation Requirements – 15 Credit Hours	•		
	ENG 111	Expository Writing	3	0	3
	ENG 113	Literature-Based Research	3	0	3
	ENG 115	Oral Communication	3	0	3
	MAT 115	Mathematical Models	2	2	3
		Humanities Elective	3	0	3
II.		e Courses – 19 Credit Hours			
	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
III.		Required Courses – Select 37 Credit Hours from the following	_		2
	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 175	General Microbiology	2	2	3
	CHM 131	Introduction to Chemistry	3	0	3
	CHM 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
	MED122	Medical Terminology II	3	0	3
	NUR 118	Nutrition/Diet Therapy	2	0	2
	OST 136	Word Processing	1	2	2
	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	3	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
IV.	Other Major H	Hours – 1 Credit Hour			
	ACA 115	Success & Study Skills	0	2	1
	_				

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

			Class Hours	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Educ	cation Requirements - 9 Credit Hours			
	ENG 111	Expository Writing	3	0	3
	ENG 113	Literature-Based Research	3	0	3
	ENG 115	Oral Communication	3	0	3
II.	Required Cor	re Courses - 13 Credit Hours			
	BIO 111	General Biology I	3	3	4
	CIS 110	Introduction to Computers			3
	PSY 150	General Psychology	2 3 3	2	3 3 3
	SOC 210	Introduction to Sociology	3	0	3
III.	Other Major	Required Courses - 15 Credit Hours			
	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		4
	BIO 175	General Microbiology	3 2 3	3 2	3
	CHM 131	Introduction to Chemistry	3	0	3
	CHM 131A	Introduction to Chemistry Lab	0	3	1
	MAT 101	Applied Mathematics I	2	3 2	3
	MAT 115	Mathematical Models	2 3	2	
	MAT 161	College Algebra	3	0	3
	PSY 241	Developmental Psychology	3 3	0	3
		Humanities Elective	3	0	3
III.	Other Major	Hours - 1 Credit Hour			
	ACA 115	Success & Study Skills	0	2	1
Total Required Hours					38

# 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 <u>Hours</u>	Credit Hours
I.	General Educ	ation Requirements – 18 Credit Hours	<u>1 10013</u>	<u>1 10013</u>	<u>1 10013</u>
	MAT 115	Mathematical Models	2	2	3
	ENG 111	Expository Writing	3	0	3
	ENG 113	Literature - Based Research OR	3	0	3
	ENG 114	Professional Research & Reporting			
	ECO 251	Principles of Microeconomics	3	0	3
		Humanities Elective	3	0	3
		Social Science Elective	3	0	3

				Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
II.	Required Core	e Courses – 4 C	redit Hours			
	MNT 110 WLD 112	Intro to Mainte Basic Welding	nance Procedures Processes	1 1	3	2 2
III.	Required Sub	ject Courses – 1	5 Credit Hours			
	ELC 112	DC/AC Electric	city	3	6	5
	BPR 111	Blueprint Read		1	2	2
	HYD 110	Hydraulics/Pne		2	3	3
	MEC 111	Machine Proce		1	4	3
	ISC 112	Industrial Safet OR	У	2	0	2
	ISC 121	Env. Health &	Safety			
IV.	Other Major I					
	ELC 111	Intro to Electric		2	2	3
	ELC 128	Intro to PLC	,	2	3	3
	ELC 132	Electrical Draw		1	3	2
	WLD 121	GMAW (Mig) F	FCAW/Plate	2	6	4
	AHR 120	HVACR Mainte		1	3	2
	AHR 160	Refrigerant Cer		1	0	1
	CIS 110	Introduction to		2	2	3
	MEC 112	Machine Proce		2	3	3
	PLU 111		Basic Plumbing	1	3	2
	AHR 130	HVAC Control		2	2	3
	ELC 115	Industrial Wiri		2	6	4
			cal Elective (Select one of the following:)			2-3
		MNT 150	Basic Building Maintenance			
		MNT 220	Rigging and Moving			
		PLU 211	Commercial/Ind Plumbing			
V.	Other Required Hours – 1 Credit Hour					
	ACA 115	Success & Stud	ly Skills	0	2	1
Total Required Hours						<del>70</del> -71

# Information 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.

		Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I. General Education I	Requirements—15 Credit Hours			
ECO 252	Principles of Economics	3	0	3
ENG 111	Expository Writing	3	0	3
	Humanities Elective	3	0	3
ENG 115	Oral Communication	3	0	3
MAT 115	Mathematical Models	3	0	3

		Class	Lab	Credit		
		<u>Hour</u>	Hours Hours	<b>Hours</b>		
II. Required Core Courses— 45 Credit Hours						
CIS 110	Introduction to Computers	2	2	3		
CIS 115	Introduction to Logic	2	3	3		
CTS 115	Info. Systems Business Concept	3	0	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		
III. Other Major Req	uired Courses					
CSC 134	C++ Programming	2	3	3		
ACA 115	Success and Study Skills	0	2	1		
Total Required hours				<del>74</del>		

### Electives Hours: Choose 3 courses

CSC 139	Visual Basic Programming
CSC 234	Advanced C++ Programming
DBA 115	Database Applications
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 design

# Machining Technology - Diploma (D 50 30 0)

### **Curriculum Description**

The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment, and sophisticated precision inspection instruments.

Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations, and make decisions to ensure that work quality is maintained.

Employment opportunities for machining technicians exist in manufacturing industries, public institutions, governmental agencies, and in a wide range of specialty machining job shops.

			Clas <u>Hou</u>		Credit Hours
I.	General Educa	ation Requirements - 9 Credit Hours			
	ENG 101	Applied Communications I	3	0	3
	MAT 101	Applied Mathematics I	2	2	3
	MAT 102	Applied Mathematics II	2	2	3
II.	Required Co	ore Courses - 18 Credit Hour			
	MAC 111	Machining Technology I	2	12	6
	MAC 112	Machining Technology II	2	12	6
	MAC 113	Machining Technology III	2	12	6

			Class	Lab	Credit
			<u>Hours</u>	<b>Hours</b>	<u>Hours</u>
III.	Required Subj	ect Courses - 8 Credit Hours			
	BPR 111	Blueprint Reading	1	2	2
	BPR 121	Blueprint Reading: Mechanical	1	2	2
	MAC 122	CNC Turning	1	2 3	2 2 2
	MAC 124	CNC Milling	1	3	2
IV.	Other Major R	equired Courses - 5 Credit Hours			
	ISC 110	Workplace Safety	1	0	1
		OR			
	ISC 121	Environmental Health & Safety			
	MAC 121	Introduction to CNC	2	0	2
	MAC 151	Machining Calculations	1	2	2
V.	Other Require	d Courses - 7 Credit Hours			
	CIS 110	Intro to Computers	2	2	3
	MAC 222	Advanced CNC Turning	1	3	2 2
	MAC 224	Advanced CNC Milling	1	3	2
Total R	Total Required Hours				

# Machining Technology - Certificate

		Class	Lab	Credit	
		<u>Hours</u>	<u>Hours</u>	<u>Hours</u>	
MACHINING CERTIF	ICATE - 12 Hours (C 50 30 0)				
MAC 111	Machining Technology I	2	12	6	
MAC 112	Machining Technology II	2	12	6	
CNC CERTIFICATE - 16 Hours (C 50 30 1)					
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	

### 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.

WICHTI	ew teemiologies.			Cla <u>Ho</u>	ass ours	Lab <u>Hours</u>	Credit <u>Hours</u>	
I.	General Educa ENG 111 ENG 114	ation Requirements Expository Writing Professional Resea OR		3		0	3	
	ENG 113 MAT 115	Literature-Based Re Mathematical Mod Humanities Electiv Social Science Elec	dels e	2 3 3		2 0 0	3 3 3	
II.	Required Subj ISC 112 ISC 132 MEC 180 DFT 111 MAC 114	Industrial Safety Manufacturing Qu	anufacturing Quality Control gineering Materials chnical Drafting I tro to Metrology					
	CIS 110 DFT 111A DFT 121 DFT 151 DFT 152 ELC 111 ELC 128 HYD 110 MAC 121 MEC 111 MEC 231 MEC 231 MEC 232 MEC 236 WLD 112	Introduction to Cor Technical Drafting Intro to GD&T CAD I Introduction to Electoria Introduction to Electoria Introduction to CN Machine Processes Machine Processes Machine Processes Machine Processes Computer Aided M Computer Aided M Regional Manufact Basic Welding Processes Welding Processes Machine Processes Mach	equired Courses – 46 Credit Hours Introduction to Computers Technical Drafting I Lab Intro to GD&T CAD I CAD II Introduction to Electricity Introduction to PLC Hydraulics/Pneumatics I Introduction to CNC Machine Processes I Machine Processes II Computer Aided Manufacturing I Computer Aided Manufacturing II Regional Manufacturing Basic Welding Processes Major Elective: (select from the following courses): BPR 111 Blueprint Reading DFT 112 Technical Drafting II DFT 112A Technical Drafting II Lab MAC 122 CNC Turning MAC 124 CNC Milling MEC 172 Introduction to Metallurgy MEC 181 Introduction to Plastics PLA 110 Introduction Molding				3 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 6	
IV.	Other Require	ed Hours – 1 Credit	Hour	0		2	1	

ACA 115

Success & Study Skills

0

### Manufacturing Technology Degree - Plastics Concentration (A 50 32 A)

### **Curriculum Description**

Plastics is a concentration under the curriculum title of Manufacturing Technology. This curriculum provides training in all aspects of the polymer processing industry, one of today's fastest growing manufacturing technologies. It will prepare individuals for employment by utilizing the latest technologies in both plastics materials and plastics processing.

Course work includes rigorous study of the polymer processing industry, including materials technology, injection molding, extrusion, thermoforming, blow molding, and other related areas. Students will also gain knowledge in machine operation, maintenance, setup, design and research, quality assurance, and safety.

Graduates should qualify for employment in the design and/or production of plastic-related items including such job titles as molding technician, estimator, QC technician, setup technician, or supervisor.

	0 151		40.0 15.11	Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	CHM 131 CHM 131A ENG 111 ENG 113 MAT 115	Introduction to Introduction to Introduction to Expository Writ Literature - Bas Mathematical I Humanities Ele Social Science	Chemistry Lab ting ed Research Models ective	3 0 3 3 2 3 3	0 3 0 0 2 0	3 1 3 3 3 3 3
II.	Required Coro ISC 112 ISC 132 MEC 145	e Courses - 8 Cr Industrial Safet Manufacturing Manufacturing	y Quality Control	2 2 2	0 3 3	2 3 3
III.	Required Subj DFT 111 ISC 133	ject Courses - 4 Technical Draft Manufacturing		1 2	3 0	2 2
IV.	Required Con PLA 110 PLA 115 PLA 120 PLA 210 PLA 215	Introduction Could Introduction to Polymer Proces Injection Mold Mold Maintena Polymeric Mate	ssing ing ance/Design	2 2 2 2 2	0 3 3 3 3	2 3 3 3 3
V.	Other Major F CIS 110 COE 111 DFT 111A DFT 151 ELC 111 ELC 128 HYD 110 MAC 121 MEC 111 MEC 181 MEC 236	Required Course Intro to Compu Co-Op Work E Technical Draft CAD I Introduction to Introduction to Hydraulics/Pne Introduction to Machine Proce Introduction to Regional Manu Major Elective PLA 162 PLA 220 PLA 225	xperience I ting I Lab  D Electricity PLC tumatics I CNC tesses I CIM diacturing	2 0 0 2 2 2 2 2 2 1 2	2 10 3 3 2 3 3 0 4 0 4	3 1 1 3 3 3 3 2 3 2 3 2 3 3
VI.	Other Require ACA 115	ed Hours - 1 Cre Success & Stud		0	2	1
Total	Required Hours	;				<del>76</del>

### Manufacturing Technology Plastics Concentration – Diploma (D 50 32 A)

			Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.		ation Requirements – 6 credit hours			
	ENG 101	Applied Communications I	3	0	3
	MAT 101	Applied Mathematics I	2	2	3
II.	Major Courses	s – 12 credit hours			
	ISC 112	Industrial Safety	2	0	2
	ISC 132	Manufacturing Quality Control	2	3	3
	ISC 133	Manufacturing Management Practices	2	0	
	MEC 145	Manufacturing Materials I	2	3	2
	BPR 111	Blueprint Reading	1	2	2
III.	Concentration	– 14 credit hours			
	PLA 110	Introduction to Plastics	2	0	2
	PLA 115	Polymer Processing	2	3	
	PLA 120	Injection Molding	2	3	3
	PLA 210	Mold Maintenance/Design	2	3	3 3 3
	PLA 215	Polymeric Materials	2	3	3
IV.	Other Major R	Required Courses – 6 credit hours			
	HYD 110	Hydraulics/Pneumatics I	2	3	3
		Major Elective (Choose one):			3
		PLA 162 Plastics Manufacturing Processes			
		PLA 220 Moldflow			
		PLA 225 Extrusion			
Total Required Hours 38					

# Manufacturing Technology Plastics Concentration – Certificate (C 50 32 A01)

		Class	Lab	Credit
		<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
ISC 112	Industrial Safety	2	0	2
ISC 132	Manufacturing Quality Control	2	3	3
Concentration				
PLA 110	Introduction to Plastics	2	0	2
PLA 115	Polymer Processing	2	3	3
PLA 120	Injection Molding	2	3	3
PLA 215	Polymeric Materials	2	3	3
Total Required Hours				<del></del>

# Manufacturing Technology - Plastics Welding Certificate (C 50 32 A02)

		Class	Lab	Credit
		<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
PLA 110	Introduction to Plastics	2	0	2
PLA 215	Polymeric Materials	2	3	3
PLA 162	Plastics Manufacturing Processes	2	3	3
BPR 111	Blueprint Reading	1	2	2
ISC 112	Industrial Safety	2	0	2
WLD 145	Thermoplastic Welding	1	3	2

Total Required Hours 14

### Manufacturing Technology Degree – Composites Concentration (A 50 32 D)

### **Curriculum Description**

**Total Required Hours** 

Composites is a concentration under the curriculum title of Manufacturing Technology. This curriculum provides training in various composite (reinforcing fiber in a polymer matrix) processing and testing methods. It will prepare individuals for employment by utilizing the latest technologies in composites processing and testing.

Course work includes the processing and design of composite structures and composite materials testing. Processes include compression molding, vacuum assisted transfer molding and resin transfer molding. Testing includes impact, shear, compression, flexure and tension tests based on anisotropic theory and stress analysis.

Graduates should qualify for employment as lab technicians or lab testing specialist in the composites, plastics, and fiberglass industries.

0						
				Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Educa	ation Requireme	nts – 22 Credit Hours			
	CHM 131	Introduction to C		3	0	3
	CHM 131A	Introduction to		0	3	1
	ENG 111	Expository Writi		3	0	3
	ENG 113	Literature - Base OR	ed Kesearch	3	0	3
	ENG 114		search & Reporting			
	MAT 161	College Algebra		3	0	3
	MAT 162	College Trigono		3	0	3
		Humanities Elec		3	0	3
		Social Science E		3	0	3
II.	Required Core	e Courses – 12 C	redit Hours			
	DFT 111	Technical Drafti		1	3	2
	ISC 112	Industrial Safety		2	0	2
		OR		_		_
	ISC 121	Env. Health & S	afety			
	ISC 132	Manufacturing (		2	3	3
	ISC 133		Management Practices	2	0	3 2 3
	MEC 145	Manufacturing I	Materials I	2	3	3
III.	Required Cond	centration Cours	ses – 12 Credit Hours			
	MEC 188	Processing Com		2	3	3
	MEC 189	Processing Com		2	3	3
	MEC 215	Design of Comp		2	3	3
	MEC 212	Composite Mate	erials Testing	2	3	3
IV.	Other Major R	Required Courses	s – 29 Credit Hours			
	CIS 110	Introduction to	Computers	2	2	3
	DFT 111A	Technical Drafti		0	3	1
	ELC 128	Introduction to		2	3	3
	HYD 110	Hydraulics/Pneu		2	3	3
	MAC 121	Introduction to		2	0	2
	MEC 111	Machine Proces		1	4	3
	MEC 181	Introduction to		2 3	0 3	2 4
	MEC 211 MEC 236	Engineering Ma		3 1	3 4	3
	MILC 230	Regional Manuf Major Elective	actumg	1	4	5
		BPR 111	Blueprint Reading			5
		MEC 187	Composite Materials			
		PLA 162	Plastics Manufacturing Processes			
		PLA 225	Extrusion			
		PLA 230	Adv Plastics Manufacturing			
		WLD 145	Thermoplastic Welding			
V.	Other Require	d Courses – 1 C	redit Hour			
••	ACA 115	Success & Study		0	2	1
						==

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# 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.

	0 151		Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	ENG 111 ENG 114	ation Requirements – 15 Credit Hours  Expository Writing  Professional Research & Reporting  OR	3	0	3
	ENG 113 MAT 115	Literature-Based Research Mathematical Models OR	2	2	3
	MAT 161	College Algebra Humanities Elective Social Science Elective	3	0	3
II.	Required Core DFT 111 DFT 112 DFT 151 DFT 152	e Courses – 10 Credit Hours Technical Drafting I Technical Drafting II CAD I CAD II	1 1 2 2	3 3 3 3	2 2 3 3
III.	Required Subj MEC 111	ect Courses – 3 Credit Hours  Machine Processes I	1	4	3
IV.	Other Major R CIS 110 DDF 211 DDF 221 DFT 111A DFT 112A DFT 115 DFT 121 DFT 153 DFT 154 DFT 231 DFT 254	Introduction to Computers Design Process I Design Drafting Project Technical Drafting I Lab Technical Drafting II Lab Architectural Drafting Intro to Geometric Dimensioning and Tolerancing CAD III Intro Solid Modeling Jig & Fixture Design Interm Solid Model/Render Technical Elective (choose one): DFT 161 Pattern Design & Layout MEC 181 Introduction to CIM MNT 222 Industrial Sys Schematics	2 1 0 0 0 1 1 2 2 1 2	2 6 4 3 3 2 2 3 3 2 3 3 2 3 3 3 3 3 3	3 4 2 1 1 2 2 3 3 2 3 2
	EGR 110 HYD 110 ISC 132 MAC 121 MEC 145 MEC 231	Introduction to Engineering Technology Hydraulics/Pneumatics I Mfg. Quality Control Introduction to CNC Manufacturing Materials I Computer Aided Manufacturing I	1 2 2 2 2 1	2 3 3 0 3 4	2 3 3 2 3 3
V.	Other Require	ed Hours – 1 Credit Hour Success & Study Skills	0	2	1
Total Required Hours					<del>73</del>

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

			Class	Lab	Credit
	Caparal Educa	tion Courses & Credit Hours	<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
I.	ENG 111	tion Courses – 6 Credit Hours	2	0	2
	MAT 115	Expository Writing Mathematical Models	3 2	0	3
	MAI IIS	Mathematical Models	2	2	3
II.	Required Core	Courses – 10 Credit Hours			
	DFT 111	Technical Drafting I	1	3	2
	DFT 112	Technical Drafting II	1	3	
	DFT 151	CAD I	2	3	2 3 3
	DFT 152	CAD II	2	3	3
III.	Required Subj	ect Courses – 3 Credit Hours			
	MEC 111	Machine Processes I	1	4	3
IV.	Other Major R	equired Courses – 24 Credit Hours			
	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	2	2
	DFT 121	Intro to Geometric Dimensioning and Tolerancing	1	2 3	2
	DFT 153	CAD III	2	3	2 2 3 3
	DFT 154	Intro Solid Modeling	2	3	3
		Technical Elective (Choose one):			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 145	Manufacturing Materials I	2	3	3
Total R	Required Hours				43

# Mechanical Drafting Technology - Certificate (C 50 34 0)

		Class	Lab	Credit
		<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
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	CADI	2	3	3
DFT 152	CAD II	2	3	3
MEC 111	Machine Processes I	1	4	3
Total Required Hours				15

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

### **Curriculum Description**

**Total Required Hours** 

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 <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Educ	ation Requirements – 15 Credit Hours			
	ENG 111	Expository Writing	3	0	3
	ENG 114	Professional Research & Reporting	3	0	3
		OR			
	ENG 113	Literature-Based Research			
	MAT 161	College Algebra	3	0	3
		Humanities Elective	3	0	3
		Social Science Elective	3	0	3
II.		ject Courses – 19 Credit Hours			
	DFT 151	CAD I	2	3	3
	ISC 121	Environment Health & Safety	3	0	3
	HYD 110	Hydraulics/Pneumatics I	2	3	3
	MEC 250	Statics & Strength of Material	4	3	5
	MEC 111	Machine Processes I	1	4	3
	MAC 114	Intro to Metrology	2	0	2
III.	Other Major F	Required Courses – 40 Credit Hours			
	CIS 110	Intro to Computers	2	2	3
	DFT 111	Technical Drafting I	1	3	2
	DFT 111A	Technical Drafting I Lab	0	3	1
	EGR 110	Introduction to Engineering Tech.	1	2	2
	ISC 132	Mfg Quality Control	2	3	3
	MAC 121	Introduction to CNC	2	0	2
	MAT 162	College Trigonometry	3	0	3
	MEC 128	CNC Machining Processes	2	4	4
	MEC 180	Engineering Materials	2	3	3
	MEC 231	Comp-Aided Manufacturing I	1	4	3
	MEC 236	Regional Manufacturing	1	4	3
	MEC 270	Machine Design	3	3	4
	MEC 271	Machine Design Project	0	3	1
	PHY 131	Physics Mechanics	3	2	4
		Elective: (choose from the following):		_	2
		DFT 121 Intro to GD&T			_
		MEC 181 Introduction to CIM			
		PLA 110 Introduction to Plastics			
IV.	Other Require	ed Hours – 1 Credit Hour			
•	ACA 115	Success & Study Skills	0	2	1
	ACA 113	Success & Study Skills	U	۷	ı

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### 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 <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Educa	ation Requirements - 15 Credit Hours			
	MAT 115	Mathematical Models	2	2	3
	ENG 111	Expository Writing	3	0	3
	ECO 252	Prin of Macroeconomics	3	0	3
	ENG 115	Oral Communication	3	0	3
		Humanities Elective	3	0	3
II.	Required Core	Courses – 24 Credit Hours			
	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	Office Systems 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 & Insu	3	0	3
	OST 149	Med Legal Issues	3	0	3
IV.	Other Major R	equired Courses – 30 Credit Hours			
	ACC 120	Prin of Financial Acct	3	2	4
	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	2	3
	OST 131	Keyboarding	1	2	2
	OST 136	Word Processing	1	2	2
	OST 184	Records Management	1	2	2
	OST 241	Med Ofc Transcription I	1	2	2
	OST 243	Med Office Simulation	2	2	3
	OST 286	Professional Development	3	0	3
V.		d Hours - 2 Credit Hours			
	ACA 115	Success & Study Skills	0	2	1
	COE 110	World of Work	1	0	1
Total F	Required Hours				71

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

			Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Educ	ation Requirements - 6 Credit Hours			
	MAT 115	Mathematical Models	2	2	3
	ENG 111	Expository Writing	3	0	3
II.	Core Courses	– 24 Credit Hours			
	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	Office Systems Management	2	2	3
III.	Other Major F	Required Courses - 16 Credit Hours			
	ACC 120	Prin of Financial Acct	3	2	4
	BUS 121	Business Math	2	2	3
	OST 131	Keyboarding	1	2	
	OST 136	Word Processing	1	2	2 2 2 3
	OST 184	Records Management	1	2	2
	OST 286	Professional Development	3	0	3
IV.	Other Require	ed Hours - 2 Credit Hours			
	ACA 115	Success & Study Skills	0	2	1
	COE 110	World of Work	1	0	1
Total Required Hours					48

# Medical Office Administration – Certificate (C 25 31 0)

		Class	Lab	Credit
		<u>Hour</u>	s Hours	<u>Hours</u>
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
ACA 115	Success & Study Skills	0	2	1
Tatal Danishad Hanna				10
<b>Total Required Hours</b>				18

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

### **Curriculum Description**

**Total Required Hours** 

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 <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.	General Educa	ation Courses - 15 Credit Hours			
	General Educat	tion Requirements - 15 Credit Hours			
	ECO 252	Prin of Macroeconomics	3	0	3
	ENG 111	Expository Writing	3	0	3
		Humanities Elective	3	0	3
	ENG 115	Oral Communication	3	0	3
	MAT 115	Mathematical Models	2	2	3
		OR			
	MAT 161	College Algebra			
II.	Required Core	e Courses - 45 Credit Hours			
	CIS 110	ntroduction to Computers	2	2	3
	CIS 115	Intro to Prog & Logic	2	3	3
	CTS 115	Info. Systems Business Concept	3	0	3
	CTS 120	Hardware/Software Support	2	3	3
	DBA 110	Database Concepts	2	3	3
	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
III.		Required Courses - 13 Credit Hours			
	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++ Programing	2	3	3
	NOS 230	Windows Admin I	2	2	3
IV.		ed Hours - 1 Credit Hour			
	ACA 115	Success and Study Skills	0	2	1

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### Networking Technology- Certificate (C 25 34 0)

		Class	Lab	Credit
		<u>Hour</u>	<u>s</u> Hours	<u>Hours</u>
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
Total Required Hours			18	
•				

# 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.

			Class	Lab	Credit
	6 . [5]	d'an a de 10 C. Pett	<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
I.		ation Requirements - 19 Credit Hours	2	0	2
	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			
II.	Required Core				
	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 186	Reading & Writing Methods	3	0	3
	EDU 271	Educational Technology	2	2	3
	EDU 179	Vocational Student Organizations	3	0	3
		OR			
	EDU 240	Work-based Learning Practices & Techniques			
	ISC 121	Environmental Health & Safety	3	0	3
III.	Other Major R	equired Courses - 35 Credit Hours			
	EDU 161	Intro to Exceptional Child	3	3	4
	EDU 178	Facilities Organization & Planning	2	2	3
	EDU 275	Effective Teacher Training	2	0	2
	CIS 110	Introduction to Computers	2	2	3
		•			

			Class Hours	Lab	Credit Hours
	Specialty Area		<u>110013</u>	110013	23
	<ol> <li>Through work e</li> <li>Through formal</li> </ol>	experience or informal course work training in field			
IV.	Other Required F	Hours - 1 Credit Hour			
	<u>-</u>	uccess & Study Skills	0	2	1
Total	Required Hours				<del></del> 76

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

			Class	Lab	Credit	
			<u>Hours</u>	<u>Hours</u>	<u>Hours</u>	
I.	General Educa	ation – 6 Credit Hours				
	ENG 111	Expository Writing	3	0	3	
	PSY 150	General Psychology	3	0	3	
II.	Required Core	Courses – 24 Credit Hours				
	EDŪ 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 271	Educational Technology	2	2	3	
	EDU 186	Reading & Writing Methods	3	0	3	
	EDU 179	Vocational Student Organizations	3	0	3	
	EDU 240	Work-based Learning Practices and Techniques	3	0	3	
	ISC 121	Environmental Health & Safety	3	0	3	
III.	Other Major Required Courses – 8 Credit Hours					
	EDU 275	Effective Teacher Training	2	0	2	
	EDU 178	Facilities Organization & Planning	2	2 2	3	
	CIS 110	Introduction to Computers	2	2	3	
Total Required Hours					38	

# Occupational Education Associate - Certificate (C 55 32 0)

		Class	Lab	Credit
		<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
EDU 175	Introduction to Trade & Ind Ed	3	0	3
EDU 1 <i>77</i>	Instructional Methods	2	2	3
EDU 179	Vocational Student Organizations	3	0	3
EDU 186	Reading & Writing Methods	3	0	3
EDU 271	Educational Technology	2	2	3
ISC 121	Environmental Health & Safety	3	0	3
Total Required Hours				18

### Office Systems Technology (A 25 36 0)

### **Curriculum Description**

The Office Systems Technology 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 <u>Hours</u>	Credit Hours
1.	General Educa	tion Requirements - 15 Credit Hours			
	ECO 252	Prin of Macroeconomics	3	0	3
	ENG 111	Expository Writing	3	0	3
	ENG 115	Oral Communication	3	0	3
	MAT 115	Mathematical Models	2	2	3
	7707777	Humanities Elective	3	0	3
II.	Required Core	Courses - 14 Credit Hours			
	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	1	2	2
	OST 289	Office Systems Management	2	2	3
III.	Other Major R	equired Courses - 38 Credit Hours			
	ACC 120	Prin of Financial Acct	3	2	4
	BUS 115	Business Law I	3	0	3
	BUS 121	Business Math	2	2	3 3 3 3 3 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	
	COE 110	World of Work	1	0	1
	OST 131	Keyboarding	1	2	2
	OST 136	Word Processing	1	2	2
	OST 223	Machine Transcription I	1	2	2
	OST 286	Professional Development	3	0	3
	Elective	(see advisor for a list)			3
IV.	Other Required Hours - 1 Credit Hour				
	ACA 115 Succes	ss and Study Skills	0	2	1
Total R	Total Required Hours				67

# Office Systems Technology - Diploma (D 25 36 0)

			Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
l.	General Educa	ation - 6 Credit Hours			
	ENG 111	Expository Writing	3	0	3
	MAT 115	Mathematical Models	2	2	3
II.	Required Core	Courses - 14 Credit Hours			
	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	1	2	2
	OST 289	Office Systems Management	2	2	3
III.	Other Major R	equired Courses -20 Credit Hours			
	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	1	2 2	2
	OST 223	Machine Transcription I	1	2	2 2 3
	OST 286	Professional Development	3	0	3
IV.	Other Required Hours - 1 Credit Hour				
	ACA 115	Success and Study Skills	0	2	1
Total Required Hours					41

# Office Systems Technology - Certificate (C 25 36 0)

		Class	Lab	Credit
		<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
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	1	2	2
OST 184	Records Management	1	2	2
OST 286	Professional Development	3	0	3
ACA 115	Success and Study Skills	0	2	1
Total Required Hours				<del></del>

### 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.

					lass	Lab	Credit
	C		C 10 14 h	<u>H</u>	<u>ours</u>	<u>Hours</u>	<u>Hours</u>
I.	Gene *		Courses - 18 credit hours	2		0	2
		ENG 111	Expository Writing	3		0	3
	+ *	ENG 112	Argument-Based Research	3		0	3
	*	ENG 114	Prof. Research and Reporting	3		0	3
		A A A T 1 4 O	Hum/Fine Arts Electve	3		0	3
	+	MAT 140	Survey of Mathematics	3		0	3
	*		Social/Behavioral Science elective	3		0	3
II.	Majo	or Core Courses	s - 50 credit hours				
	+	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
III.	Othe	er Major Hours					
	*	ACC 120	Prin of Financial Acct	3		2	4
	*	CIS 110	Introduction to Computers	2		2	3
	*	OST 136	Word Processing	1		2	2
	+	LEX 121	Legal Research & Writing I	2		2	3
	+	LEX 141	Civil Litigation II	2		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
Selec	t 2 hou	ırs from the foll	owing:				
	+	LEX 170	Administrative Law	2		0	2
	+	LEX 220	Corporate Law	2		0	2
	+	LEX 260	Bankruptcy & Collections	2		0	2
	+	LEX 292	Selected Topics in Para. Tech.	1		2	2
Total	Total Required Hours						<del></del>
	* /	~1 41 - 4 1	the 1 C				

<sup>\* =</sup> Conducted at Isothermal Community College

<sup>+ =</sup> Conducted at Western Piedmont Community College

### 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.

I. General Education Requirements - 6 Credit Hours				
	3			
	3			
ENG 111 Expository Writing 3 0 0 PSY 110 Life Span Development 3 0 0				
ENG 111 Expository Writing 3 0 0 PSY 110 Life Span Development 3 0 0	3			
II. Required Core Courses - 33 Credit Hours				
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. Other Major Required Courses - 8 Credit Hours				
BIO 163 Basic Anatomy and Physiology 4 2 0	5			
BIO 163 Basic Anatomy and Physiology 4 2 0 CIS 110 Intoduction to Computers 2 2 0	5 3			
IV. Other Required Hours - 1 Credit Hour				
ACA 115 Success & Study Skills 0 2 0	1			
Total Required Hours				

### 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 opportunites as designers, administrators, or developers in the areas of webb application, websites, web services, and related areas of distributed computing.

Class Lab Coad's

				Hours	Lab <u>Hours</u>	Credit Hours
I.	General Edu	General Education Requirements—15 Credit Hours				
	ECO 252	Principles of Macroeconomics		3	0	3
	ENG 111	Expository Writing		3	0	3
		Humanities Elective		3	0	3
	ENG 115	Oral Communication		3	0	3
	MAT 115	Mathematical Models		2	2	3
		OR				
	MAT 161	College Algebra		3	0	3

				Class	Lab	Credit		
				<u>Hours</u>	<u>Hours</u>	<u>Hours</u>		
II.	Required Core Courses- 42 Credit hours							
	CIS 115	Intro to Programming and Logic		2	3	3		
	DBA 110	Database Concepts		2	3	3		
	NOS 110	Operating Systems Concepts		2	3	3		
	SEC 110	Security Concepts		3	0	3		
	WEB 110	Internet/Web Fundamentals		2	2	3		
	WEB 115	Web Markup and Scripting		2	2	3		
	WEB 120	Intro Internet Multimedia		2	2	3		
	WEB 140	Web Development Tools		2	2	3		
	WEB 210	Web Design		2	2	3		
	WEB 230	Implementing Web Serv		2	2	3		
	WEB 250	Database Driven Websites		2	2	3		
	CIS 110	Introduction to Computers		2	2	3		
	CTS 115	Info. Systems Business Concepts	3	3	0	3		
	NET 125	Networking Basics		1	4	3		
III.	Other Major Required Courses—9 Credit Hours							
	MKT 120	Principles of Marketing		3	0	3		
	CIS 288	Systems Project		1	4	3		
	*Elective (see	attached list)		3	0	3		
IV.	Other Requir	equired Hours – 2 Credit Hour						
	ACA 115	Success & Study Skills		0	2	1		
	COE 110	World of Work		1	0	1		
	*Electives:							
	CSC 134 C++ Programming		NET 126 Routing Basics					
			NOS 120 Linux/UNIX Admin I					
		C++ Programming	NOS 130 Windows Single User					
	DBA 115 Database Applications NOS 244 Operating System AS/400							
	SEC 150 Secure Communications							

# 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	Lab	Credit
			<b>Hours</b>	<b>Hours</b>	<b>Hours</b>
I.	General Educa	ation Requirements - 15 Credit Hours			
	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

			Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
		Humanities Elective Social Science Elective	3	0	3
II.	Required Core	Courses - 18 Credit Hours			
	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
III.	Other Major I	Required Courses - 33 Credit Hours			
	BPR 111	Blueprint Reading	1	2	2
	BPR 121	Blueprint Reading: Mechanical	1	2	2
	CIS 110	Introduction to Computers	2	2	3
	WLD 112	Basic Welding Processes	1	3	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 143	Welding Metallurgy	1	2	2
	WLD 151	Fabrication I	2	6	4
	WLD 251	Fabrication II	1	6	3
	WLD 261	Certification Practices	1	3	2
	WLD 262	Inspection and Testing	2	2	3
IV.	IV. Other Required Hours - 1 Credit Hour				
	ACA 115	Success & Study Skills	0	2	1
Total Required Hours		<del></del>			

# Welding Technology - Diploma (D 50 42 0)

	0 151		Class <u>Hours</u>	Lab <u>Hours</u>	Credit <u>Hours</u>
I.		cation Requirements - 6 Credit Hours			
	ENG 101	Applied Communications I	3	0	3
	MAT 101	Applied Mathematics I	2	2	3
II.	Required Cor	re Courses - 18 Credit Hours			
	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
III.	III. Other Major Required Courses - 20 Credit Hours				
	BPR 111	Blueprint Reading	1	2	2
	BPR 121	Blueprint Reading: Mechanical	1	2	2
	WLD 112	Basic Welding Processes	1	3	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
Total Required Hours			44		

# Welding Technology - Certificate (C 50 42 0)

		Class	Lab	Credit
		<u>Hours</u>	<u>Hours</u>	<u>Hours</u>
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
Total Required Hours 1			15	

### **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 prefix (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**

### ACA 115 Success & Study Skills

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Prerequisites:

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.

### **ACCOUNTING**

### ACC 120 Prin Of Financial Acct

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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 to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.* 

#### ACC 121 Prin of Managerial Acct

3 2

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 to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

### ACC 129 Individual Income Taxes

2 2 3

Prerequisites:

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

0 3

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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 keep bookkeeping functions for small business.

### AIR CONDITIONING, HEATING AND REFRIGERATION

AHR 120 HVACR Maintenance

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

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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 I

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

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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

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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

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.

### **ANTHROPOLOGY**

#### ANT 210 General Anthropology

3 0 3

Prerequisites:

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

### ANT 220 Cultural Anthropology

0 3

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Prerequisites:

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

#### **ART**

ART 111 Art Appreciation

Prerequisites: RED 090, ENG 090 or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

### ART 121 Design I

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Prerequisites

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.

### ART 131 Drawing I

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Prerequisites:

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.

### ART 132 Drawing II

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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 form and techniques.

### ART 140 Basic Painting

4 2

Prerequisites:

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.

### ART 240 Painting I

0 6

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.

#### ART 241 Painting II

0 6

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.

#### **ASTRONOMY**

#### AST 111 Descriptive Astronomy

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Prerequisites: None Corequisites: AST 111

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 to satisfy the comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

### AST 111A Descriptive Astronomy Lab

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 to satisfy the comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

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### AST 151 General Astronomy I

Prerequisites: None 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 meteors. Upon completion, students should be able to demonstrate a general understanding of the solar system. This course has been approved to satisfy the comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

#### AST 151A General Astronomy I Lab

Prerequisites: None Corequisites: AST 151

The 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 to satisfy the comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

### AST 152 General Astronomy II

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 to satisfy the comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

### AST 152A General Astronomy II Lab

Prerequisites: AST 151/151A Corequisites: AST 152

The 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 to satisfy the comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

#### AST 251 Observational Astronomy

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.

### **AUTOMOTIVE BODY REPAIR**

### AUB 111 Painting & Refinishing I

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

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

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

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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

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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

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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

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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

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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/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

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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 Mech & Elec Components I

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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

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.

## AUB 160 Body Shop Operations

Prerequisites: None Corequisites: None

This course introduces the day-to-day operations of autobody repair facilities. Topics include work habits and ethics, customer relations, equipment types, materials 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 autobody repair facility.

## AUB 162 Autobody Estimating

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

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Prerequisites:

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 Fund of Bank Lending

Prerequisites: ACC 120 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

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

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 111 General Biology I

Prerequisites: RED 090, ENG 090 or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

BIO 112 General Biology II

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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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

BIO 120 Introductory Botany

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 intended for all Associate degree programs.

BIO 140 Environmental Biology

0 3

Prerequisites:

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

BIO 140A Environmental Biology Lab

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Prerequisites:

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

BIO 155 Nutrition

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Prerequisites:

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.

BIO 163 Basic Anat & Physiology

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Prerequisites: Reading 90 or satisfactory placement test scores in reading

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.

# BIO 165 Anatomy and Physiology I

Prerequisites: Reading 90 or satisfactory placement test scores in reading

Corequisites: None

This course is the first of a two-course sequence which provides a comprehensive study of the anatomy and physiology of the human body. Topics include the structure, function, and interrelationship of organ systems with emphasis on the processes which maintain homeostasis. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.

## BIO 166 Anatomy and Physiology II

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Prerequisites: BIO 165 Corequisites: None

This course is the second in a two-course sequence which provides a comprehensive study of the anatomy and physiology of the human body. Topics include the structure, function, and interrelationship of organ systems with emphasis on the processes which maintain homeostasis. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and the interrelationships of all body systems.

## BIO 168 Anatomy and Physiology I

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Prerequisites: None 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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

## BIO 169 Anatomy and Physiology II

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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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

# BIO 175 General Microbiology

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Prerequisites: BIO 111, BIO 163, BIO 165, or BIO 169

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 AAS degree programs.

# BIO 275 Microbiology

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Prerequisites: BIO 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, mircobial 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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

### **BLUEPRINT READING**

# BPR 111 Blueprint Reading

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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: Mech

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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/Const

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.

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#### **BROADCAST PRODUCTION**

## BPT 110 Intro to Broadcasting

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

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

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

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

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 information, 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

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

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

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

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Prerequisites: BPT 131 Corequisites: None

This course cover 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

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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

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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

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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

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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

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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 Intro to TV Systems

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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

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.

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## **BPT 215** Broadcast Programming

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

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

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 forms 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

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

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

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

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

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

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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

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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 lournalism II

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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 record professional broadcast news stories.

## BPT 250 Institutional Video

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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 260 Multi-Track Recording

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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 115 Business Law I

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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 to satisfy the comprehensive articulation agreement for transferability as a premajor and/or elective course requirement.

# BUS 116 Business Law II

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Prerequisites: BUS 115 Corequisites: None

This course continues the study of ethics and business law. Emphasis is placed on bailments, sales, risk-bearing, forms of business ownership, and copyrights. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.

# BUS 121 Business Math

Prerequisites: MAT 060 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.

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# BUS 137 Principles of Management

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.

## BUS 153 Human Resource Management

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

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

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. This course is also available through the Virtual Learning Community (VLC).

# BUS 253 Leadership and Mgt Skills

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 Org Behavior in Business

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

Prerequisites: ENG 111 and OST 131 or CIS 110

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.

## **CARPENTRY**

CAR 110 Introduction to Carpentry

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.

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CAR 111 Carpentry I

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.

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 Bldg Codes 3 0

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 Res 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.

## **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 160 Object-Oriented Prog Lang 2 3 3

Prerequisites: None Co-requisites: None

This course introduces computer programming using a high level 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.

CET 161 Procedural Programming

Prerequisites: None Co-requisites: None

This course introduces computer programming using a high level language. 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 211 Computer Upgrade/Repair II

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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

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Prerequisites: MAT 070 or satisfactory placement test scores

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 demostrate a basic understanding of chemistry as it applies to other fields. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

CHM 131A Introduction to Chemistry Laboratory

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Prerequisites: MAT 070 or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

CHM 132 Organic and Biochemistry

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Prerequisites: CHM 131 & 131A or CHM 151

Corequisites:

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

CHM 151 General Chemistry I

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Prerequisites: MAT 80 or satisfactory placement test scores

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

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Prerequisites: CHM 151 Corequisites: None

This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

CHM 251 Organic Chemistry I

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.

Organic Chemistry II CHM 252

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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 heterocyclics; multi-step synthesis 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.

#### **INFORMATION SYSTEMS**

**CIS 110 Introduction to Computers**  2 3

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Prerequisites: OST 131 or satisfactory keyboarding skills

Corequisites:

This course provides an introduction to computers and computing. Topics include the impact of computers on society, ethical issues, and hardware/software applications, including spreadsheets, databases, word processors, graphics, the Internet, and operating systems. 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural science/mathematics. (Quantitative Option)

**CIS 115** Intro to Prog & Logic 2 3

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Prerequisites: MAT 070 Corequisites: None

This course introduces computer programming and problem solving in a programming environment, including an introduction to operating systems, text editor, and a language translator. Topics include language syntax, data types, program organization, problemsolving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural science/mathematics. (Quantitative Option)

**CIS 165 Desktop Publishing I**  2 2

Prerequisites: OST 136 or proficiency in word processing

Corequisites:

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**  30

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Prerequisites: None Corequisites:

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 topics and areas required for the state comprehensive certification examination. This is a certificate-level course.

Intro to Criminal Justice CJC 111

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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 to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

## CJC 112 Criminology

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

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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

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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

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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 to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

## CJC 122 Community Policing

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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

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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.

# CIC 132 Court Procedure & Evidence

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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

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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 to satisfy the Comprehensive Articulation Agreement for a transferability as a premajor and/or elective course requirement.

## CJC 212 Ethics & Comm Relations

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.

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## CJC 214 Victimology

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

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

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

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

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

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 field analysis and/or resolution.

## CJC 231 Constitutional Law

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

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.

## **COMPUTER SCIENCE**

CSC 134 C++ Programming

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Prerequisites: CIS 115 or prior programming experience

Corequisites: None

This course introduces object-oriented computer programming using the C++ programming language. Topics include input/output operations, iteration, arithmetic operations, arrays, pointers, filters, and other related topics. Upon completion, students should be able to design, code, test, and debug C++ language programs. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

CSC 138 RPG Programming

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Prerequisites: CIS 115 or prior programming experience and CIS 244

Corequisites: None

This course introduces computer programming using the RPG programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables, and other related topics. Upon completion, students should be able to design, code, test, and debug RPG language programs. This course has been approved to satisfy the Comprehensive Atriculation Agreement for transferability as a premajor and/or elective course requirement.

CSC 139 Visual BASIC Programming

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Prerequisites: CIS 115 or Programming Experience

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.

CSC 144 AS/400 CL Programming

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Prerequisites: CIS 115 and CIS 211

Corequisites; None

This course introduces computer programming using the CL programming language. Topics include CL command structure, command parameters, creating CL programs, manipulating variables, writing commands to control jobs and workflow, and other related topics. Upon completion, students should be able to design, code, test, and debug CL programs.

CSC 160 Intro to Internet Prog

2 2 3

Prerequisites: CIS 172 & CIS 115

Corequisites: None

This course introduces client-side Internet programming using HTML and Javascript. Topics include use of frames and tables, use of meta tags, Javascript techniques for site navigation. Upon completion, students should be able to write HTML documents that incorporate programming to provide web page organization and navigation functions.

CSC 234 Advanced C++

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Prerequisites: CSC 134 Corequisites: None

This course is a continuation of CSC 134 using C++ with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

CSC 238 Advanced RPG

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Prerequisites: CSC 138 Corequisites: None

This course is a continuation of CSC 138 using RPG with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

### **COOPERATIVE EDUCATION**

COE 110 World of Work

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 Co-op Work Experience I

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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 Exp Seminar I

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Prerequisites: None Corequisites: COE 111

Theories, techniques, and methods observed in the work settings will be discussed. Students will integrate ideas related in course work and practicum situations. This course is designed to coordinate the classroom and industry experience. The practicum correlating with the seminar must be taken the same term.

## COE 121 Co-op Work Experience II

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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 131 Co-op Work Experience III

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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

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Prerequisites: Corequisites:

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in speech/communication.

#### COSMETOLOGY

## COS 111 Cosmetology Concepts I

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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

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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

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

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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

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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

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 applications, 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

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**

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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**

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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

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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** Contemp Hair Coloring

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COS 111 and COS 112 Prerequisites:

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 & Chemistry

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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** Adv Contemp Hair Coloring

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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

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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 251 Manicure Instr Concepts

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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 supervision techniques, and assess student classroom performance.

## COS 252 Manicure Instr Practicum

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 Instr Concepts I

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 Instr Concepts II

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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

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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

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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

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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

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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 INFORMATION TECHNOLOGY**

### CTS 115 Info Sys Business Concept

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Prerequisites: None Corequisites: None

The 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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement. (TAC – 05/24/06)

**CTS 120** Hardware/Software Support

Prerequisites: CIS 110 or CIS 111

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.

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CTS 125 **Presentation Graphics** 

2 2 Prerequisites: CIS 110 or CIS 111

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.

2 2 3 **CTS 130 Spreadsheet** 

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 135** 2 **Integrated Software Intro** 4 4

Prerequisites: CIS 110 or CIS 111, and CTS 130, DBA 110, OST 136

Corequisites: None

This course instructs students in the Windows or Linux based program suites for word processing, spreadsheet, database, personal information manager, and presentation software. This course prepares students for introductory level skills in database, spreadsheet, personal information manager, word processing, and presentation applications to utilize data sharing. Upon completion, students should be able to design and integrate data at an introductory level to produce documents using multiple technologies.

**CTS 155 Tech Support Functions** 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 0 3 3

Prerequisites: CIS 115 Corequisites:

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/OOM 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.

3 **CTS 289 System Support Project** 1

Prerequisites: CTS 285 Corequisites:

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.

### **CONSTRUCTION**

**CST 131** OSHA/Safety/Certification 2 2 3

Prerequisites: None Corequisites:

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

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

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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 231 Soils & Site Work

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Prerequisites: MAT 115, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175

Corequisites: None

This course covers site conditions and soil types and their physical properties. Topics include site preparation, access, mechanical analysis, classification of soils, and hydrostatics of groundwater. Upon completion, students should be able to adequately prepare a building site according to plans and specifications.

## CST 241 Planning/Estimating I

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Prerequisites: BPR 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

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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.

## **DATABASE MANAGEMENT**

### DBA 110 Database Concepts

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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.

### DBA 115 Database Applications

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Prerequisites: DBA 110 Corequisites: None

This course applies concepts learned in DBA 110 to a specific DBMS. Topics include manipulating multiple tables, advanced queries, screens and reports, linking, and command files. Upon completion, students should be able to create multiple table systems that demonstrate updates, screens, and reports representative of industry requirements

### **DESIGN DRAFTING**

# DDF 211 Design Process I

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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**

Prerequisites: DFT 111, DFT 112, and DFT 151

Corequisites:

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

Prerequisites: None Corequisites: None

This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorials 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

Prerequisites: None **DFT 111** Corequisites

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

Prerequisites: **DFT 111** Corequisites: None

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

Prerequisites: None **DFT 112** Corequisites

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**

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** Intro to GD & T

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

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

Prerequisites: None Corequisites:

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.

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**DFT 153 CAD III** 

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 Intro Solid Modeling**  2 3

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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 & Layout 2 2

Prerequisites: None Corequisites:

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 211** Gears, Cams, & Pulleys 3 2

DFT 111 and MAT 121, MAT 161, MAT 171, or MAT 175 Prerequisites:

Corequisites: None

This course introduces the principles of motion transfer. Topics include gears, cams, pulleys, and drive components. Upon completion, students should be able to solve problems and produce drawings dealing with ratios.

**DFT 231** Jig & Fixture Design 2

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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.

Interm Solid Model/Render **DFT 254** 

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**DFT 154** Prerequisites: 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

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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.

**Readers Theatre DRA 124** 

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Prerequisites: None Corequisites:

This course provides a theoretical and applied introduction to the medium of readers theatre. Emphasis is placed on the group performance considerations posed by various genres of literature. Upon completion, students should be able to adapt and present a literary script following the conventions of readers theatre.

## **ECONOMICS**

ECO 251 Prin of Microeconomics

Prerequisites: MAT 070 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

ECO 252 Prin of Macroeconomics

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Prerequisites: MAT 060 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

## **EDUCATION**

EDU 118 Teach Assoc Princ & Prac

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Prerequisites: None Corequisites: None

This course covers the teacher associate'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 professional role of the teacher associate, demonstrate positive communication, and discuss educational philosophy. This course is a unique concentration requirement in the Teacher Association concentration in the Early Childhood Associate program.

## EDU 119 Introduction to Early Child Ed

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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 children. Topics include historical foundations, program types, career options, professionalism, and creating inclusive environments and curriculum that are responsive to the needs of children and families. Upon completion, student should be able design career plans and develop appropriate schedules, environments and activity plans while incorporating adaptations for children with exceptionalities.

# EDU 131 Child, Family, & Commun

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Prerequisites: None Corequisites: None

This course covers the development of partnerships between families, inclusive programs for children/schools that serve young children with and without disabilities, and the community. Emphasis is placed on requisite skills and benefits for successfully establishing, supporting, and maintaining respectful collaborative relationships between today's diverse families, centers/schools, and community resources. Upon completion, students should be able to describe appropriate relationships with parents/caretakers, center/school colleagues, and community agencies that enhance the educational experiences/well-being of all children.

### EDU 144 Child Development I

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Prerequisites: None Corequisites: None

This course covers the theories of child development, developmental sequences, and factors that influence children's development, from conception through pre-school for all children. Emphasis is placed on sequences in physical/motor, social, emotional, cognitive, and language development and the multiple influences on development and learning of the whole child. Upon completion, students should be able to identify typical and atypical developmental characteristics, plan experiences to enhance development, and describe appropriate interaction techniques and environments.

#### **EDU 145** Child Development II

Prerequisites: None Corequisites: None

This course covers theories of child development, developmental sequences, and factors that influence children's development, from pre-school through middle childhood for all children. Emphasis is placed on sequences in physical/motor, social, emotional, cognitive, and language development multiple influences on development and learning of the whole child. Upon completion, students should be able to identify typical and atypical developmental characteristics, plan experiences to enhance development, and describe appropriate interaction techniques and environments.

#### **EDU 146** Child Guidance

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Prerequisites: None Corequisites: None

This course introduces practical principles and techniques for providing developmentally appropriate guidance for all children with and without disabilities, including those at risk. Emphasis is placed on encouraging self-esteem, cultural awareness, effective communication skills, direct/indirect techniques/strategies and observation to understand the underlying causes of behavior. Upon completion, students should be able to demonstrate appropriate interactions with children and families and promote conflict resolution, self-control, selfmotivation, and self-esteem in children.

#### **EDU 151 Creative Activities**

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Prerequisites: None Corequisites: None

This course covers planning, creation and adaptation of developmentally supportive learning environments with attention to curriculum, interactions, 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 physical skills, and dramatics. Upon completion, students should be able to create, manage, adapt and evaluate developmentally supportive learning materials, experiences and environments.

#### **EDU 153** Health, Safety, & Nutrition

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Prerequisites: Corequisites: None

This course focuses on 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, implement safe learning environments, and adhere to state regulations.

#### **EDU 161** Intro to Exceptional Child

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Prerequisites: None Corequisites: None

This course covers exceptional children as learners within the context of the community, school, and family. Emphasis is placed on the legal, social, physical, political, and cultural issues relating to the analysis and teaching of exceptional children. Upon completion, students should be able to demonstrate knowledge of identification processes, mainstreaming techniques, and professional practices and attitudes.

#### **EDU 175** Intro to Trade & Industrial Ed

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Prerequisites: None Corequisites:

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** OCC Analysis & Course Dev

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Prerequisites: None Corequisites:

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**

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Prerequisites: Corequisites:

This course covers instructional methods in technical education with emphasis on competency-based instruction. Topics include writing objectives, industrial 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 Org & Planning

Prerequisites: None 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 use.

## EDU 179 Vocational Student Organizations

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Prerequisites: None 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 offices.

# EDU 185 Cognitive & Lang Act

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Prerequisites: None 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 186 Reading & Writing Methods

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Prerequisites: None Corequisites: None

This course covers concepts, resources, and methods for teaching reading and writing to school-age 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 developmentally appropriate reading and writing experiences. This course is a unique concentration requirement in the Teacher Associate concentration in the Early Childhood Education program.

## EDU 216 Intro to Education

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Prerequisites: None 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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement. This course is also available through the Virtual Learning Community.

## EDU 221 Children with Exceptional

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Prerequisites: EDU 144 and EDU 145 or PSY 244 and PSY 245

Corequisites: None

This course, based on the foundation of typical development, introduces working with children with exceptionalities. Emphasis is placed on the characteristics and assessment of children and strategies for adapting the learning environment. Upon completion, students should be able to recognize atypical development, make appropriate referrals, collaborate with families and professionals to plan, implement, and evaluate inclusion strategies.

### EDU 234 Infants, Toddlers, & Twos

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Prerequisites: None Corequisites: None

This course covers the skills needed to effectively implement group care for infants, toddlers, and two-year olds. Emphasis is placed on child development and developmentally appropriate practices. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate a developmentally appropriate curriculum.

### EDU 235 School-Age Dev & Program

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Prerequisites: None Corequisites: None

This course presents developmentally appropriate practices in group care for school-age children. Topics include principles of development, environmental planning, and positive guidance techniques. Upon completion, students should be able to discuss developmental principles for children five to twelve years of age and plan and implement age-appropriate activities.

# EDU 240 Work-Based Learning Practices and Techniques

Prerequisites: None Corequisites: None

This course covers definitions and implementation strategies for various work-place learning programs including apprenticeship, cooperative education, entrepreneurship, field trip, internship, mentorship, school-based enterprise, service learning and shadowing. Topics include preparing vocational teachers to guide and involve students in work-based learning programs to help prepare for entry into the workforce. Upon completion, students should be able to work with students to assist with selection and involvement in work-based learning programs for career development.

## EDU 259 Curriculum Planning

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Prerequisites: EDU 112 or EDU 113 or EDU 119 Corequisites: None

This course covers early childhood curriculum planning. Topics include philosophy, curriculum, indoor and outdoor environmental design, scheduling, observation and assessment, and instructional planning and evaluation. Upon completion, students should be able to assess children and curriculum; plan for daily, weekly, and long-range instruction; and design environments with appropriate equipment and supplies.

## EDU 261 Early Childhood Admin I

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Prerequisites: None Corequisites: None

This course covers the policies, procedures, and responsibilities for the management of early childhood education programs. Topics include implementation of goals, principles of supervision, budgeting and financial management, and meeting the standards for a NC Child Day Care license. Upon completion, students should be able to develop program goals, explain licensing standards, determine budgeting needs, and describe effective methods of personnel supervision.

# EDU 262 Early Childhood Admin II

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Prerequisites: EDU 261 Corequisites: None

This course provides a foundation for budgetary, financial, and personnel management of the child care center. Topics include budgeting, financial management, marketing, hiring, supervision, and professional development of a child care center. Upon completion, students should be able to formulate marketing, financial management, and fund development plans and develop personnel policies, including supervision and staff development plans.

# EDU 271 Educational Technology

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Prerequisites: None 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 Teach Train

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Prerequisites: None Corequisites: None

This course provides specialized training using an experienced-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 & Literacy Exp

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Prerequisites: None Corequisites: None

This course explores the continuum of children's communication development, including verbal and written language acquisition and other forms of communication. Topics include selection of literature and other media, the integration of literacy concepts throughout the classroom environment, inclusive practices and appropriate assessments. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate literacy experiences.

## EDU 285 Internship Exp-School Age

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Prerequisites: ENG 111

Corequisites: COE 121 or COE 122

This course provides an opportunity to discuss internship experiences with peers and faculty. Emphasis is placed on evaluating and integrating practicum experiences. Upon completion, students should be able to demonstrate competence in early childhood education. This course is a unique concentration in the Teacher Associate concentration in the Early Childhood Associate program.

### **ENGINEERING**

EGR 110 Intro to Engineering Technology

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.

#### **ELECTRICITY**

ELC 111 Intro to Electricity

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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

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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

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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; conductors; 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

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Prerequisites: ELC 113 (L) 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 conduit associated with electrical installations.

**ELC 115** Industrial Wiring

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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

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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

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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

Prerequisites: ELC 118 (L) 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.

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ELC 127 Software for Technicians

Prerequisites: None 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 Intro to PLC

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 simple programs.

ELC 131 DC/AC Circuit Analysis

Prerequisites: ELC 112 (L) 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

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 I

Prerequisites: ELC 112 (L) Co-requisites: 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** PLC Applications

Prerequisites: ELC 128 (L) 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

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

Prerequisites: ELC 112 (L) 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.

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ELN 132 Linear IC Applications

Prerequisites: ELN 131 (L) 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

Prerequisites: None Corequisites: None

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, AD/DA 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

Prerequisites: None Co-requisites: 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

Prerequisites: ELC 112 (L) Co-requisites: 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

Prerequisites: None Co-requisites: 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 Intro to Microprocessors

Prerequisites: None Co-requisites: 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

Prerequisites: ELN 232 (L) 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 235 Data Communications Systems

Prerequisites: ELN 237 (L) Co-requisites: None

This course covers data communication systems and the transmission of digital information from source to destination. Topics include data transmission systems, interfaces and modems, protocols, networks, and other related topics. Upon completion, students should be able to demonstrate knowledge of the concepts associated with data communication systems.

#### ELN 237 Local Area Networks

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Prerequisites: None Co-requisites: None

This course introduces the fundamentals of local area networks and their operation. Topics include the characteristics of network topologies, system hardware, system configuration, installation and operation of the LAN. Upon completion, students should be able to install and maintain a local area network.

### **ENGLISH**

Initial student placement in developmental courses is based on the Developmental Placement Policy on page 15 Students should begin developmental course work at the appropriate level indicated by placement test scores.

## **ENG 080** Writing Foundations

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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 in 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 prerequisite for ENG 111 or ENG 111A.

# ENG 085 Reading & Writing Found.

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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 RED 080 and satisfies the developmental reading prerequisites for RED 090 and ENG 90. This course does not satisfy the developmental prerequisites for ENG 111.

# ENG 090 Composition Strategies

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Prerequisites: Placement Score

Corequisites: None

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 for ENG 111.

### ENG 090A Comp Strategies Lab

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Prerequisites: Placement Score

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

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Prerequisites: ASSET Placement Score 36 to 39 in both reading & 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 RED 090. This course satisfies the developmental reading and writing prerequisites for ENG 111.

<sup>\*</sup>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 for a full-time student.

## ENG 101 Applied Communications I

Prerequisites:

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 diploma-level course.

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ENG 111 Expository Writing 3 0

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.

# 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.

# ENG 114 Prof Research & 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.

### ENG 115 Oral Communication 3 0 3

Prerequisites: None Corequisites: None

This course introduces the basic principles of oral communication in both small group and public settings. Emphasis is placed on the components of the communication process, group decision-making, and public address. Upon completion, students should be able to demonstrate the principles of effective oral communication in small group and public settings.

## 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.

# 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.

### 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ENG 232 American Literature II

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ENG 241 British Literature I

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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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ENG 242 British Literature II

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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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ENG 261 World Literature I

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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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ENG 262 World Literature II

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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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ENG 272 Southern Literature

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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.

## **FRENCH**

# FRE 111 Elementary French I

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Prerequisites:

Corequisites: None

This course introduces the fundamental elements of the French 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 French and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

FRE 112 Elementary French II

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Prerequisites: FRE 111 Corequisites: None

This course is a continuation of FRE 111 focusing on the fundamental elements of the French 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 French and demonstrate further cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

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FRE 181 French Lab 1

Prerequisites:

Corequisites: None

This course provides an opportunity to enhance acquisition of the fundamental elements of the French language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness.

FRE 182 French Lab 2

Prerequisites: FRE 181 Corequisites: None

This course provides an opportunity to enhance acquisition of the fundamental elements of the French language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate cultural awareness.

## **FILM AND VIDEO PRODUCTION**

FVP 227 Multimedia Production

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

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Prerequisites

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

GEL 113 Historical Geology

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

# **GEOGRAPHY**

### GEO 111 World Regional Geography

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Prerequisites:

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

# GEO 113 Economic Geography

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Prerequisites:

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

# GEO 130 General Physical Geography

Prerequisites:

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

#### **GRAPHIC ARTS**

## GRA 110 Graphic Arts Orientation

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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

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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

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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 design application, analysis, specification, and creation of typographic elements.

### GRD 111 Typography II

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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

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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

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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

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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/printer requirements.

# GRD 141 Graphic Design I

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.

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# GRD 142 Graphic Design II

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, outdoor 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

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 Tech I

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 Tech II

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

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

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

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

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

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

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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

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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 legalities 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

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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 résumé 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

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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

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Prerequisites:

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.

HEA 112 First Aid & CPR

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Prerequisites:

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.

HEA 120 Community Health

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Prerequisites:

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.

# **HISTORY**

HIS 111 World Civilizations I

Prerequisites: RED 090 or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

HIS 112 World Civilizations II

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Prerequisites: RED 090 or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

HIS 131 American History I

3 0 3

Prerequisites: RED 090 or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

HIS 226 The Civil War

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Prerequisites: None 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.

HIS 236 North Carolina History

3 0 3

Prerequisites: RED 090 or satisfactory placement test scores

Corequisites: None

This course is a study of geographical, political, economic, and social conditions existing in North Carolina from America's discovery to the present. Topics include native and immigrant backgrounds; colonial, antebellum, and Reconstruction periods; party politics; race relations; and the transition from an agrarian to an industrial economy. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in North Carolina.

#### **HUMANITIES**

**HUM 120** Cultural Studies

3 0 3

Prerequisites: None Corequisites: None

This course introduces the distinctive features of a particular culture. Topics include are, 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

# HUM 130 Myth in Human Culture

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

#### HUM 160 Introduction to Film

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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 refleced 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

# HUM 211 Humanities I

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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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

# HUM 220 Human Values and Meaning

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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 SACS humanities requirement.

# **HYDRAULICS & PNEUMATICS**

# HYD 110 Hydraulics/Pneumatics I

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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

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Prerequisites: None Corequisites: None

This course introduces the basic concepts of workplace safety. Topics include fire, ladders, lifting, 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 112 Industrial Safety

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Prerequisites: None Corequisites: None

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

ISC 121 Envir Health & Safety

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 Mfg Quality Control

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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.

ISC 133 Mfg Management Practices

2 0 2

Prerequisites: None Corequisites: None

This course covers successful industrial organizations and management practices for improving quality and productivity. Topics include self-managed work teams, problem-solving skills, and production management techniques. Upon completion, students should be able to demonstrate an understanding of day-to-day plant operations, team management processes, and the principles of group dynamics.

ISC 210 Oper & Prod Planning

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Prerequisites: Completion of curriculum mathematics requirement

Corequisites: None

This course includes the fundamentals of operations and production planning, forecasting, and scheduling. Topics include demand management, production planning and control, scheduling, and budgeting. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques involved in operations and production planning. This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.

ISC 221 Statistical Qual Control

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Prerequisites: Completion of curriculum mathematics requirement

Corequisites: None

This course covers the principles and techniques of statistical process control for the improvement of productivity. Emphasis is placed on basic statistics for quality control, organization and procedures for efficient quality control including inspections, process control, and tests of significance. Upon completion, students should be able to apply statistical principles and techniques to enhance production.

#### **JOURNALISM**

JOU 110 Intro to Journalism

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Prerequisites:

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 issues. Upon completion, students should be able to gather, write, and edit news, feature, and sports articles.

JOU 111 Publication Workshop I

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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

3 2

Prerequisites: JOU 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 JOU/Theory & Production

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

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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

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Prerequisites: MAC 111 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

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Prerequisites: MAC 112 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 Intro to Metrology

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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 Intro to CNC

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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

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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

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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

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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

Prerequisites: MAC 122 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

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Prerequisites: MAC 124 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 Intro to Masonry

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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 developmental courses is based on the Developmental Placement Policy on page 15. Students should begin developmental course work at the appropriate level indicated by placement test scores.

MAT 060 Essential Mathematics

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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

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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

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 for a full-time student.

MAT 101 Applied Mathematics I

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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

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

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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 group, probability, sampling techniques, scatter plots, and modeling.

MAT 141 Mathematical Concepts I

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Prerequisites: MAT 080 or MAT 090

Corequisites: None

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 to satisfy the Comprehensive Articulation Agreement general education core requirements in natural sciences/mathematics.

MAT 141A Mathematical Concepts I Lab

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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

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Prerequisites: MAT 141 Corequisites: None

This course if 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 AA/AS 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

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Prerequisites: MAT 141 Corequisites: MAT 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

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Prerequisites: MAT 080. RED 090 or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

MAT 161 College Algebra

Prerequisites: MAT 080. RED 090 or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

MAT 162 College Trigonometry

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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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

MAT 171 Precalculus Algebra

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Prerequisities: MAT 080, RED 090 or satisfactory placement test scores

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 predictions. This course is intended for AS degree programs.

MAT 171A Precalculus Algebra Lab

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Prerequisites: MAT 080, RED 090 or satisfactory placement test scores

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.

MAT 172 Precalculus Trigonometry

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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.

MAT 172A Precalculus Trig Lab

Duran military AAAT 171

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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.

MAT 175 Precalculus

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Prerequisites: High School Algebra III/Trigonometry and satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

MAT 210 Logic 3 0 3

Prerequisites:

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

MAT 263 Brief Calculus

Prerequisites: MAT 161 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 to satisfy the Comprehensive Articulation Agreement general education core requirements in natural sciences/mathematics.

MAT 263A Brief Calculus Lab

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Prerequisites: MAT 161 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 to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MAT 271 Calculus I 3 2 4

Prerequisites: MAT 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/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.

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.

#### **MECHANICAL**

**MEC 111 Machine Processes I** 

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 safely machine simple parts to specified tolerances.

**MEC 112** Machine Processes II 2

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Prerequisites: Corequisites:

**MEC 111** None

This course covers advanced use of milling machines and lathes. Emphasis is placed on safety and compound 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**  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 145** Mfg Materials I 3

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Prerequisites: None Corequisites: None

This course introduces a variety of manufacturing materials and common processing techniques. Emphasis is placed on the processing, testing, and application of materials such as wood, metals, plastics, ceramics, and composites. Upon completion, students should be able to demonstrate an understanding of fundamental engineering applications for a variety of materials, including their process capabilities and limitations.

**MEC 172** Intro to Metallurgy 2

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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, ITT diagram, ANSI code, quenching, senescing, and other processes concerning metallurgical transformations. Upon completion, students should be able to understand the iron-carbon phase diagram, ITT diagram, microstructure images, and other phenomena concerning the behavior of metals.

**Engineering Materials MEC 180** 

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Prerequisites: None Corequisites: None

This course introduces the physical and mechanical properties of materials. Topics include materials testing, pre and postmanufacturing 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 CIM 2

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Prerequisites: None Corequisites: None

This course introduces the elements of computer-integrated manufacturing(CIM). Topics include statistical process control, computeraided design and manufacturing, numeric control, and flexible systems. Upon completion, students should be able to explain the major components of computer-integrated manufacturing.

**MEC 187 Composite Materials**  3

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Prerequisites: None Corequisites: None

This course introduces composite engineering materials. Topics include selection and processing of composites. Upon completion, students should be able to select appropriate materials and demonstrate knowledge in processing and curing of composites.

# MEC 188 Processing Composites I

Prerequisites: None Corequisites: None

This course covers the properties and forms of various resins used in manufacturing commercial bag and vacuum composites and the processes for commercial application. Emphasis is placed on materials used, including polyester and/or vinyl ester resins, and processes of hand lay-up, vacuum bag and vacuum assisted resin transfer molding. Upon completion, students should be able to produce composite materials suitable for mechanical testing. *This course is a unique concentration requirement in the Composites concentration in the Manufacturing Technology program.* 

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# MEC 189 Processing Composites II

Prerequisites: None Corequisites: None

This course covers the resins and fibers used in high performance aircraft type composites and processes for advanced composite application. Emphasis is placed on materials used such as epoxy and carbon and the processes of compression molding, vacuum assisted resin transfer molding, and resin transfer molding. Upon completion, students should be able to produce composites suitable for mechanical testing. This course is a unique concentration requirement in the Composites concentration in the Manufacturing Technology program.

# MEC 211 Engineering Mats & Testing

Prerequisites: None Corequisites: None

This course introduces the electrical, physical, and mechanical properties of materials and appropriate test methods and equipment. Topics include ferrous and non-ferrous metals, plastics, and other engineering materials. Upon completion, students should be able to solve problems regarding material selection and processing based on knowledge of the behavior and characteristics of engineering materials.

# MEC 212 Composites Materials Test

Prerequisites: None Corequisites: None

This course introduces different composite tests and testing procedures. Topics include data analysis, report writing, test machines, and test procedures. Upon completion, students should be able to perform and report results using impact, shear, compressions, flexure, and tension tests. This course is a unique concentration requirement in the Composites concentration in the Manufacturing Technology program.

# MEC 215 Design of Composite Struc

Prerequisites: None Corequisites: None

This course introduces the basics of fiber reinforced composites materials, anisotropic theory, stress analysis, and test methods for composites. Topics include anisotropic constitutive equations and associated elastic constants, micromechanics models, theory of failures, classical laminate theory, laminate design, and special laminates. Upon completion, students should be able to apply concepts to the design of simple composite structural components. *This course is a unique concentration requirement in the Composites concentration in the Manufacturing Technology program.* 

#### MEC 231 Comp-Aided Manufact I

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 Comp-Aided Manufact II

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 Mfg

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 hiring standards.

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#### **MEC 250** Statics & Strength of Mat

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

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Prerequisites: DFT 151 and MEC 180, and MEC 250 or MEC 251 and MEC 252

Corequisites:

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

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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

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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

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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**

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Prerequisites: None Corequisites:

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

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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**

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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

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

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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 225 Marketing Research

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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

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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 Intro to Maint Procedures

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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

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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

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Prerequisites: None Corequisites: None

This course covers the principles of safe rigging practices for handling, 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 Sys Schematics

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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

Prerequisites: RED 090, ENG 090 or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

MUS 111 Fundamentals of Music

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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 to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirements.

#### MUS 112 Introduction to Jazz

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Prerequisites:

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 to satisfy the Comprehensive Articulation Agreement education core requirement in humanities/fine arts.

#### MUS 113 American Music

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Prerequisites:

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 to satisfy the Comprehensive Articulation Agreement education core requirement in humanities/fine arts.

# MUS 114 Non-Western Music

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Prerequisites: None Corequisites: None

This course provides a basic survey of the music of the non-Western world. Emphasis is place 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

# MUS 121 Music Theory I

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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, rear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.

# MUS 122 Music Theory II

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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.

# MUS 131 Chorus I

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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.

MUS 132 Chorus II

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.

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MUS 141 Ensemble I 0 2

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.

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.

MUS 151V Class Music I 0 2 1

Prerequisites:

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.

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 1.

MUS 161 Applied Music I 0 2 1

Prerequisites: Audition 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.

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.

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.

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.

MUS 241 Ensemble III

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.

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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.

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.

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.

#### **NETWORKING TECHNOLOGY**

NET 125 Networking Basics 1 4 3

Prerequisites: None Corequisites: None

This course introduces the OSI model, network topologies, IP addressing, and subnet masks, simple routing techniques, and basic switching terminology. Topics include the basic functions of the seven layers of the OSI model, different classes of IP addressing and subnetting, router login scripts. Upon completion, students should be able to list the key internetworking functions of the OSI Networking Layer and how they are performed in a variety of router types.

NET 126 Routing Basics 1 4 3

Prerequisites: NET 125 Corequisites: None

This course introduces router configurations, router protocols, switching methods, and hub terminology. Topics include the basic flow control methods, router startup commands, manipulation of router configuration files, IP and data link addressing. Upon completion, students should be able to prepare the initial router configuration files, as well as enable, verify, and configure IP addresses.

NET 225 Routing and Switching I 1 4 3

Prerequisites: NET 126 Corequisites: None

This course introduces advanced router configurations, advanced LAN switching theory and design, VLANs, Novell IPX, and threaded case studies. Topics include router elements and operations, adding routing protocols to a configuration, monitoring IPX operations on the router, LAN segmentation, and advanced switching methods. Upon completion students should be able to describe LAN and network segmentation with bridges, routers and switches and describe a virtual LAN.

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 for network routing problems, identify ISDN protocols, channels, and function groups, and describe the Spanning Tree protocol.

NET 289 Networking Project

Prerequisites: None Corequisites: NET 226

This course provides an opportunity to complete a significant networking project from the design phase through implentation 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

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Prerequisites: None Corequisites: None

This course introduces students to a broad range of operating system concepts, including installation and maintenance. Emphasis is place 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

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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

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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 Admin I

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Prerequisites: NOS 120 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 Admin I

2 2

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.

NOS 244 Operating System – AS/400

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Prerequisites: None Corequisites: None

This course includes operating systems concepts for AS/400 systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, Job Control Language, and support functions. Upon completion, students should be able to perform operating system functions in an AS/400 environment.

#### **NURSING**

NUR 101 Practical Nursing I

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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

Prerequisites: None Corequisites: None

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

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Prerequisites: None Corequisites: None

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

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Prerequisite:

Correquisite: 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 115 Fundamentals of Nursing

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Prerequisites: pre-admission to program

Corequisites: NUR 117, BIO 155, and BIO 165

This course introduces concepts basic to beginning nursing practice. Emphasis is placed on the application of the nursing process to provide and manage care as a member of the discipline of nursing. Upon completion, students should be able to demonstrate beginning competence in caring for individuals with common alterations of health.

NUR 117 Pharmacology

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Prerequisites: pre-admission to program

Corequisites: NUR 115

This course introduces information concerning sources, effects, legalities, and the safe use of medications as therapeutic agents. Emphasis is placed on nursing responsibility, accountability pharmocokinetics, routes of medication administration, contraindications and side effects. Upon completion, students should be able to compute dosages and administer medication safely.

NUR 118 Nutrition/Diet Therapy

2 0 0 2

Prerequisites:

Corequisites: None

This course covers the six nutrient categories and provides an overview of diet recommendations for promotion and maintenance of health. Topics include the food pyramid recommendations for individuals across the life span, energy balance, and special dietary modifications for common alterations in health. Upon completion, students should be able to complete a nutritional assessment, analyze diets, and recommend dietary adaptations to meet individual health needs.

NUR 125 Maternal-Child Nursing

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Prerequisites: NUR 115 and NUR 135

Corequisites: NUR 233

This course introduces nursing concepts related to the delivery of nursing care for the expanding family. Emphasis is placed on utilizing the nursing process as a framework for managing/providing nursing care to individuals and families along the wellness-illness continuum. Upon completion, students should be able to utilize the nursing process to deliver nursing care to mothers, infants, children, and families.

NUR 133 Nursing Assessment

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Prerequisites: NUR 115 Corequisites: BIO 166

This course provides theory and application experience for performing nursing assessment of individuals. Emphasis is placed on interviewing and physical assessment techniques and documentation of findings appropriate for nursing. Upon completion, students should be able to complete a health history and perform a noninvasive physical assessment.

**NUR 135** Adult Nursing I

Prerequisites: **NUR 115** Corequisites: **BIO 166** 

This course introduces concepts related to the nursing care of individuals experiencing acute and chronic alterations in health. Emphasis is placed on utilizing the nursing process as a framework for providing and managing nursing care to individuals along the wellnessillness continuum. Upon completion, students should be able to apply the nursing process to individuals experiencing acute and chronic alterations in health.

**NUR 185** Mental Health Nursing Prerequisites:

NUR 115 and NUR 135

Corequisites: **NUR 133** 

This course includes concepts related to the nursing care of individuals experiencing alterations in social and psychological functioning. Emphasis is placed on utilizing the nursing process to provide and manage nursing care for individuals with common psychiatric disorders or mental health needs. Upon completion, students should be able to apply psychosocial theories in the nursing care of individuals with psychiatric/mental health needs.

**NUR 189 Nursing Transition** 

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Prerequisites:

Corequisites: None

This course is designed to assist the licensed practical nurse in transition to the role of the associate degree nurse. Topics include the role of the registered nurse, nursing process, homeostasis, and validation of selected nursing skills and physical assessment. Upon completion, students should be able to articulate into the ADN program at the level of the generic student. To register for this course the student must have current, non-restricted license to practice as a Licensed Practical Nurse (LPN) in North Carolina, have passed the advanced placement challenge exam, and be admitted into the Associate Degree Nursing Program as an advanced placement student.

**NUR 233** Leadership in Nursing 2 0 0

Prerequisites: **NUR 135** Corequisites: **NUR 125** 

This course is designed to enhance nursing leadership and management skills in a variety of health care settings. Emphasis is placed on leadership styles, supervision, delegation, leadership and management theories, conflict resolution, change, and time management. Upon completion, students should be able to apply leadership and management skills in a variety of health care settings.

**NUR 235** Adult Nursing II

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Prerequisites: NUR 135, NUR 125, and NUR 185

NUR 244, NUR 233 Corequisites:

This course provides expanded concepts related to nursing care for individuals experiencing common complex alterations in health. Emphasis is placed on the nurse's role as a member of a multidisciplinary team and as a manager of care for a group of individuals. Upon completion, students should be able to provide comprehensive nursing care for groups of individuals with common complex alterations in health.

**NUR 244 Issues and Trends**  2 0

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Prerequisites: **NUR 135** Corequisites: **NUR 125** 

This course presents an overview of current trends and issues in nursing as they affect nursing practice in a changing health care environment. Emphasis is placed on making an effective transition into the roles of the practicing nurse. Upon completion, students should be able to articulate professional aspects of the practice of nursing.

#### **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 Mgt.

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 in the Business Administration program.

# OFFICE SYSTEMS TECHNOLOGY

OST 131 Keyboarding

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Prerequisites: None 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

Prerequisites: OST 131 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 mailable documents.

# OST 136 Word Processing

2 2

Prerequisites: OST 131 or Satisfactory Keyboarding Skills

Corequisites: None

This course introduces 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 Med Coding Billing & Insu

0 3

Prerequisites: None Corequisites: None

This course introduces CPT and ICD coding as they apply to medical insurance and billing. Emphasis is placed on accuracy in coding, forms preparation, and posting. Upon completion, students should be able to describe the steps of the total billing cycle and explain the importance of accuracy.

# OST 149 Med Legal Issues

3 0 3

Prerequisites: None 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

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Prerequisites: None 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

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Prerequisites: None 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 223 Machine Transcription I

2 2

Prerequisites: OST 134, OST 136, and OST 164

Corequisites: None

This course covers the use of transcribing machines to produce mailable documents. Emphasis is placed on appropriate formatting, advanced text editing skills, and transcription techniques. Upon completion, students should be able to transcribe documents into mailable copy.

**OST 241** Med Ofc Transcription I

**Prequisites:** OST 134, OST 136, MED 121, and OST 164

Corequisites:

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 specialities.

Med Office Simulation **OST 243** 

2 2 3 OST 131 and OST 148 Prerequisites:

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 286** Professional Development 3 0 3

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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.

Office Systems Management **OST 289** 

2 2 3

Prerequisites: OST 134 or OST 136, and OST 164

Corequisites:

This course provides a capstone course for the office professional. Topics include administrative office procedures, imaging, communication techniques, ergonomics, and equipment utilization. Upon completion, students should be able to function proficiently in a changing office environment.

# PHYSICAL EDUCATION

#### **PED 111** Physical Fitness I

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Prerequisites:

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. The course includes a study of the role of physical fitness in the development of optimum health and wellness. Upon completion, students should be able to set up and implement an individualized physical fitness program.

PED 113 Aerobics I 3 1

Prerequisites:

Corequisites:

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.

#### **PED 117** Weight Training I

3 1

Prerequisites:

Corequisites:

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 eight training program.

**PED 127 Karate**  0 3 1

Prerequisites:

Corequisites:

This course introduces the martial arts using the Japanese Shotokan form. Topics include proper conditioning exercise, book control, proper terminology, historical foundations, and etiquette relating to karate. Upon completion, students should be able to perform line drill techniques and Kata for various ranks.

#### **PED 128 Golf-Beginning**

0 2 1

Prerequisites:

Corequisites:

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.

# PED 130 Tennis-Beginning

Prerequisites:

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.

PED 137 Badminton

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Prerequisites:

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.

PED 138 Archery

0 2 1

Prerequisites:

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.

# PED 139 Bowling-Beginning

0 2

Prerequisites:

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.

# PED 143 Volleyball-Beginning

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Prerequisites:

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.

# PED 152 Swimming-Beginning

0 2

Prerequisites:

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.

## PED 153 Swimming-Intermediate

0 2

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.

# PED 154 Swimming for Fitness

0 3 1

Prerequisites: PED 152 Corequisites: None

This course introduces lap swimming, aquacises, water activities, and games. Emphasis is placed on increasing cardiovascular efficiency through aquatic exercise. Upon completion, students should be able to develop an individualized aquatic fitness program.

# PED 155 Water Aerobics

0 3 1

Prerequisites:

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.

# 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.

PED 160 Canoeing-Basic

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, safe-handling, and self-rescue skills.

PED 174 Wilderness Pursuits

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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.

PED 187 Social Dance-Beginning

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.

# **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 trace the development of leading ideas regarding reality, knowledge, reason, and faith. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

PHI 240 Introduction to Ethics

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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 egoism. 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

# **PHYSICS**

PHY 131 Physics-Mechanics

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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-Elec & 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 162, 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

PHY 152 College Physics II

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

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PHY 251 General Physics I

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

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

# **PLASTICS**

### PLA 110 Introduction to Plastics

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 115 Polymer Processing

Prerequisites: None Corequisites: None

This course introduces theory and hands-on experience in common polymer processing techniques. Topics include injection molding, extrusion, thermoforming, blow molding, casting, roll forming, thermofusion, and other processes. Upon completion, students should be able to understand the setup, operation, and troubleshooting of common plastic processing equipment. This course is a unique concentration requirement in the Plastics concentration in the Manufacturing Technology program.

#### PLA 120 Injection Molding

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 Manuf Processes

Prerequisites: None Corequisites: None

This course covers manufacturing processes including machining, sawing, routing, milling, drilling, taping, turning, thermoforming, molding, extrusion, laminating, reinforcing, expansion, casting, coasting, 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.

PLA 210 Mold Maintenance/Design

Prerequisites: None Corequisites: None

This course provides an in-depth study of the design, maintenance, and repair of molds used in the plastics industry. Topics include mold/die components, materials, types, functions, heating/cooling, designs, cleaning, and repair. Upon completion, students should be able to describe and utilize various types and functions of molds and gates and understand typical plastic design rules. This course is a unique concentration requirement in the Plastics concentration in the Manufacturing Technology program.

PLA 215 Polymeric Materials

Prerequisites: None Corequisites: None

This course provides an overview of polymeric materials, from commodity grade to advanced/specialty resins. Topics include chemistry, properties, material characterization, testing, and toxicity. Upon completion, students should be able to demonstrate an understanding of the hierarchy of plastics and how it affects material selection, testing, and safety. This course is a unique concentration requirement in the Plastics concentration in the Manufacturing Technology program.

PLA 220 Moldflow

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Prerequisites: None Corequisites: None

This course introduces flow analysis software. Topics include mold flow design principles, concepts, material databases, model construction, and interpretation of results. Upon completion, students should be able to model a part/runner system, optimize gate location, analyze and interpret fill, and recommend design changes.

PLA 225 Extrusion

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Prerequisites: None Corequisites: None

This course provides theory and processing experience with the extrusion molding process. Topics include safe start-up, operation, and shutdown of machines, machine components, blown film, sheet, coating, pipe/profiles, wire coating, and fibers. Upon completion, students should be able to setup, operate, and troubleshoot the extrusion process and its variations.

# PLA 230 Adv Plastics Manufacturing

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Prerequisites: None Corequisites: None

This course covers advanced plastics manufacturing processes. Topics include hands-on experience, material selection, manufacturing cost, process optimization, troubleshooting, and project management. Upon completion, students should be able to understand, perform, and troubleshoot advanced processes in a manufacturing environment.

# **PLUMBING**

# PLU 111 Intro to Basic Plumbing

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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 130 Plumbing Systems

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Prerequisites: None Corequisites: None

This course covers the maintenance and repair of plumbing lines and fixtures. Emphasis is placed on identifying and diagnosing problems related to water, drain and vent lines, water heaters, and plumbing fixtures. Upon completion, students should be able to identify and diagnose needed repairs to the plumbing system.

# PLU 211 Commercial/Ind Plumbing

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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

Prerequisites:

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

POL 130 State & Local Government

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Prerequisites:

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.

# **PSYCHOLOGY**

PSY 110 Life Span Development

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Prerequisites:

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

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Prerequisites: RED 090, or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

PSY 241 Developmental Psych

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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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

PSY 281 Abnormal Psychology

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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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

#### **READING**

Initial student placement in developmental courses is based on individual college placement testing policies and procedures. Students should begin developmental course work at the appropriate level indicated by that college's placement test.

RED 080 Intro 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

Prerequisites: RED 080 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 for a full-time student.

# **RELIGION**

**REL 110** World Religions

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Prerequisites: RED 090, ENG 090 or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

# REL 211 Intro to Old Testament

0 3

Prerequisites: RED 090, ENG 090 or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

#### REL 212 Intro to New Testament

0 3

Prerequisites: RED 090, ENG 090 or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement 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 and information security policy, and identify processes to implement and enforce policy.

#### **SOCIOLOGY**

# SOC 210 Introduction to Sociology

3 0 3

Prerequisites: RED 090 or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

SOC 213 Sociology of the Family

Prerequisites: RED 090, or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

SOC 220 Social Problems

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Prerequisites: RED 090, or satisfactory placement test scores

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 to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

#### **SPANISH**

SPA 111 Elementary Spanish I

3 0 3

Prerequisites: RED 090, ENG 090 or satisfactory placement test scores

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 general education core requirement in humanities/fine arts.

SPA 112 Elementary Spanish II

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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 general education core requirement in humanities/fine arts.

SPA 120 Spanish for the Workplace

3 0

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

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Prerequisites:

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.

SPA 182 Spanish Lab 2

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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.

# SPA 211 Intermediate Spanish I

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 general education core requirement in humanities/fine arts.

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# SPA 212 Intermediate Spanish II

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 general education core requirement in humanities/fine arts.

# SPA 281 Spanish Lab 3

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.

# SPA 282 Spanish Lab 4

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.

# **SURGICAL TECHNOLOGY**

# SUR 110 Intro to Surg Tech

Prerequisites: None Corequisites: SUR 11

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 Periop Patient Care

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

Prerequisites: SUR 110 and SUR 111 Corequisites: SUR 123 or STP 101

This course introduces a comprehensive study of surgical procedures in the following specialties: general, gastronintestinal, obstetrical/gynecology, urology, otorhinolaryngology, and plastics/reconstructive. Emphasis is placed on related surgical anatomy, pathology, and procedures thereby enhancing 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.

#### SUR 123 SUR Clinical Practice I

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

Prerequisites: SUR 123 or STP 101

Corequisites: None

This course introduces orthopedic, neurosurgical, peripheral vascular, thoracic, cardiovascular, and ophthalmology surgical special-ties. Emphasis is placed on related surgical anatomy, pathology, and procedures thereby enhancing 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.

SUR 135 SUR Clinical Practice II

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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 Prof Success Prep

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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

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Prerequisites: None Corequisites: None

This course introduces basic markup language, various navigational tools and services of the Internet. Topics include creating web pages, using internet protocols, search engines, file compression/decompression, FTP, email, listservers, and other related topics. Upon completion, students should be able to deploy a website created with basic markup language, retrieve/decompress files, email, FTP, and utilize other internet tools.

# WEB 115 Web Markup and Scripting

2 2

Prerequisites: None Corequisites: None

This course introduces client-side Internet programming using the current W3C-recommended presentation markup language and supporting elements. Topics include site management and development, markup elements, stylesheets, validation, accessibility, standards, browsers, and basic JavaScripting. Upon completion, students should be able to hand-code web pages with various media elements according to current markup standards and integrate them into websites.

# WEB 182 PHP Programming

2 2

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

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Prerequisites: None Corequisites: None

This course introduces intermediate to advanced web page design techniques. Topics include effective use of graphics, fonts, colors, navigation tools, advanced markup language elements, as well as a study of bad design techniques. Upon completion, students should be able to employ advanced design techniques to create high impact and highly functional web pages.

#### **WELDING**

# WLD 110 Cutting Processes

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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

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.

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#### WLD 115 SMAW (Stick) Plate

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

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 121 GMAW (MIG) FCAW/Plate

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

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

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

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 prescribed electrodes and filler materials on various joint geometry.

# WLD 141 Symbols & Specifications

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

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

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

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Prerequisites: WLD 110 and WLD 115 and WLD 116 and WLD 131

Corequisites: None

This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout 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 251 Fabrication II

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Prerequisites: WLD 151 Corequisites: None

This course covers advanced fabrication skills. Topics include advanced layout and assembly methods with emphasis on the safe and correct use of fabrication tools and equipment. Upon completion, students should be able to fabricate projects from working drawings.

#### WLD 261 Certification Practices

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

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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.

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Academic record	Student Affairs Office	Student Center
Academic advising	Your Advisor	
Non-credit course	Continuing Education	The Foundation
Books to purchase	Bookstore	Student Center
Career assistance	Career Center	Student Center
Complete High School	Continuing Education	The Foundation
Counseling	Career Center	Student Center
Courses - registering	Your Advisor	
Courses - schedule adjustments	Departmental Secretary	
Curriculum changes	Admissions Office	Student Center
Disability Services	Student Affairs Office	Student Center
Emergency Assistance	9-911 if you are using campus	Administration
	telephone system and	
	Switchboard (Dial "0")	
English As A Second Language	Continuing Education	The Foundation
Financial aid	Financial Aid Office	Student Center
Graduation application	Student Affairs Office	Student Center
Graduation information	Your Advisor	
Graduation orders	Bookstore	Student Center
In-state/out-of-state tuition status	Admissions Office	Student Center
Learn to Read	Continuing Education	The Foundation
Lost and found	Student Affairs Secretary or	Student Center
	Receptionist/Switchboard	Administration
Name/address changes	Student Affairs Office	Student Center
Organize a student activity	Dean of Student Affairs	Student Center
Transcripts	Records Office	Student Center
Tuition, fees, payments	Business Office	Administration
Tutoring services	Developmental Education	Administration
	& Academic Support	
Withdraw from College	Your Advisor	